2008 Compilation

Federal Reserve BULLETIN

The *Federal Reserve Bulletin* (ISSN 0014-9209) is published annually by the Board of Governors of the Federal Reserve System, Washington, DC 20551, and may be obtained from Publications Fulfillment, Mail Stop N-127, Board of Governors of the Federal Reserve System, Washington, DC 20551. Calls pertaining to orders should be directed to Publications Fulfillment (202) 452-3245. E-mails should be sent to Publications-BOG@frb.gov. The *Federal Reserve Bulletin* may also be obtained by using the publications order form available on the Board's website, at www.federalreserve.gov/pubs/order/htm.

The price in the United States and its commonwealths and territories, and in Bolivia, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Republic of Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, El Salvador, Uruguay, and Venezuela is $25.00 per copy; elsewhere, $35.00 per copy. Remittance should be made payable to the order of the Board of Governors of the Federal Reserve System in a form collectible at par in U.S. currency.

The content of the *Federal Reserve Bulletin* is also published, as it becomes available, on the Board's website, at www.federalreserve.gov/pubs/bulletin.

Volume 94 □ 2008 Compilation

Federal Reserve BULLETIN

Board of Governors of the Federal Reserve System, Washington, D.C.

PUBLICATIONS COMMITTEE
Rosanna Pianalto Cameron, *Chair* ☐ Scott G. Alvarez ☐ Sandra F. Braunstein ☐ Roger T. Cole ☐ Maureen T. Hannan ☐ Jennifer J. Johnson ☐ Brian F. Madigan ☐ Stephen R. Malphrus ☐ H. Fay Peters ☐ Louise L. Roseman ☐ D. Nathan Sheets ☐ Michelle A. Smith ☐ David J. Stockton

The *Federal Reserve Bulletin* is issued annually under the direction of the staff publications committee. This committee is responsible for opinions expressed except in official statements and signed articles. It is assisted by the Publications Department, Office of Board Members, under the direction of Lucretia M. Boyer.

Table of Contents

Preface

Articles

Profits and Balance Sheet Developments at U.S. Commercial Banks in 2007 .... A1
William F. Bassett and Thomas King
June 5

Industrial Production and Capacity Utilization: The 2008 Annual Revision A41
Kimberly Bayard and Charles Gilbert
August 7

Economic Development Incentives: Research Approaches and Current Views.................... A61
Dan Gorin
October 28

Recent Payment Trends in the United States A75
Geoffrey R. Gerdes
October 28

The 2007 HMDA Data A107
Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner
December 23

Legal Developments

Fourth Quarter, 2007 .... C1
March 7

First Quarter, 2008 .... C31
June 6

Second Quarter, 2008.. C73
August 13

Third Quarter, 2008 .... C99
November 21

Index D1

Preface

The *Federal Reserve Bulletin* was introduced in 1914 as a vehicle to present policy issues developed by the Federal Reserve Board. Throughout the years, the *Bulletin* has been viewed as a journal of record, serving to provide the public with data and research results generated by the Board. Authors from the Board's Research and Statistics, Monetary Affairs, International Finance, Banking Supervision and Regulation, Consumer and Community Affairs, Reserve Bank Operations, and Legal divisions contribute to the *Bulletin,* which includes topical research articles, orders on banking applications, and enforcement actions.

Starting in 2004, the *Bulletin* was published quarterly rather than monthly. In 2006, in response to the increased use of the Internet—and in order to release articles and reports in a more timely fashion—the Board discontinued the quarterly print version of the *Bulletin* and began to publish the contents of the *Bulletin* on its public website as the information became available. All articles, orders on banking applications, and enforcement actions that were published in the online *Bulletin* in 2008 are included in this print compilation.

The tables that appeared in the Financial and Business Statistics section of the *Bulletin* from 1914 through 2003 were removed and published monthly as a separate print and online publication, the *Statistical Supplement to the Federal Reserve Bulletin,* from 2004 to 2008. Effective with the publication of the December 2008 issue, the Board discontinued both the print and online versions.

The majority of data published in the *Statistical Supplement* are available elsewhere on the Federal Reserve Board's website at www.federalreserve.gov. The Board has created a webpage that provides a detailed list of links to the most recent data on its site and links to other data provided by the Federal Reserve Bank of New York, the U.S. Treasury, and the Federal Financial Institutions Examination Council.

Online access to the *Bulletin* is free. A free e-mail notification service is available to alert subscribers to the release of articles and orders in the *Bulletin*, as well as press releases, testimonies, and speeches. The notification message provides a brief description and a link to the recent posting.

Federal Reserve Bulletin:
www.federalreserve.gov/pubs/bulletin

Data published in the *Statistical Supplement to the Federal Reserve Bulletin:*
www.federalreserve.gov/pubs/supplement/statsupdata.htm

Subscribe to e-mail notification service:
www.federalreserve.gov/generalinfo/subscribe/notification.htm

Articles

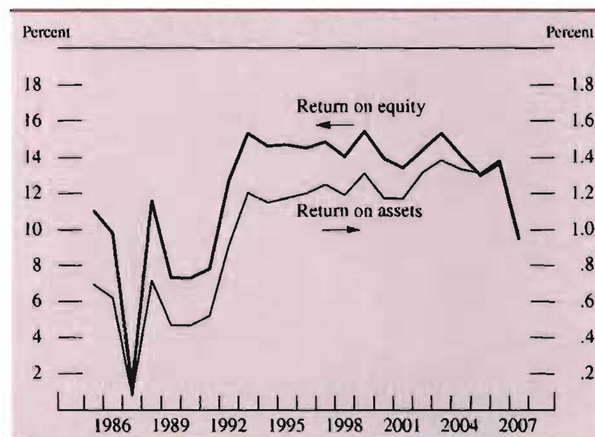
June 2008

Profits and Balance Sheet Developments at U.S. Commercial Banks in 2007

William Bassett and Thomas King, of the Board's Division of Monetary Affairs, prepared this article. Thomas C. Allard assisted in developing the database underlying much of the analysis. Adina Goldstein and Oren D. Ziv provided research assistance.

The U.S. commercial banking industry faced significant challenges in 2007, including continued deterioration in the performance of subprime mortgage-related assets and a more general reassessment by investors of structured finance instruments. Those developments contributed to significant strains in financial markets and dislocations in bank funding markets over the second half of the year. Moreover, economic growth slowed late in the year, and the outlook for 2008 worsened. The turmoil in financial markets hampered banks' securitization programs and their ability to syndicate leveraged loans, which put considerable pressure on the balance sheet capacity and liquidity positions of some banks.

1. Bank profitability, 1985–2007



NOTE: The data are annual.

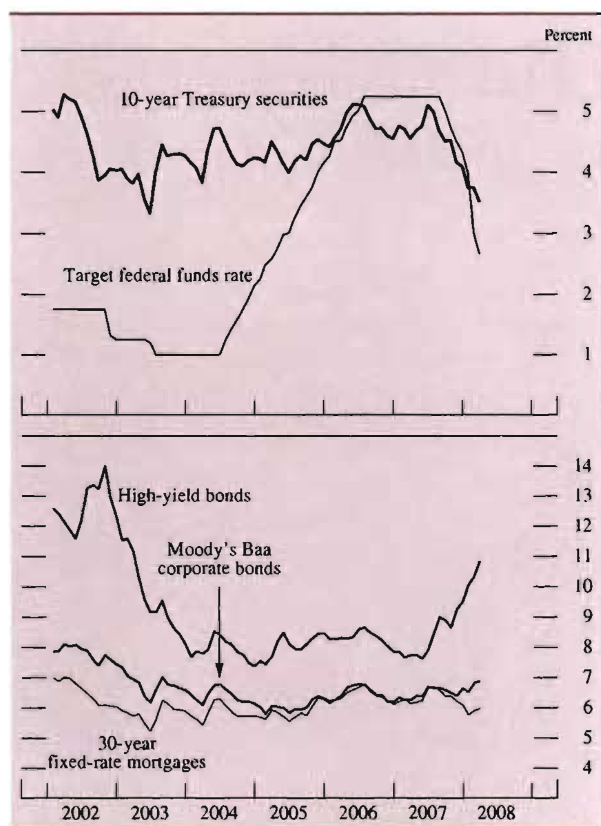
Profitability—especially in the final quarter of 2007—fell noticeably from the very high levels posted in recent years (figure 1). The drop in profits, reflecting primarily lower trading revenue and significantly higher provisions for loan losses, was more pronounced at large banks, but the net income of smaller banks also declined markedly.

Financial markets came under considerable pressure in 2007. Problems that were mostly contained within the markets for subprime mortgages and related structured products in the first half of the year intensified around midyear. In turn, the deepening troubles in subprime mortgage credit quality caused investors to become increasingly concerned about the likely performance of even highly rated securities backed by subprime mortgages. Furthermore, investors reassessed the soundness of many structured financial products not backed by residential mortgages, including asset-backed commercial paper and collateralized loan obligations. Those developments, along with emerging worries about the economic outlook, contributed to a broad-based reduction in investors' appetite for risk over the second half of the year. As a consequence, the markets for some types of structured investment products virtually dried up by year-end, and the prices of such securities dropped, events that generated large losses at some banks and

NOTE: The data in this article cover insured domestic commercial banks and nondeposit trust companies (hereafter, banks). Except as otherwise indicated, the data are from the Consolidated Reports of Condition and Income (Call Report). The Call Report consists of two forms submitted by domestic banks to the Federal Financial Institutions Examination Council: FFIEC 031 (for those with domestic and foreign offices) and FFIEC 041 (for those with domestic offices only). The data thus consolidate information from foreign and domestic offices, and they have been adjusted to take account of mergers and the effects of push-down accounting. For additional information on the adjustments to the data, see the appendix in William B. English and William R. Nelson (1998), "Profits and Balance Sheet Developments at U.S. Commercial Banks in 1997," *Federal Reserve Bulletin*, vol. 84 (June), p. 408. Size categories, based on assets at the start of each quarter, are as follows: the 10 largest banks, large banks (those ranked 11 through 100), medium-sized banks (those ranked 101 through 1,000), and small banks (those ranked 1,001 and higher). At the start of the fourth quarter of 2007, the approximate asset sizes of the banks in those groups were as follows: the 10 largest banks, more than \$140 billion; large banks, \$7.2 billion to \$140 billion; medium-sized banks, \$494 million to \$7.1 billion; and small banks, less than \$494 million.

Data shown in this article may not match data published in earlier years because of revisions and corrections. Call Report data reflect information available as of April 16, 2008. In the tables, components may not sum to totals because of rounding. Appendix tables A.1.A through A.1.E report portfolio composition, income, and expense items, all as a percentage of overall average net consolidated assets, for all banks and for each of the four size categories. Appendix table A.2 reports income statement data for all banks.

2. Selected interest rates, 2002–08



NOTE: The data are monthly and extend through March 2008.

SOURCE: For Treasury securities, mortgages, and Moody's corporate bonds, Federal Reserve Board, Statistical Release H.15, "Selected Interest Rates" (www.federalreserve.gov/releases/h15); for federal funds, Federal Reserve Board (www.federalreserve.gov/fomc/fundsrate.htm); for high-yield bonds, Merrill Lynch Master II index.

financial institutions. Yields on both investment-grade and speculative-grade corporate bonds increased, while those on Treasury securities fell because of easier actual and expected monetary policy as well as heightened demand for safer assets (figure 2). Equity prices dropped over the second half of the year, and volatility in many financial markets increased.

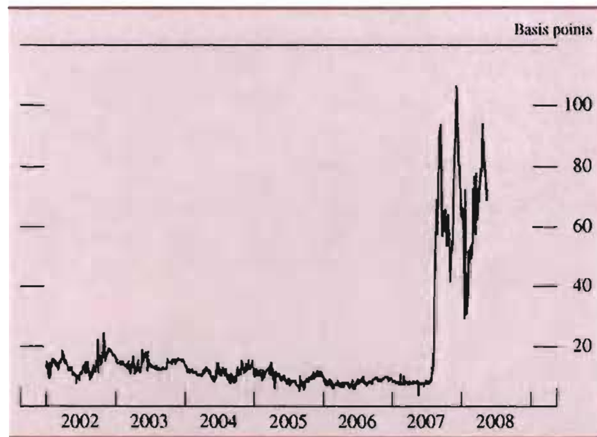
Despite the deterioration in housing-related markets and emerging financial strains, the U.S. economy generally performed well through the first three quarters of 2007. However, economic growth weakened considerably in the fourth quarter as pressures in financial markets worsened, the downturn in the housing market intensified, and prices for crude oil and some other commodities rose. Consumer spending and business investment, which had both increased at a healthy pace, on balance, over the first three quarters of the year, slowed, which contributed to reduced demand for credit from households and businesses. Late in the year, consumer sentiment worsened, and forward-looking indicators of business spending also became less favorable. The weakening outlook added to concerns about asset quality at banks. Measures of overall consumer price inflation stepped up in 2007, but core inflation (which excludes the direct effects of movements in energy and food prices) was little changed on balance. With downside risks to economic growth increasing, and with monetary policy makers generally expecting inflation to moderate somewhat in 2008 and 2009, the Federal Open Market Committee substantially eased the stance of monetary policy in late 2007 and early 2008.

The difficulties in financial markets, together with the ongoing weakness of the housing sector, had significant effects on bank balance sheets, especially over the second half of the year. As the residential real estate market contracted and banks tightened their credit standards, the growth of residential mortgages on banks' balance sheets slowed dramatically from the rapid rates posted between 2002 and 2006. At the same time, credit and liquidity concerns reduced institutional investors' willingness to participate in the syndicated loan market. Large commercial banks, which had underwritten a record volume of such loans in the first half of the year, primarily to finance leveraged buyouts, found themselves unable to place these loans in the market. Commercial and industrial lending at those banks expanded rapidly for a time as loans intended for syndication ended up on banks' books. At least partly in response to these unexpected additions to assets, banks sold U.S. Treasury and agency securities and tightened standards and terms on many types of loans.

These balance sheet pressures, coupled with uncertainty about the size and distribution of losses on subprime mortgages and structured financial products, also strained short-term bank funding markets. The Federal Reserve responded to the financial turmoil with a series of actions to support liquidity and functioning in bank funding markets (partly in coordination with foreign central banks).[1] Core deposits continued to grow relatively slowly. As spreads on interbank borrowing widened (figure 3), banks increasingly funded asset expansion with managed liabilities,

1. The Federal Reserve conducted unusually large open market operations, made adjustments to the primary credit rate and to procedures for discount window borrowing and securities lending, established a Term Auction Facility, and entered into currency swap arrangements with two other central banks. For a fuller discussion of the measures employed by the Federal Reserve in 2007 to support orderly market functioning, see box "The Federal Reserve's Responses to Financial Strains," in Board of Governors of the Federal Reserve System (2008), *Monetary Policy Report to the Congress* (Washington: Board of Governors, February), pp. 26–27.

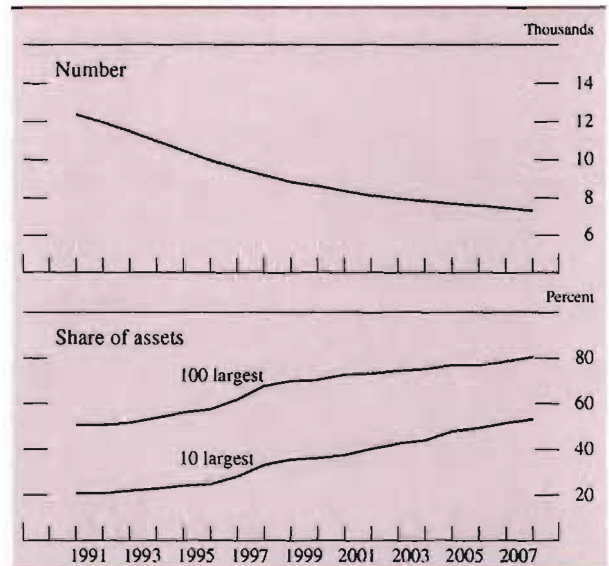
3. Spreads of 3-month Libor over OIS rate, 2002-08



NOTE: The data are daily and extend through May 15, 2008. For Libor, quotes are as of 6 a.m.; for the OIS rate, quotes are as of the close of business of the previous trading day. An overnight index swap (OIS) is an interest rate swap with the floating rate tied to an index of daily overnight rates, such as the effective federal funds rate. At maturity, two parties exchange, on the basis of the agreed notional amount, the difference between interest accrued at the fixed rate and interest accrued through geometric averaging of the floating, or index, rate.

SOURCE: For Libor, British Bankers' Association; for the OIS rate, Prebon.

4. Number of banks, and share of assets at the largest banks, 1990–2007



NOTE: The data are as of year-end. For the definition of bank size, see the general note on the first page of the main text.

including Federal Home Loan Bank (FHLB) advances, foreign deposits, and, late in the year, large time deposits.[2] Some large banks also received substantial cash infusions from their parent holding companies.

Financial and economic developments contributed to the decline in the profitability of the banking industry last year after a long period of very strong performance. As a consequence of the difficult conditions in financial markets, several large banks experienced sharp reductions in trading revenue. Solid revenues from investment banking activities and private asset-management businesses were insufficient to offset those decreases, and total non-interest income declined in 2007. Profitability was also depressed by a stepped-up rate of loss provisioning—which had been at very low levels—in response to an across-the-board worsening of asset quality. In addition, non-interest expense grew briskly last year despite a slight deceleration in employee compensation. Moreover, the declines in market interest rates and higher credit spreads observed in many sectors over the second half of 2007 were inadequate to boost the industrywide net interest margin, which continued its longer-run slide last year.

The number of new commercial banks chartered edged down in 2007, and the average size of such banks declined considerably from that of the previous two years. Merger activity also dipped last year but still outpaced bank formation. As a result, the number of banks declined further, to about 7,300 at the end of 2007 from about 7,450 at the end of 2006 (figure 4). The share of assets held by the top 10 banks increased further, reaching 53 percent at the end of 2007, and the share of assets held by the top 100 banks rose to 80 percent. According to the Federal Deposit Insurance Corporation, two banks with assets totaling $100 million failed in 2007.

The formation of new bank holding companies (BHCs) increased for the second consecutive year in 2007 and was the highest in several years. Mergers among BHCs also moved up last year, and the rate of mergers continued to exceed the rate at which new BHCs were formed. The number of BHCs thus edged down to about 5,070 from about 5,100 in 2006 (for multitiered BHCs, only the top-tier organization is counted in these figures). The number of financial holding companies held fairly steady in 2007 at about 640.[3] The share of BHC assets that were held by financial holding companies was unchanged in 2007 at 86 percent.

2. In this article, core deposits are defined as the sum of transaction deposits, savings deposits (including money market deposit accounts), and small time deposits (time deposits issued in denominations of less than $100,000) held at domestic offices. Managed liabilities consist of large ($100,000 or more) time deposits booked in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, FHLB advances, and other borrowed money.

3. Statistics on financial holding companies include both domestic BHCs that have elected to become financial holding companies and foreign banking organizations operating in the United States as financial holding companies and subject to the Bank Holding Company Act. For more information, see Board of Governors of the

1. Change in balance sheet items, all U.S. banks, 1998–2007

Percent

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	MEMO Dec. 2007 (billions of dollars)
Assets	8.21	5.47	8.78	5.13	7.23	7.25	10.80	7.79	12.36	10.81	11,077
Interest-earning assets	8.19	5.91	8.67	3.97	7.58	7.35	11.31	8.04	12.45	10.12	9,569
Loans and leases (net)	8.73	8.13	9.25	1.83	5.93	6.60	11.23	10.48	11.97	10.58	6,473
Commercial and industrial	12.96	7.90	8.55	–6.72	–7.39	–4.52	4.37	12.54	11.81	20.38	1,362
Real estate	8.03	12.28	10.76	7.95	14.49	9.78	15.44	13.81	14.94	7.03	3,634
Booked in domestic offices	8.01	12.42	11.04	8.03	14.90	9.69	15.11	13.93	15.05	6.77	3,565
One- to four-family residential	6.39	9.73	9.29	5.71	19.92	10.05	15.76	11.95	15.11	5.54	1,995
Other real estate	10.34	16.16	13.34	10.97	8.85	9.22	14.24	16.62	14.96	8.37	1,570
Booked in foreign offices	8.79	6.28	–1.62	3.97	–7.41	15.74	35.59	7.19	8.79	22.76	69
Consumer	.38	–1.47	8.05	4.17	6.60	9.77	10.17	2.80	6.19	11.67	948
Other loans and leases	13.50	7.19	7.01	–2.00	–.02	8.31	3.57	–.17	3.17	12.85	619
Loan-loss reserves and unearned income	3.10	2.40	8.00	13.17	5.82	–2.48	–4.18	–5.56	1.66	27.63	90
Securities	8.45	5.14	6.39	7.26	16.28	9.46	10.59	2.40	11.53	4.57	2,195
Investment account	12.11	6.71	2.89	8.92	13.60	8.73	6.17	1.19	6.94	–4.42	1,562
U.S. Treasury	–25.05	–1.87	–32.71	–40.23	41.93	14.14	–15.87	–17.59	–19.30	–26.90	29
U.S. government agency and corporation obligations	17.03	1.87	3.81	12.90	18.15	9.70	9.48	–1.82	4.71	–12.13	893
Other	27.02	20.93	13.41	12.19	2.81	6.04	3.03	10.12	13.78	10.72	639
Trading account	–13.32	–6.93	37.16	–3.72	36.32	14.01	36.81	7.96	31.32	36.13	633
Other	3.80	–8.35	10.33	13.04	–2.92	6.86	14.29	5.99	19.29	22.34	901
Non-interest-earning assets	8.39	2.66	9.46	12.79	5.14	6.65	7.61	6.21	11.80	15.36	1,509
Liabilities	8.09	5.61	8.60	4.47	7.17	7.31	9.57	7.80	12.10	10.79	9,941
Core deposits	7.08	.27	7.56	10.56	7.62	7.32	8.27	6.41	5.84	5.48	4,721
Transaction deposits	–1.38	–8.93	–1.28	10.22	–5.11	2.84	3.25	–1.19	–4.28	–1.21	695
Savings deposits (including MMDAs)	18.35	6.71	12.53	20.69	18.51	13.71	11.73	6.94	5.53	3.33	2,995
Small time deposits	.59	–0.70	7.24	–7.21	–4.85	–6.67	1.61	12.90	16.97	18.00	1,031
Managed liabilities[1]	9.45	15.55	8.79	–2.71	5.38	7.09	12.07	12.26	19.45	16.58	4,550
Large time deposits	9.14	14.24	19.39	–3.64	5.18	1.84	21.89	23.00	15.95	1.92	1,024
Deposits booked in foreign offices	8.71	14.60	7.84	–10.92	4.49	12.63	16.84	6.32	29.67	25.86	1,502
Subordinated notes and debentures	17.00	5.07	13.98	9.56	–.59	5.08	10.49	11.42	22.60	16.83	174
Gross federal funds purchased and RPs	4.38	1.57	6.49	5.74	12.76	–8.70	8.40	15.62	9.47	7.06	744
Other managed liabilities	15.66	35.29	1.80	–.28	1.00	22.11	1.37	6.15	18.89	28.44	1,106
Revaluation losses held in trading accounts	3.44	–13.20	7.47	–17.06	33.44	14.02	–12.61	–17.86	6.89	42.20	205
Other	12.74	–1.25	20.63	14.92	5.24	5.30	17.19	–.82	22.34	3.35	465
Capital account	9.58	3.92	10.68	12.32	7.87	6.69	23.15	7.73	14.69	10.96	1,136
MEMO											
Commercial real estate loans[2]	11.40	15.52	12.19	13.11	6.86	9.02	13.97	16.87	14.91	9.21	1,578
Mortgage-backed securities	22.14	–3.33	3.30	29.06	15.60	10.14	13.45	2.07	10.22	–1.24	960
Federal Home Loan Bank advances	n.a.	n.a.	n.a.	n.a.	17.30	3.71	3.74	10.00	29.80	30.62	455

NOTE: Data are from year-end to year-end and are as of April 16, 2008.

1. Measured as the sum of large time deposits in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, Federal Home Loan Bank advances, and other borrowed money.

2. Measured as the sum of construction and land development loans secured by real estate; real estate loans secured by nonfarm nonresidential properties or by multifamily residential properties; and loans to finance commercial real estate, construction, and land development activities not secured by real estate.

n.a. Not available.

MMDA Money market deposit account.

RP Repurchase agreement.

Balance Sheet Developments

Balance sheet developments in 2007 were influenced importantly by the turbulence in financial markets in the second half of the year. The turmoil exerted pressure on both the asset and liability sides of banks' balance sheets, as banks found markets less receptive to sales of loans and securities and faced funding markets that were, at times, illiquid. Together with the softening macroeconomic picture, these disruptions led banks to become more cautious in the extension of credit and to take steps to bolster capital positions.

Total bank assets expanded 10.8 percent in 2007, down somewhat from the previous year but still strong by historical standards (table 1); indeed, the growth rate easily outpaced that of total domestic nonfinancial debt. And, excluding the conversion of one commercial bank to a thrift institution in the first quarter, bank assets grew even faster—11.9 percent. Loans expanded at about the same rate as assets, primarily because of rapid growth in commercial and industrial (C&I) lending. The demand for C&I loans was spurred, in part, by vigorous capital investment and financing for mergers and leveraged buyouts (LBOs) in the first half of the year. In the second half,

Federal Reserve System (2003), *Report to the Congress on Financial Holding Companies under the Gramm-Leach-Bliley Act* (Washington: Board of Governors, November), www.federalreserve.gov/pubs/reports_other.htm.

the deterioration in credit markets caused C&I loans that had been intended for syndication to accumulate on banks' balance sheets. Residential mortgage lending slowed amid the contraction in home sales and the continuing decline in house prices, and lending in the commercial real estate market also decelerated late in the year. In contrast to the rapid pace of overall lending, banks' securities holdings expanded relatively slowly, a development that was likely a result, in part, of efforts to ease the pressures on balance sheets. Other types of bank assets expanded rapidly in 2007, as commercial banks were net providers of liquidity during the financial turbulence; in particular, short-term loans to financial institutions—in the form of federal funds sold, securities purchased under resale agreements, and balances due from depositories—increased 29 percent over the year.

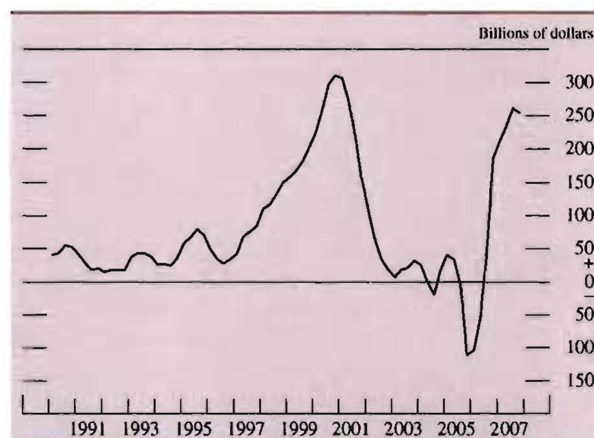
On the liability side of the balance sheet, growth of core deposits remained moderate. In the autumn, banks attracted small time deposits by maintaining relatively high rates, on average, on such deposits while other short-term yields were falling, but these inflows were partly offset by the continued sluggish growth of savings deposits (including money market deposit accounts). Given the relatively rapid growth in assets, banks turned to managed liabilities for funding. Moreover, in response to the pressures in funding markets, banks increased their reliance on FHLB advances and subordinated debt late in the year.

Banks' capital expanded at about the same pace as assets. The rise in equity capital was supported by increased goodwill but was hampered by meager retained earnings. Regulatory capital, which excludes goodwill, grew somewhat more slowly than equity capital and assets, and regulatory capital ratios edged lower. A number of large institutions received sizable cash injections from their parent holding companies, which helped maintain capital ratios. As asset quality deteriorated late in the year, many banks significantly boosted loan-loss reserves.

Loans to Businesses

C&I loans grew 20 percent during 2007. For most of the year, this growth was supported by robust fixed investment and merger and acquisition (M&A) activity at nonfinancial corporations. Solid growth of capital expenditures contributed to a large financing gap, especially as corporate profit growth slowed late in the year (figure 5). As conditions in credit markets tightened, the pace of capital accumulation and new borrowing slowed. Meanwhile, with conditions in the syndicated loan market also deteriorating, some large

5. Financing gap at nonfarm nonfinancial corporations, 1990–2007



NOTE: The data are 4-quarter moving averages. The financing gap is the difference between capital expenditures and internally generated funds.

SOURCE: Federal Reserve Board, Statistical Release Z.1, "Flow of Funds Accounts of the United States," table F.102 (www.federalreserve.gov/releases/z1).

banks were forced to retain on their balance sheets a considerable amount of loans that were originally intended for syndication, many of which were extended to finance LBOs (see box "Market for U.S. Leveraged Syndicated Loans"). As the economic outlook weakened and banks tightened their credit standards, commercial real estate (CRE) lending, particularly for construction and land development, slowed somewhat from the rapid growth of recent years.

According to respondents to the Federal Reserve's quarterly Senior Loan Officer Opinion Survey on Bank Lending Practices (BLPS), demand for C&I loans softened steadily throughout the year as the economic outlook deteriorated (figure 6). Banks that experienced weaker C&I loan demand generally pointed to decreased needs by businesses to finance M&A activity and to fund investments in inventories and in plant and equipment. Despite the reported weakening in demand for C&I loans, growth in such loans was evident at commercial banks of all sizes, although it was particularly concentrated among the largest institutions, which are the most active participants in the syndicated loan market.[4] Meanwhile, some firms drew upon previously arranged backup lines of credit with commercial banks as debt markets tightened, a move that further boosted the volume of C&I loans on banks' balance sheets.

In light of the rapid growth of syndicated lending, and the considerable extent to which such lending

4. In asking banks to report demand, the survey instructs them to "consider only funds actually disbursed as opposed to requests for new or increased lines of credit."

Market for U.S. Leveraged Syndicated Loans

The market for U.S. leveraged syndicated loans was significantly affected by the disruptions in credit markets that first emerged in the summer of 2007. Although issuance of leveraged loans posted a record of nearly $700 billion last year, reflecting a surge in merger and acquisition (M&A) activity and leveraged buyouts (LBOs), the bulk of the deals were struck in the first half of the year, with activity slowing significantly over the second half.[1]

During the first and second quarters of 2007, issuance of leveraged loans soared to an annualized rate of nearly $860 billion, an increase fueled by strong M&A activity and an unprecedented wave of large LBOs (figure A). Institutional investors represented an important source of funding for these deals: Issuance of institutional loans—that is, leveraged loans structured for institutional investors—topped $290 billion and accounted for a record share of leveraged lending.[2] Against a backdrop of stronger demand from institutional investors and improved liquidity in the secondary market, loan credit spreads continued to narrow over the first half of the year. Nonprice terms were also eased, with issuance of "covenant lite" loans and second-lien loans surging to record highs.[3]

Early last summer, however, investors began pulling back from the leveraged loan market, apparently in response to concerns about the accommodative terms on, and the very substantial actual and anticipated volumes of, large LBOs. As a result, the flow of new deals slowed noticeably, but the pipeline of leveraged deals that banks had reportedly underwritten but not yet syndicated swelled to about $250 billion from roughly $110 billion at the start of the year. In the secondary market, a drop in average bid prices on leveraged loans and a worsening of liquidity pushed the average bid-asked spread substantially higher. Meanwhile, the implied spread on the LCDX index—an equally weighted index of 100 loan-only credit default swaps—rose sharply; the spread was allegedly boosted by investors positioning themselves to profit from a deterioration in credit quality as well as by strong hedging demand from both arrangers of collateralized loan obligations (CLOs) and market participants with exposure to the pipeline of leveraged deals (figure B).[4]

In August, as strains emerged in term bank funding markets, conditions in the leveraged loan market deteriorated further. Several loan issues were postponed or restructured in response to investors' demands for wider spreads and tighter nonprice terms. Spreads on lower-rated tranches of CLOs widened considerably, and issuance slowed markedly, developments that reportedly reflected investors' increased uncertainty about the appropriate valuation of structured finance products used to fund business credits. Because CLO vehicles had been the largest buyers of leveraged loans in recent years, banks faced severe difficulties syndicating previously underwritten loans used to finance large LBOs and were subsequently forced to bring a number of such loans onto their books. As conditions in corporate credit markets improved for a time in the fall, underwriters were success-

1. Financial firms account for only a small share of funds raised in the leveraged loan market.

2. Institutional investors include a wide range of nonbank lenders, such as loan mutual funds, issuers of collateralized loan obligations, insurance companies, finance companies, hedge funds, and distressed and high-yield funds.

3. According to Standard & Poor's, covenant-lite loans are loans that have bond-like financial incurrence covenants, which merely limit the issuance of additional debt, rather than the more restrictive maintenance covenants that have traditionally been part of a syndicated loan agreement. For more information, see Standard & Poor's (2007), *A Guide to the Loan Market* (New York: S&P, October).

As their name implies, second-lien loans are loans whose claims on collateral are behind those of first-lien loans.

4. A loan-only credit default swap (LCDS) is similar to a standard credit default swap. The main difference is that the reference obligation for an LCDS is a syndicated secured loan of a reference entity with a designated priority (for example, first lien or second lien).

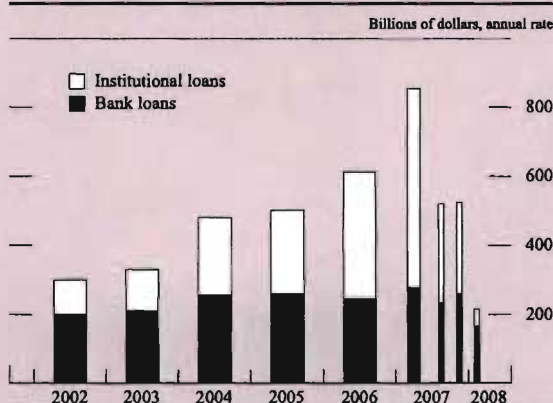
was used to finance large LBOs and M&A activity, the July 2007 BLPS queried banks about their participation in the syndicated loan market. About one-half of domestic respondents indicated that syndicated loans accounted for 5 percent to 20 percent of the C&I loans on their books, but a few large institutions noted that syndicated loans accounted for more than 50 percent of their C&I loan portfolios. Most survey participants indicated that only a small fraction of the syndicated loans on their books were originated to finance LBOs. Indeed, nearly two-thirds noted that LBO-related syndicated loans accounted for less than 5 percent of the syndicated loans on their books, which probably reflected the concentration of this activity within a few large banks and the tendency of these banks to place large portions of LBO-related syndications with institutional investors.

The accumulation of previously underwritten C&I loans may have been offset to some degree by a growing reluctance to make new C&I loans in the second half of the year. In the first- and second-quarter BLPS, a majority of banks reported no change in their underwriting standards for C&I loans. However, as concerns about financial market conditions mounted and the allocation of syndicated loans to investors became difficult during the second half of

ful in some cases at reducing their exposures by selling loans to investors, although often at prices well below par. All told, leveraged loan issuance slowed sharply in the second half of 2007, as institutional lending tumbled more than 50 percent from the level of the previous six months, to about $140 billion.

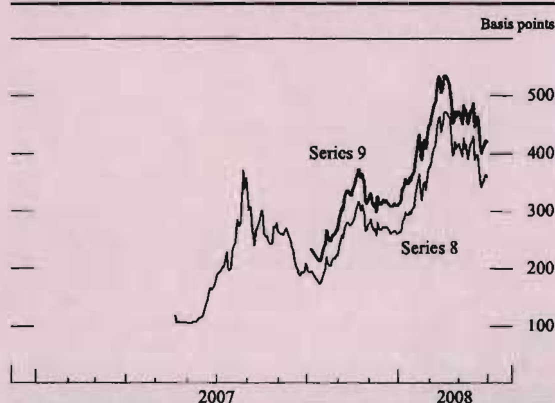
Pressures in the leveraged syndicated loan market have continued so far this year, and activity has remained subdued. Financial market dislocations eased somewhat in January, but they subsequently intensified again. In addition, the financial market pressures and the ongoing decline in the housing sector led investors to mark down their outlook for economic activity. As concerns about the effect of slower growth on credit quality mounted and as some leveraged investors were reported to have unwound their positions, average bid prices on leveraged loans plunged, and the implied LCDX spread widened sharply. Loan market liquidity was reportedly poor, and the average bid-asked spread widened to a level well above the peak reached in the summer of 2007. Since mid-March 2008, conditions in financial markets appear to have improved somewhat, and loan prices have reversed some of their earlier declines. Nonetheless, only $54 billion of leveraged loans cleared the primary market in the first quarter of 2008, down from the $209 billion syndicated a year ago. Also as of the first quarter, issuance of institutional loans, at about $12 billion, dropped more than 90 percent from its year-earlier level.

A. Issuance of U.S. leveraged syndicated loans, 2002-08



NOTE: The data extend through 2008:Q1. Institutional loans are term loans of relatively long maturity and intended for institutional investors, including loan mutual funds, collateralized loan obligations, insurance companies, finance companies, and hedge funds. Bank loans are the remaining portions of syndicated leveraged loans and can include both revolving credits and shorter-maturity term loans.
SOURCE: Reuters LPC/DealScan.

B. LCDX indexes, 2007-08



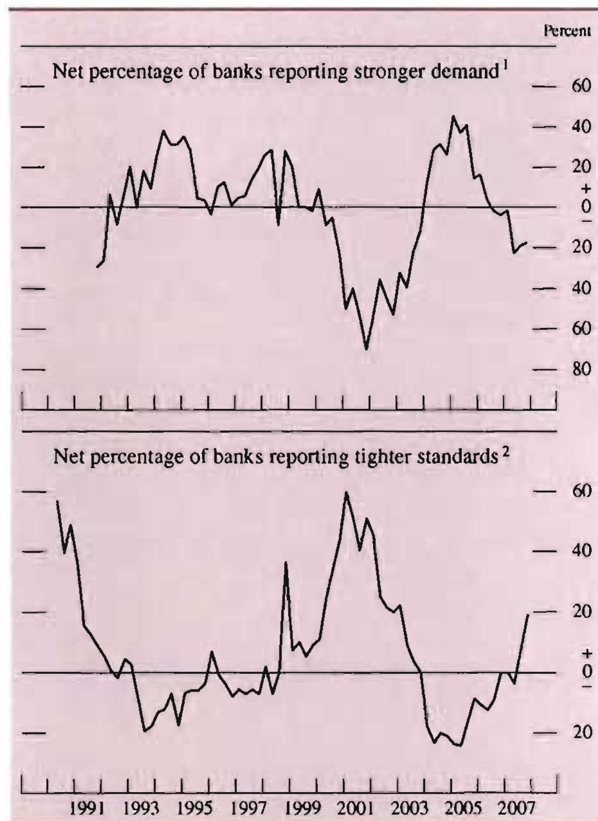
NOTE: The data are daily and extend through March 31, 2008. Each LCDX index consists of 100 single-name credit default swaps referencing entities with first-lien syndicated secured loans that trade in the secondary market for leveraged loans. Series 8 began trading on May 22, 2007, and series 9 on October 3, 2007.
SOURCE: Markit.

2007, significant net fractions of respondents tightened their credit standards and terms on C&I loans.

CRE loans expanded 9.2 percent last year, down from the very rapid rates posted over the previous three years. The slowdown was widespread but was somewhat more pronounced at the largest institutions. For 2007 as a whole, CRE lending was supported by growth of construction and land development loans, which accounted for more than one-third of all CRE loans at the end of the year (figure 7). However, the growth in this category of CRE loans, which includes loans to residential real estate developers, slowed in the second half of 2007 along with housing market activity. Real estate loans backed by nonfarm nonresidential structures, the largest category of CRE loans, grew at a pace somewhat below its recent average, and CRE loans secured by multifamily dwellings also expanded somewhat more slowly than in 2006. Smaller banks maintained the relatively high concentrations of CRE lending that they had built over the past two decades (figure 8).[5]

5. In view of the increasing concentration at smaller institutions, regulators issued interagency guidance in December 2006 to promote sound risk-management practices at banks regarding their CRE loans. See Office of the Comptroller of the Currency, Board of Governors of

6. Changes in demand and supply conditions at selected banks for commercial and industrial loans to large and middle-market firms, 1990–2007



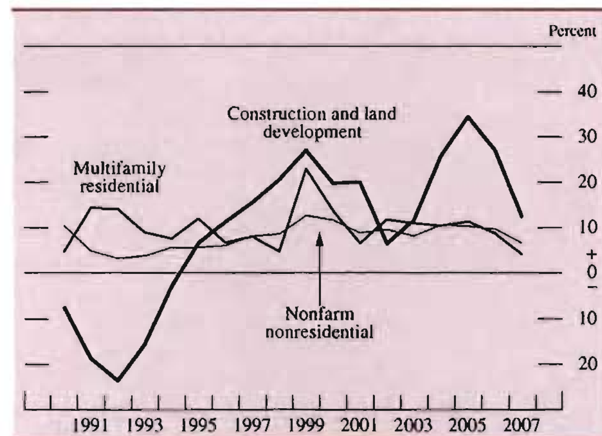
NOTE: The data are drawn from a survey generally conducted four times per year; the last observation is from the January 2008 survey, which covers 2007:Q4. Net percentage is the percentage of banks reporting an increase in demand or a tightening of standards less, in each case, the percentage reporting the opposite. The definition for firm size suggested for, and generally used by, survey respondents is that large and middle-market firms have annual sales of $50 million or more.

1. Series begins with the November 1991 survey.

2. Series begins with the May 1990 survey.

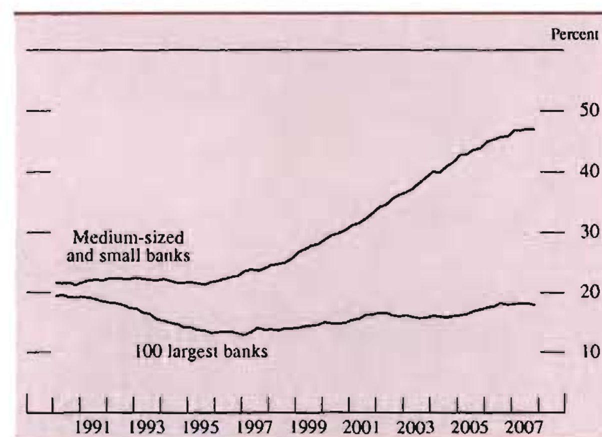
SOURCE: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices (www.federalreserve.gov/boarddocs/snloansurvey).

7. Change in commercial real estate loans, by major components, 1990–2007



NOTE: The data are annual.

8. Share of all loans consisting of commercial real estate loans, by bank size, 1990–2007



NOTE: The data are quarterly. For the definition of bank size, see the general note on the first page of the main text.

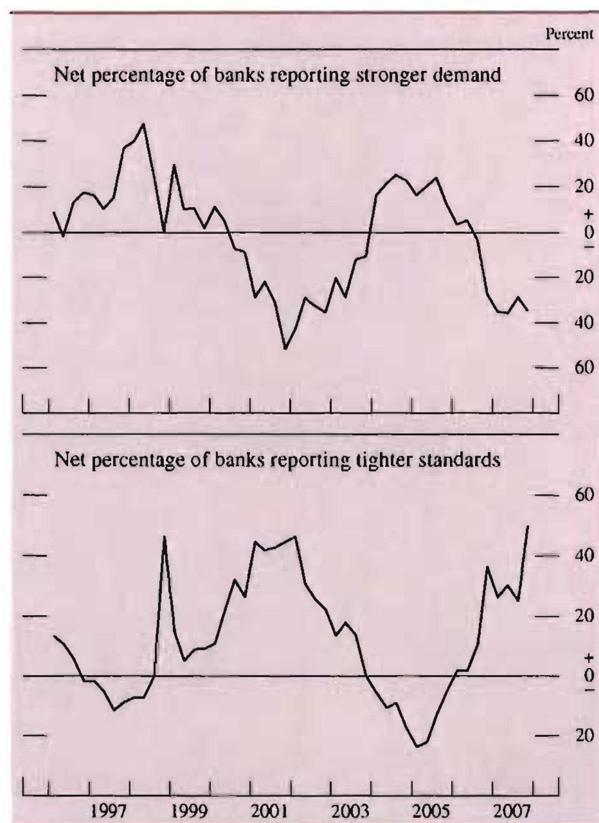
The lower growth rate of CRE loans in 2007 appears to have reflected a moderation in demand and a reduction in supply, trends that began in 2006 but accelerated last year (figure 9). Banks responding to the BLPS indicated that demand for CRE loans weakened steadily throughout 2007. On the supply side, a notable fraction of survey respondents reported a tightening in their credit standards for CRE loans over the period. Terms on CRE loans were also tightened, with many banks requiring higher loan-to-value and debt-service-coverage ratios. The move toward a more stringent lending posture was likely due, in part, to the effect of the softening economic outlook on the expected credit performance of CRE loans. In addition, banks may have been concerned about deteriorating conditions in the market for commercial mortgage-backed securities (CMBS). Amid the broad reassessment of the risks associated with structured financial products, investors in CMBS retreated from the market, spreads moved significantly higher, and issuance dried up.

Loans to Households

Pressures in the housing market, including outright declines in home prices in some areas, continued to affect bank lending to households last year (figure 10). In response to the easing of monetary policy that started in September, mortgage rates moved

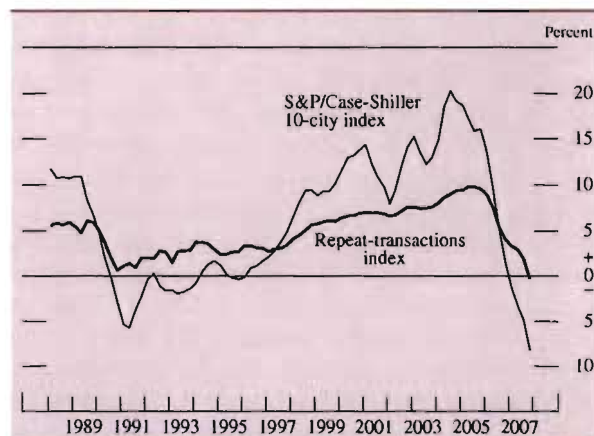
the Federal Reserve System, and Federal Deposit Insurance Corporation (2006), "Federal Banking Agencies Issue Final Guidance on Concentrations in Commercial Real Estate Lending," press release, December 6, www.federalreserve.gov/newsevents/press/bcreg/20061206a.htm.

9. Changes in demand and supply conditions at selected banks for commercial real estate loans, 1996–2007



NOTE: See figure 6, general note and source note.

10. Change in prices of existing single-family homes, 1988–07



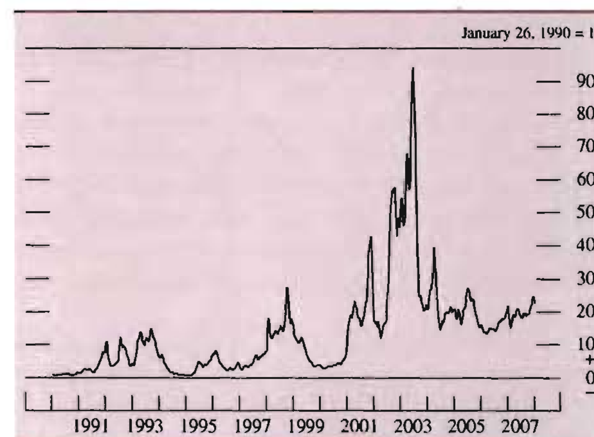
NOTE: The data are quarterly and extend through 2007:Q4; changes are from one year earlier. For the years preceding 1991, the repeat-transactions index includes appraisals associated with mortgage refinancings; beginning in 1991, it includes purchase transactions only. The S&P/Case-Shiller index reflects all arm's-length sales transactions in the metropolitan areas of Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, and Washington, D.C.

SOURCE: For repeat transactions, Office of Federal Housing Enterprise Oversight; for S&P/Case-Shiller, Chicago Mercantile Exchange.

down over the remainder of 2007, and refinancing activity increased somewhat (figure 11). Nevertheless, the severe drop in home sales weighed on residential mortgage lending, and turmoil in credit markets during the second half of 2007 impaired securitizations of nonconforming mortgages. Overall, the value of mortgages on banks' books grew just 5.5 percent last year; excluding the aforementioned conversion of a large bank to a thrift charter, the growth rate was 9.3 percent, still the lowest rate of increase since 2001.

The slowdown in residential real estate lending stemmed from both weaker demand and tighter credit standards. In the BLPS survey conducted during the first quarter of 2007, considerable net shares of respondents reported reduced demand for residential mortgages.[6] Beginning in the second quarter, banks were asked to report separately on changes in demand and credit standards for prime, nontraditional, and subprime mortgages. In the year's remaining surveys, large net percentages of banks reported weaker demand in all three loan categories and indicated that they had tightened their credit standards for all three types of residential mortgages. Not surprisingly, the tightening was especially pronounced for nontraditional and subprime products, although only a small number of banks reported that they originated subprime loans during that period.

11. Level of refinancings of residential mortgages, 1990–2007



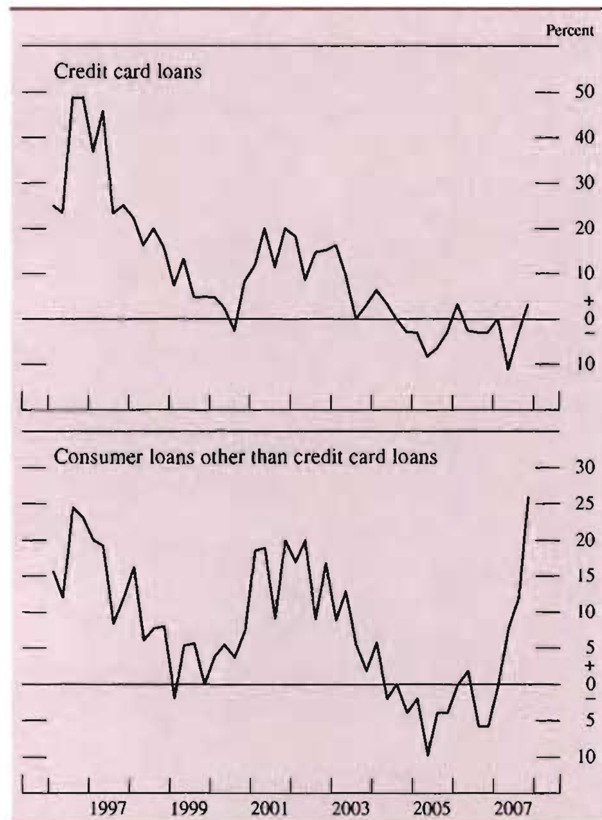
NOTE: The data are 4-week moving averages. Residential mortgages include both first and second liens secured by one- to four-family residential properties.

SOURCE: Mortgage Bankers Association.

6. In asking banks how demand for mortgages to purchase homes has changed over the past three months, the BLPS instructs banks to consider only new originations as opposed to the refinancing of existing mortgages. However, that distinction may be difficult for banks to make in practice.

In contrast, consumer loans on banks' books expanded 11.7 percent in 2007, almost double the pace in 2006. Credit card loans grew 10 percent overall, but growth was faster at large institutions, where such lending is concentrated. Growth in other consumer lending was even more rapid. The pickup in consumer lending in the past two years might reflect, in part, a substitution away from cash-out refinancing, as softer home prices have made such refinancing a less viable option for some households. Nevertheless, most banks surveyed in the BLPS reported a weakening of demand for consumer credit in 2007. In addition, as the outlook for household credit quality deteriorated, banks significantly tightened their lending standards for non-credit-card consumer loans (figure 12). According to the BLPS, the net percentage of banks reporting tighter standards for such loans reached its highest level on record in the fourth quarter. In contrast, standards and terms for credit card loans changed little, on net, during 2007.

12. Net percentage of selected banks reporting tighter standards for consumer lending, 1996–2007



NOTE: See figure 6, general note and source note.

Other Loans and Leases

Other loans and leases grew 13 percent during 2007. Lending to state and local governments grew robustly again in 2007, perhaps because of continued strong growth in construction activity. Agricultural loans expanded at a pace slightly below that of the preceding two years, as originations in this category ticked down for most loan purposes.[7] The remaining components of other loans, such as lease financing receivables and loans to purchase and carry securities, were about flat last year.

Securities

After growing at an average rate of about 10 percent over the previous five years, overall holdings of securities at commercial banks rose just 4.6 percent last year. Growth in securities was particularly weak in the second half of 2007, an indication that the slowdown likely resulted, in part, from banks' efforts to offset rapid growth elsewhere on their balance sheets. At the same time, banks shifted securities out of investment accounts and into trading accounts; some of that shift is traceable to a few large institutions that adopted new rules on fair value accounting, which led to the reclassification of certain types of securities (see box "New Rules on Fair Value Accounting"). Holdings of investment account securities declined 4.4 percent, as banks of all sizes sold government-backed mortgage pools and collateralized mortgage obligations. In contrast, holdings of private mortgage-backed securities in investment accounts rose during the year. Holdings of Treasury securities declined again in 2007, ending the year at just 2 percent of banks' investment accounts. Banks' holdings of securities issued by state and local governments kept pace with overall asset growth, although such securities ran off late in the year amid concerns that the private guarantors of municipal securities held exposures to subprime mortgage-backed assets that imperiled their AAA ratings.

Liabilities

Bank liabilities increased 10.8 percent in 2007, an advance matching that in bank assets. Core deposits grew only 3.2 percent, the slowest rate since 1999,

7. Using its Survey of Terms of Bank Lending to Farmers, the Federal Reserve estimates the amount of non-real-estate bank loans made to farmers by loan purpose, such as to obtain farm equipment and machinery or to cover operating expenses. The information is published quarterly in Board of Governors of the Federal Reserve System, Statistical Release E.15, "Agricultural Finance Databook," section A, www.federalreserve.gov/releases/e15.

New Rules on Fair Value Accounting

Statement of Financial Accounting Standards (FAS) No. 159, finalized by the Financial Accounting Standards Board in 2007, provides an option to elect a fair value measurement for most financial assets and liabilities.[1] The election of the fair value option (FVO) applies on an instrument-by-instrument basis, is generally restricted to use at the inception of a financial instrument (for example, on the purchase date, on the origination date, or after a business combination), and is irrevocable. Although this standard did not become effective until 2008, banks were able to adopt the FVO earlier (starting with their March 2007 financial statements), provided that they were also early adopters of FAS 157, which establishes the rules governing fair value measurement.[2] The FVO standard permitted a one-time application of fair value accounting to existing assets and liabilities, with the effect of the remeasurement reported in retained earnings and not in net income.

The new rules had two possibly significant effects on bank balance sheets. First, business and residential real estate loans previously held at amortized cost could be revalued pursuant to an FVO election. Second, securities to which the FVO was applied were required to be reclassified from available-for-sale or held-to-maturity accounts to trading accounts. Because losses from the revaluation of these securities are not reported in current earnings, some banks may have had an incentive to reclassify large portions of their securities portfolios upon adopting the FVO.

The overall effect of the FVO on bank balance sheets has been limited thus far. Fewer than 150 banks filed schedule RC-Q of the Call Report, which is required for FVO adopters, on the March 2007 reporting date, and the number of banks continuing to file this schedule declined through the remainder of the year (table A). Among these banks, the application of the fair value option has been limited. Although some banks elected the FVO for a portion of their existing loan portfolio, the amount was small relative to total loans outstanding, and few new loans have reportedly been placed under the FVO. Indeed, as of the end of the year, loans and leases reported at fair value accounted for less than 2 percent of all loans and leases. The bulk of these assets consisted of residential real estate loans intended to be securitized at a few large banks.

The effect of the FVO on some banks' securities portfolios was somewhat more pronounced. In the first quarter of last year, trading accounts at commercial banks increased $70 billion, in part because some early adopters took advantage of the FVO and reclassified assets into these accounts. At year-end, 85 percent of all trading assets were held by banks reporting on schedule RC-Q, although, again, most of the amount was concentrated in a handful of large institutions.

1. More-narrow fair value options are available in FAS 155, *Accounting for Certain Hybrid Financial Instruments—An Amendment of FASB Statements No. 133 and 140*, and FAS 156, *Accounting for Servicing of Financial Assets—An Amendment of FASB Statement No. 140.*

2. Among other innovations, FAS 157 implements a three-tiered hierarchy for measuring fair value; an asset's classification depends on the relative reliability of the inputs to the measurement, based on their observability.

A. Fair value of selected assets held by U.S. commercial banks, as reported under the fair value option, 2007

Billions of dollars except as noted

Period	Number of banks filing schedule RC-Q	Loans and leases		Trading assets	
		Reported under the FVO	Total	Filers of schedule RC-Q	Total
Q1	148	83	5,910	563	679
Q2	122	102	6,100	614	723
Q3	111	107	6,316	678	803
Q4	107	120	6,561	737	867

Note: Data are as of April 16, 2008. Schedule RC-Q of the Call Report is required for banks electing the fair value option (FVO) under FAS 159.

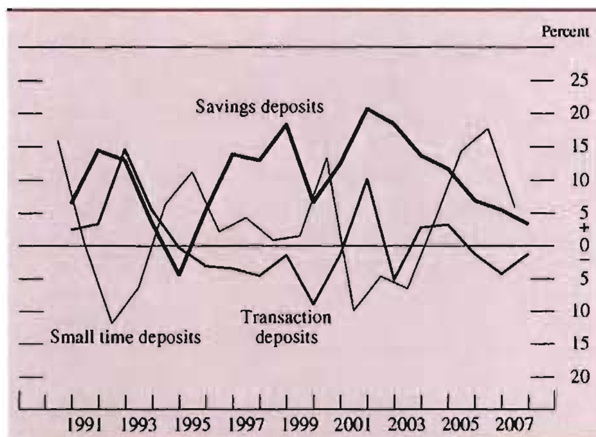
Source: For the FVO value of loans and leases, Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report), schedule RC-Q; for other data, Call Report, schedule RC.

and transaction deposits contracted for the third consecutive year.[8] The rate of expansion of savings and money market deposit accounts slowed despite the decline in short-term market interest rates, which lowered the opportunity cost of holding liquid deposits, over the second half of the year (figure 13). Small time deposits grew somewhat faster than savings accounts; aggressive bidding for them by banks held their yields steady even as other short-term rates declined in the fall. Core deposits are generally a more important funding source for smaller banks than for larger institutions, but core deposit growth was essentially zero for banks below the top 100 in 2007.

To compensate for the lackluster growth of core deposits, banks—especially the largest institutions—continued to ramp up their managed liabilities. Those funding sources accounted for 41 percent of the

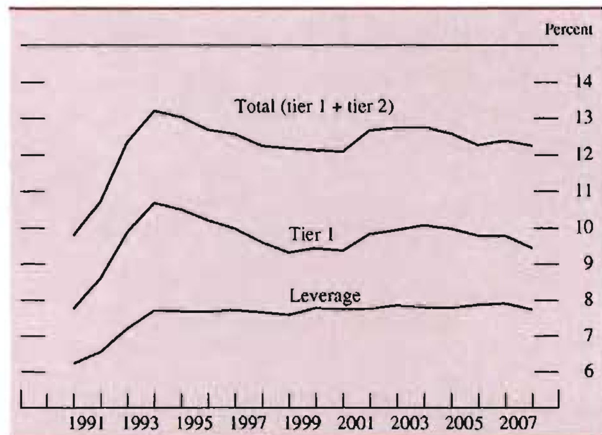
8. Before 2007, insured brokered deposits were included in large time deposits on the Call Report. As of the first quarter of last year, they are classified as small time deposits. The accounting change makes it appear as if there were rapid decreases in large time deposits and rapid increases in small time deposits in that quarter. The growth rates reported in the text have been adjusted for this effect and thus do not match the numbers reported in table 1.

13. Change in selected domestic liabilities at banks, 1990–2007



NOTE: The data are as of year-end. Savings deposits include money market deposit accounts.

14. Regulatory capital ratios, 1990–2007



NOTE: The data are as of year-end. For the components of the ratios, see text notes 9 and 10.

liabilities of all banks at year-end, up dramatically over the past decade. Given the deterioration in interbank markets late in the year, growth in managed liabilities was due primarily to the expansion of nonbank deposits booked in foreign offices (the largest component of managed liabilities) and to FHLB advances, which grew 42 percent at the 10 largest banks. Although growth in FHLB advances was lower at medium-sized banks, those banks now use advances to fund more than 5 percent of their assets. Large time deposits expanded 13 percent, primarily in the second half of the year.

Capital

Equity capital held by commercial banks expanded 11 percent in 2007, about in line with asset growth. Retained earnings slipped to just 0.2 percent of assets, the lowest level since 1991. However, mergers and acquisitions boosted goodwill, leading to a rise in capital. In addition, parent holding companies injected about $40 billion into their commercial bank subsidiaries in 2007, mostly late in the year, to bolster capital positions in view of the pronounced deterioration in asset quality and the C&I-fueled expansion of loan portfolios. About 60 percent of the volume of transfers from parent holding companies was attributable to one large commercial bank.

Growth of regulatory capital generally slowed last year (figure 14). Tier 1 capital grew 7.1 percent. The gain of 9.7 percent in total regulatory capital reflected a 20 percent increase in tier 2 capital. The rise in tier 2 capital, in turn, was attributable in part to higher loan-loss reserves, as banks boosted provisioning in the second half of the year.[9] Risk-weighted assets expanded 10.8 percent, a rate in line with that for total assets. As a result, the industry's tier 1 and total capital ratios ended the year a bit lower than they were a year earlier. The regulatory leverage ratio, which is based on tier 1 capital and tangible average assets, also edged down.[10] Nevertheless, the share of assets at well-capitalized banks remained above 99 percent in 2007, although the average margin by which banks remained well capitalized slipped to 1.84 percent, at the lower end of the range over which it has fluctuated during the past decade (figure 15).[11]

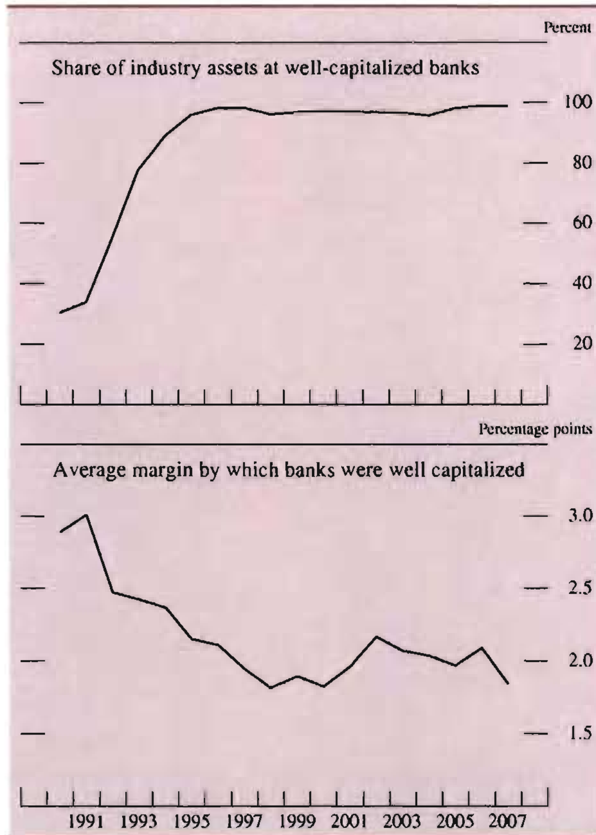
---

9. Tier 1 and tier 2 capital are regulatory measures. Tier 1 capital consists primarily of common equity (excluding intangible assets such as goodwill and excluding net unrealized gains on investment account securities classified as available for sale) and certain perpetual preferred stock. Tier 2 capital consists primarily of subordinated debt, preferred stock not included in tier 1 capital, and loan-loss reserves up to a cap of 1.25 percent of risk-weighted assets. Total regulatory capital is the sum of tier 1 and tier 2 capital. Risk-weighted assets are calculated by multiplying the amount of assets and the credit-equivalent amount of off-balance-sheet items (an estimate of the potential credit exposure posed by the items) by the risk weight for each category. The risk weights rise from 0 to 1 as the credit risk of the assets increases. The tier 1 ratio is the ratio of tier 1 capital to risk-weighted assets; the total ratio is the ratio of the sum of tier 1 and tier 2 capital to risk-weighted assets.

10. The leverage ratio is the ratio of tier 1 capital to average tangible assets. Tangible assets are equal to total average consolidated assets less assets excluded from common equity in the calculation of tier 1 capital.

11. Well-capitalized banks are those with a total risk-based capital ratio of 10 percent or greater, a tier 1 risk-based ratio of 6 percent or greater, a leverage ratio of 5 percent or greater, and a composite CAMELS rating of 1 or 2. Each letter in CAMELS stands for a key element of bank financial condition—Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risks. The estimated average margin by which banks were well capitalized was computed as follows: Among the leverage, tier 1, and total capital ratios of each well-capitalized bank, the institution's "tightest" capital ratio is defined as the one closest to the regulatory standard for being well capitalized. The bank's margin is then defined as the percentage

15. Assets and regulatory capital at well-capitalized banks, 1990–2007



NOTE: The data are annual. For the definitions of "well capitalized" and of the margin by which banks remain well capitalized, see text note 11.

Derivatives and Off-Balance-Sheet Items

The notional principal amount of derivative contracts held by banks rose 26 percent last year, to more than $160 trillion (table 2). Even though the notional value of derivative contracts grew at banks of all sizes, the share of industry contracts at the 10 largest banks has continued to edge higher and stood above 98 percent at the end of the year. The considerable concentration mostly reflects the role that some of the largest banks play as dealers in the derivatives markets. As dealers, these banks often enter into offsetting positions, which significantly boost the notional value of their derivative contracts. The fair market value of derivative contracts held by banks reflects the contracts' replacement cost and is far smaller than the notional principal amount. The fair market values of contracts with positive and negative values in 2007 were both about $1.9 trillion, representing increases of about 60 percent over the year.[12] The growth stemmed primarily from changes in the values of credit derivatives at large institutions.

One important way for banks to hedge interest rate risk, including that related to interest-sensitive assets such as mortgages and mortgage-backed securities, is through the use of interest rate swaps.[13] Those swaps are the most common type of derivative used by banks and account for about two-thirds of the notional value of banks' derivative contracts, although most of the swaps are held for trading and market-making purposes rather than for hedging. The notional value of interest rate swaps increased 27 percent in 2007, which is about the average pace over the past decade. Other types of interest rate derivative contracts employed by banks include futures, forwards, and options. The notional value of these other derivative contracts also expanded at a brisk rate last year. Despite the growth in interest rate derivative contracts, their share of total derivative contracts dropped 3 percentage points, to 78 percent.

One of the fastest growing components of banks' derivative portfolios in recent years has been credit derivatives. The notional value of such derivatives at banks jumped 76 percent in 2007, a rate of increase somewhat faster than that in 2006. Increasingly, banks are participating in the credit derivatives market by using credit default swaps written on loan contracts rather than on corporate bonds. Amid the financial turmoil in the second half of the year, the market prices of many credit derivative contracts changed so dramatically that their fair value more than doubled at many large banks. The concentration in this market was even more apparent than in other derivatives markets, as the 10 largest banks held more than 99 percent of the notional value of all the industry's credit derivative contracts at the end of 2007. As dealers, the 10 largest banks are beneficiaries of protection when they buy contracts and provid-

point difference between its tightest capital ratio and the corresponding regulatory standard. The average margin among all well-capitalized banks—the measure referred to in figure 15—is the weighted average of all the individual margins; the weights are each bank's share of the total assets of well-capitalized banks.

12. That the fair market values of banks' derivative contracts are nearly offsetting does not mean that banks' aggregate exposures to the market and credit risk associated with the contracts are likewise nearly offsetting because, for example, the counterparties to banks' positive- and negative-valued contracts may differ.

13. Interest rate swaps are agreements in which two parties contract to exchange two payment streams, one based on a floating interest rate and the other based on a fixed interest rate; the payment streams are calculated on the basis of the notional principal amount of the contract.

2. Change in notional value and fair value of derivatives, all U.S. banks, 2002–07

Percent

Item	2002	2003	2004	2005	2006	2007	MEMO Dec. 2007 (billions of dollars)
Total derivatives							
Notional amount	24.14	26.54	23.69	15.38	29.75	25.76	166,190
Fair value							
Positive	85.41	.36	13.71	-6.46	-4.50	57.78	1,902
Negative	89.18	1.00	13.75	-5.78	-4.27	56.63	1,869
Interest rate derivatives							
Notional amount	26.83	27.62	22.07	11.92	27.11	20.63	129,560
Fair value							
Positive	108.20	-5.95	13.14	-5.52	-14.55	42.22	1,194
Negative	113.02	-5.07	12.94	-5.15	-15.06	42.12	1,160
Exchange rate derivatives							
Notional amount	7.34	18.81	21.03	7.69	29.27	36.69	17,174
Fair value							
Positive	8.67	41.81	14.86	-35.84	22.86	44.38	260
Negative	15.73	38.81	12.74	-37.36	21.39	45.02	254
Credit derivatives							
Notional amount	52.47	55.98	134.52	148.09	54.93	75.87	15,863
Guarantor	38.57	61.82	139.07	137.87	67.69	73.99	7,823
Beneficiary	66.36	51.13	130.46	157.53	44.03	77.74	8,040
Fair value							
Guarantor	n.a.	68.31	69.92	81.43	92.96	295.25	274
Positive	n.a.	378.09	74.56	-5.62	201.40	-38.79	31
Negative	n.a.	-68.87	38.37	827.98	-1.59	1,187.41	243
Beneficiary	n.a.	19.85	51.28	83.50	90.26	301.20	312
Positive	n.a.	-63.13	2.64	505.51	3.98	1,086.95	267
Negative	n.a.	295.74	66.36	2.79	187.44	-18.95	45
Other derivatives[1]							
Notional amount	6.70	3.77	32.66	29.43	75.17	13.60	3,593
Fair value							
Positive	20.28	3.16	8.55	58.51	18.99	32.76	150
Negative	24.62	-5.25	19.73	74.29	24.15	30.67	167

NOTE: Data are from year-end to year-end and are as of April 16, 2008.

1. Other derivatives consist of equity and commodity derivatives and other contracts.

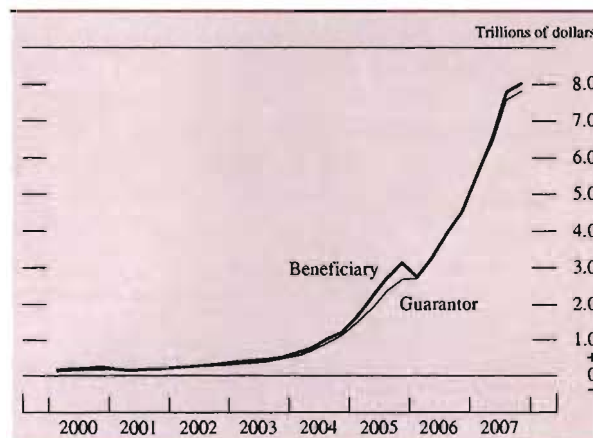
n.a. Not available.

ers of protection (guarantors) when they sell. Banks are typically net beneficiaries of protection; as of year-end, contracts in which banks were beneficiaries of protection totaled $8.0 trillion, and contracts in which they were guarantors totaled $7.8 trillion (figure 16).

Banks also use derivatives related to foreign exchange, equities, and commodities. Collectively, however, those instruments account for only 13.6 percent of the notional value of the derivative contracts held by banks. The notional value of banks' foreign-exchange-related contracts grew 37 percent in 2007, considerably faster than in previous years. Bank customers likely increased their hedging activity in light of sharp exchange rate movements last year. Banks' notional holdings of equity and commodity derivatives rose 14 percent in 2007.

Unused commitments at commercial banks grew slightly more slowly than assets in 2007. Lines of credit secured by one- to four-family residential properties grew just 5.8 percent amid the deterioration in the housing market, and commitments to fund CRE loans were flat. Credit card lines increased about 10 percent, and letters of credit rose about 8 percent. The category "other unused commitments," which consists primarily of lines to businesses, grew 11 percent over the year as a whole but contracted in the fourth quarter.

16. Notional amounts of credit derivatives for which banks were beneficiaries or guarantors, 2000–07



NOTE: The data are quarterly.

Trends in Profitability

After many years of high earnings, the commercial banking industry posted significantly lower profits in 2007. Industrywide net income contracted more than 20 percent, primarily because of a sharp drop in trading revenue and much higher provisions for loan losses in response to deterioration in asset quality. Return on equity (ROE) for the full year fell to less than 10 percent from more than 13 percent in recent years. Banks' return on assets (ROA) also declined markedly last year, to less than 1 percent, its lowest level since the early 1990s. The sector's profitability—which had weakened somewhat in the first half of the year—dropped sharply in the second half. In the fourth quarter, ROE tumbled to around 4 percent and ROA to 0.4 percent.

The decrease in profitability was most pronounced among the largest commercial banks, but ROA and ROE decreased considerably for all bank-size groups. In the fourth quarter, some of the largest commercial banks posted substantial losses that reportedly resulted mainly from write-downs of the value of mortgage-related assets and other structured investment products; however, almost all of those banks remained profitable for the year as a whole.[14] Overall, the fraction of banks that incurred losses in 2007 increased notably, to about 10 percent, and those institutions accounted for about 3 percent of industry assets, the highest share since 2000.

Net interest margins of commercial banks slipped further in 2007. Over the first half of the year, spreads reportedly were compressed by price competition in business and mortgage lending. With financial markets and institutions under pressure in the second half of the year, interest rate spreads over market reference rates on many types of bank loans widened. Banks were unable to benefit fully from those developments because spreads on many types of bank funding, especially term funding in wholesale markets, increased well above their levels in recent years. The unexpected growth of their balance sheets in the second half of 2007 also forced banks to rely more heavily on managed liabilities and small time deposits, sources of funds that tend to have higher average interest rates than liquid deposits.

A decline in non-interest income for the year—the first such dip in at least 40 years—contributed importantly to the lower profitability of banks in 2007. Non-interest income was 2.1 percent of average total assets last year, the lowest share since 1995. Large banks experienced a substantial decline in revenue from trading and loan sales, whereas smaller banks registered slower growth in other types of non-interest income. Non-interest expense grew rapidly again in 2007, and the increase was spread across a range of categories.

Profits in 2007 were also significantly reduced by a surge in loss provisions stemming from a slump in asset quality. Amid falling house prices and a slowing economy, the delinquency rate on residential mortgages held by banks climbed to about 3 percent at year-end, its highest rate in more than a decade. The delinquency rate on CRE loans doubled to 2.7 percent at year-end. That jump primarily reflected surging delinquencies on construction and land development loans, particularly those used to finance residential projects. Banks also recorded smaller but still noticeable increases in delinquency rates on consumer and C&I loans. Charge-off rates, which had been very low in each of the past several years, moved up along with delinquencies.

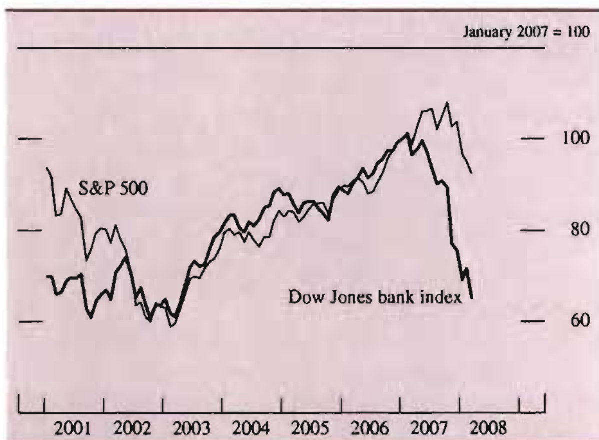
Despite the steep drop in profits, banks still increased dividends in 2007 after having raised them more than 25 percent in 2006. As a result, dividends absorbed much of last year's profits, and retained earnings contributed relatively little to capital. The erosion in profits as well as investors' concerns about banks' exposures to structured investment products, leveraged loans, and subprime mortgages precipitated a sharp decline in bank stock prices, which considerably underperformed the S&P 500 last year (figure 17). Similarly, premiums on credit default swaps on banks' subordinated debt widened sharply (figure 18).

Interest Income and Expense

After increasing throughout 2006, the average interest rates earned on assets and paid on liabilities peaked around the beginning of 2007. Average interest rates on many of banks' assets and liabilities decreased late in the year, in part owing to the decline in market interest rates as the Federal Reserve eased the stance of monetary policy. However, this decline only partly reversed the run-up in 2006, and, as a result, average effective interest rates on banks' assets and liabilities were somewhat higher in 2007 than in 2006. The average interest rate earned increased somewhat less than the average rate paid, and the industrywide net

14. It is worth emphasizing that the analysis in this article is based on the Call Reports for commercial banks. For a commercial bank that is a subsidiary of a bank holding company or a financial holding company, the Call Report does not include the assets, income, or expenses of the other subsidiaries of the larger organization, including nonbank subsidiaries. Thus, the profits of the commercial banks that are subsidiaries of a larger banking organization may differ substantially from the profits of the consolidated institution.

17. Stock price indexes, 2001–08



NOTE: The data are monthly and extend through March 2008.
SOURCE: Standard & Poor's and Dow Jones.

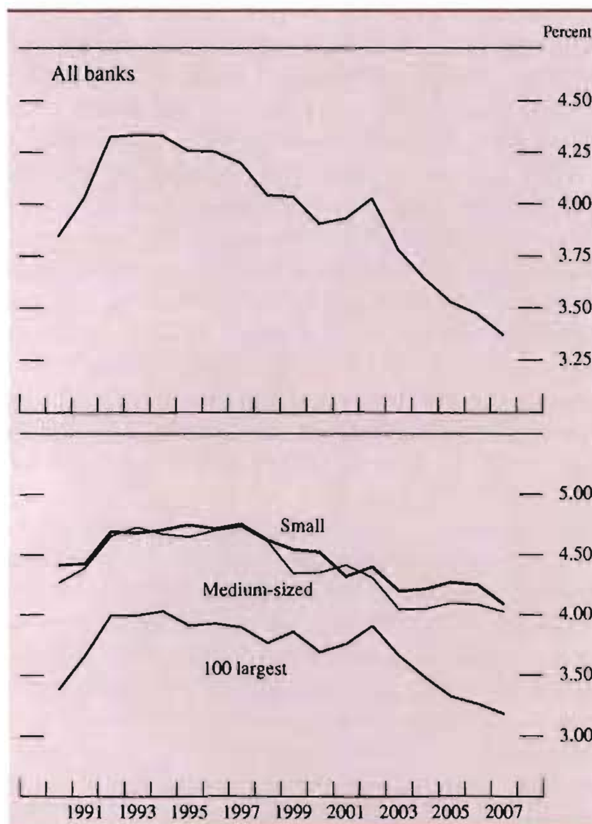
interest margin declined 11 basis points in 2007, to 3.36 percent (figure 19). The decline represented a continuation of the longer-term downward trend in net interest margins evident since the mid-1990s.

Particularly over the second half of the year, banks took steps that could help stem the decline in net interest margins. According to the BLPS for October 2007 and for January 2008, banks charged wider spreads on C&I loans relative to their cost of funds in the second half of last year—the first such increases in several years (figure 20). Similarly, about half the banks responding to a question in the January 2008 survey reported having increased spreads on CRE loans over the course of 2007 after they had reported narrowing spreads on such loans in 2006. Banks also reported that, on net, they widened spreads on consumer loans during 2007.

18. Premium on credit default swaps on subordinated debt at selected banking institutions, 2002–08

NOTE: The data are weekly and extend through March 2008. Median spread of all available quotes.
SOURCE: Markit.

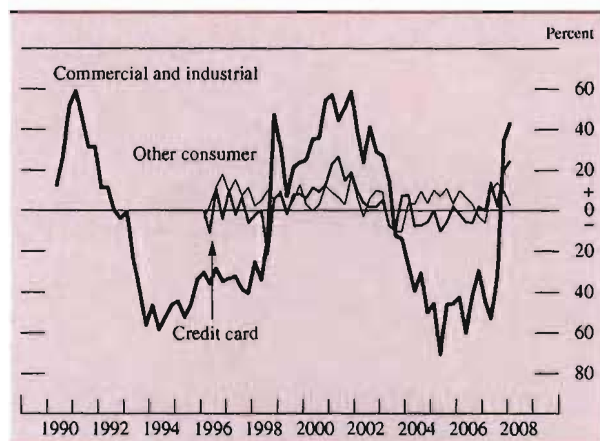
19. Net interest margin, by size of bank, 1990–2007



NOTE: The data are annual. Net interest margin is net interest income divided by average interest-earning assets. For the definition of bank size, see the general note on the first page of the main text.

The average interest rate on bank assets in 2007 increased 13 basis points, to 6.78 percent. The rise mostly reflected higher average rates on trading account securities and on federal funds sold and reverse repurchase agreements. The measured returns for the latter category were boosted by elevated spreads in bank funding markets during the second half of the year. The average interest rate earned on loans and leases was little changed relative to 2006. After increasing throughout 2006, the average interest rate earned by banks on business loans held steady over much of 2007—at about the level that prevailed in the second half of 2006—and then decreased some late in the year. The November 2007 Survey of Terms of Business Lending, which measures the interest rate on new loan originations at a broad sample of banks, indicates that interest rates on new business loans fell significantly relative to earlier in the year. According to the survey, a majority of C&I loans have variable interest rates and are made under the terms of previously negotiated commitments; thus, their interest rates declined along with comparable-maturity market interest rates, and spreads on such loans remained

20. Net percentage of selected domestic banks reporting increased spreads of rates on various types of loans over cost of funds, 1990–2008



NOTE: The data are drawn from a survey generally conducted four times per year; the last observation is from the January 2008 survey, which covers 2007:Q4. Net percentage is the percentage of banks reporting an increase in spreads less the percentage reporting a decrease.

SOURCE: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices (www.federalreserve.gov/boarddocs/snloansurvey).

quite low in the November survey. The average interest rate earned on consumer loans rose somewhat in 2007, to 10.2 percent. In contrast, the average effective interest rate on real estate loans declined during 2007 to a little less than 7 percent at year-end, a decrease that partly reflected the effects of lower market interest rates on the portion of banks' real estate portfolios that has variable interest rates.

Banks' increased reliance on managed liabilities, which generally pay higher interest rates than other funding instruments, contributed to a 23 basis point increase in the average interest rate paid on liabilities in 2007, to 3.82 percent. For 2007 as a whole, the interest rate on managed liabilities averaged 4.8 percent, a little higher than in 2006. Realized interest rates on the category called "other borrowed money," which includes FHLB advances, declined appreciably in 2007. In contrast, interest rates on large time deposits and on federal funds and repurchase agreements rose significantly between 2006 and 2007. Although the average effective interest rates paid by banks on those instruments moved down some late in the year as the Federal Open Market Committee eased policy, the spreads of those rates over various short-term market interest rates jumped in the third and fourth quarters of 2007 to fairly high levels.

After a large advance in 2006, average effective interest rates paid on core deposits increased somewhat further in 2007, to 2.81 percent. The increase reflected both higher rates paid on each type of deposit as well as the rapid growth of small time deposits, which, as noted earlier, generally pay higher interest rates than liquid deposits. The rate on savings deposits (including money market deposit accounts) averaged 2.22 percent last year, somewhat higher than in 2006. The average interest rate on small time deposits increased significantly to 4.72 percent in 2007, and it remained elevated at the end of the year even though interest rates on other money market instruments declined. Banks, particularly those experiencing unplanned expansions of their balance sheets or those leery of volatility in interbank funding markets, likely kept rates on small time deposits relatively high—and, as noted earlier, boosted spreads on large time deposits—to attract depositors.[15]

The downward pressure on banks' net interest margins last year was exacerbated by a decline in the share of bank assets funded by non-interest-bearing liabilities and capital.[16] Because these instruments, by definition, have no explicit interest expense, the returns on the interest-earning assets that they fund help support banks' net interest margins.

Non-interest Income and Expense

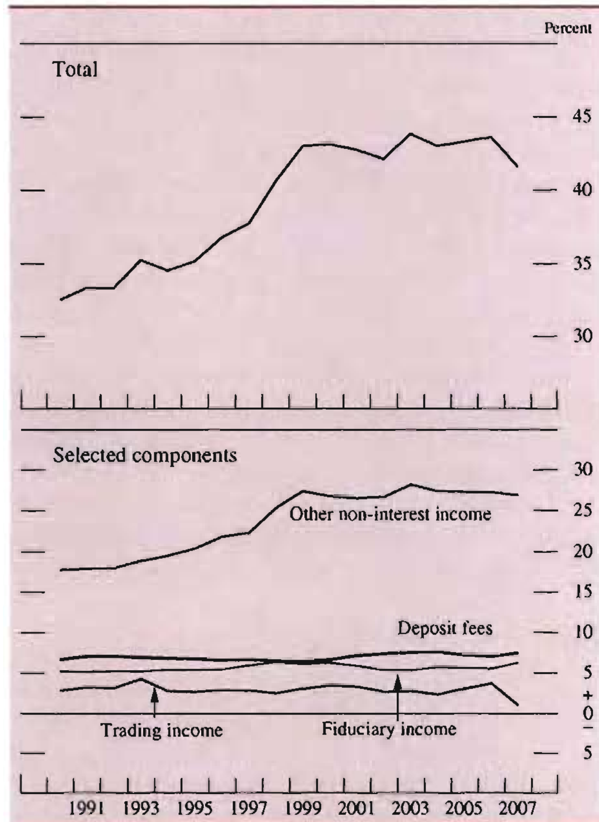
Total non-interest income dipped in 2007, marking the first time in at least 40 years that non-interest income contracted on an annual basis. As a result, total revenue of commercial banks, defined as net interest income plus non-interest income, edged up only 3.4 percent. The share of total revenue from non-interest income dropped to 42 percent, its lowest level since 1998 (figure 21). Non-interest expense grew at a faster clip in 2007 than it had in 2006, and it increased as a share of revenue to the upper end of its recent range.

In recent years, the growth of non-interest income has been concentrated among the largest banks, while smaller banks have seen this revenue source stagnate or decline. In 2007, non-interest income dropped at the largest banks and was flat to lower in most other bank-size categories. The softness in non-interest income at the largest banks last year primarily reflected steep declines in trading revenue at a few of those institutions. Banks reported almost $10 billion in net losses on the trading of credit

15. The average interest rate paid on time deposits may adjust slowly to changes in market interest rates because time deposit rates are usually fixed for the duration of the instrument. However, about 30 percent of small time deposits, and more than 50 percent of large time deposits, issued by banks had a remaining maturity of three months or less as of midyear 2007. Thus, the rates on a significant fraction of those deposits would have reset before the fourth quarter.

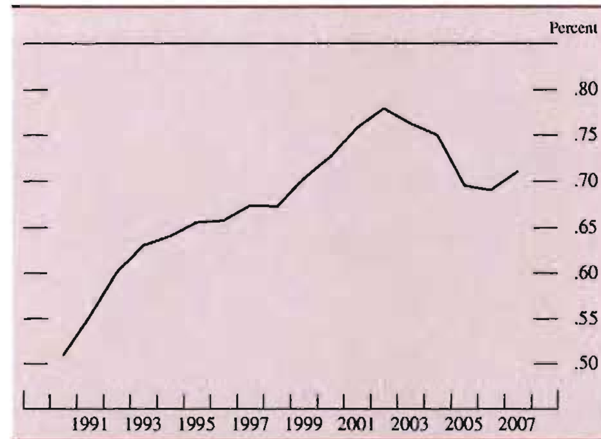
16. For more information, see box "The Role of Non-Interest-Bearing Instruments in the Net Interest Margin," in Mark Carlson and Roberto Perli (2004), "Profits and Balance Sheet Developments at U.S. Commercial Banks in 2003," *Federal Reserve Bulletin*, vol. 90 (Spring), p. 173.

21. Non-interest income and selected components as a proportion of revenue, 1990–2007



NOTE: The data are annual. Revenue is calculated as the sum of non-interest income and net interest income.

22. Income from deposit fees as a proportion of total domestic deposits, 1990–2007



NOTE: The data are annual.

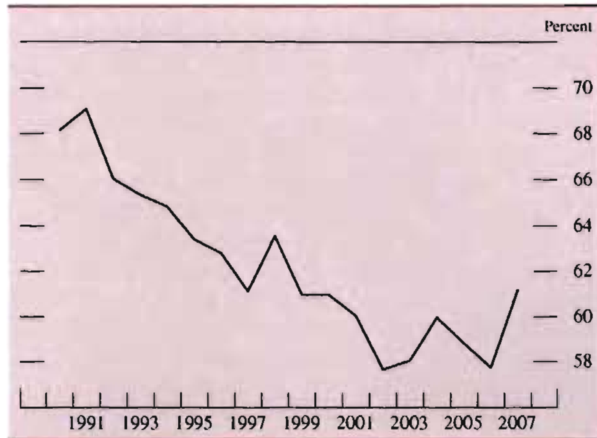
exposures last year, which likely included some of the substantial write-downs of mortgage-related structured products as well as losses on collateralized debt obligations and credit derivatives associated with syndicated leveraged loans. Income from the trading of equity exposures also dropped considerably in the second half of the year, and trading revenue generated by other products—interest rate, foreign exchange, and commodities—weakened as well. In addition, several of the largest banks experienced losses or a steep drop in income from the sale of loans that were not held in their trading accounts, particularly in the second half of the year.

However, the difficulties were partly offset by strong growth in other categories of non-interest income at large banks. Revenue from investment banking services increased as banks profited from their role in financing robust M&A activity over much of 2007 and also benefited from high trading volumes, spurred by market volatility, in their wealth-management businesses. In a related area, several large institutions experienced jumps in income from fiduciary activities. Fees collected on deposit accounts also advanced briskly, outstripping the muted growth in deposits (figure 22).

The weakness in non-interest income at smaller banks was widespread across many business lines. Revenue from securitization activities and from loan-servicing operations declined, a development probably related, in part, to the problems in the residential mortgage markets. Income from subsidiaries and other affiliates also dropped considerably at some smaller banks; the decrease may have stemmed to some degree from reduced contributions from mortgage banking arms.

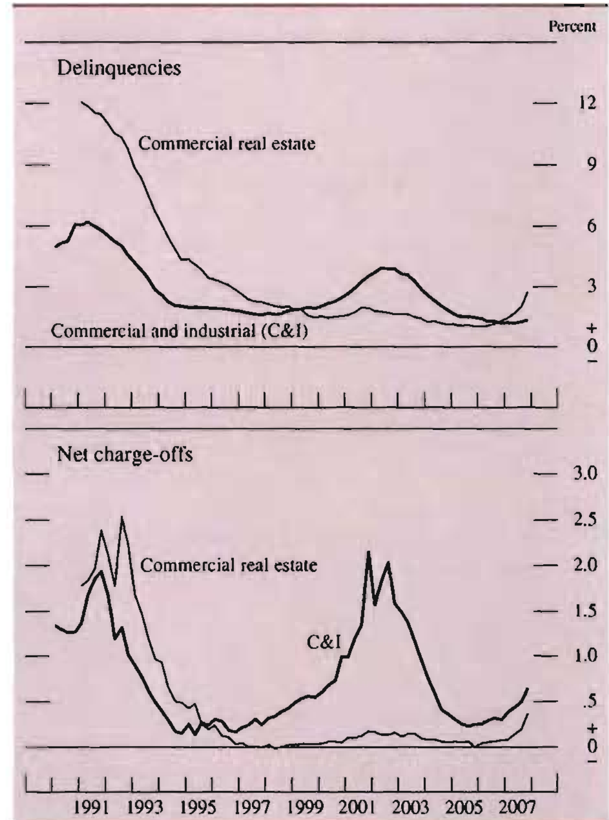
Non-interest expense rose 9 percent in 2007, somewhat faster than in 2006. That increase, combined with the sluggish growth in revenue, pushed non-interest expense to about 61 percent of total revenue, the top end of the range over the past 10 years (figure 23). Growth of employee compensation, which accounts for about 45 percent of non-interest expense, slowed in 2007. The easing in that category reflected both a reduced pace of net hiring as well as a slowdown in the growth of compensation per employee. The cost of premises and fixed assets rose modestly in 2007, about in line with recent annual increases. Other non-interest expense, which accounts for more than 40 percent of total non-interest expense, increased more than 10 percent last year. The category includes various intercompany transactions, such as payments to affiliates and to parent holding companies, which appear to have increased notably in 2007; it also includes expenses related to restructuring or mergers and the cost of amortization of goodwill and other intangible assets. The total of restructuring costs and amortization of intangible assets accounted for about 15 percent of the increase in non-interest expense.

23. Non-interest expense as a proportion of revenue, 1990–2007



NOTE: The data are annual.

24. Delinquency and charge-off rates for loans to businesses, by type of loan, 1990–2007



NOTE: The data are quarterly and seasonally adjusted; the data for commercial real estate begin in 1991. Delinquent loans are loans that are not accruing interest and those that are accruing interest but are more than 30 days past due. The delinquency rate is the end-of-period level of delinquent loans divided by the end-of-period level of outstanding loans. The net charge-off rate is the annualized amount of charge-offs over the period, net of recoveries, divided by the average level of outstanding loans over the period. For the computation of these rates, commercial real estate loans exclude loans not secured by real estate (see table 1, note 2).

Loan Performance and Loss Provisioning

Credit quality declined across all types of loans in 2007, and the overall delinquency rate at commercial banks rose to about 2.5 percent of total loans and leases at year-end, its highest level since early 2003. The aggregate charge-off rate also moved up, reaching an annual rate of 0.72 percent in the fourth quarter, but for the year as a whole it was only a little more than half its recent peak in 2002. The most significant deterioration occurred in banks' residential and commercial real estate portfolios; delinquencies and charge-offs on real estate loans rose to their highest levels in more than a decade. The erosion in the credit quality of real estate loans was somewhat concentrated within geographic areas that were experiencing below-average economic growth or declines in residential home prices (see box "Geographic Distribution of Delinquency Rates on Selected Loans Held by Small Banks"). Charge-offs and delinquencies on consumer loans also moved higher during 2007. The credit quality of C&I loans remained fairly strong but showed signs of slipping late in the year. The significant rise in nonperforming loans and the generally weaker economic outlook led banks to substantially boost loss provisioning in 2007.

C&I Loans

The delinquency rate on C&I loans edged up over the second half of 2007, but it remained at a low level (figure 24). The relatively strong performance of C&I loans throughout the year likely reflected continued strength in nonfinancial corporate profits and generally healthy corporate balance sheets; the interest-payment ratio for nonfinancial corporations remained quite modest last year (figure 25). The default rate on corporate bonds also stayed low. Moreover, the rapid growth in C&I loans may have reduced delinquency rates temporarily because loans are presumably less likely to become delinquent soon after they are extended. Charge-offs of C&I loans picked up a fair bit in 2007, and in the fourth quarter they were about at their long-run average level. The rise in charge-offs mostly reflected deterioration among the portfolios of the largest banks. Respondents to the January 2008 BLPS expected the credit quality of C&I loans to weaken this year.

Commercial Real Estate Loans

The rate of delinquency on CRE loans doubled in 2007, mostly because of a deterioration in the credit quality of construction and land development loans. In line with the problems in the housing sector, the

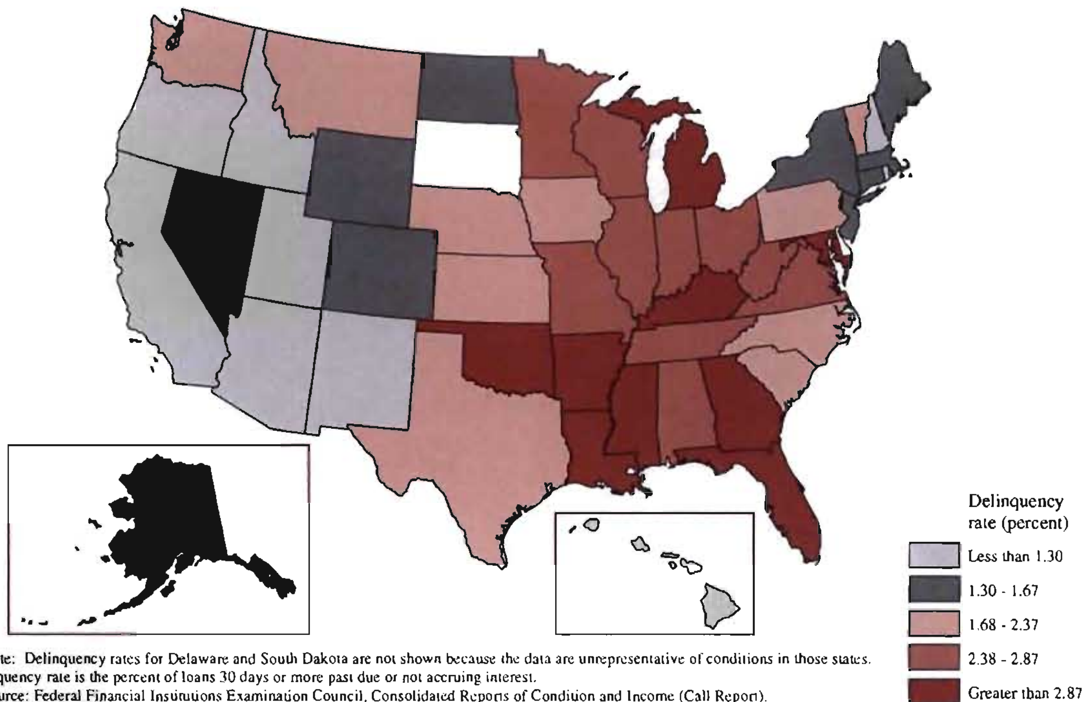
Geographic Distribution of Delinquency Rates on Selected Loans Held by Small Banks

The geographic distribution of delinquency rates in national data on single-family mortgages has attracted considerable attention. This box analyzes, as of the end of 2007, the geographic distribution of delinquency rates at small banks for loan categories that experienced noticeable deterioration last year: residential real estate loans, construction and land development loans, and consumer loans. The analysis covers commercial banks with less than $2 billion in total assets: Because these banks likely extended the loans held on their balance sheets to businesses and households that are in relatively close proximity to their head offices, the location of a head office is a reasonably good proxy for loan location. Banks of that size held about 10 percent of the industry's residential mortgages and about 12 percent of consumer loans at the end of 2007. However, they held about one-third of all construction and land development loans.

The state-specific average delinquency rates on residential mortgages held by smaller commercial banks were generally highest in areas where economic growth had lagged the national average or where home prices had declined after several years of rapid increases (figure A). At the end of 2007, residential mortgage quality at small commercial banks with headquarters in Michigan or other states in the Great Lakes region was poor relative to that in other states. Delinquency rates on residential mortgages at small banks were also higher than average in Florida and many other states in the Southeast region. Many of those areas also experienced the largest increases in small-bank delinquency rates between year-end 2006 and the end of 2007. Those geographic patterns in small-bank delinquency rates were broadly similar to those for individual mortgage loans detailed in other sources.[1] However, smaller banks with headquarters in California or other western states had low delinquency rates at the end of 2007 relative to such rates at smaller banks in other states, even though data for individual mortgage loans show significant rates of impairment in some of those western states. The divergence between individual delinquency rates and small-bank delinquency rates may reflect, in part, a decision by smaller banks in those states not to compete vigorously in the local residential mortgage markets during the housing boom. Indeed, smaller banks in those states had a relatively low concentration of residential mortgages on their books at the end of 2007, and several major thrifts and large banks that specialize in residential mortgages have headquarters in those areas.

1. For illustrations of a variety of mortgage loan conditions across the United States, see the set of dynamic maps and data provided by the Federal Reserve Bank of New York (www.newyorkfed.org/mortgagemaps); or Ben S. Bernanke (2008), "Mortgage Delinquencies and Foreclosures," speech delivered at the Columbia Business School's 32nd annual dinner, New York, May 5, www.federalreserve.gov/newsevents/speech/Bernanke20080505a.htm.

A. Delinquency rates on mortgages for one- to four-family homes, by state, December 31, 2007



Note: Delinquency rates for Delaware and South Dakota are not shown because the data are unrepresentative of conditions in those states. Delinquency rate is the percent of loans 30 days or more past due or not accruing interest.

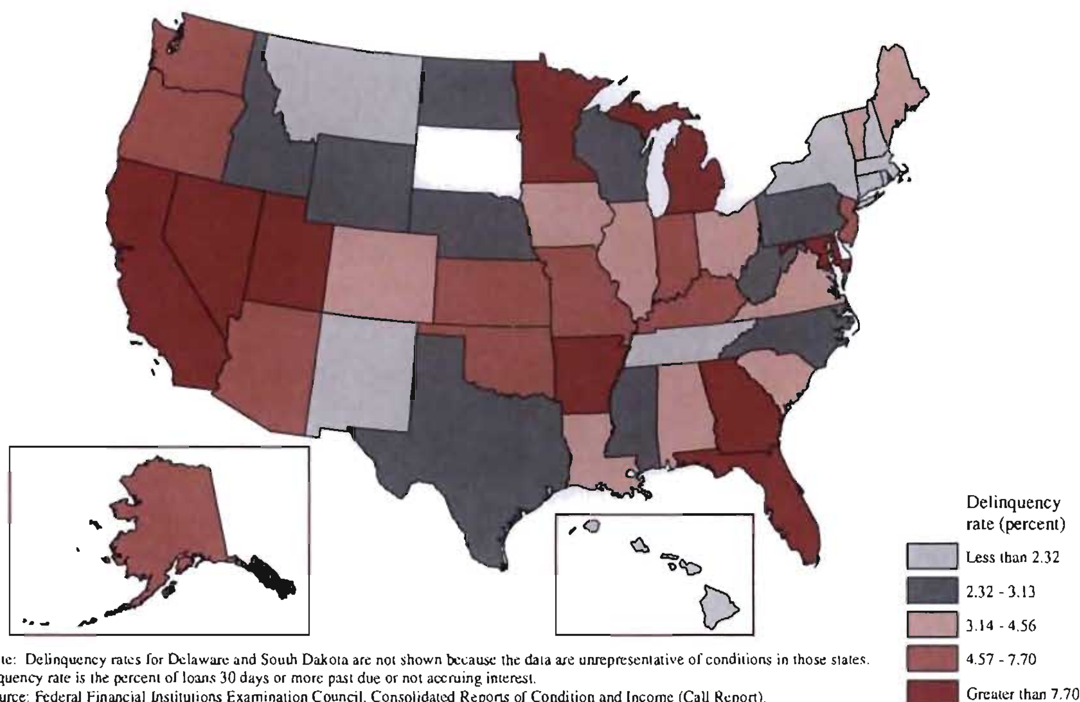
Source: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

Not surprisingly, the geographic distribution of state-specific average delinquency rates on residential construction and land development loans held by small banks is broadly similar to the distribution of such rates on troubled residential loans (figure B). Residential developers were probably affected most heavily in areas where housing markets were weakest, leaving them with high inventories of unsold homes and reduced revenues from the homes they did sell. For instance, high delinquency rates at small banks in the Midwest, Florida, and Georgia are common to both residential mortgages and residential construction loans. The overall state-level correlation between the small-bank delinquency rate on residential mortgages and that on residential construction loans was 0.54 at the end of 2007. The two geographic distributions differ notably in the western states, however. For example, smaller banks in California, Nevada, and Arizona have very high delinquency rates on residential construction loans but very low delinquency rates on residential mortgages. In contrast to the relatively low concentration of residential mortgages on the books of small banks in those states, the concentrations of residential construction loans held by such banks are generally higher than the average concentration of such loans at small banks across the country.

The relationship between the state-specific delinquency rate on other types of construction and land development loans (not shown) and that on residential construction loans is also fairly strong, with a correlation of 0.37 at the end of 2007. Such a relationship might be expected if returns on some projects financed by nonresidential construction and land development loans at small banks depended, in part, on the anticipated population growth reflected in residential construction and land development loans (for example, loans to finance the construction of retail establishments).

Households that have difficulty paying a mortgage may also have difficulty making timely payments on consumer loans. Indeed, earlier this decade, the correlation between the state-specific delinquency rates on those two types of loans was very high—an average of 0.77 between 2002 and 2005. The deterioration in the housing sector and tighter mortgage credit standards could also impair the credit quality of consumer loans if those developments reduce the ability of consumers to use equity from their homes to finance consumer spending or to pay off existing consumer loans. Nonetheless, the correlation between the state-specific delinquency rate on consumer loans (other than credit card loans) held by small banks and that on residential mortgages at those institutions dipped to 0.67 in 2006 and to 0.42 in 2007. The relative decoupling of delinquency rates on mortgage and consumer loans over the past two years may partly stem from differences in some states between the condition of the housing sector and that of the broader state economy. In addition, the changes in bankruptcy law enacted in 2005 may have temporarily depressed delinquency rates on consumer loans in 2006 and, likely to a lesser extent, in 2007, which may also have weakened the correlation.

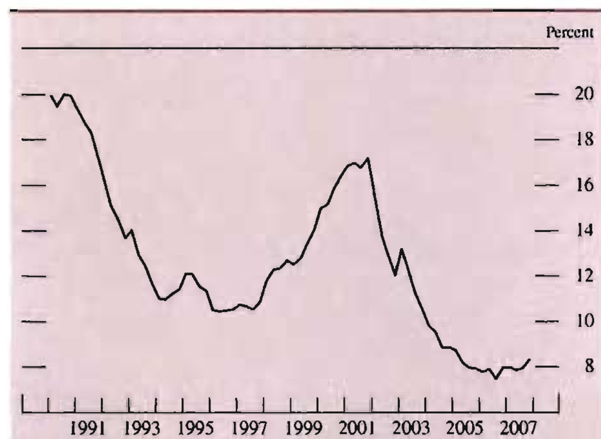
B. Delinquency rates on loans for residential construction and land development, by state, December 31, 2007



Note: Delinquency rates for Delaware and South Dakota are not shown because the data are unrepresentative of conditions in those states. Delinquency rate is the percent of loans 30 days or more past due or not accruing interest.

Source: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

25. Interest-payment ratio for nonfinancial corporations, 1990–2007



NOTE: The data are quarterly. The interest-payment ratio is calculated as interest payments as a percentage of cash flow.
SOURCE: National income and product accounts and Federal Reserve Board.

delinquency rate on construction and land development loans that financed residential development nearly tripled between the first and fourth quarters of 2007, to 7.3 percent at year-end (figure 26). Moreover, the majority of the increase in this delinquency rate was attributable to loans put on non-accrual status, which means that the banks perceive a very low probability that the borrowers will resume making payments. Charge-off rates on those loans also rose considerably, from near zero in the first quarter to more than 1 percent at an annual rate in the fourth quarter of 2007. Other (nonresidential) construction and land development loans experienced marked increases in delinquency and charge-off rates as well, but the run-ups were somewhat less steep than in the residential construction sector.

The credit quality of other types of CRE loans also worsened in 2007, particularly that of loans for multifamily residential properties. The delinquency and charge-off rates on loans backed by nonfarm nonresidential properties (for example, office buildings) edged up but stayed within the very low ranges that have prevailed over the past decade. In part, the sustained strong performance in this sector reflected fundamentals—such as vacancy rates, rents, and prices—that remained solid through most of 2007. Nonetheless, by the end of the year, some of those fundamentals had begun to show signs of erosion: Vacancy rates edged up, rent growth slowed, and indicators of CRE prices slipped. The number of sales of commercial properties also slumped.

26. Delinquency and charge-off rates for construction and land development loans, by type of loan, 2007

NOTE: For definitions of delinquencies and net charge-offs, see the note for figure 24.

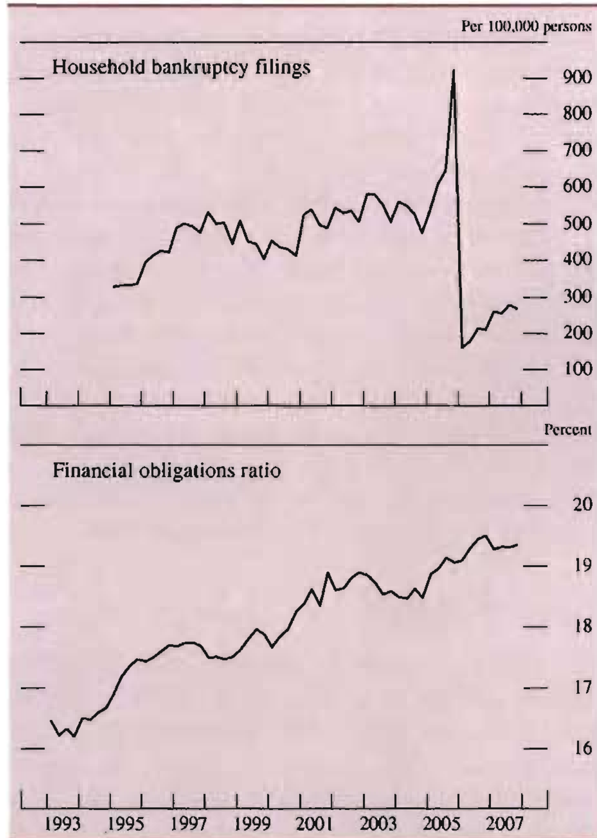
Loans to Households

The credit quality of household loans weakened, on balance, in 2007, primarily because of a sharp increase in delinquencies and foreclosures on residential mortgages. The performance of credit card and other consumer loans also deteriorated. Household bankruptcy filings remained low relative to the levels seen before the changes in bankruptcy law implemented in late 2005, but the bankruptcy rate moved up a fair bit in 2007 (figure 27). The household financial obligations ratio remained near its record high reached in 2006, as slower growth in household debt last year was offset by a deceleration in disposable personal income.

Residential Real Estate Loans

Credit quality in the residential mortgage sector worsened sharply in 2007. The deterioration was partly rooted in the easing of underwriting standards around

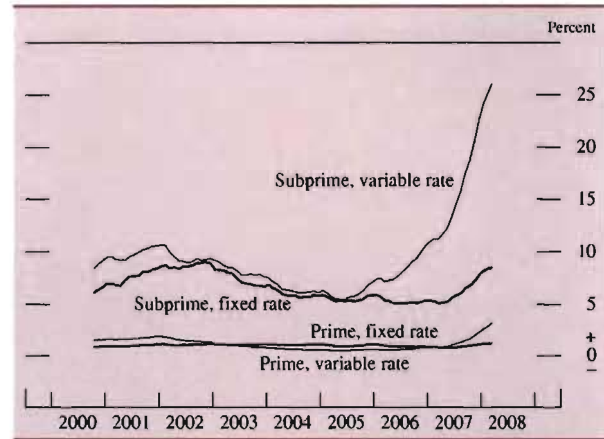
27. Indicators of household financial stress, 1993-2007



NOTE: The data are quarterly. The series shown for bankruptcy filings begins in 1995:Q1 and is seasonally adjusted. The financial obligations ratio is an estimate of debt payments and recurring obligations as a percentage of disposable personal income; debt payments and recurring obligations consist of required payments on outstanding mortgage debt, consumer debt, auto leases, rent, homeowner's insurance, and property taxes.

SOURCE: For bankruptcy filings, staff calculations based on data from Lundquist Consulting; for financial obligations ratio, Federal Reserve Board (www.federalreserve.gov/releases/housedebt).

28. Rate of serious delinquency on residential mortgages, by type of mortgage and type of interest rate, 2000–08



NOTE: The data are monthly and extend through March 2008. Seriously delinquent loans are 90 days or more past due or in foreclosure. The data are representative of all residential mortgages, not just those held by commercial banks.

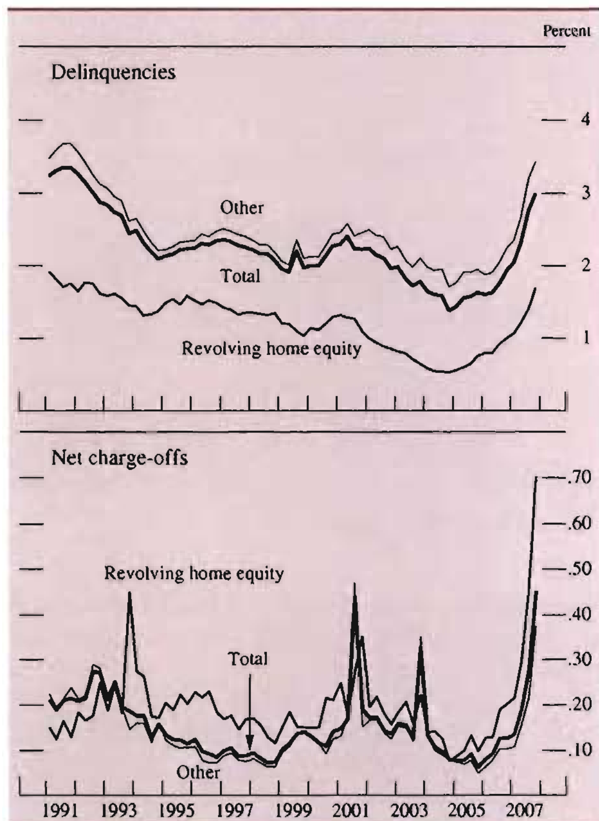
SOURCE: First American LoanPerformance.

the middle of the decade—a shift in lending posture that was likely based to an extent on the assumption that house prices would continue to rise for some time to come. The easing of credit standards on mortgages reportedly was more pronounced at nonbank financial institutions than at commercial banks, in part because of different levels of regulation in those sectors. A historically large fraction of the loans originated in 2005 and 2006, particularly those to borrowers with weaker credit histories (subprime loans), had high loan-to-value ratios. Many subprime loans also had discounted introductory interest rates, which exposed borrowers to the potential for significantly higher mortgage payments after the initial rates on the loans reset, typically two to three years after origination.

House prices generally decelerated in 2006, and in 2007 they declined in some areas of the country; consequently, many borrowers with high loan-to-value ratios were unable to build equity in their homes, making refinancing difficult. Moreover, large fractions of commercial banks tightened credit standards on residential mortgages in 2007—not only on subprime and nontraditional mortgages but also on loans to prime borrowers—which further impaired the ability of borrowers to refinance existing mortgages. Reflecting these developments, national data on variable-rate mortgage loans show that delinquency rates on such loans increased more than those on fixed-rate loans, especially for lower-rated borrowers (figure 28). All told, the delinquency rate on variable-rate subprime mortgages jumped to more than 20 percent in December of last year and has increased further in 2008.

At commercial banks, delinquencies on residential real estate loans were around 3 percent by the end of 2007, their highest rate since the early 1990s and more than double their recent low posted in the fourth quarter of 2004 (figure 29). Charge-offs had increased to 0.44 percent at an annual rate in the fourth quarter of 2007, equal to the highest rate recorded since 1990. Delinquency and charge-off rates rose across all types of mortgage products and all bank sizes. Delinquency rates on closed-end one- to four-family mortgage loans and on revolving home equity loans rose substantially—to 3.6 percent on the closed-end mortgages (including both first and junior liens) and 1.7 percent on the revolving loans. Charge-off rates in the fourth quarter on closed-end mortgages quadrupled from the year-earlier quarter to 0.36 percent, and those on revolving loans rose from 0.19 percent at year-end 2006 to 0.69 percent in the fourth quarter of 2007. The delinquency rate on closed-end mort-

29. Delinquency and charge-off rates for residential real estate loans at commercial banks, by type of loan, 1991–2007



NOTE: The data are quarterly and seasonally adjusted. For definitions of delinquencies and net charge-offs, see the note for figure 24.

gages rose most sharply at the 100 largest banks—advancing about 1.5 percentage points, to 3.8 percent—but it also moved up 0.7 percentage points at smaller banks, to about 2.5 percent; the rise in charge-off rates was also somewhat greater at larger banks than at smaller banks.

The sharp increase in mortgage loan delinquencies and foreclosures over the past year—particularly for subprime borrowers—has created distress for many homeowners and communities. The Federal Reserve has taken a number of actions intended to help distressed subprime borrowers and limit preventable foreclosures, as well as other actions aimed at reducing the likelihood of such problems in the future.[17] Moreover, avoiding foreclosure—even if it involves granting concessions to the borrower—can be an important loss-mitigation strategy for financial institutions. Most commercial banks responding to the January 2008 BLPS indicated that loan modifications based on individual borrowers' circumstances were an important part of their loss-mitigation strategies; many banks were also willing to refinance loans for some troubled borrowers. However, loans are often packaged and sold in securitized pools owned by a dispersed group of investors, which makes the task of coordinating renegotiation to avoid foreclosure among all affected parties difficult. In part to address the challenges in modifying securitized loans, a diverse group of mortgage market participants joined in a collaborative effort called the Hope Now Alliance to facilitate cross-industry solutions to the problem.[18] About one-third of respondents to the January 2008 BLPS said that streamlined modifications such as those proposed by the Hope Now Alliance were important to their strategies for limiting losses.

Consumer Loans

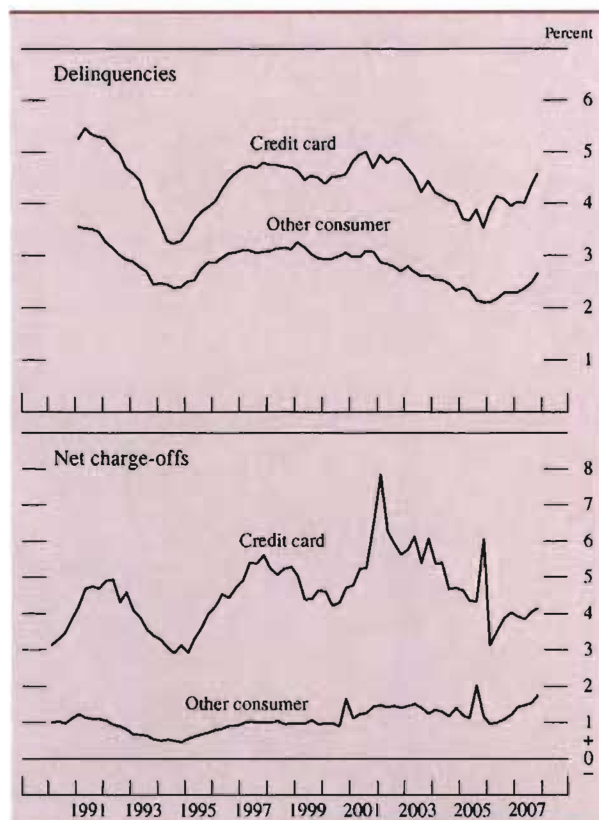
The delinquency rate on credit card loans held by banks rose a fair bit in 2007, especially in the second half of the year (figure 30). The charge-off rate on such loans fluctuated around 4 percent last year, a relatively low level compared with the rates that prevailed before the change in bankruptcy laws in 2005.[19] The delinquency rate on other (non-credit-card) consumer loans also rose moderately but still remained around the midpoint of its range over the past 15 years. Charge-off rates on those loans climbed from about 1 percent in 2006 to 1.6 percent for 2007 as a whole, a considerable increase that brought the annual rate to its highest level in at least two decades. The weakening in the credit quality of consumer loans may have reflected, in part, the pressures on households generated by troubles in the residential mortgage sector and the slower pace of economic growth late in the year. Respondents to the BLPS expected further declines in the credit quality of both credit card and other consumer loans in 2008.

17. For a detailed description of these actions, see box "The Federal Reserve's Responses to the Subprime Mortgage Crisis," in Board of Governors of the Federal Reserve System (2008), *Monetary Policy Report to the Congress* (Washington: Board of Governors, February), pp. 8–9.

18. The Hope Now Alliance (www.hopenow.com) aims to increase outreach efforts to contact at-risk borrowers and to play an important role in streamlining the process for refinancing and modifying variable-rate subprime mortgages. The alliance will work to expand the capacity of an existing national network to counsel borrowers and refer them to participating servicers, who have agreed to work toward cross-industry solutions to better serve the homeowner.

19. For a discussion of the change in bankruptcy law that was implemented in 2005 and its effect on credit card loans, see box "The New Bankruptcy Law and Its Effect on Credit Card Loans," in Elizabeth Klee and Gretchen Weinbach (2006), "Profits and Balance Sheet Developments at U.S. Commercial Banks in 2005," *Federal Reserve Bulletin*, vol. 92 (June), p. A89.

30. Delinquency and charge-off rates for loans to households, by type of loan, 1990–2007



NOTE: The data are quarterly and seasonally adjusted; data for delinquencies begin in 1991. For definitions of delinquencies and net charge-offs, see the note for figure 24.

Securitized Loans

The credit quality of loans that were sold and securitized by banks that retained servicing rights or recourse or provided other credit enhancements to the securitization structure (hereafter referred to, for simplicity, as "securitized" loans) weakened in 2007, though not, in most cases, to the same extent as loans that were held on banks' balance sheets.[20] The majority of loans securitized by banks are residential mortgages on one- to four-family homes (63 percent). The delinquency rate on those mortgages (excluding revolving home equity loans) was 3.7 percent in the fourth quarter of 2007, almost unchanged from its level at the end of 2006 and well below the levels seen earlier in the decade. Likewise, the delinquency rate on the small amount of securitized revolving home equity loans was little changed in 2007, though it fluctuated near the high end of its recent range. Charge-off rates on securitized residential mortgages also changed little and stayed well below the rates on residential loans on banks' books.

The relatively stable delinquency and charge-off rates on mortgages securitized by banks could be attributable to several factors. Banks as a group may not have securitized large quantities of subprime mortgages or other types of mortgages that have accounted for much of the run-up in overall mortgage delinquencies and foreclosures. Moreover, some securitization structures require that banks repurchase from the securitized pools those loans that become delinquent soon after origination, which could hold down losses on securitized loans and dilute the credit quality of loans held on banks' books.

The delinquency rate on securitized credit card loans—which make up 22 percent of the loans securitized by banks—moved up, from about 3.7 percent to just above 4 percent, in 2007, a rate that was still below the midpoint of its range over recent years. Charge-off rates on those loans continued to trend up last year but stayed well below the rates that prevailed as recently as 2005. The delinquency rate on securitized credit cards has been somewhat lower than that on credit cards held on banks' balance sheets, but charge-off rates on securitized loans have generally been higher than those on loans held by banks. Delinquency and charge-off rates on the small amount of bank-securitized auto loans jumped considerably in 2007 and ended the year near the highest levels recorded since the data became available in 2001. The credit quality of other types of securitized consumer loans was fairly stable in 2007; the delinquency rate on such loans edged higher, to about 5.4 percent, while the charge-off rate was generally lower in 2007 than it was in 2006.

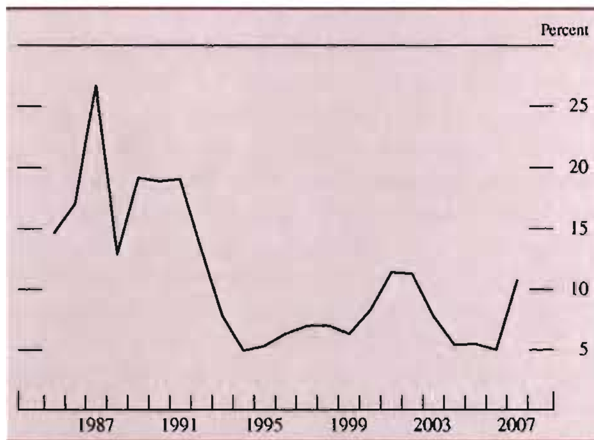
The delinquency and charge-off rates on the small amount of securitized C&I loans rose considerably in the second half of 2007 but remained in the middle of their recent ranges. About $200 billion in other types of loans and leases, a category that includes CRE loans, are securitized by banks. The delinquency rate on that category of loans declined, on balance, in 2007 to just 0.2 percent, and the charge-off rate on those loans was near zero.

Loss Provisioning

The erosion of credit quality spurred banks to step up the rate of loss provisioning in 2007, particularly in the second half of the year. Loss provisioning subtracted 54 basis points from ROA and consumed more than 10 percent of total revenue in 2007, about double the effect in each of the previous two years

20. The analysis excludes loans that were sold to, and securitized by, a third party (for example, the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation).

31. Provisions for loan and lease losses as a proportion of total revenue, 1985–2007

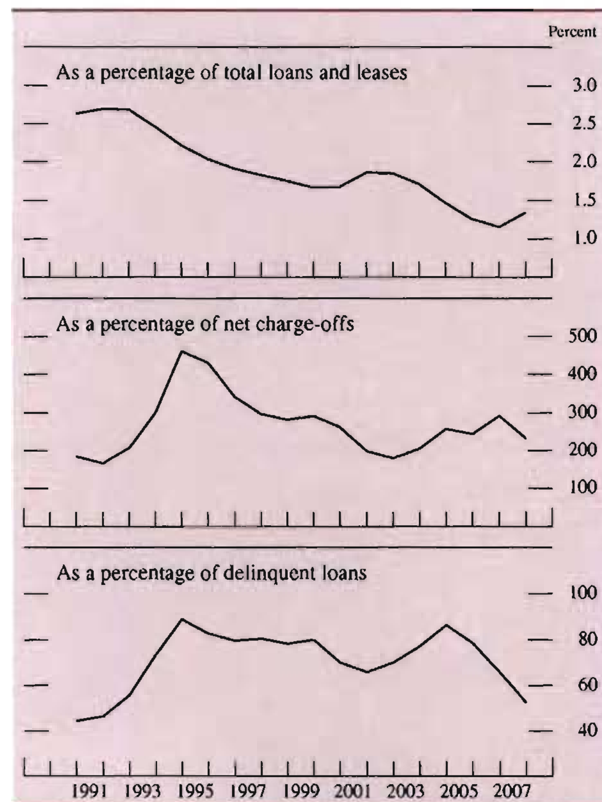


NOTE: The data are annual.

(figure 31). By those measures, loss provisioning in 2007 was similar to that during the economic slowdown in the early part of this decade but well below the highs reached during the late 1980s and early 1990s. Provisioning increased most at large banks, where it reached an annual rate of more than 1 percent of average assets in the fourth quarter, compared with just about 0.36 percent in the fourth quarter of 2006. Nonetheless, the increase over 2007 was also notable at smaller banks, where provisioning rose to an annual rate of 0.55 percent of assets in the fourth quarter from 0.22 percent in the year-earlier period.

The rate of loss provisioning in 2007 considerably outpaced that of charge-offs and boosted total reserves for loan and lease losses. As a result, reserves as a percentage of total loans and leases increased in 2007 for the first time in several years, but that ratio remained near the low end of its historical range (figure 32). The percentage increase in the stock of reserves, however, was smaller than that in charge-offs and delinquencies, which led to declines in some other measures of reserve adequacy. At the average charge-off rate for all of 2007 and without additional loss provisions, current reserves are sufficient to cover about 2½ years of charge-offs, a typical reading for this measure. As noted previously, however, charge-off rates over the latter part of 2007 ran considerably above those that had prevailed earlier in the year. The ratio of reserves for loan and lease losses to total delinquent loans, which in recent years had been running near the high end of its range over the past two decades, dropped substantially—to about 50 percent as of year-end, its lowest level since 1991.

32. Reserves for loan and lease losses, 1990–2007



NOTE: The data are as of year-end. For definitions of delinquencies and net charge-offs, see the note for figure 24.

International Operations of U.S. Commercial Banks

The share of U.S. bank assets booked in foreign offices in 2007 increased about 100 basis points, to 14 percent, and remained highly concentrated among the largest banks. However, U.S. commercial banks lost money in 2007 on their international operations, which subtracted about 6 percent from total consolidated net income. The losses were mostly attributable to just a few institutions and primarily reflected a jump in non-interest expense as well as a moderate decline in non-interest income.

Banks' exposures to emerging market countries through lending and derivatives activities grew rapidly in 2007.[21] Banks' total exposure to Asian economies climbed to 45 percent of tier 1 capital, in part because of a significant increase in lending to resi-

21. The analysis in this paragraph draws from information in the Country Exposure Report (FFIEC 009), which is filed only by banks with significant international exposures. More information about the report is available from the Federal Financial Institutions Examination Council at www.ffiec.gov/forms009_009a.htm.

3. Exposure of U.S. banks to selected economies at year-end relative to tier 1 capital, 1998–2007

Percent

Year	Asia				Latin America and the Caribbean			Eastern Europe	Total exposure to developing economies
	All	China	India	Korea	All	Mexico	Brazil		
1998	28.2	1.0	2.4	7.1	42.9	9.9	11.3	3.5	100.1
1999	26.1	.8	2.4	6.6	39.0	9.5	10.5	2.9	90.7
2000	24.0	.8	2.6	6.4	37.9	9.1	11.2	4.4	87.9
2001	22.4	.9	2.6	5.8	54.1	26.0	3.0	4.3	100.3
2002	21.9	.9	2.7	5.8	38.9	20.8	8.4	5.5	84.8
2003	22.8	1.3	3.9	5.5	32.9	18.0	6.8	5.4	79.8
2004	32.2	1.4	4.2	15.0	31.8	16.7	6.5	6.1	89.2
2005	30.7	2.4	4.9	12.9	31.8	17.4	6.9	5.9	86.4
2006	34.7	4.1	6.1	13.6	30.8	16.9	5.7	6.5	92.6
2007	44.6	4.5	9.8	14.4	35.6	17.2	8.2	9.0	119.6
MEMO									
Total exposure (billions of dollars)									
1998	69.1	2.3	5.4	17.3	104.7	24.2	27.6	8.5	244.7
1999	67.9	2.0	6.2	17.2	101.6	24.8	27.3	7.4	236.4
2000	68.0	2.2	7.5	18.1	107.3	25.7	31.6	12.3	249.1
2001	67.2	2.7	7.7	17.5	162.4	78.0	39.0	12.9	301.4
2002	69.5	2.7	8.7	18.4	123.5	66.2	26.6	17.6	269.4
2003	79.9	4.4	13.6	19.2	115.2	63.0	23.7	19.1	280.1
2004	125.8	5.3	16.3	58.7	124.4	65.2	25.5	23.8	348.9
2005	134.8	10.4	21.6	56.7	139.7	76.1	30.4	25.7	378.8
2006	190.5	22.7	33.6	74.8	168.9	92.5	31.5	35.5	508.2
2007	249.8	25.5	54.9	80.8	199.3	96.1	46.2	50.2	670.6

NOTE: Exposures consist of lending and derivatives exposures for cross-border and local-office operations. Respondents may file information on one bank or on the bank holding company as a whole. For the definition of tier 1 capital, see text note 9.

The year-end 2007 data cover 65 banks with a total of $560.5 billion in tier 1 capital.

SOURCE: Federal Financial Institutions Examination Council, Statistical Release E.16, "Country Exposure Lending Survey" (www.ffiec.gov/E16.htm).

dents of India (table 3). An increase in lending to residents of Brazil helped push up banks' exposure to Latin American and Caribbean economies to 36 percent of tier 1 capital. Banks' exposure to eastern European countries rose to 9 percent of tier 1 capital in 2007, up from 6.5 percent the year earlier.

DEVELOPMENTS IN EARLY 2008

U.S. economic activity, which was sluggish in the fourth quarter of 2007, remained so in the first three months of 2008. Residential construction and home sales continued to contract, and home prices dropped. Consumer spending was subdued amid slumping sentiment and restrained growth in wealth and real income, and business spending also weakened. Energy prices jumped again during the first quarter; the price of oil rose to record highs, which added to the headwinds facing the economy and helped sustain pressures on headline inflation. However, core consumer price inflation decreased slightly in the first quarter. Concerns about the economic outlook and fears regarding possible further large losses at banks and other financial institutions continued to put pressure on financial markets through the first part of 2008. Broad stock market indexes declined, and risk spreads on a wide range of debt securities—including corporate bonds and various types of asset-backed securities—increased across the ratings spectrum. Against that backdrop, the Federal Open Market Committee cut the target for the federal funds rate from 4½ percent at the end of 2007 to 2¼ percent by the end of March. Yields on Treasury bills fell, at times, to their lowest levels in 50 years, declines that reflected heightened demand for safe and liquid assets. Yields on longer-term Treasury securities also declined sharply; by the end of March, the 2-year yield had dropped to 1.61 percent and the 10-year yield to 3.69 percent. The April 2008 BLPS indicated that large fractions of banks had tightened credit standards and terms on loans to businesses and households during the first quarter.

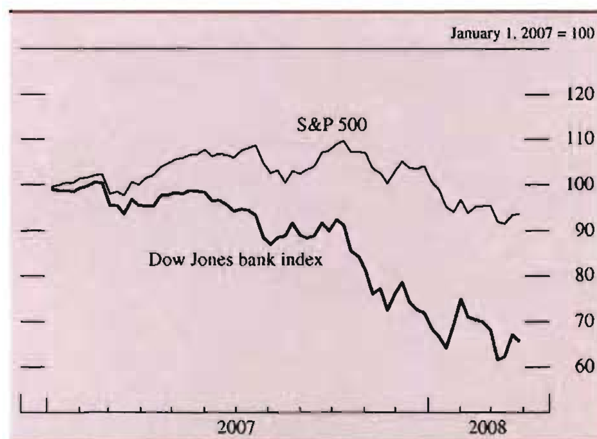
Various short-term funding markets had shown some improvement in December and January with the introduction of the Federal Reserve's Term Auction Facility (TAF) and the passage of year-end. However, the further deterioration of those markets in February and March placed renewed pressures on banks and other financial institutions and possibly exacerbated the ongoing tightening of credit conditions. To provide liquidity and foster smoother functioning of those markets, the Federal Reserve in mid-March increased the TAF from $60 billion to $100 billion and also expanded the size of its swap lines with the

European Central Bank and the Swiss National Bank. Moreover, the Federal Reserve announced a new Term Securities Lending Facility, which allowed primary dealers to borrow as much as $200 billion of Treasury securities from the portfolio of the Federal Reserve's System Open Market Account against high-quality collateral, including agency securities and highly rated residential and commercial mortgage-backed securities. Finally, the Federal Reserve created the Primary Dealer Credit Facility to improve the ability of primary dealers to provide financing to participants in securitization markets. The facility provides overnight loans collateralized by a specified range of eligible investment-grade securities.[22]

Growth of domestic bank credit slowed somewhat in the first quarter of 2008. Although banks tightened standards and terms on C&I loans, such loans expanded briskly on the heels of their robust fourth-quarter pace, in part because of sustained disruptions in the syndicated loan market and drawdowns on existing C&I credit lines. CRE loans also continued to advance despite reported further tightening of credit standards in that sector. Residential real estate loans expanded modestly, partly as a result of significant increases in revolving home equity loans, many of which carry adjustable rates that may have become more attractive as the market interest rates on which they are often based declined. Consumer loans increased at a moderate rate but slowed somewhat compared with the pace in the second half of 2007.

In the first quarter, profits of commercial banks declined markedly from year-ago levels, and some banks reported significant losses. Write-downs of mortgage-related assets and leveraged syndicated loans reportedly contributed importantly to the drop in profitability in the first quarter at many banks. Banks also substantially increased loss provisions amid additional deterioration in the credit quality of loans to residential developers and continued weakness in residential mortgages. Delinquency rates on consumer loans also increased, and those on C&I loans edged higher.

33. Stock price indexes, 2007–08



NOTE: The data are weekly and extend through March 2008.
SOURCE: Standard & Poor's and Dow Jones.

The stock prices of banking firms dropped further, and the spreads on their credit default swaps widened through February. Sentiment improved in mid- to late March, however, when the Federal Reserve announced the measures to provide additional term funding, and first-quarter results at a few investment banks were seen as reassuring. On balance, bank stock prices fell almost 10 percent in the first quarter of 2008, about in line with the change in the S&P 500 (figure 33). The median spread on credit default swaps for large banking organizations nearly doubled, to almost 100 basis points, over the same period. □

22. A concise summary of the Federal Reserve's recent initiatives to promote liquidity and smooth functioning in financial markets is available at www.newyorkfed.org/markets/Forms_of_Fed_Lending.pdf.

Appendix tables start on page A29

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007

A. All banks

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Balance sheet items as a percentage of average net consolidated assets									
Interest-earning assets	86.76	87.03	87.13	86.49	86.42	86.08	86.90	86.82	86.86	86.94
Loans and leases (net)	58.33	59.34	60.49	58.95	57.83	56.88	56.98	57.88	58.26	58.37
Commercial and industrial	16.36	17.07	17.16	16.08	14.07	12.18	11.06	11.17	11.42	11.84
U.S. addressees	13.61	14.43	14.67	13.69	12.04	10.48	9.52	9.64	9.73	9.86
Foreign addressees	2.75	2.64	2.49	2.39	2.04	1.70	1.54	1.53	1.70	1.98
Consumer	10.41	9.71	9.38	9.23	9.35	9.05	9.18	9.12	8.53	8.43
Credit card	4.02	3.51	3.52	3.69	3.78	3.54	3.87	4.05	3.73	3.72
Installment and other	6.39	6.20	5.87	5.55	5.57	5.51	5.31	5.06	4.80	4.71
Real estate	24.85	25.44	27.04	27.10	28.39	29.91	30.77	32.40	33.19	33.36
In domestic offices	24.28	24.87	26.49	26.60	27.91	29.46	30.24	31.84	32.61	32.76
Construction and land development	1.86	2.18	2.51	2.85	2.98	2.99	3.26	3.90	4.73	5.05
Farmland	.55	.56	.56	.55	.56	.54	.54	.54	.53	.53
One- to four-family residential	14.25	14.10	14.96	14.67	15.40	16.96	17.42	18.26	18.23	18.31
Home equity	1.89	1.76	1.96	2.18	2.80	3.40	4.34	4.95	4.71	4.48
Other	12.37	12.34	13.00	12.49	12.60	13.57	13.08	13.31	13.51	13.82
Multifamily residential	.82	.88	.99	.97	1.02	1.05	1.06	1.08	1.06	1.04
Nonfarm nonresidential	6.80	7.15	7.48	7.56	7.95	7.91	7.97	8.06	8.07	7.84
In foreign offices	.57	.57	.54	.50	.48	.46	.53	.56	.58	.60
To depository institutions and acceptances of other banks	1.91	1.96	1.87	1.83	1.87	1.98	2.11	1.73	1.65	1.21
Foreign governments	.15	.16	.12	.10	.09	.08	.08	.06	.04	.03
Agricultural production	.89	.83	.78	.75	.70	.63	.59	.56	.55	.52
Other loans	2.78	2.75	2.58	2.34	2.06	2.00	2.35	2.09	2.19	2.48
Lease-financing receivables	2.12	2.51	2.63	2.58	2.44	2.11	1.79	1.58	1.43	1.23
LESS: Unearned income on loans	−.07	−.06	−.05	−.04	−.05	−.04	−.04	−.03	−.03	−.02
LESS: Loss reserves[1]	−1.07	−1.04	−1.02	−1.04	−1.11	−1.04	−.91	−.79	−.71	−.70
Securities	20.37	20.40	20.01	19.53	21.27	21.90	22.57	22.04	21.32	20.77
Investment account	17.48	18.33	17.59	16.82	18.30	18.97	18.99	17.87	16.89	15.41
Debt	16.93	17.73	16.93	16.48	17.99	18.72	18.79	17.71	16.73	15.23
U.S. Treasury	2.70	2.14	1.66	.85	.78	.90	.89	.62	.47	.32
U.S. government agency and corporation obligations	10.28	10.85	10.31	10.08	11.46	12.26	12.37	11.51	10.65	9.32
Government-backed mortgage pools	5.16	5.24	4.75	5.13	6.09	6.75	7.13	6.78	6.43	5.82
Collateralized mortgage obligations	2.12	2.15	1.92	1.95	2.35	2.34	2.01	1.80	1.58	1.34
Other	2.99	3.46	3.63	2.99	3.02	3.17	3.22	2.93	2.65	2.16
State and local government	1.57	1.62	1.52	1.49	1.49	1.48	1.41	1.36	1.34	1.34
Private mortgage-backed securities	.67	.88	.95	1.09	1.25	1.30	1.41	1.76	1.89	2.15
Other	1.70	2.24	2.48	2.98	3.01	2.78	2.72	2.47	2.37	2.10
Equity	.55	.61	.66	.34	.31	.25	.20	.16	.16	.18
Trading account	2.90	2.06	2.43	2.72	2.97	2.93	3.59	4.17	4.43	5.36
Gross federal funds sold and reverse RPs	5.37	4.61	4.12	5.11	4.81	4.85	4.58	4.75	5.30	5.49
Interest-bearing balances at depositories	2.69	2.68	2.52	2.90	2.52	2.45	2.76	2.15	1.98	2.30
Non-interest-earning assets	13.24	12.97	12.87	13.51	13.58	13.92	13.10	13.18	13.14	13.06
Revaluation gains held in trading accounts	2.95	2.57	2.28	2.37	2.42	2.70	2.19	1.82	1.64	1.73
Other	10.29	10.41	10.58	11.15	11.16	11.22	10.91	11.36	11.50	11.33
Liabilities	91.51	91.52	91.58	91.25	90.85	90.96	90.57	89.91	89.84	89.78
Core deposits	49.43	48.60	46.52	47.07	48.98	49.18	48.56	47.52	45.56	43.89
Transaction deposits	14.10	12.58	11.07	10.36	10.06	9.74	9.10	8.46	7.45	6.43
Demand deposits	10.99	9.78	8.61	8.00	7.67	7.26	6.58	6.16	5.41	4.66
Other checkable deposits	3.11	2.81	2.46	2.36	2.39	2.47	2.52	2.30	2.04	1.77
Savings deposits (including MMDAs)	20.87	22.47	22.43	24.53	28.13	30.12	31.19	30.83	29.49	28.21
Small time deposits	14.46	13.55	13.01	12.18	10.80	9.33	8.27	8.23	8.62	9.26
Managed liabilities[2]	34.97	36.59	38.83	37.42	35.05	34.61	35.69	36.25	38.29	39.86
Large time deposits	7.67	7.89	8.77	8.89	8.30	8.09	8.00	9.11	10.07	9.13
Deposits booked in foreign offices	10.59	10.96	11.43	10.66	9.42	9.38	10.25	10.39	11.18	12.81
Subordinated notes and debentures	1.30	1.36	1.37	1.43	1.40	1.33	1.30	1.34	1.40	1.55
Gross federal funds purchased and RPs	7.98	7.97	7.83	7.95	7.77	7.75	7.24	7.05	7.53	7.06
Other managed liabilities	7.43	8.41	9.44	8.50	8.16	8.06	8.91	8.37	8.11	9.31
Revaluation losses held in trading accounts	2.97	2.52	2.29	2.21	2.09	2.30	1.95	1.67	1.51	1.59
Other	4.14	3.81	3.94	4.54	4.73	4.87	4.36	4.47	4.47	4.44
Capital account	8.49	8.48	8.42	8.75	9.15	9.04	9.43	10.09	10.16	10.22
MEMO										
Commercial real estate loans[3]	10.11	10.87	11.58	12.09	12.57	12.47	12.78	13.52	14.35	14.47
Other real estate owned[4]	.08	.06	.05	.05	.06	.06	.06	.04	.05	.07
Mortgage-backed securities	7.96	8.27	7.63	8.17	9.69	10.39	10.56	10.33	9.89	9.31
Federal Home Loan Bank advances	n.a.	n.a.	n.a.	2.89	3.17	3.19	3.07	3.04	3.07	3.66
Average net consolidated assets (billions of dollars)	5.147	5,439	5.906	6,334	6,634	7.248	7.879	8,591	9.427	10,396

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007—*Continued*

A. All banks—*Continued*

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Effective interest rate (percent)[5]									
Rates earned										
Interest-earning assets	8.01	7.73	8.20	7.37	6.10	5.29	5.08	5.69	6.65	6.78
Taxable equivalent	8.07	7.78	8.26	7.42	6.15	5.33	5.12	5.73	6.68	6.82
Loans and leases, gross	8.85	8.50	9.00	8.15	6.89	6.15	5.91	6.52	7.55	7.54
Net of loss provisions	8.30	7.99	8.33	7.15	5.84	5.46	5.47	6.09	7.18	6.70
Securities	6.44	6.30	6.47	6.04	4.95	3.96	3.86	4.18	4.71	5.02
Taxable equivalent	6.63	6.48	6.65	6.22	5.10	4.10	3.99	4.30	4.83	5.14
Investment account	6.38	6.28	6.45	6.05	5.04	4.00	3.96	4.29	4.86	5.13
U.S. Treasury securities and U.S. government agency obligations (excluding MBS)	n.a.	n.a.	n.a.	5.76	4.42	3.29	3.11	3.46	4.19	4.71
Mortgage-backed securities	n.a.	n.a.	n.a.	6.45	5.44	4.24	4.38	4.60	5.10	5.29
Other	n.a.	n.a.	n.a.	5.60	4.74	4.08	3.76	4.23	4.76	5.02
Trading account	6.85	6.48	6.63	6.01	4.38	3.71	3.35	3.72	4.16	4.70
Gross federal funds sold and reverse RPs	5.29	4.78	5.56	3.86	1.93	1.40	1.40	2.66	4.31	5.07
Interest-bearing balances at depositories	6.32	5.95	6.48	4.01	2.79	2.09	1.98	3.70	5.10	5.15
Rates paid										
Interest-bearing liabilities	4.68	4.31	4.94	3.93	2.38	1.72	1.63	2.47	3.59	3.82
Interest-bearing deposits	4.31	3.88	4.45	3.61	2.11	1.47	1.36	2.06	3.05	3.39
In foreign offices	5.66	4.91	5.61	3.94	2.38	1.62	1.72	2.77	3.92	4.23
In domestic offices	4.01	3.65	4.17	3.54	2.06	1.44	1.29	1.91	2.85	3.18
Other checkable deposits	2.29	2.08	2.34	1.96	1.06	.75	.77	1.41	1.88	2.04
Savings deposits (including MMDAs)	2.79	2.50	2.86	2.19	1.13	.74	.72	1.24	2.01	2.22
Large time deposits[6]	5.22	4.93	5.78	5.04	3.37	2.59	2.35	3.19	4.39	4.71
Other time deposits[6]	5.48	5.11	5.69	5.43	3.70	2.88	2.56	3.14	4.11	4.72
Gross federal funds purchased and RPs	5.19	4.74	5.77	3.83	1.88	1.30	1.49	3.07	4.57	4.98
Other interest-bearing liabilities	6.50	6.49	6.97	5.91	4.49	3.69	3.34	4.57	6.28	5.46
	Income and expense as a percentage of average net consolidated assets									
Gross interest income	6.98	6.75	7.18	6.38	5.27	4.54	4.43	4.96	5.85	5.94
Taxable equivalent	7.03	6.80	7.22	6.42	5.31	4.58	4.46	5.00	5.88	5.97
Loans	5.27	5.13	5.53	4.92	4.06	3.55	3.42	3.82	4.48	4.47
Securities	1.10	1.15	1.15	1.00	.89	.74	.74	.77	.84	.80
Gross federal funds sold and reverse RPs	.29	.23	.23	.20	.09	.07	.07	.13	.23	.28
Other	.32	.24	.27	.27	.22	.18	.20	.25	.31	.39
Gross interest expense	3.46	3.22	3.76	2.98	1.79	1.30	1.25	1.89	2.79	2.99
Deposits	2.43	2.21	2.56	2.09	1.23	.86	.81	1.23	1.84	2.05
Gross federal funds purchased and RPs	.43	.39	.45	.31	.15	.10	.11	.22	.36	.36
Other	.60	.63	.75	.58	.41	.33	.33	.44	.59	.58
Net interest income	3.52	3.52	3.41	3.40	3.48	3.24	3.17	3.07	3.05	2.95
Taxable equivalent	3.57	3.57	3.46	3.44	3.52	3.28	3.21	3.11	3.09	2.98
Loss provisions[7]	.42	.39	.50	.68	.68	.45	.30	.30	.27	.54
Non-interest income	2.41	2.66	2.59	2.54	2.54	2.54	2.40	2.35	2.36	2.10
Service charges on deposits	.38	.40	.40	.42	.45	.44	.42	.39	.38	.38
Fiduciary activities	.37	.38	.38	.35	.32	.31	.32	.31	.30	.32
Trading revenue	.15	.19	.21	.20	.16	.16	.13	.17	.20	.05
Interest rate exposures	.05	.07	.08	.09	.08	.07	.03	.05	.05	.04
Foreign exchange rate exposures	.09	.09	.08	.07	.07	.07	.07	.07	.08	.07
Other commodity and equity exposures	.01	.03	.04	.03	.01	.02	.03	.04	.07	.03
Other	1.50	1.70	1.61	1.57	1.60	1.63	1.53	1.48	1.48	1.36
Non-interest expense	3.77	3.77	3.66	3.57	3.47	3.36	3.34	3.19	3.13	3.09
Salaries, wages, and employee benefits	1.55	1.59	1.51	1.49	1.51	1.50	1.46	1.44	1.44	1.39
Occupancy	.47	.48	.45	.44	.44	.43	.42	.41	.39	.37
Other	1.76	1.71	1.70	1.64	1.51	1.43	1.46	1.34	1.30	1.33
Net non-interest expense	1.36	1.11	1.07	1.03	.93	.82	.94	.84	.76	.99
Gains on investment account securities	.06	*	-.04	.07	.10	.08	.04	*	-.01	-.01
Income before taxes and extraordinary items	1.81	2.03	1.81	1.77	1.96	2.05	1.97	1.93	2.00	1.41
Taxes	.62	.72	.63	.59	.65	.67	.64	.62	.65	.43
Extraordinary items, net of income taxes	.01	*	*	-.01	*	.01	*	*	.03	-.02
Net income	1.20	1.31	1.18	1.17	1.32	1.39	1.33	1.31	1.39	.97
Cash dividends declared	.80	.96	.89	.87	1.01	1.07	.76	.75	.87	.82
Retained income	.40	.35	.29	.31	.30	.31	.58	.56	.51	.15
MEMO: Return on equity	14.07	15.43	13.97	13.41	14.38	15.34	14.14	12.99	13.64	9.48

NOTE: Data are as of April 16, 2008.

1. Includes allocated transfer risk reserve.

2. Measured as the sum of large time deposits in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, Federal Home Loan Bank advances, and other borrowed money.

3. Measured as the sum of construction and land development loans secured by real estate; real estate loans secured by nonfarm nonresidential properties or by multifamily residential properties; and loans to finance commercial real estate, construction, and land development activities not secured by real estate.

4. Other real estate owned is a component of other non-interest-earning assets.

5. When possible, based on the average of quarterly balance sheet data reported on schedule RC-K of the quarterly Call Report.

6. Before 1997, large time deposit open accounts were included in other time deposits.

7. Includes provisions for allocated transfer risk.

* In absolute value, less than 0.005 percent.

n.a. Not available.

MMDA Money market deposit account.

RP Repurchase agreement.

MBS Mortgage-backed securities.

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007

B. Ten largest banks by assets

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Balance sheet items as a percentage of average net consolidated assets									
Interest-earning assets	81.25	81.49	82.23	81.74	81.68	81.39	83.54	83.96	84.68	85.04
Loans and leases (net)	50.76	53.37	55.22	53.86	53.61	52.20	51.29	51.35	52.03	53.21
Commercial and industrial	18.07	19.20	19.87	18.82	16.16	12.98	10.54	10.61	11.20	11.58
U.S. addressees	11.76	13.14	13.95	13.42	11.69	9.40	7.49	7.74	8.08	8.05
Foreign addressees	6.31	6.06	5.92	5.41	4.47	3.59	3.06	2.87	3.12	3.53
Consumer	6.04	5.94	5.43	6.17	7.82	7.96	8.49	8.80	8.17	8.98
Credit card	1.30	1.36	1.34	1.69	2.90	2.81	3.19	3.60	3.05	3.87
Installment and other	4.74	4.58	4.09	4.48	4.92	5.15	5.30	5.21	5.13	5.11
Real estate	16.51	16.96	19.82	19.23	20.78	22.68	23.21	24.55	25.51	27.04
In domestic offices	15.08	15.55	18.48	18.05	19.70	21.74	22.21	23.52	24.50	26.00
Construction and land development	.77	.90	.98	1.27	1.42	1.36	1.40	1.70	2.01	2.01
Farmland	.09	.10	.11	.11	.12	.10	.10	.10	.10	.09
One- to four-family residential	10.33	10.77	13.37	12.41	13.51	16.03	16.71	17.73	18.30	19.86
Home equity	1.72	1.54	1.61	1.78	2.35	2.96	4.04	5.22	5.40	5.46
Other	8.61	9.22	11.76	10.63	11.17	13.07	12.67	12.52	12.90	14.40
Multifamily residential	.38	.43	.60	.51	.55	.47	.45	.44	.44	.55
Nonfarm nonresidential	3.51	3.35	3.42	3.76	4.09	3.78	3.55	3.55	3.65	3.49
In foreign offices	1.43	1.41	1.34	1.18	1.08	.94	1.00	1.03	1.01	1.03
To depository institutions and acceptances of other banks	4.05	4.34	3.78	3.23	3.20	3.54	4.10	3.15	2.97	1.71
Foreign governments	.35	.38	.28	.20	.20	.17	.16	.12	.07	.05
Agricultural production	.28	.26	.23	.28	.23	.19	.22	.20	.20	.17
Other loans	3.74	3.96	3.75	3.51	2.94	2.87	3.32	2.81	2.88	3.08
Lease-financing receivables	2.81	3.40	3.07	3.43	3.44	2.87	2.08	1.78	1.60	1.22
LESS: Unearned income on loans	−.06	−.05	−.04	−.04	−.08	−.06	−.04	−.04	−.02	−.02
LESS: Loss reserves[1]	−1.01	−1.03	−.97	−.97	−1.12	−1.02	−.80	−.65	−.56	−.61
Securities	19.72	18.34	18.98	17.81	20.54	21.22	22.95	23.37	23.05	21.98
Investment account	12.12	13.08	13.71	12.14	14.35	15.31	15.99	15.58	15.12	12.81
Debt	11.64	12.57	13.03	11.88	14.13	15.11	15.83	15.44	14.97	12.66
U.S. Treasury	1.70	1.98	1.96	.68	.59	.82	.86	.56	.43	.24
U.S. government agency and corporation obligations	6.31	6.35	6.59	6.84	8.69	9.20	9.92	9.69	9.48	8.02
Government-backed mortgage pools	5.13	5.03	4.88	4.99	6.38	7.59	8.64	8.65	8.64	7.53
Collateralized mortgage obligations	.93	.79	.93	1.11	1.52	.91	.70	.54	.53	.33
Other	.26	.52	.78	.74	.79	.70	.58	.50	.32	.16
State and local government	.47	.45	.51	.55	.59	.59	.57	.58	.64	.65
Private mortgage-backed securities	.60	.57	.51	.58	.92	1.10	.96	1.18	1.09	1.45
Other	2.57	3.22	3.47	3.22	3.34	3.40	3.52	3.43	3.33	2.30
Equity	.47	.51	.68	.26	.22	.20	.16	.14	.15	.16
Trading account	7.60	5.25	5.26	5.67	6.18	5.91	6.96	7.79	7.94	9.16
Gross federal funds sold and reverse RPs	7.81	6.64	5.02	6.38	5.26	5.79	6.37	6.96	7.60	7.47
Interest-bearing balances at depositories	2.96	3.14	3.01	3.69	2.28	2.18	2.93	2.28	1.99	2.38
Non-interest-earning assets	18.75	18.51	17.77	18.26	18.32	18.61	16.46	16.04	15.32	14.96
Revaluation gains held in trading accounts	7.62	6.66	5.66	5.48	5.40	5.79	4.45	3.50	3.07	3.03
Other	11.13	11.85	12.11	12.78	12.93	12.83	12.01	12.54	12.25	11.93
Liabilities	92.58	92.28	92.36	92.14	91.52	91.94	91.64	90.81	91.10	90.82
Core deposits	32.94	33.76	33.28	36.38	40.61	41.07	42.02	40.18	38.03	35.08
Transaction deposits	9.45	8.55	8.01	8.40	8.34	7.74	6.65	6.05	5.41	4.69
Demand deposits	8.46	7.83	7.28	7.50	7.40	6.72	5.43	4.90	4.32	3.80
Other checkable deposits	.99	.72	.74	.90	.95	1.02	1.22	1.15	1.09	.89
Savings deposits (including MMDAs)	17.07	18.94	19.24	22.21	26.82	28.99	31.54	30.11	28.11	25.55
Small time deposits	6.42	6.26	6.03	5.77	5.44	4.34	3.83	4.02	4.52	4.84
Managed liabilities[2]	44.42	45.49	46.84	43.41	38.89	38.60	39.33	40.83	43.75	46.83
Large time deposits	5.04	5.19	5.55	5.46	5.13	5.53	5.21	6.28	6.85	6.13
Deposits booked in foreign offices	21.23	22.22	22.76	20.28	17.31	16.62	17.20	17.51	18.50	19.86
Subordinated notes and debentures	1.89	1.98	2.10	2.16	2.11	1.92	1.78	1.89	1.99	2.17
Gross federal funds purchased and RPs	9.78	8.84	8.89	9.04	8.83	8.62	7.79	8.39	9.51	8.42
Other managed liabilities	6.49	7.27	7.55	6.47	5.53	5.90	7.35	6.76	6.89	10.26
Revaluation losses held in trading accounts	7.67	6.51	5.69	5.10	4.63	4.88	3.95	3.21	2.83	2.78
Other	7.55	6.52	6.55	7.26	7.39	7.40	6.34	6.60	6.47	6.13
Capital account	7.42	7.72	7.64	7.86	8.48	8.06	8.36	9.19	8.90	9.18
MEMO										
Commercial real estate loans[3]	5.61	5.69	5.87	6.68	6.92	6.31	5.99	6.33	6.73	6.64
Other real estate owned[4]	.09	.06	.04	.04	.03	.03	.03	.02	.03	.05
Mortgage-backed securities	6.65	6.40	6.32	6.68	8.82	9.60	10.30	10.36	10.25	9.31
Federal Home Loan Bank advances	n.a.	n.a.	n.a.	.82	.82	.84	.79	.63	.75	2.33
Average net consolidated assets (billions of dollars)	1,820	1,935	2,234	2,527	2,785	3,148	3,654	4,232	4.759	5.469

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007—*Continued*

B. Ten largest banks by assets—*Continued*

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Effective interest rate (percent)[5]									
Rates earned										
Interest-earning assets	7.55	7.37	7.76	6.83	5.82	4.99	4.71	5.29	6.32	6.52
Taxable equivalent	7.57	7.39	7.78	6.86	5.85	5.01	4.73	5.31	6.34	6.54
Loans and leases, gross	8.21	7.99	8.46	7.50	6.52	5.76	5.52	6.15	7.36	7.33
Net of loss provisions	7.77	7.65	7.92	6.55	5.30	5.19	5.29	5.84	7.02	6.29
Securities	6.83	6.58	6.48	6.23	5.04	4.15	4.04	4.27	4.69	4.99
Taxable equivalent	6.89	6.65	6.55	6.31	5.11	4.21	4.10	4.32	4.75	5.04
Investment account	6.78	6.59	6.40	6.23	5.30	4.26	4.37	4.63	5.11	5.29
U.S. Treasury securities and U.S. government agency obligations (excluding MBS)	n.a.	n.a.	n.a.	5.01	3.74	2.62	2.92	3.29	4.15	4.15
Mortgage-backed securities	n.a.	n.a.	n.a.	6.42	5.55	4.51	4.83	4.92	5.30	5.41
Other	n.a.	n.a.	n.a.	6.34	5.30	4.28	3.76	4.26	4.81	5.08
Trading account	6.92	6.56	6.70	6.24	4.46	3.87	3.32	3.57	3.90	4.57
Gross federal funds sold and reverse RPs	5.20	4.52	4.93	3.86	2.20	1.60	1.43	2.46	4.07	5.06
Interest-bearing balances at depositories	7.16	7.22	7.43	3.73	3.40	2.49	1.80	4.06	5.59	5.36
Rates paid										
Interest-bearing liabilities	4.94	4.52	5.03	3.78	2.33	1.67	1.62	2.52	3.74	3.87
Interest-bearing deposits	4.40	3.82	4.40	3.27	1.94	1.34	1.29	2.01	2.96	3.30
In foreign offices	5.83	4.99	5.67	4.02	2.59	1.74	1.81	2.77	3.88	4.28
In domestic offices	3.39	3.04	3.51	2.84	1.67	1.18	1.08	1.70	2.55	2.80
Other checkable deposits	1.67	1.44	1.61	1.67	.93	.80	.97	2.27	2.46	2.36
Savings deposits (including MMDAs)	2.45	2.11	2.43	1.92	1.02	.73	.71	1.15	1.87	1.98
Large time deposits[6]	4.53	4.36	5.32	4.40	3.26	2.36	2.14	3.06	4.32	4.72
Other time deposits[6]	5.21	4.95	5.53	5.11	3.44	2.70	2.61	3.40	4.05	4.55
Gross federal funds purchased and RPs	5.18	4.53	5.47	3.81	2.02	1.39	1.59	3.11	4.63	5.15
Other interest-bearing liabilities	7.47	8.26	8.07	6.84	5.57	4.42	3.83	5.40	7.78	5.61
	Income and expense as a percentage of average net consolidated assets									
Gross interest income	6.21	6.01	6.39	5.55	4.77	4.05	3.94	4.47	5.46	5.61
Taxable equivalent	6.22	6.03	6.41	5.57	4.79	4.07	3.96	4.48	5.48	5.63
Loans	4.27	4.35	4.74	4.13	3.57	3.04	2.86	3.19	3.91	3.98
Securities	.81	.85	.88	.72	.73	.63	.69	.72	.80	.69
Gross federal funds sold and reverse RPs	.42	.30	.25	.25	.12	.10	.10	.18	.31	.38
Other	.70	.51	.51	.44	.35	.28	.30	.38	.45	.56
Gross interest expense	3.48	3.16	3.60	2.69	1.65	1.19	1.20	1.89	2.88	3.00
Deposits	2.20	1.97	2.33	1.74	1.05	.74	.74	1.17	1.72	1.87
Gross federal funds purchased and RPs	.54	.40	.49	.35	.18	.13	.13	.27	.47	.46
Other	.74	.79	.78	.59	.41	.33	.33	.45	.69	.68
Net interest income	2.73	2.84	2.78	2.87	3.12	2.86	2.74	2.58	2.58	2.61
Taxable equivalent	2.75	2.86	2.80	2.89	3.14	2.88	2.76	2.59	2.60	2.63
Loss provisions[7]	.31	.26	.38	.59	.73	.35	.16	.20	.22	.60
Non-interest income	2.15	2.55	2.54	2.26	2.31	2.32	2.21	2.37	2.35	1.95
Service charges on deposits	.33	.37	.40	.44	.48	.46	.45	.42	.41	.40
Fiduciary activities	.32	.31	.27	.29	.25	.26	.24	.27	.23	.20
Trading revenue	.33	.46	.48	.43	.32	.30	.23	.31	.37	.05
Interest rate exposures	.10	.17	.20	.20	.15	.12	.07	.11	.09	.08
Foreign exchange rate exposures	.20	.19	.18	.14	.14	.14	.12	.12	.14	.09
Other commodity and equity exposures	.03	.09	.11	.08	.03	.04	.04	.07	.13	.06
Other	1.17	1.41	1.39	1.10	1.26	1.30	1.28	1.38	1.35	1.31
Non-interest expense	3.47	3.45	3.31	3.13	3.16	3.02	3.11	2.99	2.89	2.80
Salaries, wages, and employee benefits	1.45	1.57	1.46	1.38	1.41	1.39	1.34	1.38	1.39	1.32
Occupancy	.47	.50	.47	.45	.46	.45	.43	.43	.40	.37
Other	1.54	1.38	1.39	1.30	1.28	1.18	1.33	1.19	1.09	1.12
Net non-interest expense	1.32	.90	.77	.87	.85	.70	.91	.62	.54	.85
Gains on investment account securities	.11	.03	−.03	.08	.13	.11	.07	*	−.01	.02
Income before taxes and extraordinary items	1.22	1.71	1.60	1.48	1.67	1.92	1.74	1.75	1.82	1.18
Taxes	.44	.66	.60	.49	.56	.63	.56	.57	.59	.33
Extraordinary items, net of income taxes	*	*	*	−.01	*	*	*	*	.02	*
Net income	.78	1.05	1.00	.99	1.11	1.29	1.18	1.18	1.25	.85
Cash dividends declared	.53	.79	.86	.66	1.05	.99	.65	.59	.64	.60
Retained income	.25	.26	.13	.32	.06	.30	.53	.59	.62	.25
MEMO: Return on equity	10.53	13.58	13.04	12.55	13.14	16.06	14.07	12.86	14.08	9.23

NOTE: Data are as of April 16, 2008.

1. Includes allocated transfer risk reserve.

2. Measured as the sum of large time deposits in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, Federal Home Loan Bank advances, and other borrowed money.

3. Measured as the sum of construction and land development loans secured by real estate; real estate loans secured by nonfarm nonresidential properties or by multifamily residential properties; and loans to finance commercial real estate, construction, and land development activities not secured by real estate.

4. Other real estate owned is a component of other non-interest-earning assets.

5. When possible, based on the average of quarterly balance sheet data reported on schedule RC-K of the quarterly Call Report.

6. Before 1997, large time deposit open accounts were included in other time deposits.

7. Includes provisions for allocated transfer risk.

* In absolute value, less than 0.005 percent.

n.a. Not available.

MMDA Money market deposit account.

RP Repurchase agreement.

MBS Mortgage-backed securities.

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007

C. Banks ranked 11 through 100 by assets

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Balance sheet items as a percentage of average net consolidated assets									
Interest-earning assets	87.85	88.40	88.67	88.09	88.34	88.10	88.18	87.87	87.05	87.01
Loans and leases (net)	64.37	64.22	64.88	62.14	60.00	59.48	60.63	63.37	62.77	60.99
Commercial and industrial	18.92	19.39	18.19	15.84	13.27	11.96	11.90	12.17	12.13	12.74
U.S. addressees	17.59	18.17	17.64	15.36	12.94	11.66	11.64	11.91	11.81	12.41
Foreign addressees	1.33	1.22	.55	.48	.33	.30	.26	.27	.32	.33
Consumer	14.52	13.58	13.79	13.20	12.79	12.57	12.74	12.84	11.94	9.99
Credit card	7.67	6.79	6.97	7.05	6.56	6.35	6.90	7.45	7.12	5.29
Installment and other	6.86	6.79	6.82	6.15	6.22	6.21	5.83	5.39	4.82	4.70
Real estate	24.59	24.79	26.21	27.29	28.94	30.67	32.16	34.89	35.23	33.53
In domestic offices	24.42	24.61	26.12	27.21	28.88	30.54	31.96	34.73	35.03	33.34
Construction and land development	2.03	2.44	3.00	3.31	3.36	3.22	3.51	4.21	5.27	5.95
Farmland	.17	.19	.22	.23	.22	.20	.19	.19	.17	.21
One- to four-family residential	14.86	14.14	14.51	15.51	17.05	18.79	19.52	21.05	20.27	17.80
Home equity	2.17	2.08	2.49	2.90	3.92	4.74	5.90	6.04	5.01	4.01
Other	12.69	12.06	12.02	12.60	13.13	14.05	13.62	15.01	15.26	13.79
Multifamily residential	1.00	1.02	1.11	1.16	1.20	1.32	1.34	1.45	1.45	1.26
Nonfarm nonresidential	6.36	6.81	7.28	6.99	7.05	7.00	7.41	7.83	7.86	8.13
In foreign offices	.18	.19	.09	.09	.06	.13	.20	.16	.21	.18
To depository institutions and acceptances of other banks	1.09	.93	1.05	1.40	1.44	1.21	.54	.56	.45	1.05
Foreign governments	.06	.06	.03	.03	.02	.02	.01	.02	.01	.01
Agricultural production	.33	.33	.37	.32	.27	.23	.19	.19	.18	.21
Other loans	3.35	2.99	2.57	2.03	1.80	1.59	1.87	1.62	1.88	2.43
Lease-financing receivables	2.71	3.28	3.82	3.18	2.65	2.35	2.30	2.07	1.83	1.80
LESS: Unearned income on loans	−.04	−.04	−.03	−.02	−.02	−.02	−.02	−.01	−.01	−.01
LESS: Loss reserves[1]	−1.16	−1.11	−1.12	−1.13	−1.17	−1.10	−1.06	−.97	−.87	−.75
Securities	16.66	17.78	17.32	19.00	20.30	21.16	21.28	19.96	19.22	19.89
Investment account	16.13	17.27	16.10	17.71	19.17	20.09	20.12	18.80	17.72	17.99
Debt	15.58	16.62	15.50	17.32	18.82	19.88	19.96	18.69	17.60	17.88
U.S. Treasury	2.25	1.70	1.12	.67	.74	.95	.89	.60	.44	.38
U.S. government agency and corporation obligations	9.93	10.57	9.70	10.09	11.45	12.99	12.80	11.62	10.07	9.06
Government-backed mortgage pools	4.98	5.12	4.31	5.19	6.00	6.08	5.74	4.83	4.04	3.73
Collateralized mortgage obligations	2.83	2.89	2.55	2.42	2.79	3.72	3.42	3.39	2.94	2.68
Other	2.12	2.56	2.84	2.48	2.65	3.19	3.64	3.40	3.10	2.65
State and local government	.92	.99	.96	.99	.97	.95	.96	.98	1.01	1.16
Private mortgage-backed securities	.96	1.33	1.66	2.01	2.13	2.14	2.65	3.58	4.29	4.60
Other	1.53	2.03	2.06	3.56	3.53	2.85	2.66	1.90	1.78	2.67
Equity	.55	.65	.60	.39	.34	.21	.16	.11	.12	.12
Trading account	.54	.51	1.22	1.29	1.13	1.07	1.16	1.16	1.50	1.90
Gross federal funds sold and reverse RPs	3.57	3.34	3.76	4.06	4.71	4.20	2.98	2.30	2.84	3.41
Interest-bearing balances at depositories	3.24	3.06	2.71	2.88	3.33	3.26	3.29	2.24	2.22	2.72
Non-interest-earning assets	12.15	11.60	11.33	11.91	11.66	11.90	11.82	12.13	12.95	12.99
Revaluation gains held in trading accounts	.75	.56	.40	.55	.47	.60	.42	.33	.30	.48
Other	11.40	11.04	10.92	11.37	11.19	11.30	11.40	11.80	12.65	12.51
Liabilities	91.63	91.66	91.57	91.15	90.79	90.65	89.87	88.86	88.08	88.40
Core deposits	49.89	48.33	46.28	46.28	47.07	47.93	46.55	48.18	46.84	47.44
Transaction deposits	14.15	12.12	9.93	8.37	7.49	7.29	7.06	6.64	5.74	5.15
Demand deposits	12.39	10.52	8.61	7.17	6.32	5.96	5.65	5.35	4.54	3.90
Other checkable deposits	1.75	1.60	1.32	1.20	1.17	1.33	1.41	1.29	1.20	1.25
Savings deposits (including MMDAs)	22.51	23.89	24.02	26.62	30.07	32.34	31.75	33.33	32.66	32.99
Small time deposits	13.24	12.31	12.33	11.28	9.51	8.30	7.74	8.20	8.44	9.30
Managed liabilities[2]	38.11	39.85	41.98	40.81	39.48	38.12	39.29	37.04	37.60	37.02
Large time deposits	7.83	8.17	9.54	9.72	8.99	8.20	8.76	10.10	11.44	10.20
Deposits booked in foreign offices	8.37	8.20	7.56	7.05	6.28	6.54	7.21	6.02	6.43	8.52
Subordinated notes and debentures	1.66	1.71	1.54	1.53	1.44	1.38	1.39	1.31	1.32	1.40
Gross federal funds purchased and RPs	9.48	9.78	9.28	9.71	9.66	9.69	8.95	7.17	6.74	6.79
Other managed liabilities	10.77	11.99	14.07	12.79	13.11	12.30	12.97	12.44	11.66	10.10
Revaluation losses held in trading accounts	.76	.58	.41	.52	.44	.56	.40	.34	.29	.47
Other	2.87	2.91	2.91	3.54	3.80	4.05	3.64	3.30	3.35	3.48
Capital account	8.37	8.34	8.43	8.85	9.21	9.35	10.13	11.14	11.92	11.60
MEMO										
Commercial real estate loans[3]	10.11	11.00	12.06	12.06	12.24	12.10	12.85	13.93	15.05	15.95
Other real estate owned[4]	.04	.03	.03	.04	.05	.06	.05	.04	.05	.06
Mortgage-backed securities	8.76	9.34	8.52	9.63	10.93	11.93	11.81	11.81	11.27	11.01
Federal Home Loan Bank advances	n.a.	n.a.	n.a.	4.07	4.85	4.75	4.65	5.19	5.54	5.35
Average net consolidated assets (billions of dollars)	1,745	1,879	2,031	2,130	2,124	2,287	2,376	2,403	2,579	2,798

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007—*Continued*

C. Banks ranked 11 through 100 by assets—*Continued*

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Effective interest rate (percent)[5]									
Rates earned										
Interest-earning assets	8.12	7.90	8.44	7.54	6.03	5.30	5.21	5.98	6.93	6.87
Taxable equivalent	8.16	7.94	8.48	7.58	6.07	5.33	5.24	6.02	6.97	6.91
Loans and leases, gross	8.81	8.56	9.14	8.26	6.80	6.11	5.98	6.61	7.58	7.45
Net of loss provisions	8.14	7.86	8.25	6.96	5.59	5.11	5.19	5.89	7.04	6.64
Securities	6.31	6.41	6.64	5.96	4.79	3.80	3.63	4.18	4.99	5.25
Taxable equivalent	6.46	6.55	6.77	6.08	4.91	3.90	3.73	4.29	5.10	5.37
Investment account	6.33	6.43	6.66	6.04	4.86	3.87	3.64	4.11	4.84	5.18
U.S. Treasury securities and U.S. government agency obligations (excluding MBS)	n.a.	n.a.	n.a.	5.83	4.28	3.17	2.94	3.47	4.28	4.85
Mortgage-backed securities	n.a.	n.a.	n.a.	6.60	5.34	4.20	4.02	4.34	5.02	5.23
Other	n.a.	n.a.	n.a.	5.13	4.22	3.61	3.29	4.06	4.87	5.28
Trading account	5.86	5.62	6.25	4.83	3.59	2.56	3.39	5.30	6.74	5.94
Gross federal funds sold and reverse RPs	5.46	5.13	6.06	3.86	1.68	1.14	1.25	3.24	4.96	5.12
Interest-bearing balances at depositories	5.67	4.82	5.49	4.38	2.46	1.93	2.27	3.20	4.24	4.84
Rates paid										
Interest-bearing liabilities	4.55	4.23	4.97	3.94	2.22	1.61	1.56	2.44	3.48	3.72
Interest-bearing deposits	4.15	3.80	4.42	3.60	1.96	1.35	1.29	2.03	3.07	3.33
In foreign offices	5.22	4.71	5.38	3.67	1.70	1.23	1.42	2.76	4.10	4.01
In domestic offices	3.96	3.64	4.26	3.60	1.99	1.36	1.27	1.95	2.95	3.22
Other checkable deposits	2.41	2.06	2.57	2.32	.94	.64	.72	1.29	2.12	2.60
Savings deposits (including MMDAs)	2.76	2.51	2.94	2.30	1.08	.66	.65	1.30	2.14	2.44
Large time deposits[6]	5.32	5.00	5.88	5.11	3.37	2.70	2.49	3.31	4.45	4.46
Other time deposits[6]	5.35	5.08	5.73	5.42	3.68	2.95	2.58	3.03	4.09	4.74
Gross federal funds purchased and RPs	5.22	4.91	6.02	3.86	1.73	1.20	1.37	3.04	4.46	4.71
Other interest-bearing liabilities	5.75	5.44	6.25	5.29	3.65	3.04	2.77	3.81	4.90	5.25
	Income and expense as a percentage of average net consolidated assets									
Gross interest income	7.15	7.03	7.54	6.70	5.31	4.67	4.63	5.28	6.08	5.99
Taxable equivalent	7.19	7.07	7.57	6.73	5.34	4.70	4.65	5.31	6.11	6.02
Loans	5.78	5.60	6.05	5.28	4.15	3.72	3.71	4.27	4.85	4.60
Securities	1.00	1.11	1.09	1.06	.90	.75	.73	.77	.87	.93
Gross federal funds sold and reverse RPs	.19	.18	.22	.15	.08	.04	.03	.06	.13	.17
Other	.18	.14	.18	.21	.18	.15	.15	.18	.23	.29
Gross interest expense	3.45	3.29	3.96	3.14	1.77	1.30	1.26	1.94	2.78	2.96
Deposits	2.23	2.04	2.41	2.01	1.09	.77	.74	1.18	1.84	2.04
Gross federal funds purchased and RPs	.51	.51	.56	.38	.17	.12	.13	.23	.30	.32
Other	.71	.74	.99	.75	.51	.41	.40	.53	.63	.59
Net interest income	3.70	3.75	3.58	3.56	3.54	3.37	3.36	3.34	3.30	3.03
Taxable equivalent	3.73	3.78	3.61	3.59	3.57	3.40	3.39	3.37	3.33	3.06
Loss provisions[7]	.53	.55	.68	.91	.80	.67	.55	.52	.41	.55
Non-interest income	3.09	3.38	3.18	3.35	3.30	3.29	3.09	2.81	2.91	2.73
Service charges on deposits	.42	.42	.42	.42	.42	.42	.40	.37	.35	.33
Fiduciary activities	.49	.48	.52	.42	.42	.37	.42	.35	.41	.54
Trading revenue	.09	.08	.07	.08	.08	.08	.07	.06	.07	.09
Interest rate exposures	.03	.02	.02	.04	.04	.04	−.01	−.01	.02	*
Foreign exchange rate exposures	.06	.05	.04	.03	.04	.04	.05	.04	.05	.08
Other commodity and equity exposures	*	*	*	*	*	.01	.03	.02	−.01	*
Other	2.09	2.40	2.18	2.43	2.37	2.41	2.20	2.03	2.09	1.77
Non-interest expense	4.05	4.15	4.00	3.95	3.73	3.64	3.55	3.36	3.34	3.45
Salaries, wages, and employee benefits	1.53	1.54	1.44	1.47	1.49	1.47	1.45	1.37	1.34	1.32
Occupancy	.46	.46	.43	.42	.40	.41	.39	.37	.33	.34
Other	2.06	2.16	2.14	2.07	1.84	1.76	1.70	1.62	1.68	1.79
Net non-interest expense	.95	.77	.82	.60	.43	.35	.45	.55	.43	.71
Gains on investment account securities	.03	−.01	−.05	.09	.10	.06	.03	*	−.03	−.05
Income before taxes and extraordinary items	2.24	2.42	2.02	2.14	2.41	2.42	2.39	2.27	2.43	1.71
Taxes	.78	.87	.70	.74	.82	.82	.82	.77	.83	.59
Extraordinary items, net of income taxes	*	*	*	*	*	*	*	.01	.07	−.05
Net income	1.45	1.55	1.32	1.39	1.59	1.59	1.57	1.50	1.67	1.06
Cash dividends declared	.96	1.17	.94	.96	.99	1.05	.95	1.00	1.37	1.26
Retained income	.49	.38	.38	.43	.60	.54	.62	.50	.30	−.20
MEMO: Return on equity	17.37	18.59	15.72	15.74	17.24	17.03	15.54	13.48	14.05	9.16

NOTE: Data are as of April 16, 2008.

1. Includes allocated transfer risk reserve.

2. Measured as the sum of large time deposits in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, Federal Home Loan Bank advances, and other borrowed money.

3. Measured as the sum of construction and land development loans secured by real estate; real estate loans secured by nonfarm nonresidential properties or by multifamily residential properties; and loans to finance commercial real estate, construction, and land development activities not secured by real estate.

4. Other real estate owned is a component of other non-interest-earning assets.

5. When possible, based on the average of quarterly balance sheet data reported on schedule RC-K of the quarterly Call Report.

6. Before 1997, large time deposit open accounts were included in other time deposits.

7. Includes provisions for allocated transfer risk.

* In absolute value, less than 0.005 percent.

n.a. Not available.

MMDA Money market deposit account.

RP Repurchase agreement.

MBS Mortgage-backed securities.

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007

D. Banks ranked 101 through 1,000 by assets

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Balance sheet items as a percentage of average net consolidated assets									
Interest-earning assets	91.38	91.68	91.50	91.16	91.36	91.34	91.56	91.31	91.07	91.29
Loans and leases (net)	61.23	61.48	62.15	62.46	61.46	61.32	63.33	65.15	67.04	68.85
Commercial and industrial	12.45	12.66	12.95	13.03	12.38	11.51	11.52	11.79	11.68	12.08
U.S. addressees	12.12	12.34	12.60	12.65	12.06	11.20	11.21	11.49	11.45	11.80
Foreign addressees	.32	.32	.36	.38	.31	.31	.31	.30	.23	.27
Consumer	12.56	10.77	10.19	9.76	8.13	6.76	6.33	5.38	5.50	5.35
Credit card	4.78	3.37	3.27	3.65	2.63	1.79	1.91	1.20	1.63	1.88
Installment and other	7.78	7.41	6.92	6.11	5.50	4.97	4.42	4.18	3.87	3.46
Real estate	33.83	35.89	36.93	37.64	38.93	40.97	43.38	45.88	47.88	49.49
In domestic offices	33.81	35.87	36.91	37.62	38.90	40.93	43.32	45.81	47.78	49.40
Construction and land development	2.87	3.48	4.15	4.90	5.40	5.90	7.01	8.87	11.01	12.85
Farmland	.56	.58	.65	.66	.73	.80	.91	.99	1.07	1.16
One- to four-family residential	18.14	18.26	17.17	16.18	15.39	15.71	15.33	15.18	14.76	14.08
Home equity	2.14	1.99	2.10	2.21	2.51	2.92	3.46	3.61	3.25	3.01
Other	16.00	16.26	15.06	13.97	12.88	12.79	11.87	11.57	11.51	11.07
Multifamily residential	1.25	1.44	1.58	1.69	1.83	2.00	2.24	2.37	2.32	2.33
Nonfarm nonresidential	10.99	12.11	13.36	14.18	15.55	16.52	17.82	18.40	18.63	18.98
In foreign offices	.02	.02	.02	.02	.03	.05	.06	.08	.10	.09
To depository institutions and acceptances of other banks	.52	.46	.37	.38	.37	.37	.25	.13	.14	.14
Foreign governments	.03	.03	.03	.03	.02	.02	.01	*	*	*
Agricultural production	.80	.78	.82	.85	.86	.83	.82	.81	.84	.88
Other loans	1.30	1.25	1.22	1.22	1.18	1.25	1.32	1.36	1.20	1.22
Lease-financing receivables	.99	.78	.75	.74	.75	.67	.75	.75	.75	.65
LESS: Unearned income on loans	–.09	–.08	–.08	–.07	–.06	–.06	–.06	–.06	–.06	–.06
LESS: Loss reserves[1]	–1.15	–1.06	–1.04	–1.12	–1.09	–1.02	–.98	–.90	–.88	–.91
Securities	24.19	25.18	24.34	22.81	23.85	24.37	23.59	21.59	19.55	18.30
Investment account	24.08	25.10	24.25	22.70	23.80	24.23	23.54	21.51	19.47	18.10
Debt	23.39	24.34	23.46	22.27	23.30	23.80	23.18	21.22	19.20	17.69
U.S. Treasury	3.91	2.53	1.81	1.32	1.23	1.00	1.02	.83	.59	.47
U.S. government agency and corporation obligations	15.08	16.28	15.56	14.70	15.85	16.96	16.70	15.06	13.55	12.32
Government-backed mortgage pools	6.45	6.72	6.22	6.27	6.56	7.03	6.80	5.73	4.83	4.57
Collateralized mortgage obligations	3.21	3.52	3.04	3.08	3.69	3.69	3.41	3.16	2.81	2.60
Other	5.43	6.04	6.30	5.35	5.60	6.24	6.49	6.17	5.90	5.15
State and local government	2.69	2.90	2.91	2.90	2.89	2.95	2.92	2.79	2.74	2.77
Private mortgage-backed securities	.65	1.03	.99	.94	.99	.87	1.08	1.17	1.08	1.01
Other	1.06	1.60	2.19	2.42	2.34	2.01	1.46	1.37	1.24	1.12
Equity	.69	.77	.80	.43	.50	.43	.36	.29	.27	.41
Trading account	.11	.08	.09	.11	.05	.14	.05	.08	.07	.20
Gross federal funds sold and reverse RPs	4.16	3.35	3.40	4.20	4.15	3.85	2.95	2.82	2.81	2.57
Interest-bearing balances at depositories	1.80	1.68	1.60	1.68	1.89	1.80	1.69	1.76	1.67	1.57
Non-interest-earning assets	8.62	8.32	8.50	8.84	8.64	8.66	8.44	8.69	8.93	8.71
Revaluation gains held in trading accounts	*	.01	.02	.01	.01	*	*	*	.03	.04
Other	8.62	8.31	8.49	8.84	8.64	8.66	8.44	8.68	8.90	8.67
Liabilities	90.55	90.90	90.95	90.32	89.93	89.69	89.18	89.11	89.01	88.86
Core deposits	63.87	62.48	60.80	60.34	61.27	61.33	60.40	59.07	58.04	59.68
Transaction deposits	16.08	13.93	12.29	11.48	11.37	11.51	11.77	11.16	9.81	8.43
Demand deposits	11.87	10.19	8.97	8.23	8.05	7.97	8.13	7.87	6.99	5.94
Other checkable deposits	4.22	3.75	3.32	3.25	3.32	3.54	3.64	3.28	2.83	2.49
Savings deposits (including MMDAs)	26.43	28.56	28.55	29.40	32.34	34.02	34.42	33.77	32.82	32.89
Small time deposits	21.36	19.98	19.96	19.46	17.55	15.80	14.20	14.14	15.41	18.36
Managed liabilities[2]	24.65	26.33	28.01	27.75	26.57	26.38	26.98	28.38	29.32	27.51
Large time deposits	10.09	10.29	11.98	12.60	12.16	11.90	12.12	13.64	15.21	14.42
Deposits booked in foreign offices	1.31	1.20	1.28	1.24	.88	.64	.65	.57	.52	.57
Subordinated notes and debentures	.37	.35	.30	.31	.34	.35	.35	.27	.24	.22
Gross federal funds purchased and RPs	6.15	6.90	6.30	5.76	5.27	5.36	5.52	5.55	5.40	5.33
Other managed liabilities	6.73	7.58	8.15	7.84	7.90	8.13	8.34	8.35	7.94	6.97
Revaluation losses held in trading accounts	.01	.01	*	.01	.01	*	*	*	.01	.01
Other	2.02	2.09	2.13	2.23	2.08	1.98	1.81	1.66	1.64	1.66
Capital account	9.45	9.10	9.05	9.68	10.07	10.31	10.82	10.89	10.99	11.14
MEMO										
Commercial real estate loans[3]	15.33	17.27	19.32	21.03	23.06	24.64	27.28	29.85	32.22	34.52
Other real estate owned[4]	.09	.08	.07	.08	.10	.11	.10	.08	.08	.11
Mortgage-backed securities	10.31	11.27	10.25	10.29	11.24	11.60	11.29	10.07	8.72	8.18
Federal Home Loan Bank advances	n.a.	n.a.	n.a.	5.27	5.71	6.29	6.46	6.43	6.11	5.53
Average net consolidated assets (billions of dollars)	938	974	987	1,002	1,022	1,072	1,080	1,152	1,249	1,267

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007—*Continued*

D. Banks ranked 101 through 1,000 by assets—*Continued*

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Effective interest rate (percent)[5]									
Rates earned										
Interest-earning assets	8.38	7.83	8.48	7.85	6.42	5.58	5.46	6.11	7.01	7.32
Taxable equivalent	8.47	7.92	8.56	7.94	6.50	5.66	5.53	6.18	7.08	7.39
Loans and leases, gross	9.41	8.74	9.42	8.76	7.30	6.55	6.25	6.89	7.79	8.02
Net of loss provisions	8.78	8.26	8.75	7.87	6.55	6.00	5.87	6.63	7.54	7.47
Securities	6.30	6.04	6.45	5.96	4.95	3.81	3.79	4.03	4.53	4.86
Taxable equivalent	6.57	6.29	6.71	6.24	5.21	4.06	4.04	4.28	4.80	5.14
Investment account	6.30	6.03	6.45	5.96	4.92	3.82	3.78	4.02	4.53	4.86
U.S. Treasury securities and U.S. government agency obligations (excluding MBS)	n.a.	n.a.	n.a.	5.85	4.54	3.42	3.15	3.47	4.19	4.74
Mortgage-backed securities	n.a.	n.a.	n.a.	6.33	5.38	3.95	4.01	4.23	4.64	4.96
Other	n.a.	n.a.	n.a.	5.40	4.50	4.07	4.21	4.42	4.81	4.81
Trading account	6.84	7.33	9.30	6.60	14.05	3.07	10.30	6.59	4.92	5.25
Gross federal funds sold and reverse RPs	5.31	4.98	6.15	3.91	1.73	1.27	1.57	3.31	4.94	5.07
Interest-bearing balances at depositories	5.77	5.07	5.76	3.93	1.79	1.26	1.47	3.29	4.58	4.94
Rates paid										
Interest-bearing liabilities	4.50	4.09	4.79	3.97	2.44	1.79	1.65	2.36	3.38	3.79
Interest-bearing deposits	4.28	3.84	4.46	3.81	2.27	1.60	1.44	2.09	3.11	3.59
In foreign offices	5.55	5.07	6.13	4.27	2.14	1.43	1.43	3.05	4.50	4.63
In domestic offices	4.25	3.82	4.43	3.81	2.28	1.60	1.44	2.08	3.10	3.58
Other checkable deposits	2.15	1.99	2.27	1.81	1.06	.74	.72	1.18	1.74	1.89
Savings deposits (including MMDAs)	2.96	2.65	3.07	2.22	1.17	.76	.74	1.27	2.06	2.38
Large time deposits[6]	5.51	5.17	6.00	5.27	3.32	2.57	2.33	3.21	4.41	4.91
Other time deposits[6]	5.64	5.11	5.74	5.51	3.77	2.86	2.51	3.10	4.19	4.83
Gross federal funds purchased and RPs	5.13	4.82	5.95	3.82	1.83	1.29	1.45	2.94	4.52	4.62
Other interest-bearing liabilities	5.93	5.47	6.46	5.32	4.22	3.57	3.37	4.02	4.75	5.04
	Income and expense as a percentage of average net consolidated assets									
Gross interest income	7.66	7.19	7.79	7.16	5.84	5.07	4.99	5.57	6.40	6.68
Taxable equivalent	7.74	7.27	7.86	7.24	5.91	5.14	5.06	5.63	6.46	6.74
Loans	5.89	5.47	5.96	5.59	4.56	4.06	4.01	4.55	5.29	5.58
Securities	1.50	1.51	1.58	1.33	1.15	.91	.88	.86	.89	.88
Gross federal funds sold and reverse RPs	.22	.17	.21	.16	.07	.05	.05	.09	.14	.13
Other	.06	.04	.04	.08	.06	.05	.05	.07	.09	.09
Gross interest expense	3.44	3.20	3.79	3.14	1.92	1.41	1.29	1.84	2.67	3.01
Deposits	2.70	2.44	2.87	2.48	1.49	1.04	.92	1.34	2.04	2.41
Gross federal funds purchased and RPs	.32	.34	.38	.22	.09	.07	.08	.16	.24	.25
Other	.42	.42	.54	.44	.34	.30	.29	.34	.39	.36
Net interest income	4.21	3.99	4.00	4.02	3.92	3.66	3.70	3.72	3.73	3.67
Taxable equivalent	4.29	4.07	4.07	4.10	3.99	3.73	3.77	3.79	3.79	3.73
Loss provisions[7]	.49	.39	.52	.65	.54	.40	.30	.23	.23	.45
Non-interest income	2.26	2.31	2.35	2.37	2.37	2.30	2.26	2.01	1.98	1.88
Service charges on deposits	.39	.38	.36	.39	.41	.41	.39	.36	.35	.36
Fiduciary activities	.37	.38	.44	.40	.35	.34	.37	.35	.30	.31
Trading revenue	.02	.02	.01	*	*	.01	.01	.01	.01	.01
Interest rate exposures	.01	.01	.01	–.01	*	.01	.01	.01	*	*
Foreign exchange rate exposures	*	*	*	*	*	*	*	*	*	*
Other commodity and equity exposures	*	*	*	*	*	*	*	*	*	*
Other	1.49	1.53	1.55	1.58	1.60	1.54	1.49	1.29	1.32	1.20
Non-interest expense	3.86	3.70	3.84	3.88	3.72	3.59	3.54	3.37	3.35	3.26
Salaries, wages, and employee benefits	1.56	1.56	1.59	1.61	1.64	1.64	1.64	1.61	1.59	1.57
Occupancy	.47	.47	.47	.46	.45	.43	.43	.41	.40	.40
Other	1.83	1.68	1.78	1.81	1.63	1.52	1.47	1.35	1.35	1.28
Net non-interest expense	1.60	1.39	1.48	1.52	1.35	1.29	1.29	1.36	1.36	1.38
Gains on investment account securities	.04	–.01	–.04	.05	.04	.05	.02	–.01	–.01	–.01
Income before taxes and extraordinary items	2.16	2.19	1.96	1.90	2.07	2.02	2.13	2.12	2.12	1.83
Taxes	.74	.74	.67	.66	.67	.66	.68	.68	.69	.58
Extraordinary items, net of income taxes	.06	.01	*	.01	*	.03	*	*	*	*
Net income	1.47	1.46	1.29	1.25	1.39	1.39	1.45	1.45	1.43	1.25
Cash dividends declared	1.01	1.06	.92	1.33	1.19	1.64	.78	.86	.89	.91
Retained income	.46	.40	.37	–.08	.20	–.25	.68	.58	.54	.34
MEMO: Return on equity	15.60	16.10	14.21	12.94	13.83	13.48	13.42	13.30	13.03	11.21

NOTE: Data are as of April 16, 2008.

1. Includes allocated transfer risk reserve.

2. Measured as the sum of large time deposits in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, Federal Home Loan Bank advances, and other borrowed money.

3. Measured as the sum of construction and land development loans secured by real estate; real estate loans secured by nonfarm nonresidential properties or by multifamily residential properties; and loans to finance commercial real estate, construction, and land development activities not secured by real estate.

4. Other real estate owned is a component of other non-interest-earning assets.

5. When possible, based on the average of quarterly balance sheet data reported on schedule RC-K of the quarterly Call Report.

6. Before 1997, large time deposit open accounts were included in other time deposits.

7. Includes provisions for allocated transfer risk.

* In absolute value, less than 0.005 percent.

n.a. Not available.

MMDA Money market deposit account.

RP Repurchase agreement.

MBS Mortgage-backed securities.

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007

E. Banks not ranked among the 1,000 largest by assets

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Balance sheet items as a percentage of average net consolidated assets									
Interest-earning assets	92.64	92.55	92.52	92.26	92.22	92.14	92.34	92.30	92.37	92.40
Loans and leases (net)	59.11	59.76	62.31	62.67	62.72	62.31	63.80	65.44	66.65	67.29
Commercial and industrial	10.33	10.64	11.09	11.10	10.71	10.42	10.29	10.21	10.17	10.25
U.S. addressees	10.25	10.55	11.02	11.02	10.65	10.36	10.25	10.15	10.12	10.22
Foreign addressees	.08	.08	.07	.08	.06	.05	.04	.06	.05	.04
Consumer	8.46	8.17	7.98	7.42	6.77	6.16	5.45	4.97	4.63	4.36
Credit card	.70	.69	.59	.59	.49	.51	.40	.36	.37	.37
Installment and other	7.76	7.47	7.39	6.83	6.28	5.65	5.05	4.61	4.25	3.99
Real estate	36.04	36.83	39.29	40.30	41.52	42.30	44.75	46.97	48.54	49.28
In domestic offices	36.04	36.83	39.29	40.30	41.52	42.30	44.75	46.97	48.53	49.28
Construction and land development	3.02	3.28	3.70	4.23	4.51	4.99	6.01	7.46	9.10	10.01
Farmland	2.83	2.95	3.06	3.04	3.08	3.13	3.22	3.25	3.26	3.38
One- to four-family residential	18.04	17.66	18.43	18.24	17.91	17.09	17.18	17.12	16.69	16.30
Home equity	1.21	1.17	1.28	1.37	1.62	1.79	2.11	2.20	2.06	2.01
Other	16.83	16.49	17.15	16.87	16.29	15.29	15.06	14.93	14.63	14.30
Multifamily residential	.93	.98	1.04	1.06	1.16	1.28	1.41	1.48	1.47	1.50
Nonfarm nonresidential	11.22	11.96	13.06	13.71	14.86	15.82	16.93	17.66	18.01	18.09
In foreign offices	*	*	*	*	*	*	*	*	*	*
To depository institutions and acceptances of other banks	.14	.14	.12	.12	.10	.09	.07	.05	.05	.06
Foreign governments	*	.01	.01	*	*	*	*	*	*	*
Agricultural production	4.27	4.06	3.85	3.76	3.64	3.40	3.26	3.21	3.22	3.26
Other loans	.67	.67	.69	.67	.65	.66	.68	.70	.70	.70
Lease-financing receivables	.24	.26	.27	.27	.31	.26	.25	.24	.26	.27
LESS: Unearned income on loans	-.20	-.15	-.11	-.09	-.07	-.06	-.06	-.05	-.05	-.04
LESS: Loss reserves[1]	-.86	-.87	-.88	-.88	-.90	-.92	-.89	-.87	-.87	-.87
Securities	26.69	26.91	25.40	22.80	23.34	23.47	23.34	21.92	20.54	19.65
Investment account	26.66	26.88	25.38	22.79	23.32	23.44	23.33	21.90	20.52	19.57
Debt	26.12	26.34	24.82	22.49	23.05	23.12	23.07	21.70	20.35	19.41
U.S. Treasury	5.05	3.34	2.12	1.33	1.04	.90	.81	.71	.61	.47
U.S. government agency and corporation obligations	15.43	16.89	16.95	15.27	16.07	16.23	16.57	15.64	14.73	14.02
Government-backed mortgage pools	3.90	3.95	3.47	3.78	4.54	4.84	4.76	4.23	3.62	3.55
Collateralized mortgage obligations	2.02	2.00	1.70	1.94	2.30	2.20	1.96	1.71	1.50	1.55
Other	9.51	10.93	11.78	9.56	9.23	9.19	9.85	9.70	9.61	8.92
State and local government	4.80	4.96	4.64	4.51	4.56	4.73	4.67	4.49	4.30	4.20
Private mortgage-backed securities	.16	.26	.23	.27	.26	.21	.19	.22	.24	.29
Other	.69	.89	.88	1.11	1.12	1.05	.83	.65	.48	.43
Equity	.54	.53	.56	.30	.27	.31	.26	.20	.17	.17
Trading account	.04	.03	.02	.01	.01	.04	.01	.02	.02	.07
Gross federal funds sold and reverse RPs	5.13	4.17	3.22	5.01	4.26	4.27	3.33	3.24	3.53	3.92
Interest-bearing balances at depositories	1.72	1.71	1.59	1.78	1.90	2.08	1.86	1.70	1.65	1.55
Non-interest-earning assets	7.36	7.45	7.48	7.74	7.78	7.86	7.66	7.70	7.63	7.60
Revaluation gains held in trading accounts	*	*	*	*	*	*	*	*	*	*
Other	7.36	7.45	7.48	7.74	7.78	7.86	7.66	7.70	7.63	7.60
Liabilities	89.53	89.75	89.88	89.59	89.73	89.58	89.55	89.49	89.35	88.95
Core deposits	73.75	72.74	70.87	69.92	70.04	69.97	69.24	67.68	65.74	65.12
Transaction deposits	24.26	23.87	23.20	22.35	22.67	23.18	23.36	22.72	20.81	18.66
Demand deposits	13.08	12.80	12.64	12.16	12.24	12.58	12.77	12.77	11.97	10.74
Other checkable deposits	11.18	11.07	10.57	10.19	10.42	10.60	10.59	9.95	8.84	7.93
Savings deposits (including MMDAs)	19.06	19.77	19.19	19.38	21.32	22.42	23.24	22.98	22.66	22.68
Small time deposits	30.43	29.10	28.48	28.19	26.05	24.36	22.64	21.98	22.28	23.77
Managed liabilities[2]	14.76	16.09	18.08	18.67	18.79	18.77	19.57	21.04	22.76	22.92
Large time deposits	11.11	11.52	12.51	13.55	13.21	13.07	13.16	14.53	16.49	16.91
Deposits booked in foreign offices	.07	.08	.05	.06	.07	.06	.07	.06	.06	.05
Subordinated notes and debentures	.01	.01	.02	.02	.04	.03	.04	.03	.03	.03
Gross federal funds purchased and RPs	1.49	1.79	2.06	1.55	1.51	1.52	1.76	1.74	1.82	1.82
Other managed liabilities	2.08	2.69	3.44	3.49	3.96	4.09	4.55	4.68	4.36	4.11
Revaluation losses held in trading accounts	*	*	*	*	*	*	*	*	*	*
Other	1.03	.92	.93	1.00	.90	.84	.74	.77	.84	.91
Capital account	10.47	10.25	10.12	10.41	10.27	10.42	10.45	10.51	10.65	11.05
MEMO										
Commercial real estate loans[3]	15.27	16.33	17.91	19.15	20.67	22.22	24.50	26.76	28.81	29.89
Other real estate owned[4]	.13	.11	.11	.12	.14	.15	.14	.13	.12	.16
Mortgage-backed securities	6.07	6.22	5.39	5.99	7.10	7.25	6.91	6.15	5.36	5.39
Federal Home Loan Bank advances	n.a.	n.a.	n.a.	3.34	3.72	3.87	4.32	4.47	4.14	3.93
Average net consolidated assets (billions of dollars)	644	651	655	674	704	741	768	804	840	862

A.1. Portfolio composition, interest rates, and income and expense, U.S. banks, 1998–2007—*Continued*

E. Banks not ranked among the 1,000 largest by assets—*Continued*

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Effective interest rate (percent)[5]									
Rates earned										
Interest-earning assets	8.35	8.04	8.44	7.92	6.79	5.93	5.73	6.23	7.01	7.26
Taxable equivalent	8.48	8.17	8.56	8.03	6.90	6.04	5.84	6.33	7.10	7.36
Loans and leases, gross	9.69	9.27	9.51	9.01	7.83	7.08	6.71	7.17	7.94	8.13
Net of loss provisions	9.34	8.89	9.14	8.60	7.39	6.71	6.45	6.94	7.74	7.83
Securities	6.04	5.88	6.15	5.86	5.03	3.87	3.74	3.87	4.28	4.68
Taxable equivalent	6.45	6.29	6.54	6.27	5.43	4.26	4.11	4.24	4.65	5.06
Investment account	6.04	5.88	6.15	5.86	5.02	3.87	3.73	3.86	4.28	4.68
U.S. Treasury securities and U.S. government agency obligations (excluding MBS)	n.a.	n.a.	n.a.	5.97	4.80	3.74	3.38	3.53	4.12	4.70
Mortgage-backed securities	n.a.	n.a.	n.a.	6.20	5.47	3.58	3.90	4.16	4.59	4.96
Other	n.a.	n.a.	n.a.	5.29	4.87	4.43	4.18	4.16	4.25	4.33
Trading account	5.26	3.60	4.01	6.43	15.38	2.89	18.95	7.52	7.51	4.97
Gross federal funds sold and reverse RPs	5.35	4.96	6.24	3.82	1.63	1.08	1.32	3.21	4.95	5.05
Interest-bearing balances at depositories	5.65	5.65	6.38	4.56	2.68	1.97	2.02	3.21	4.64	5.05
Rates paid										
Interest-bearing liabilities	4.63	4.32	4.84	4.43	2.93	2.14	1.88	2.44	3.42	3.91
Interest-bearing deposits	4.52	4.21	4.67	4.31	2.78	2.02	1.75	2.29	3.28	3.81
In foreign offices	4.84	4.12	5.13	3.97	1.67	.85	1.04	2.86	4.27	4.66
In domestic offices	4.52	4.21	4.67	4.31	2.78	2.02	1.75	2.29	3.28	3.81
Other checkable deposits	2.44	2.27	2.47	1.97	1.16	.78	.69	.99	1.45	1.61
Savings deposits (including MMDAs)	3.38	3.20	3.56	2.81	1.72	1.13	1.04	1.53	2.34	2.67
Large time deposits[6]	5.53	5.21	5.89	5.52	3.61	2.78	2.47	3.21	4.37	4.90
Other time deposits[6]	5.63	5.24	5.70	5.60	3.88	2.96	2.55	3.04	4.12	4.79
Gross federal funds purchased and RPs	4.96	4.73	5.69	3.92	1.85	1.31	1.45	2.89	4.37	4.45
Other interest-bearing liabilities	9.56	8.25	9.13	8.08	6.82	5.32	4.59	5.01	5.70	5.82
	Income and expense as a percentage of average net consolidated assets									
Gross interest income	7.74	7.48	7.83	7.33	6.31	5.46	5.32	5.78	6.49	6.74
Taxable equivalent	7.86	7.60	7.95	7.44	6.41	5.56	5.41	5.87	6.58	6.82
Loans	5.80	5.62	5.99	5.73	5.01	4.47	4.35	4.76	5.35	5.53
Securities	1.59	1.58	1.57	1.32	1.16	.89	.87	.85	.88	.92
Gross federal funds sold and reverse RPs	.29	.22	.21	.20	.07	.05	.05	.11	.18	.20
Other	.06	.06	.05	.08	.06	.06	.05	.06	.08	.08
Gross interest expense	3.46	3.26	3.64	3.33	2.22	1.60	1.41	1.82	2.56	2.95
Deposits	3.25	3.02	3.30	3.07	1.98	1.41	1.22	1.58	2.27	2.67
Gross federal funds purchased and RPs	.07	.08	.12	.06	.03	.02	.02	.05	.08	.08
Other	.13	.15	.21	.20	.21	.17	.17	.19	.21	.20
Net interest income	4.28	4.22	4.20	4.00	4.08	3.86	3.91	3.96	3.94	3.79
Taxable equivalent	4.40	4.34	4.31	4.10	4.19	3.96	4.00	4.05	4.03	3.87
Loss provisions[7]	.29	.31	.32	.33	.35	.29	.23	.21	.20	.27
Non-interest income	1.52	1.44	1.31	1.30	1.39	1.47	1.38	1.33	1.31	1.33
Service charges on deposits	.42	.42	.43	.44	.45	.43	.43	.40	.38	.37
Fiduciary activities	.23	.26	.21	.25	.27	.28	.31	.33	.36	.38
Trading revenue	*	*	*	*	*	*	*	*	*	*
Interest rate exposures	*	*	*	*	*	*	*	*	*	*
Foreign exchange rate exposures	*	*	*	*	*	*	*	*	*	*
Other commodity and equity exposures	*	*	*	*	*	*	*	*	*	*
Other	.86	.75	.67	.61	.67	.76	.64	.61	.57	.58
Non-interest expense	3.74	3.73	3.57	3.54	3.57	3.56	3.52	3.48	3.49	3.53
Salaries, wages, and employee benefits	1.82	1.82	1.78	1.79	1.82	1.82	1.81	1.79	1.82	1.84
Occupancy	.49	.49	.47	.47	.46	.45	.45	.44	.44	.44
Other	1.43	1.42	1.31	1.28	1.28	1.28	1.26	1.25	1.24	1.25
Net non-interest expense	2.23	2.29	2.26	2.24	2.18	2.09	2.14	2.15	2.18	2.19
Gains on investment account securities	.02	*	−.01	.04	.05	.04	.01	*	−.01	*
Income before taxes and extraordinary items	1.79	1.62	1.61	1.46	1.60	1.53	1.55	1.60	1.55	1.32
Taxes	.53	.47	.45	.39	.41	.38	.37	.38	.36	.29
Extraordinary items, net of income taxes	*	*	*	*	−.01	*	*	*	*	*
Net income	1.26	1.15	1.17	1.07	1.18	1.14	1.18	1.21	1.19	1.03
Cash dividends declared	.81	.70	.79	.64	.68	.67	.64	.67	.65	.67
Retained income	.45	.45	.38	.43	.50	.47	.54	.54	.53	.36
MEMO: Return on equity	12.00	11.25	11.52	10.28	11.49	10.97	11.26	11.54	11.15	9.30

NOTE: Data are as of April 16, 2008.

1. Includes allocated transfer risk reserve.
2. Measured as the sum of large time deposits in domestic offices, deposits booked in foreign offices, subordinated notes and debentures, federal funds purchased and securities sold under repurchase agreements, Federal Home Loan Bank advances, and other borrowed money.
3. Measured as the sum of construction and land development loans secured by real estate; real estate loans secured by nonfarm nonresidential properties or by multifamily residential properties; and loans to finance commercial real estate, construction, and land development activities not secured by real estate.
4. Other real estate owned is a component of other non-interest-earning assets.
5. When possible, based on the average of quarterly balance sheet data reported on schedule RC-K of the quarterly Call Report.
6. Before 1997, large time deposit open accounts were included in other time deposits.
7. Includes provisions for allocated transfer risk.

* In absolute value, less than 0.005 percent.

n.a. Not available.

MMDA Money market deposit account.

RP Repurchase agreement.

MBS Mortgage-backed securities.

A.2. Report of income, all U.S. banks, 1998–2007

Millions of dollars

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Gross interest income	359,478	367,128	423,840	404,250	349,583	329,138	348,663	426,535	551,042	617,099
Taxable equivalent	361,941	369,763	426,475	406,935	352,330	331,919	351,647	429,490	554,296	620,563
Loans	271,262	279,223	326,801	311,539	269,384	257,619	269,404	328,023	421,872	464,903
Securities	56,581	62,412	67,664	63,061	59,305	53,315	58,575	65,864	78,913	82,714
Gross federal funds sold and reverse repurchase agreements	14,999	12,336	13,545	12,647	6,221	5,015	5,142	11,045	21,296	28,737
Other	16,636	13,158	15,829	17,006	14,672	13,187	15,538	21,602	28,959	40,744
Gross interest expense	178,133	175,399	222,159	188,746	118,731	94,098	98,539	162,499	263,372	310,496
Deposits	125,197	119,971	151,145	132,310	81,691	62,377	63,638	105,922	173,878	212,784
Gross federal funds purchased and repurchase agreements	22,175	21,210	26,859	19,583	9,920	7,590	8,842	19,161	33,775	37,797
Other	30,759	34,216	44,155	36,852	27,121	24,131	26,058	37,416	55,720	59,914
Net interest income	181,345	191,729	201,681	215,504	230,852	235,040	250,124	264,036	287,670	306,603
Taxable equivalent	183,808	194,364	204,316	218,189	233,599	237,821	253,108	266,991	290,924	310,067
Loss provisions	21,413	21,222	29,386	43,084	45,205	32,702	23,893	25,540	25,384	56,445
Non-interest income	124,047	144,794	153,101	160,897	168,231	183,745	188,998	201,628	222,887	218,586
Service charges on deposits	19,769	21,590	23,720	26,872	29,628	31,692	33,454	33,830	36,194	39,185
Fiduciary activities	19,267	20,532	22,212	21,988	21,403	22,453	25,088	26,381	28,312	32,973
Trading revenue	7,693	10,437	12,235	12,380	10,790	11,585	10,303	14,375	19,170	5,278
Other	77,316	92,235	94,934	99,658	106,409	118,015	120,154	127,038	139,214	141,149
Non-interest expense	194,103	205,205	216,373	225,979	230,120	243,180	263,301	274,063	294,890	321,390
Salaries, wages, and employee benefits	79,543	86,394	89,015	94,196	100,443	108,434	115,253	124,037	135,868	144,700
Occupancy	24,162	25,944	26,761	27,939	29,309	31,312	33,252	35,050	36,393	38,526
Other	90,397	92,867	100,598	103,846	100,365	103,433	114,797	114,976	122,628	138,164
Net non-interest expense	70,056	60,411	63,272	65,082	61,889	59,435	74,303	72,435	72,003	102,804
Gains on investment account securities	3,090	246	−2,280	4,630	6,410	5,633	3,392	−220	−1,320	−618
Income before taxes	92,966	110,342	106,740	111,971	130,173	148,553	155,323	165,841	188,964	146,738
Taxes	31,946	39,314	37,248	37,284	42,816	48,493	50,264	53,534	60,956	44,323
Extraordinary items, net of income taxes	506	169	−31	−324	−68	427	59	241	2,647	−1,674
Net income	**61,524**	**71,197**	**69,461**	**74,363**	**87,288**	**100,489**	**105,116**	**112,546**	**130,656**	**100,739**
Cash dividends declared	41,144	52,280	52,547	54,844	67,230	77,757	59,523	64,523	82,309	85,244
Retained income	20,380	18,917	16,914	19,518	20,059	22,733	45,591	48,024	48,346	15,495

NOTE: Data are as of April 16, 2008.

August 2008

Industrial Production and Capacity Utilization: The 2008 Annual Revision

Kimberly Bayard and Charles Gilbert, of the Board's Division of Research and Statistics, prepared this article. Betsy Wang provided research assistance.

On March 28, 2008, the Federal Reserve published revisions to its index of industrial production (IP) and the related measures of capacity and capacity utilization. Although the revision affected the data from January 1972 through February 2008, most of the changes were for the period beginning in 2003.[1] Relative to earlier estimates, measured from fourth quarter to fourth quarter, IP is now reported to have increased more slowly in 2006, but changes to output gains in other years since 2003 were more modest. The period from 2003 through 2007 was marked by a steady, moderate rise in industrial output; on average, production increased 2.2 percent per year, and the annual rates of change ranged from 1.5 percent to 3.1 percent (table 1).[2]

The revision shows that the rates of capacity utilization for total industry in the fourth quarters of 2006 and 2007 were lower than previously estimated. The larger revision was for 2006, when utilization was restated to be 80.7 percent, 0.8 percentage point lower than reported earlier. The downward revision for the fourth quarter of 2007 was 0.5 percentage point; at 81.0 percent, utilization was the same as its (long-run) average for 1972 through 2007. The operating rate for manufacturing was revised down about 1 percentage point in 2006 and ½ percentage point in 2007; in both years, downward revisions were widespread across industries. For the fourth quarter of 2007, the factory operating rate stood at 79.3 percent, a little below its long-run average of 79.7 percent. The utilization rate for mines was revised down almost 2 percentage points in the fourth quarter of 2007; still, it then stood at 90.2 percent, 2.7 percentage points above its long-run average. The revised operating rate for utilities is lower, on balance, in recent years than reported earlier.[3] For the fourth quarter of 2007, utilization was 85.9 percent, almost 1 percentage point lower than its long-run average.

Compared with the previous estimates, total industrial capacity is now reported to have risen more slowly in 2006, but the rates of change in other recent years are little different. The smaller increase in 2006 reflected downward revisions to manufacturing and utilities; the capacity index for mining is now reported to have been higher than stated earlier. For high-technology industries, capacity is now estimated to have increased markedly less in 2005 and 2006, but the revisions to the estimates for other recent years were more modest.

Besides including the revised estimates and methods typical of annual revisions, the current revision marks the incorporation of a six-month reporting window. Beginning with the Federal Reserve's G.17 Statistical Release of April 16, 2008, monthly releases are based on a six-month reporting window: One month of new data is reported, and the previous five months of data are revised. For example, the monthly release issued on April 16 included new data for March and revised data for October through February. Previously, the monthly releases were issued with a four-month reporting window, which covered one month of new data and revisions to the previous three months of data. The incorporation of a six-month window will allow for the inclusion of additional data before an annual revision. From March 2007 to March 2008, a six-month window would

NOTE: Charles Gilbert directed the 2008 revision and, with Kimberly Bayard, David Byrne, Wendy Dunn, Christopher Kurz, Paul Lengermann, Norman Morin, Maria Otoo, and Daniel Vine, prepared the revised estimates of industrial production. David Byrne prepared the improved estimates for communications equipment. Norman Morin and Daniel Vine prepared the revised estimates of capacity and capacity utilization.

1. When necessary to maintain consistency with any revisions to the data for 1972 and subsequent years, the production and capacity indexes for the years before 1972 were multiplied by a constant. However, utilization rates and rates of change in IP for the years before 1972 were not revised.

2. Revised data reported in this article were published in Board of Governors of the Federal Reserve System (2008), Statistical Release G.17, "Industrial Production and Capacity Utilization" (July 16). Data referred to in this article as "previous" appeared in the G.17 release issued on March 17, 2008. That release was the last G.17 published before the annual revision was issued on March 28.

3. In this article, "recent years" generally refers to years in the period from 2003 through 2007.

1. Revised rates of change in industrial production and capacity, revised rates of capacity utilization, and the difference between revised and previously reported rates, 2003–07

Item	MEMO: 2006 proportion	Revised rate (percent)						Difference between rates (revised minus previous, percentage points)					
		2003–07 avg.	2003	2004	2005	2006	2007	2003–07 avg.	2003	2004	2005	2006	2007
Production													
Total index	100.0	2.2	1.5	3.1	2.6	1.7	2.1	–.3	.4	.1	–.6	–1.8	.4
Manufacturing	79.2	2.5	1.7	3.7	3.7	1.1	2.3	–.3	.4	.2	–.7	–2.2	.6
Excluding selected high-tech industries[1]	74.7	1.4	.2	3.3	2.5	.1	1.1	–.3	.0	.3	–.4	–1.9	.3
Selected high-tech industries	4.6	19.1	23.8	9.4	22.4	17.3	22.3	–.4	6.7	–1.0	–5.7	–7.3	5.5
Mining and utilities	20.8	1.0	.7	.6	–1.6	3.9	1.6	–.1	.2	–.1	.0	–.1	–.5
Capacity													
Total index	100.0	.7	–.6	.2	.8	1.3	1.8	–.2	.3	.0	–.2	–1.1	.0
Manufacturing	80.9	.9	–.6	.2	1.4	1.4	2.0	–.3	.3	.1	–.3	–1.3	–.2
Excluding selected high-tech industries[1]	75.7	.3	–.7	–.2	.7	.8	.8	–.1	.1	.0	.1	–.6	–.2
Selected high-tech industries	5.1	10.9	4.2	5.5	13.1	10.3	21.4	–1.7	2.8	1.2	–5.2	–9.3	1.9
Mining and utilities	19.1	.9	1.4	.8	–.4	1.1	1.5	.1	.4	–.4	.5	–.3	.4
Capacity utilization													
Total index	100.0	79.6	76.8	79.1	80.4	80.7	81.0	–.3	.0	.0	–.2	–.8	–.5
Manufacturing	80.9	78.0	74.8	77.5	79.2	79.0	79.3	–.4	–.2	–.1	–.3	–1.1	–.5
Excluding selected high-tech industries[1]	75.7	78.2	75.5	78.1	79.5	79.0	79.2	–.6	–.2	.0	–.3	–1.4	–1.0
Selected high-tech industries	5.1	74.3	67.1	69.5	75.2	80.0	79.9	.0	.3	–1.2	–1.3	.3	2.0
Mining and utilities	19.1	87.0	86.9	86.7	85.6	87.9	88.1	–.1	.0	.3	–.2	.0	–.6

NOTE: For production and capacity, the revised rates of change are from the fourth quarter of the previous year to the fourth quarter of the year indicated; the differences between revised and previously reported production are also calculated from Q4-to-Q4 rates.

Capacity utilization rates are for the fourth quarter of the year indicated; differences between revised and previously reported capacity utilization are also calculated from Q4 rates.

1. Manufacturing excluding semiconductors and related electronic components, computers and peripheral equipment, and communications equipment.

have allowed an additional 3 percent to 4 percent of IP to reflect primary source data that otherwise would have been incorporated only at the time of an annual revision.[4] The longer reporting window will cause the latest month of data shown for a few indexes in the supplement to the G.17 release to be as many as five months earlier than the latest value for aggregate IP; the monthly values for detailed production indexes are not shown until the underlying data are available or the reporting window is closed. For the 12 months preceding the publication of the 2008 annual revision, the data issued for only one or two of the published indexes would have been affected by this change.

The updated measures of production incorporate several newly available sources of data. The primary source is the U.S. Census Bureau's 2006 Annual Survey of Manufactures (ASM), which shows a lower annual level of output than previously estimated. The revision also incorporates other new source data from the Census Bureau, including manufacturing data from selected 2006 Current Industrial Reports and annual data on the publishing industry from the Services Annual Survey. Updated price deflators from the Bureau of Economic Analysis are used in the construction of the revised production estimates. In addition, new annual data on mineral extraction for 2005 and 2006 from the U.S. Geological Survey are used. Finally, the new monthly production estimates also reflect the incorporation of updated seasonal factors and monthly source data that became available (or were revised) after the closing of the reporting window.

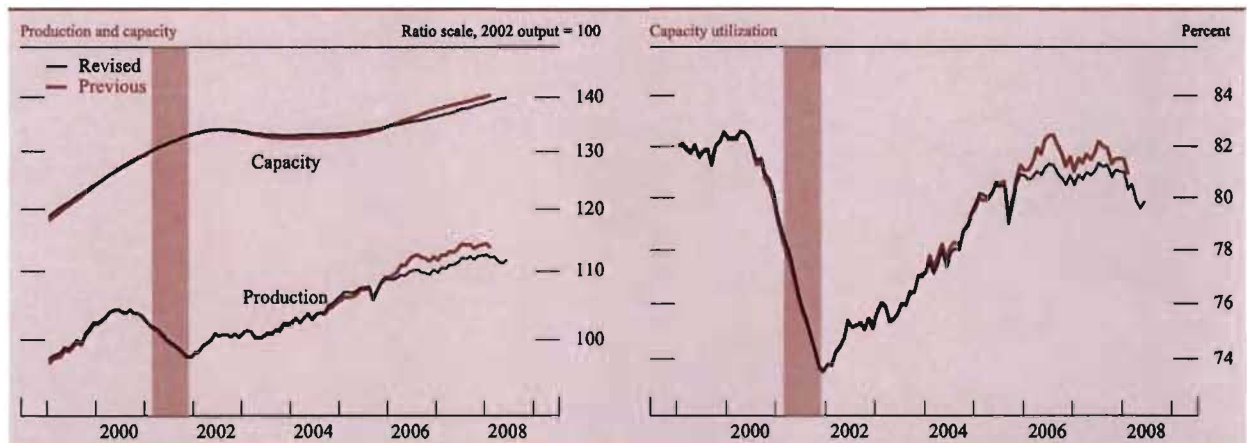
The revised capacity utilization rates incorporate the results from the Census Bureau's 2006 Survey of Plant Capacity for the fourth quarter of that year. Moreover, the revisions to the capacity indexes and capacity utilization rates reflect the revised production indexes and newly available data on industrial capacity from the U.S. Geological Survey, the Energy Information Administration of the U.S. Department of Energy, and a number of private organizations.

Results of the Revision

As revised, total IP for the fourth quarter of 2007 was 112.2 percent of output in 2002, and capacity stood at 138.5 percent of output in 2002. Both indexes are lower than reported previously. The capacity utiliza-

4. Some IP indexes are estimated from secondary source data until primary source data become available.

1. Industrial production, capacity, and capacity utilization: Total industry, January 1999–June 2008



NOTE: Here and in the following figures, the shaded areas are periods of business recession as defined by the National Bureau of Economic Research.

Data labeled "revised" correspond to the data in the Federal Reserve's Statistical Release G.17, "Industrial Production and Capacity Utilization," published on July 16, 2008. Data labeled "previous" are those published before the March 28, 2008, annual revision.

tion rate for total industry in the fourth quarter of 2007, at 81.0 percent, was revised down slightly. Detailed results of the revision can be found in the appendix tables.[5]

Industrial Production

The overall contour of IP in this revision is similar to that reported previously, although the revised data show a slightly flatter trajectory since 2005 (figure 1). The total index has risen modestly each year since 2003. Relative to the previous estimates, total IP increased 1.8 percent less in 2006, but the changes to the gains were smaller in other recent years. For earlier years, the change in total IP was revised up 0.4 percent in 2003 and 0.1 percent in 2004; it was revised down 0.6 percent in 2005. For 2007, the change in total IP was revised up 0.4 percent.

Market Groups

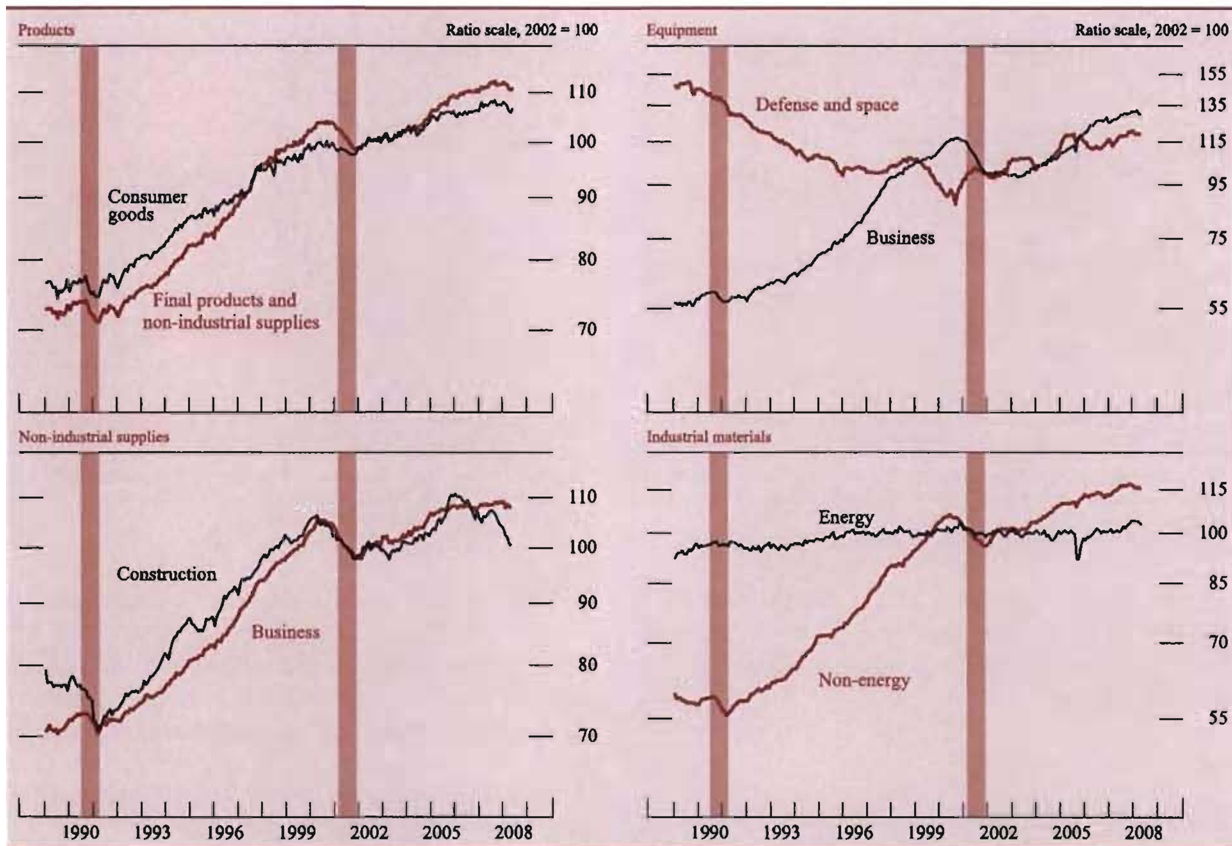
The production index for final products and non-industrial supplies follows an output path similar to that for total IP and has posted moderate gains in recent years (figure 2 and table A.3). Compared with the previous estimates, the advance in the index is now reported to have been 1.5 percent lower for 2006. Overall changes to the rates of increase in other years were smaller. The index rose 0.3 percent faster in 2003 and 0.4 percent slower in 2005; the revisions were even smaller in 2004 and 2007.

The rise in the output of consumer goods was revised down, on net, over the period from 2003 through 2007. The output of durable consumer goods rose in 2003, 2005, and 2007 but declined in 2004 and 2006. The rates of change are now reported to have been lower than earlier estimates for all major categories of consumer durables other than automotive products. The most notable revisions were for the home electronics industry, in which output is now reported to have risen significantly less from 2003 to 2007 than was previously stated.

The index for consumer nondurables shows moderate gains in output in each of the past several years. The index is now reported to have increased a little less, on balance, over the period from 2003 through 2007. Among consumer nondurables, the indexes for foods and tobacco, clothing, and paper products were revised down for 2005 and 2006; however, the output of chemical products is now shown to have increased at a faster pace over the same time period. For 2007, the output of clothing is now reported to have declined somewhat less than earlier reports suggested. The index for consumer energy products is now reported to have edged down, rather than increased, in 2006, but revisions to the rates of change

5. Table A.1 shows the revised data for total IP, and table A.2 shows the revised data for capacity and capacity utilization for total industry. Tables A.3 and A.4 show the revised rates of change (fourth quarter to fourth quarter) of IP for market groups, industry groups, special aggregates, and selected detail for the years 2003 through 2007. Table A.5 shows the revised rates of change of annual IP indexes for market and industry groups for the years 2003 through 2007. Tables A.6 and A.7 show the revised figures for capacity and capacity utilization. Table A.8 shows the annual proportions of market groups and industry groups in total IP. Tables A.3, A.4, A.5, and A.6 also show the difference between the revised and previous rates of change. Table A.7 shows the difference between the revised and previous rates of capacity utilization for the final quarter of the year.

2. Industrial production: Market groups, January 1989–June 2008



for other years are fairly small. The path of consumer energy shows a decline in 2003, moderate gains in 2004 and 2005, a small dip in 2006, and another rise in 2007.

The production of business equipment has increased solidly since 2004; however, relative to previously published estimates, the revised index rose more slowly in 2005, 2006, and 2007. For transit equipment, the revised data show declines in output in 2003 and 2007 and smaller gains in 2005 and 2006 than were reported earlier. The production index for information processing equipment is now shown to have risen notably more rapidly in 2003 and 2006 than in previous reports.

In contrast to earlier estimates, the production of defense and space equipment is now estimated to have fallen in 2006 and to have risen in 2007.

The output of construction supplies posted solid gains in 2004 and 2005 but fell back in 2006 and 2007; relative to earlier estimates, the rates of change in recent years are generally lower. Although the production of business supplies edged down in 2006, it increased moderately in all other years since 2003; the rates of change for output in 2005 and 2006 are now reported to have been weaker than previously stated.

The production of materials has increased moderately in recent years since 2003. As revised, the index for materials is now estimated to have expanded more rapidly in 2003, 2004, and 2007 and more slowly in 2005 and 2006. In particular, output gains for both durable and nondurable materials were markedly less in 2006 than stated earlier, although the rates of change for both categories are now reported to have been somewhat higher in 2007. Among durable materials, the downward revisions to the output index for equipment parts in 2005 and 2006 tempered the outsized gains in those years to render them more in line with the strong gains in other recent years. On balance, revisions to nondurable materials were small over the period from 2003 through 2007, as upward revisions to chemicals in every year except 2003 were about offset by net downward revisions to textiles and paper. In recent years, the output of textiles has trended down (sharply, in some years), the output of paper has been generally flat, and the output of

chemicals has risen. The index for energy materials is now shown to have been slightly weaker, on net, from 2003 through 2007.

Industry Groups

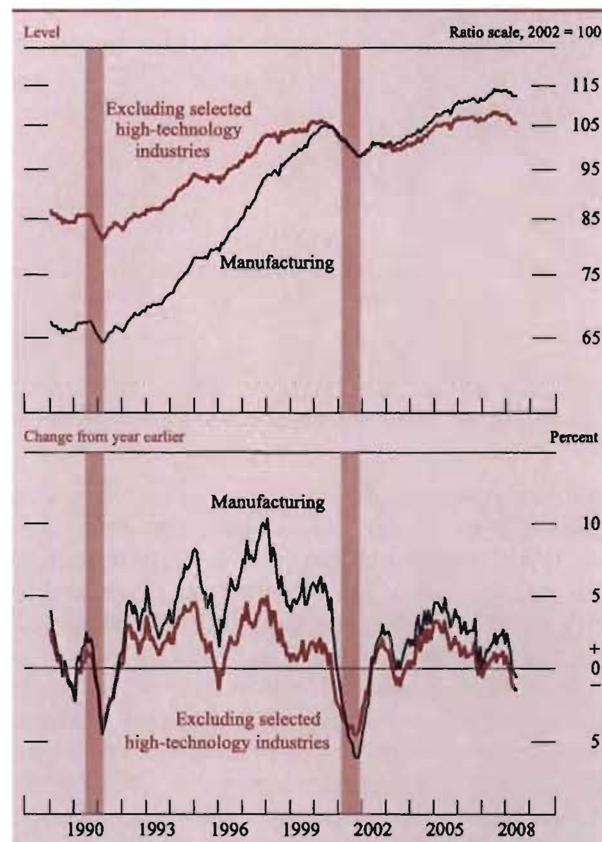
Manufacturing production has expanded in each year since 2003 (figure 3), albeit at a somewhat slower rate, on balance, than initially reported (table A.3).[6] Across all manufacturing industries, the largest downward revisions generally occurred for 2006, the year that marks the incorporation of the most recent ASM data.

For durable goods industries as a whole, output has risen solidly in recent years, although these gains—especially in 2006—have been moderated by the recent revision. The overall rise in the production of durable goods has been bolstered by the continued rapid expansion of the computer and electronic products industry and by recent high rates of increase for aerospace and miscellaneous transportation equipment.

The revisions to the changes in output of most durable goods industries were relatively modest in 2003 and 2004; two notable exceptions include upward revisions of 4.3 percentage points in 2003 for computer and electronic products and of 1.4 percentage points in 2004 for aerospace and miscellaneous transportation equipment. Relative to previous reports, changes in the output indexes are now stated to be lower in 2005 and 2006 for nonmetallic mineral products; computer and electronic products; electrical equipment, appliances, and components; motor vehicles and parts; aerospace and miscellaneous transportation equipment; and miscellaneous manufacturing. The rates of change for the production indexes for most durable goods industries in 2007 are now higher than in earlier reports.

The estimates for selected high-technology industries posted sizable revisions over the period from 2003 through 2007 and warrant special mention (figure 4 and table A.4). Overall, output in the high-technology sector is still reported to have increased rapidly in recent years, and all major components—

3. Industrial production: Manufacturing, and manufacturing excluding selected high-technology industries, January 1989–June 2008



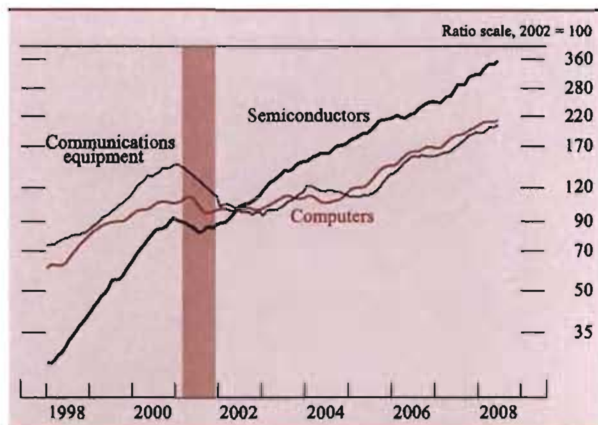
NOTE: For definition of manufacturing, refer to text note 6.
The selected high-technology industries are semiconductors and related electronic components (NAICS 334412–9), computers and peripheral equipment (NAICS 3341), and communications equipment (NAICS 3342).

computers and peripheral equipment, communications equipment, and semiconductors and related electronic components—have registered gains each year since 2003. However, relative to earlier estimates, production for the high-technology aggregate is now reported to have risen less sharply in 2004, 2005, and 2006 and to have increased more rapidly in 2003 and 2007.

Among the major high-technology components, increases in the index for computers and peripheral equipment were revised down in 2004, 2005, and 2007 but were revised up in 2003 and 2006. The average gain over the period from 2003 through 2007 for computers and peripheral equipment is about 15 percent, slightly lower than shown earlier; the smallest annual increase over this period was 1.6 percent in 2004, but that was followed by a gain of 28.8 percent in 2005. The output of communications equipment is now reported to have expanded less rapidly in 2004 but more rapidly in other recent years. Except for 2004, the index for communications equip-

6. In the IP index, manufacturing comprises the following categories in the North American Industry Classification System (NAICS): manufacturing (NAICS sectors 31–33), the logging industry (NAICS 1133), and the publishing industry (NAICS 5111), which includes publishers of newspapers, periodicals, books, and directories. Under NAICS, logging and publishing are classified within agriculture and information, respectively; however, historically they were considered manufacturing industries and were classified as such under the Standard Industrial Classification (SIC) system. In December 2002, the Federal Reserve reclassified all output indexes from the SIC system to NAICS.

4. Industrial production: Selected high-technology industries, January 1998–June 2008



NOTE: For the NAICS categories of these industries, refer to the note to figure 3.

ment has posted solid annual gains in every year since 2003. The production of semiconductors and related electronic components has risen robustly in each of the past five years; however, the rate of increase is now reported to have been lower in 2005, and particularly in 2006, than estimated previously.

Production in nondurable manufacturing industries has advanced in every year since 2003 but at a more modest pace than the output of durables. The largest gain in nondurable output occurred in 2004. Within nondurable goods, the indexes for food, beverage, and tobacco products; petroleum and coal products; and chemicals have generally provided support to the output gains for the aggregate in recent years. In contrast, the indexes for textile and product mills, apparel and leather, and paper have generally fallen over the period.

For most recent years, the change in output in the nondurable goods sector was similar to previous estimates, except in 2006, when it rose about 1 percentage point less than reported earlier. Relative to earlier reports, the current revision found noticeably lower rates of change in 2005 and 2006 in food, beverage, and tobacco products; textile and product mills; apparel and leather; printing and support; and plastics and rubber products. In contrast, the output of chemicals is now reported to have declined less in 2005, and to have risen more in 2006, than indicated earlier.

The revision lowered the rates of change in the output index for the publishing and logging industries about 1 percentage point per year, on average, from 2003 through 2007; the IP index continues to include these two industries under manufacturing, although they are classified elsewhere under NAICS. The revised output index for this group is now reported to have declined in every year since 2003 except 2004. The drop in 2006 was especially large.

The revised index for mining is relatively little changed from previous estimates. Output is still reported to have risen in 2003, to have fallen back in 2004, to have dropped more sharply in 2005, and then to have increased rapidly in 2006. The output gain in 2007 is more modest than in previous reports. For utilities, the revised output estimates are, in general, very similar to those reported earlier. The main exception is a downward revision of about 1 percentage point to the change in the index in 2006.

Capacity

Total industrial capacity is now estimated to have risen at an average annual rate of ¾ percent over the period from 2003 through 2007, ¼ percentage point more slowly than previously stated. By far, the most significant revision to industrial capacity was for 2006; capacity is now stated to have risen 1.1 percentage points more slowly than estimated earlier (table A.6). Relative to previous reports, total industrial capacity is now estimated to have declined a little less in 2003, to have risen more moderately in 2005, and to have been little changed in 2004 and 2007. The contour of manufacturing capacity and the revisions to that contour are similar to those for total industry. Manufacturing capacity is now shown to have expanded at an average annual rate of about 1 percent over the period from 2003 through 2007, ¼ percentage point less than estimated earlier.

Within manufacturing, capacity for durable goods manufacturers increased modestly in 2003 and 2004 but rose more quickly in the subsequent years; however, the recent gains were tempered somewhat in the current revision. Relative to earlier estimates, the capacity index for nondurable goods is now reported to have fallen less in 2003 and 2004, to have increased more in 2005, and to have risen less in 2006 and 2007. Capacity for the logging and publishing industries fell from 2003 through 2005 but has risen since then; on balance, the rates of change are lower as a result of the revision.

For selected high-technology industries, aggregate capacity has increased substantially in recent years, especially since 2005. Relative to earlier estimates, high-technology capacity rose less quickly in 2005 and 2006 but increased somewhat more rapidly in other recent years. Excluding high-technology industries, manufacturing capacity advanced less in 2006 and 2007 than previously reported; revisions to the changes for earlier years were minor.

Capacity at mines is still estimated to have contracted from 2003 to 2005 and to have expanded since then. The gains in 2006 and 2007 are now reported to have been stronger than previously published. Capacity at electric and gas utilities has risen each year since 2003. The current estimates show a noticeably slower gain in 2006 than was reported earlier; revisions to the estimates for other years since 2003 were smaller.

By stage of processing, capacity in the crude stage is now reported to have risen more in 2006 and 2007 than previously shown; on net, revisions to earlier years were small. Capacity at the primary and semifinished stages rose less in 2006 than stated earlier. Relative to previous estimates, increases in the index for finished goods processors were revised down, on net, over the period from 2003 through 2007.

Capacity Utilization

For the past few years, the capacity utilization rate for total industry has remained near its long-run average of 81.0 percent (table A.7). On balance, the utilization rates for the 2005–07 period are lower than reported earlier, while those for earlier years are little changed. For the fourth quarter of 2007, total utilization stood at its average for 1972 through 2007 and was 0.5 percentage point lower than reported earlier. The utilization rate for total industry was revised down 0.8 percentage point for the fourth quarter of 2006, but the revision was smaller for 2005.

The capacity utilization rate for manufacturing is also now estimated to have been close to its long-run average in recent years. Relative to earlier reports, the factory operating rate was revised down in 2005, 2006, and 2007 and was little changed in 2004. For almost all major categories of manufacturing industries over the period from 2005 through 2007, utilization is now reported to have been lower than stated earlier, and downward revisions were particularly noticeable for 2006.

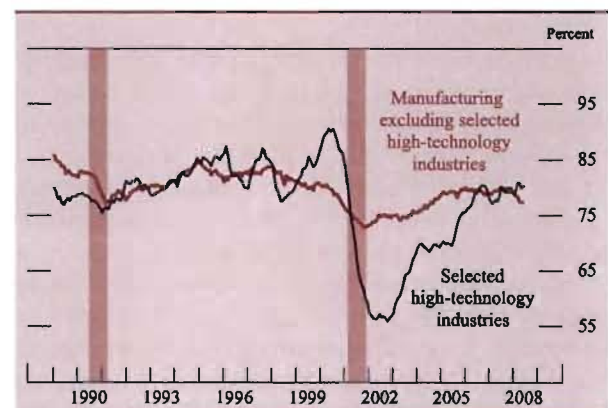
Among durable goods industries, some of the largest downward revisions to utilization over the period from 2005 through 2007 were for primary metals; electrical equipment, appliances, and components; motor vehicles and parts; aerospace and miscellaneous transportation equipment; and miscellaneous manufacturing. The durable goods industries that recorded the largest upward revisions since 2005 were wood products and computer and electronic products. For 2007, upward revisions to the utilization rate for computer and electronic products offset some of the downward revisions to the utilization rates for other durable goods industries.

Among nondurable goods industries, only chemicals registered higher rates of utilization since 2006 than previously reported; for all other categories, operating rates are now reported to have been lower than stated earlier. Capacity utilization in the other manufacturing industries (logging and publishing) was revised sharply downward for 2006 and 2007; utilization in the fourth quarter of 2007 was 79.2 percent, 5.3 percentage points lower than its long-run average.

The operating rate for the selected high-technology category rose steadily from 2004 to 2006 but edged down in 2007 (figures 5 and 6). Relative to earlier estimates, capacity utilization is now reported to have been lower in 2004 and 2005 but higher in 2006 and 2007. In the fourth quarter of 2007, the utilization rate was about 10 percentage points higher than it was in the fourth quarter of 2004, but at 79.9 percent, it was less than 2 percentage points above its long-run average. Among the selected high-technology industries for the period from 2004 through 2007, the operating rates for computers and peripheral equipment and for communications equipment are now shown to have been lower—especially for 2004, 2005, and 2007—than reported earlier. The utilization rates for semiconductors and related electronic components are now higher in each year than previously estimated.

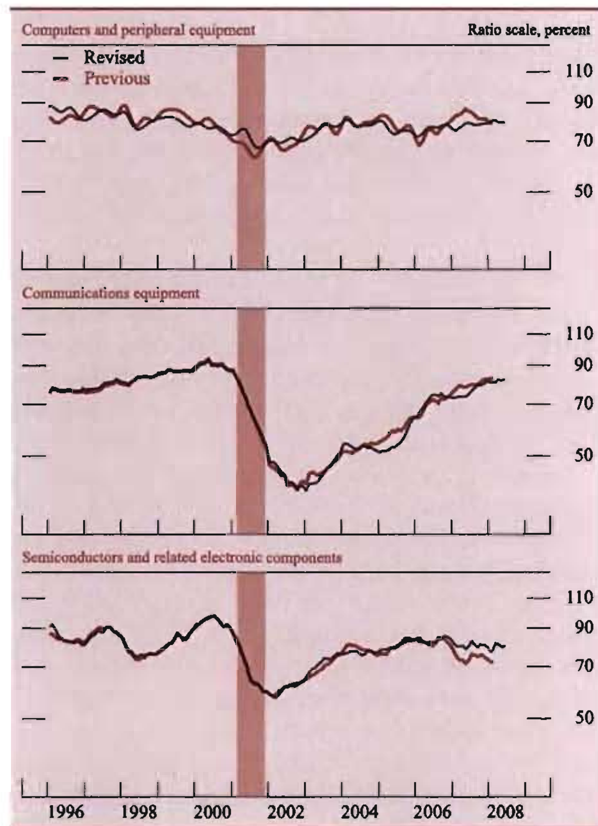
Capacity utilization in mining was revised up for 2004 and 2005, but it was revised down slightly for 2006 and lowered more noticeably for 2007. Nevertheless, as of the fourth quarter of 2007, the utilization rate for mining stood at 90.2 percent, almost 3 percentage points higher than its long-run average. In electric and gas utilities, capacity utilization rates were revised down for 2005 through 2007.

5. Capacity utilization: Selected high-technology industries, and manufacturing excluding selected high-technology industries, January 1989–June 2008



NOTE: The high-technology industries are identified in the note to figure 3.

6. Capacity utilization: Selected high-technology industries, January 1996–June 2008



Technical Aspects of the Revision

The benchmark indexes for manufacturing—defined for each six-digit NAICS industry as nominal gross output divided by a price index—were updated to include new as well as revised information from the 2005 and 2006 ASMs. This revision also incorporates the 2006 Survey of Plant Capacity, other annual industry reports, recent information on prices, and revised monthly source data on production, shipments, and production-worker hours.

As mentioned earlier, the benchmark indexes for most industries incorporate updated price indexes from the industry output program of the Bureau of Economic Analysis. However, the price indexes for pharmaceuticals (NAICS 325412), semiconductors (NAICS 334413), and most components of communications equipment (NAICS 3342) are constructed by the Federal Reserve from alternative sources.

As in other recent years, the 2006 ASM did not provide data for all six-digit NAICS industries but combined some of them into higher-level industry aggregates. To maintain benchmark references that were consistent over time, the Federal Reserve used detailed information from the 2002 Census of Manufactures to impute estimates of gross output for those industries no longer reported separately.

Changes to Individual Production Series

With this revision, the monthly production indicators for some series have changed, and some new series have been created.

High-Technology Goods

Communications equipment

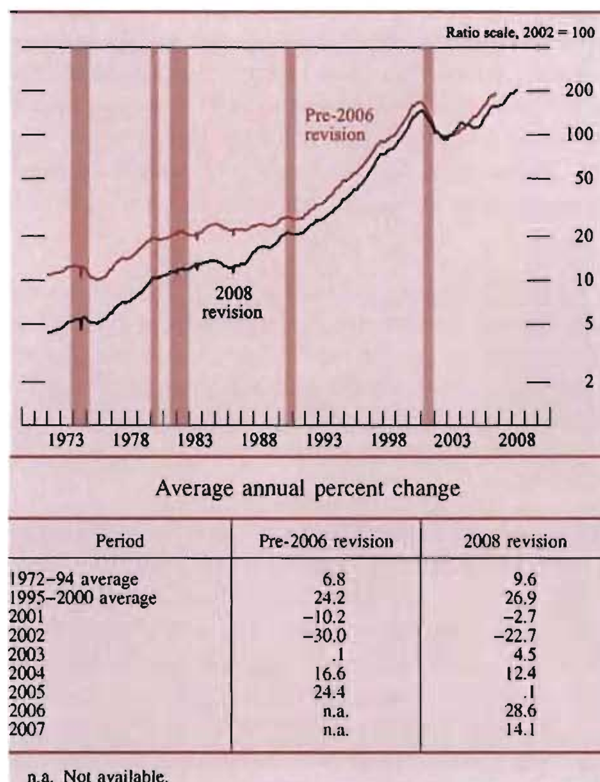
Over the past several years, the Federal Reserve has regularly modified the IP index for the communications equipment industry to keep pace with the rapid technological change within the industry. Previous *Bulletin* articles have documented these changes, and the 2006 and current (2008) annual revisions have extended the Federal Reserve's earlier work.[7] In particular, the two most recent revisions have (1) provided a new structure for the measurement of communications equipment products, (2) introduced new data sources that provide extensive product-level detail, (3) used the detailed product information to construct new quarterly and annual production and price indexes, and (4) published new and revised price indexes at the detailed product level.

Relative to the previous estimates, the combined effect of the 2006 and 2008 annual revisions on communications equipment is that the revised production index expanded faster over the time period from 1972 through 2000, fell less in 2001 and 2002, and has increased more slowly since then (figure 7). Much of the difference between the previous (pre-2006 revision) and current estimates is derived from recently constructed price deflators developed from product-specific data.

The enhancements introduced in the most recent annual revision include the incorporation of new production data for a variety of types of communications equipment and the development of new price indexes at both quarterly and annual frequencies for the relevant products. The communications equipment industry is now represented by IP indexes for six product groups: data networking equipment; enterprise and home voice equipment; transmission, local loop, and legacy central office equipment; wireless system equipment; satellites and earth station equip-

7. Charles Gilbert and Maria Otoo (2007), "Industrial Production and Capacity Utilization: The 2006 Annual Revision," *Federal Reserve Bulletin*, vol. 93, pp. A17–A35, www.federalreserve.gov/pubs/bulletin.

7. Industrial production: Communications equipment, January 1972–June 2008



Average annual percent change

Period	Pre-2006 revision	2008 revision
1972–94 average	6.8	9.6
1995–2000 average	24.2	26.9
2001	-10.2	-2.7
2002	-30.0	-22.7
2003	.1	4.5
2004	16.6	12.4
2005	24.4	.1
2006	n.a.	28.6
2007	n.a.	14.1

n.a. Not available.

ment; and other communications equipment.[8] The source data for estimating each of these indexes are described next. The newly developed price indexes for each of the six product groups are also included in this article (tables A.9 and A.10).

Data networking equipment. The 2006 annual revision introduced new source data for the index for data networking equipment. For the period ending in 2000, the index is based on quarterly data on U.S. domestic absorption from Gartner, an industry research group. For the period beginning in 2001, the index uses quarterly data from a different industry research group, Synergy, on U.S. domestic absorption of selected routers and switches, measured in nominal and unit terms. The quarterly matched-model price indexes are built from detailed product information available from the data sources and are aggregated to one index that covers all of data networking equipment.[9] For routers, the data cover several categories of enterprise routers and service provider routers.[10] For switches, the index is aggregated from multiple product classes, grouped largely by speed.

The annual benchmark price deflator for data networking equipment incorporates additional data from Gartner on prices of wireless and security equipment that are available only on an annual basis. To construct the annual benchmark deflator, the quarterly price indexes constructed from the Synergy data on routers and switches are converted to an annual frequency and then combined with the Gartner-based price indexes on wireless and security equipment in a chained Fisher price index.

Enterprise and home voice equipment. The new IP index for enterprise and home voice equipment covers products such as telephones, switches, and gateways used in PBX (private branch exchange) systems. The current revision incorporates quarterly data on revenue and units of enterprise equipment; the data, from Synergy, extend from 2003. The two major subcategories of enterprise equipment are Internet Protocol telephony and traditional TDM (time-division multiplexing) equipment; the Synergy data cover a variety of detailed products within each of these categories.

The annual benchmark price deflator for enterprise and home voice equipment combines the quarterly price indexes (converted to an annual frequency) for the enterprise equipment with data on prices of home voice equipment that are available only on an annual basis. For 1987 and subsequent years, the data on home voice equipment include information from the Telecommunications Industry Association on fax machines, answering machines, corded telephones, and cordless telephones. For 1975 to 1987, the annual price index for home voice equipment is constructed from information in the Census Bureau's Current Industrial Reports (CIR) on push-button and dial phones.

Transmission, local loop, and legacy central office equipment. Transmission equipment, local loop equipment, and legacy central office equipment provide the infrastructure necessary to support large-scale telecommunications networks. Transmission equipment includes the devices used to exploit underground and undersea cables for long-haul, high-capacity signal transmission. Local loop equipment refers to the cables that run from the central office of a

8. Although the Federal Reserve constructs IP indexes for the six product types, only the aggregate index for communications equipment is published in the G.17 Statistical Release.

9. Matched-model price indexes are based on changes in the average prices of the same product in two different periods.

10. Small office/home office (SOHO) routers are omitted because they are generally not manufactured domestically. Domestic absorption reflects U.S. sales by domestic and foreign producers.

telecom service provider to neighborhood homes and businesses. Legacy central office equipment historically includes the equipment that facilitates phone connections and relays speech information.

This revision incorporates quarterly data on domestic absorption of transmission equipment; the data, from the Dell'Oro Group, are for 1998 and subsequent years. For 1992 to 1997, information on transmission equipment comes from annual reports from Gartner. The Dell'Oro data provide detailed information on three main types of transmission technologies: dense wave division multiplexing, SONET (Synchronous Optical Network), and optical switching.

The benchmark price indexes add data on local loop and legacy central office equipment that are available only at an annual frequency to the quarterly data on transmission equipment. The annual price data on local loop equipment are from Gartner and cover the period from 1993 to 2004. Since 2001, production of legacy central office equipment has been negligible, but for earlier years, the data underlying the benchmark price indexes are from multiple sources. For the period from 1995 through 2001, the data are from Gartner. For earlier years, the price index is drawn from academic research in this area. For the period from 1972 through 1982, the index is derived from Flamm (1989); for the period from 1982 through 1994, it is derived from the hedonic estimates of Grimm (1997) and Currie (2005).[11]

Wireless system equipment. This revision incorporates new quarterly data from Dell'Oro on domestic absorption of wireless system equipment for 2000 and subsequent years. Such equipment (often located on towers or the sides of buildings) manages signals to and from wireless handsets. Some of the main types of equipment include base transceiver stations, base station controllers, and mobile switching centers. The data include additional detail on the technological standard for mobile transmissions, such as GSM (global system for mobile communications), TDMA (time division multiple access), CDMA (code division multiple access), and W-CDMA (wideband code division multiple access).

Satellites and earth station equipment. The monthly production index for satellites and earth station equipment is based on production-worker hours. The 2006 annual revision incorporated into the production indexes annual data from Futron Corporation and the *Satellite Encyclopedia* on satellite manufacturing revenues and total satellite capacity launched (proxied by transponder bandwidth).[12] The index for earth stations is proxied by the index for cellular base stations.

Other communications equipment. The monthly index for other communications equipment is based on production-worker hours. The annual benchmark price index uses the relevant producer price indexes with product weights developed from the CIR.

Computers

The index for electronic computer manufacturing (NAICS 334111) was split into six separate product class indexes, and these indexes are now based on new source data and methods. The new product-based indexes are for consumer desktop computers, consumer mobile computers, business desktop computers, business mobile computers, business servers that use x86-based central processing units (CPUs), and business servers that use CPUs other than those based on x86 architecture.[13] Previously, electronic computer manufacturing comprised only two indexes: one for consumer computers and one for business computers. Although the six new product-level indexes are not published in the monthly statistical release, they are included in the broader IP aggregate for electronic computer manufacturing.

From 1995 forward, all of the product-based indexes for electronic computers are derived from quarterly data on domestic absorption from IDC, an industry research group. Data for 1994 are from Gartner, and data for earlier years are Federal Reserve Board estimates based on the CIR for computers. To construct the monthly indicator, the nominal absorption data are aggregated to the industry level and converted to industry shipments based on trade data from the Census Bureau (by adding exports and subtracting imports). The industry-level ratio of shipments to domestic absorption is applied to each of the six product-level absorption estimates to obtain

11. Kenneth Flamm (1989), "Technological Advance and Costs: Computers versus Communications," in Robert W. Crandall and Kenneth Flamm, eds., *Changing the Rules: Technological Change, International Competition, and Regulation in Communications* (Washington: Brookings Institution), pp. 13–61 and 371–410; Bruce T. Grimm (1997), "Quality-Adjusted Price Indexes for Digital Telephone Switches," memorandum, Bureau of Economic Analysis, May 20; and Kent A. Currie (2005), "Hedonic Price Indices for Digital Circuit Switching Equipment: 1980–1998," unpublished paper, SBC Services, August 7.

12. TBS Internet (2008), *The Satellite Encyclopedia* (Caen, France: TBS Internet, accessed January 23, 2008).

13. The index for consumer desktops also includes servers for consumer use. The term "x86" refers to CPUs with an instruction set that is based on the instruction set for the Intel 8086 CPU, which was introduced in 1978. These CPUs are used in most personal computers and in an increasing number of servers.

product-level shipments. These shipments are then adjusted by model-based estimates of the change in product-level inventories and divided by the relevant producer price index issued by the Bureau of Labor Statistics (BLS) to compute a production index.

The estimates for the change in inventories follow a procedure introduced in the 2004 annual revision; this procedure is currently used for several other industries.[14] In short, manufacturers are assumed to want to hold inventories in proportion to their expected shipments. The estimate of inventory change is computed as the sum of three components: a trend rate of stockbuilding, a portion of the adjustment to inventories that a manufacturer would need to make to reach a desired inventory level, and the effect on contemporaneous stocks of shipments deviating from expected shipments.

Semiconductors

This revision introduced more detail and new price data to the MOS (metal-oxide semiconductor) memories portion of the semiconductor and related device manufacturing index (NAICS 334413). Before the current revision, all components of MOS memories were grouped in one index. To better track differential movements in specific product categories, this revision split the MOS memory index into three components: an index for DRAM (dynamic random access memory), an index for flash memory, and an index for all other MOS memories (primarily SRAM, or static random access memory). The underlying source data on nominal shipments for all memory components continue to be from the Semiconductor Industry Association (SIA). The new indexes for MOS memories are not published separately but continue to be included in the larger index for semiconductor and related device manufacturing.

The current revision incorporated quarterly data on prices from iSuppli, an industry research group, for all three categories of MOS memories. Previously, the DRAM portion of the index relied on quarterly prices from Gartner, and the non-DRAM portion used product-level producer price indexes from the BLS that have been discontinued. Monthly interpolations of the quarterly iSuppli prices are based on average sales prices from iSuppli for the DRAM index and on average sales prices from SIA for the indexes for flash and other memories.

14. Charles Gilbert and Kimberly Bayard (2005), "Industrial Production and Capacity Utilization: The 2004 Annual Revision," *Federal Reserve Bulletin*, vol. 91 (Winter), pp. 9–25, www.federalreserve.gov/pubs/bulletin.

Vacuum Cleaners

The index for household vacuum cleaner manufacturing (NAICS 335212) is now based on monthly data on unit shipments from the Association of Home Appliance Manufacturers (AHAM) with a model-based inventory adjustment. Formerly, the index was based on quarterly data from the Vacuum Cleaner Manufacturers Association (VCMA). In 2003, AHAM assumed responsibility from VCMA for issuing the data. With this revision, the monthly time series was long enough to construct seasonal factors.

Reliability of Monthly Estimates

The extended six-month reporting window will allow additional source data to be incorporated into IP before an annual revision. The first estimate of output for a month is preliminary and is subject to revision in each of the subsequent five months as new source data become available.

Some of the IP series that particularly benefit from the new six-month window include electric and gas utilities (NAICS 2211 and 2212), crude oil extraction (part of NAICS 211111), and tobacco manufacturing (NAICS 312221). The indexes for electric and gas utilities depend on data from the U.S. Department of Energy (DOE) that generally arrive with a three-month lag; however, the data for earlier months tend to be revised, and these revisions often were not available in time to be incorporated into the four-month window. Although the aggregate data from DOE on crude oil extraction are available within the four-month window, the full complement of detailed geographic data used for specific IP series typically was not available until after the window had closed. The data on tobacco manufacturing are from the Alcohol and Tobacco Tax and Trade Bureau of the U.S. Department of the Treasury. Over the past several years, these data have been received with too great a lag to get folded into the four-month IP window; however, more recently, the timeliness has improved somewhat. The six-month window will permit these data to be incorporated in a timely manner more often.

Most of the series that rely on quarterly data benefit from the extended window. Under the four-month window, some data that are quarterly in frequency arrived too late to be fully incorporated into IP. Often, only one or two months of the quarter were open by the time the data were received. In addition, for some quarterly series such as construction paints and industrial paints (both in NAICS 325510), even when preliminary estimates were available for much or all

2. Availability of monthly IP data in publication window

Percent of value added in 2007

Type of data	Month of estimate			
	1st	2nd	3rd	4th
Physical product	29	42	56	56
Production-worker hours	42	42	42	42
IP data received	70	84	98	98
IP data estimated	30	16	2	2

of the quarter, these estimates were revised—sometimes substantially—in later months, and the revisions could not be fully adopted because some or all of the relevant quarter had fallen outside the reporting window.

Table 2 shows the availability of source data during 2007 with a four-month reporting window. The six-month window will permit almost all of the indexes estimated in the fourth month to be calculated from source data.

Weights for Aggregation

The IP index is a Fisher index. This revision used information from the ASM to obtain updated estimates of the industry value-added weights used in the aggregation of IP indexes and capacity utilization rates. The Federal Reserve derives estimates of value added for the electric and gas utility industries from annual revenue and expense data issued by other organizations. The weights for aggregation, expressed as unit value added, were estimated with the latest data on producer prices for the period after 2006. Table A.8 shows the annual value-added proportions in the IP index from 1999 through 2007.

Revised Monthly Data

This revision incorporated product data that became available, or were revised, after the regular four-month reporting window for monthly IP was closed. These data were released with too great a lag to be included with monthly IP estimates; however, the data were available for inclusion in the annual revision.

Revised Seasonal Factors

Seasonal factors for all series were reestimated with data that extend into 2007 or 2008. Factors for production-worker hours—which adjust for timing, holiday, and monthly seasonal patterns—were updated with data through January 2008 and were prorated to correspond with the seasonal factors for hours aggregated to the three-digit NAICS level. The updated factors for the product series, which include adjustments for holiday and workday patterns, used data through 2007. Seasonal factors for unit motor vehicle assemblies have been updated, and projections through December 2008 are on the Federal Reserve Board's website at www.federalreserve.gov/releases/g17/mvsf.htm. □

Appendix tables start on page A53

A.1. Revised data for industrial production for total industry, 1978–2008

Seasonally adjusted data except as noted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual avg.[1]
	Industrial production (percent change)																
1978	−1.4	.5	1.8	2.1	.3	.7	−.1	.4	.3	.8	.7	.6	−1.3	16.7	3.5	7.5	5.5
1979	−.7	.6	.3	−1.1	.8	.0	−.2	−.7	.1	.6	−.1	.1	1.9	−.6	−1.4	1.5	3.0
1980	.5	.0	−.3	−2.0	−2.5	−1.2	−.7	.3	1.6	1.3	1.7	.6	1.8	−15.9	−6.3	16.2	−2.5
1981	−.6	−.5	.6	−.5	.7	.5	.7	.0	−.6	−.8	−1.1	−1.1	.8	1.4	4.2	−8.7	1.3
1982	−1.9	1.9	−.7	−.8	−.7	−.4	−.3	−.8	−.4	−.8	−.4	−.8	−7.8	−4.9	−5.8	−7.4	−5.2
1983	1.9	−.6	.9	1.2	.7	.6	1.6	1.1	1.5	.8	.3	.5	4.6	9.5	14.6	10.8	2.8
1984	2.0	.5	.5	.6	.5	.4	.3	.1	−.2	−.1	.4	.1	12.2	6.3	2.7	.3	8.9
1985	−.3	.4	.1	−.2	.1	.1	−.6	.4	.4	−.4	.3	1.0	1.2	.4	−.6	2.4	1.2
1986	.5	−.7	−.6	.1	.1	−.3	.6	−.2	.2	.5	.5	.9	2.3	−2.4	1.7	4.6	1.0
1987	−.3	1.3	.2	.6	.7	.5	.6	.7	.3	1.5	.5	.5	5.4	7.2	7.3	10.2	5.2
1988	.0	.4	.3	.6	−.1	.2	.2	.5	−.3	.6	.2	.4	3.5	3.5	2.1	3.2	5.2
1989	.2	−.5	.2	.0	−.7	.0	−.9	.9	−.3	−.1	.3	.7	1.5	−1.8	−2.5	1.8	.9
1990	−.5	.9	.5	−.1	.2	.3	−.1	.2	.2	−.7	−1.2	−.7	3.2	2.8	1.4	−6.0	1.0
1991	−.5	−.7	−.5	.2	1.0	1.0	.0	.1	.8	−.2	−.2	−.3	−7.5	2.6	5.5	.7	−1.6
1992	−.6	.7	.8	.7	.4	.0	.8	−.5	.2	.7	.4	.0	−.3	7.3	2.9	3.9	2.8
1993	.5	.3	.0	.3	−.4	.2	.3	.0	.4	.7	.4	.5	3.5	1.2	2.1	6.0	3.3
1994	.4	.0	1.1	.5	.6	.7	.2	.5	.2	.8	.7	1.1	5.2	7.4	5.2	8.2	5.3
1995	.3	.0	.1	−.1	.2	.3	−.4	1.3	.4	−.2	.3	.5	5.3	.9	3.8	3.3	4.8
1996	−.6	1.7	−.2	.7	.6	.9	−.1	.6	.5	.0	.9	.7	3.5	7.7	5.1	5.6	4.4
1997	.1	1.2	.8	.0	.6	.5	.6	1.4	.9	.7	.9	.4	8.0	6.3	9.7	10.7	7.3
1998	.4	.0	.0	.5	.6	−.5	−.4	2.1	−.3	.7	−.1	.3	4.1	3.1	2.9	5.2	5.9
1999	.5	.4	.2	.2	.7	−.2	.6	.5	−.4	1.3	.6	.8	4.3	3.8	4.0	8.0	4.3
2000	.1	.4	.4	.6	.2	.1	−.2	−.2	.4	−.4	.0	−.3	4.9	5.0	−.3	−1.3	4.2
2001	−.7	−.6	−.3	−.3	−.7	−.6	−.5	−.4	−.4	−.6	−.5	.0	−5.5	−5.2	−5.9	−5.2	−3.4
2002	.5	.1	.7	.4	.5	1.0	−.3	.1	.0	−.3	.4	−.5	2.3	6.3	2.3	−.5	−.1
2003	.6	.4	−.2	−.8	.0	.2	.4	−.1	.5	.1	.8	−.1	2.7	−2.9	2.8	3.7	1.2
2004	.3	.5	−.5	.5	.7	−.8	.7	.3	−.1	1.0	.3	.6	2.6	2.0	2.0	5.8	2.5
2005	.5	.6	.0	−.1	.3	.4	.0	.2	−1.8	1.2	1.1	.5	5.4	1.9	−.4	3.7	3.3
2006	.1	−.1	.2	.4	−.1	.5	.3	.1	−.4	−.1	−.2	.6	3.2	2.6	1.9	−.9	2.2
2007	−.4	.7	−.1	.5	.0	.3	.6	.0	.3	−.4	.4	.1	1.5	3.2	3.6	.3	1.7
2008	.2	−.4	.1	−.7	−.2	.5	...	...	...	...	...	...	.5	−3.1	...	...	...
	Industrial production (2002=100)																
1978	53.5	53.7	54.7	55.8	56.0	56.4	56.4	56.6	56.7	57.2	57.6	58.0	54.0	56.1	56.6	57.6	56.1
1979	57.6	57.9	58.1	57.5	57.9	57.9	57.8	57.4	57.5	57.8	57.7	57.8	57.9	57.8	57.6	57.8	57.8
1980	58.1	58.1	57.9	56.8	55.3	54.7	54.3	54.5	55.3	56.0	57.0	57.3	58.0	55.6	54.7	56.8	56.3
1981	57.0	56.7	57.0	56.7	57.1	57.4	57.8	57.8	57.5	57.0	56.4	55.8	56.9	57.1	57.7	56.4	57.0
1982	54.7	55.7	55.3	54.9	54.5	54.3	54.1	53.7	53.5	53.0	52.8	52.4	55.3	54.6	53.8	52.7	54.1
1983	53.4	53.1	53.5	54.2	54.6	54.9	55.8	56.4	57.2	57.7	57.9	58.2	53.3	54.6	56.5	57.9	55.6
1984	59.3	59.6	59.9	60.3	60.6	60.8	60.9	61.0	60.9	60.8	61.0	61.1	59.6	60.5	60.9	61.0	60.5
1985	61.0	61.2	61.3	61.2	61.2	61.3	60.9	61.1	61.4	61.2	61.4	62.0	61.2	61.2	61.1	61.5	61.3
1986	62.3	61.8	61.4	61.5	61.6	61.4	61.8	61.7	61.8	62.1	62.3	62.9	61.8	61.5	61.7	62.4	61.9
1987	62.7	63.5	63.6	64.0	64.4	64.7	65.1	65.6	65.8	66.8	67.1	67.4	63.3	64.4	65.5	67.1	65.1
1988	67.5	67.7	67.9	68.3	68.2	68.4	68.5	68.8	68.6	69.0	69.1	69.4	67.7	68.3	68.6	69.2	68.4
1989	69.6	69.3	69.4	69.4	69.0	69.0	68.3	69.0	68.8	68.7	68.9	69.4	69.4	69.1	68.7	69.0	69.1
1990	69.0	69.6	70.0	69.9	70.0	70.2	70.1	70.3	70.4	69.9	69.1	68.6	69.5	70.0	70.3	69.2	69.7
1991	68.3	67.8	67.5	67.6	68.3	69.0	68.9	69.0	69.6	69.5	69.4	69.1	67.8	68.3	69.2	69.3	68.7
1992	68.7	69.2	69.8	70.3	70.6	70.6	71.2	70.8	71.0	71.5	71.8	71.8	69.3	70.5	71.0	71.7	70.6
1993	72.1	72.4	72.4	72.6	72.4	72.5	72.8	72.8	73.1	73.6	73.9	74.3	72.3	72.5	72.9	73.9	72.9
1994	74.6	74.6	75.4	75.8	76.2	76.7	76.9	77.3	77.4	78.1	78.6	79.5	74.9	76.2	77.2	78.7	76.8
1995	79.7	79.7	79.8	79.7	79.9	80.1	79.9	80.9	81.2	81.0	81.3	81.7	79.8	79.9	80.7	81.3	80.4
1996	81.2	82.5	82.4	83.0	83.5	84.2	84.1	84.6	85.1	85.1	85.8	86.4	82.0	83.6	84.6	85.8	84.0
1997	86.5	87.6	88.3	88.3	88.9	89.3	89.8	91.0	91.8	92.5	93.4	93.8	87.5	88.8	90.9	93.2	90.1
1998	94.1	94.2	94.2	94.7	95.3	94.7	94.4	96.3	96.1	96.7	96.7	97.0	94.2	94.9	95.6	96.8	95.4
1999	97.5	97.9	98.1	98.3	99.0	98.9	99.5	100.0	99.6	100.9	101.6	102.4	97.8	98.7	99.7	101.6	99.5
2000	102.5	102.8	103.2	103.9	104.1	104.3	104.0	103.8	104.3	103.8	103.8	103.5	102.8	104.1	104.0	103.7	103.7
2001	102.7	102.2	101.8	101.6	100.9	100.2	99.8	99.4	99.0	98.4	97.9	97.8	102.2	100.9	99.4	98.0	100.1
2002	98.3	98.4	99.1	99.5	100.0	100.9	100.6	100.7	100.7	100.4	100.9	100.4	98.6	100.1	100.7	100.6	100.0
2003	101.0	101.4	101.3	100.4	100.4	100.6	101.1	101.0	101.5	101.6	102.4	102.3	101.2	100.5	101.2	102.1	101.2
2004	102.6	103.1	102.6	103.1	103.8	102.9	103.6	103.9	103.8	104.8	105.2	105.8	102.8	103.3	103.8	105.3	103.8
2005	106.3	106.9	106.8	106.8	107.1	107.6	107.6	107.7	105.8	107.1	108.2	108.8	106.7	107.1	107.0	108.0	107.2
2006	108.8	108.7	109.0	109.4	109.3	109.9	110.1	110.2	109.8	109.7	109.5	110.2	108.9	109.5	110.1	109.8	109.6
2007	109.8	110.5	110.4	111.0	111.0	111.4	112.0	112.0	112.3	111.8	112.3	112.4	110.2	111.1	112.1	112.2	111.4
2008	112.6	112.2	112.2	111.4	111.2	111.7	...	...	...	...	...	...	112.3	111.4	...	...	...

NOTE: Monthly percent change figures show the change from the previous month; quarterly figures show the change from the previous quarter at a compound annual rate of change. Production and capacity indexes are expressed as percentages of output in 2002.

Estimates from February 2008 through June 2008 are subject to further revision in the upcoming monthly releases.

1. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

... Not available as of July 16, 2008.

A.2. Revised data for capacity and capacity utilization for total industry, 1978–2008

Seasonally adjusted data

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual avg.
	Capacity (percent of 2002 output)																
1978	65.0	65.2	65.4	65.6	65.7	65.9	66.1	66.3	66.5	66.6	66.8	66.9	65.2	65.7	66.3	66.8	66.0
1979	67.1	67.3	67.4	67.6	67.7	67.8	68.0	68.1	68.3	68.4	68.6	68.7	67.3	67.7	68.1	68.6	67.9
1980	68.8	69.0	69.1	69.3	69.4	69.6	69.7	69.9	70.1	70.2	70.4	70.5	69.0	69.4	69.9	70.4	69.7
1981	70.7	70.9	71.0	71.2	71.4	71.5	71.7	71.9	72.0	72.2	72.4	72.5	70.9	71.4	71.9	72.4	71.6
1982	72.7	72.8	73.0	73.1	73.3	73.4	73.5	73.6	73.7	73.8	73.9	73.9	72.8	73.3	73.6	73.9	73.4
1983	74.0	74.0	74.1	74.1	74.1	74.1	74.2	74.2	74.2	74.3	74.3	74.4	74.0	74.1	74.2	74.3	74.2
1984	74.5	74.6	74.7	74.8	74.9	75.0	75.2	75.4	75.5	75.7	75.9	76.0	74.6	74.9	75.4	75.9	75.2
1985	76.2	76.4	76.6	76.8	77.0	77.2	77.3	77.5	77.6	77.8	77.9	78.0	76.4	77.0	77.5	77.9	77.2
1986	78.2	78.3	78.4	78.4	78.5	78.6	78.7	78.8	78.9	79.0	79.1	79.2	78.3	78.5	78.8	79.1	78.7
1987	79.3	79.5	79.6	79.8	79.9	80.1	80.3	80.4	80.6	80.7	80.8	80.9	79.5	79.9	80.4	80.8	80.2
1988	81.0	81.1	81.2	81.2	81.3	81.3	81.4	81.4	81.5	81.6	81.7	81.8	81.1	81.3	81.4	81.7	81.4
1989	81.9	82.0	82.1	82.2	82.4	82.5	82.7	82.9	83.0	83.2	83.4	83.5	82.0	82.4	82.9	83.4	82.7
1990	83.7	83.9	84.1	84.2	84.4	84.6	84.7	84.9	85.0	85.2	85.3	85.5	83.9	84.4	84.9	85.3	84.6
1991	85.6	85.7	85.8	86.0	86.1	86.2	86.3	86.4	86.5	86.6	86.7	86.9	85.7	86.1	86.4	86.7	86.2
1992	87.0	87.1	87.3	87.4	87.6	87.8	88.0	88.1	88.3	88.5	88.6	88.8	87.1	87.6	88.1	88.6	87.9
1993	88.9	89.1	89.2	89.3	89.4	89.5	89.6	89.7	89.8	90.0	90.1	90.3	89.1	89.4	89.7	90.1	89.6
1994	90.4	90.6	90.9	91.1	91.3	91.6	91.9	92.2	92.5	92.8	93.1	93.4	90.7	91.4	92.2	93.1	91.8
1995	93.8	94.1	94.4	94.8	95.1	95.5	95.8	96.2	96.6	97.0	97.4	97.8	94.1	95.1	96.2	97.4	95.7
1996	98.3	98.7	99.2	99.6	100.1	100.6	101.0	101.5	102.0	102.5	103.0	103.5	98.7	100.1	101.5	103.0	100.8
1997	104.0	104.5	105.1	105.6	106.2	106.8	107.4	108.0	108.7	109.4	110.1	110.8	104.5	106.2	108.0	110.1	107.2
1998	111.5	112.2	112.9	113.6	114.3	115.0	115.6	116.2	116.7	117.3	117.8	118.4	112.2	114.3	116.2	117.8	115.1
1999	118.9	119.4	119.8	120.3	120.8	121.2	121.7	122.1	122.6	123.1	123.5	124.0	119.4	120.8	122.1	123.5	121.4
2000	124.4	124.9	125.3	125.8	126.2	126.6	127.0	127.4	127.8	128.2	128.6	129.0	124.9	126.2	127.4	128.6	126.8
2001	129.4	129.8	130.1	130.5	130.8	131.2	131.5	131.8	132.1	132.4	132.7	132.9	129.8	130.8	131.8	132.7	131.3
2002	133.2	133.4	133.6	133.7	133.8	133.9	133.9	134.0	133.9	133.9	133.8	133.7	133.4	133.8	133.9	133.8	133.7
2003	133.6	133.5	133.4	133.3	133.2	133.1	133.1	133.0	133.0	133.0	132.9	132.9	133.5	133.2	133.0	132.9	133.2
2004	133.0	133.0	133.0	133.0	133.0	133.0	133.1	133.1	133.1	133.1	133.1	133.2	133.0	133.0	133.1	133.2	133.1
2005	133.2	133.3	133.3	133.4	133.5	133.6	133.7	133.8	134.0	134.1	134.3	134.4	133.3	133.5	133.9	134.3	133.7
2006	134.6	134.7	134.9	135.0	135.2	135.3	135.4	135.6	135.7	135.9	136.0	136.2	134.7	135.2	135.6	136.1	135.4
2007	136.4	136.6	136.8	137.0	137.2	137.4	137.6	137.9	138.1	138.3	138.5	138.7	136.6	137.2	137.9	138.5	137.5
2008	139.0	139.1	139.3	139.5	139.7	139.9	...	...	...	...	...	...	139.1	139.7	...	...	...
	Capacity utilization (percent)																
1978	82.3	82.4	83.6	85.1	85.2	85.6	85.3	85.4	85.4	85.9	86.3	86.6	82.8	85.3	85.3	86.2	84.9
1979	85.8	86.1	86.2	85.1	85.6	85.4	85.0	84.3	84.2	84.5	84.2	84.2	86.0	85.3	84.5	84.3	85.0
1980	84.4	84.2	83.8	81.9	79.7	78.6	77.9	77.9	79.0	79.8	81.0	81.3	84.1	80.1	78.3	80.7	80.8
1981	80.6	80.0	80.3	79.7	80.1	80.3	80.6	80.4	79.8	79.0	77.9	76.9	80.3	80.0	80.3	77.9	79.6
1982	75.2	76.5	75.8	75.0	74.4	74.0	73.6	72.9	72.5	71.8	71.5	70.9	75.9	74.5	73.0	71.4	73.7
1983	72.2	71.7	72.3	73.2	73.7	74.1	75.2	76.0	77.1	77.7	77.9	78.2	72.1	73.6	76.1	77.9	74.9
1984	79.7	80.0	80.2	80.6	80.9	81.0	81.1	81.0	80.6	80.4	80.5	80.4	80.0	80.8	80.9	80.4	80.5
1985	80.0	80.1	80.0	79.7	79.5	79.4	78.7	78.9	79.1	78.6	78.7	79.4	80.0	79.5	78.9	78.9	79.3
1986	79.7	79.0	78.4	78.4	78.4	78.1	78.5	78.3	78.3	78.6	78.8	79.4	79.0	78.3	78.4	78.9	78.7
1987	79.0	79.9	79.9	80.2	80.6	80.8	81.2	81.6	81.7	82.8	83.1	83.4	79.6	80.5	81.5	83.1	81.2
1988	83.3	83.5	83.7	84.1	83.9	84.1	84.2	84.5	84.2	84.6	84.6	84.9	83.5	84.0	84.3	84.7	84.1
1989	85.0	84.5	84.6	84.4	83.7	83.6	82.6	83.2	82.8	82.6	82.6	83.1	84.7	83.9	82.9	82.8	83.6
1990	82.5	83.0	83.2	82.9	82.9	83.0	82.7	82.8	82.8	82.1	80.9	80.3	82.9	83.0	82.8	81.1	82.4
1991	79.8	79.1	78.6	78.6	79.3	80.0	79.9	79.9	80.5	80.2	80.0	79.6	79.2	79.3	80.1	79.9	79.6
1992	79.0	79.5	80.0	80.4	80.5	80.4	80.9	80.3	80.4	80.8	80.9	80.8	79.5	80.5	80.5	80.9	80.3
1993	81.1	81.2	81.1	81.3	80.9	81.1	81.2	81.1	81.4	81.8	82.0	82.3	81.2	81.1	81.2	82.1	81.4
1994	82.5	82.3	83.0	83.2	83.4	83.7	83.7	83.8	83.7	84.2	84.4	85.1	82.6	83.4	83.7	84.5	83.6
1995	85.0	84.7	84.5	84.1	84.0	83.9	83.3	84.1	84.1	83.6	83.5	83.5	84.7	84.0	83.8	83.5	84.0
1996	82.6	83.6	83.1	83.3	83.4	83.7	83.2	83.4	83.4	83.0	83.4	83.5	83.1	83.5	83.3	83.3	83.3
1997	83.2	83.8	84.0	83.6	83.7	83.6	83.6	84.2	84.5	84.6	84.8	84.6	83.7	83.6	84.1	84.7	84.0
1998	84.4	83.9	83.4	83.3	83.3	82.4	81.6	82.9	82.3	82.5	82.0	82.0	83.9	83.0	82.3	82.2	82.8
1999	82.0	82.0	81.8	81.7	82.0	81.6	81.8	81.9	81.3	82.0	82.2	82.6	82.0	81.8	81.6	82.3	81.9
2000	82.4	82.4	82.4	82.6	82.5	82.4	81.9	81.5	81.6	81.0	80.7	80.2	82.4	82.5	81.6	80.6	81.8
2001	79.4	78.7	78.2	77.8	77.1	76.4	75.9	75.4	74.9	74.3	73.8	73.6	78.8	77.1	75.4	73.9	76.3
2002	73.8	73.8	74.2	74.4	74.7	75.4	75.1	75.2	75.2	75.0	75.4	75.1	73.9	74.8	75.2	75.2	74.8
2003	75.6	75.9	75.9	75.3	75.4	75.6	75.9	75.9	76.3	76.4	77.0	77.0	75.8	75.4	76.1	76.8	76.0
2004	77.2	77.6	77.1	77.5	78.0	77.4	77.9	78.1	78.0	78.7	79.0	79.4	77.3	77.6	78.0	79.1	78.0
2005	79.8	80.2	80.1	80.0	80.2	80.5	80.4	80.5	79.0	79.8	80.6	80.9	80.0	80.3	80.0	80.4	80.2
2006	80.9	80.7	80.8	81.1	80.9	81.2	81.3	81.3	80.9	80.8	80.5	80.9	80.8	81.0	81.2	80.7	80.9
2007	80.5	80.9	80.7	81.0	80.9	81.0	81.4	81.2	81.3	80.8	81.1	81.0	80.7	81.0	81.3	81.0	81.0
2008	81.0	80.3	80.5	79.9	79.6	79.9	...	...	...	...	...	...	80.6	79.8	...	...	...

NOTE: See the general note to table A.1.

... Not available as of July 16, 2008.

A.3. Rates of change in industrial production, by market and industry groups, 2003–07[1]

Item	NAICS code[2]	Revised rate of change (percent)					Difference between rates of change: revised minus previous (percentage points)				
		2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Total industry	...	**1.5**	**3.1**	**2.6**	**1.7**	**2.1**	**.4**	**.1**	**–.6**	**–1.8**	**.4**
MARKET GROUPS											
Final products and nonindustrial supplies	...	1.5	2.6	4.4	1.0	1.3	.3	.0	–.4	–1.5	.1
Consumer goods	...	1.4	1.7	2.4	.2	1.1	.0	–.1	–.4	–.9	.1
Durable	...	3.4	–.7	1.5	–3.9	.9	.0	–.4	–.8	–1.4	–.1
Automotive products	...	4.7	–2.9	–1.9	–5.3	3.6	–.1	.3	–.1	–.7	.9
Home electronics	...	18.5	2.5	11.0	11.5	14.2	–1.9	–11.8	–5.7	–1.6	–4.5
Appliances, furniture, carpeting	...	2.9	1.6	1.6	–6.1	–6.0	.6	–.6	–1.4	–1.4	–.5
Miscellaneous goods	...	–1.4	2.0	5.6	–2.8	–1.5	–.1	–.1	–.7	–2.2	–.7
Nondurable	...	.5	2.6	2.7	1.5	1.2	.0	.0	–.2	–.7	.1
Non-energy	...	1.1	2.2	3.0	2.1	.9	.0	.0	–.3	–.6	.1
Foods and tobacco	...	2.6	2.3	3.9	.3	1.5	.0	.0	–.9	–1.9	.2
Clothing	...	–10.9	–9.8	–2.1	.3	–1.9	.0	.7	–1.9	–.4	1.4
Chemical products	...	2.1	4.0	3.1	7.7	.0	–.2	.2	2.2	3.9	.3
Paper products	...	–3.8	2.2	–.9	–2.4	1.1	.5	–1.0	–3.1	–5.7	–.4
Energy	...	–1.8	3.9	1.7	–.2	1.9	–.1	.2	.1	–.8	.0
Business equipment	...	1.9	5.2	10.3	7.8	2.8	.8	.0	–.9	–2.0	–.5
Transit	...	–1.2	7.2	15.9	9.1	–3.4	–1.6	1.3	–4.6	–7.8	–5.5
Information processing	...	10.5	6.3	14.6	12.8	8.9	3.5	–.9	.9	2.6	.4
Industrial and other	...	–1.9	4.0	5.9	4.4	1.7	.1	.0	–.8	–2.5	.7
Defense and space equipment	...	2.9	3.1	6.9	–2.6	5.2	1.3	.6	3.1	–4.9	5.8
Construction supplies	...	.9	1.7	7.5	–3.5	–1.6	–.1	.2	–.5	–1.5	–.6
Business supplies	...	1.3	3.2	2.6	–.3	1.1	.4	.2	–.7	–2.7	.0
Materials	...	1.5	3.7	.3	2.5	3.2	.5	.3	–.8	–2.2	.7
Non-energy	...	2.1	5.4	2.4	1.3	3.5	.7	.6	–1.1	–3.2	1.3
Durable	...	4.1	6.0	5.4	1.2	5.4	1.1	.7	–1.6	–4.5	1.6
Consumer parts	...	–1.4	.0	.5	–5.8	–2.0	.1	–.2	–1.2	–2.6	–.5
Equipment parts	...	12.0	11.1	11.3	9.4	12.5	3.2	1.7	–4.7	–10.0	5.7
Other	...	.5	4.9	2.9	–2.0	3.0	.0	.5	.2	–1.2	–.6
Nondurable	...	–1.2	4.3	–2.2	1.6	.6	–.1	.6	–.2	–1.0	.9
Textile	...	–8.3	–.9	.5	–12.2	–9.4	–.7	2.5	.3	–4.9	.3
Paper	...	–5.5	3.8	–1.1	1.6	–1.3	–.3	–.1	–1.0	–1.0	.7
Chemical	...	2.3	8.6	–5.8	4.9	2.1	–.2	.9	.8	.1	1.3
Energy	...	.2	–.5	–4.0	5.2	2.7	.1	–.3	.1	–.1	–.6
INDUSTRY GROUPS											
Manufacturing[3]	...	1.7	3.7	3.7	1.1	2.3	.4	.2	–.7	–2.2	.6
Manufacturing (NAICS)	31–33	2.0	3.8	3.9	1.4	2.5	.4	.3	–.6	–2.1	.6
Durable manufacturing	...	3.4	4.0	6.9	1.6	3.9	.8	.2	–1.0	–3.1	1.0
Wood products	321	4.6	1.4	11.6	–13.3	–6.8	.1	–.3	1.2	1.2	–1.4
Nonmetallic mineral products	327	1.3	4.4	5.3	–3.5	.7	–.6	.5	–.5	–1.6	.6
Primary metal	331	4.5	8.1	–1.1	–4.2	4.1	.2	.7	1.2	–.7	–1.9
Fabricated metal products	332	–2.4	1.9	6.2	3.2	3.4	–.2	.3	.1	–.6	.9
Machinery	333	–2.0	5.1	8.3	2.5	–.7	.0	.2	.1	–2.8	.9
Computer and electronic products	334	17.9	10.2	15.1	12.2	13.9	4.3	.0	–3.2	–6.1	4.4
Electrical equipment, appliances, and components	335	–.9	2.3	1.8	–.5	3.7	.1	.3	–2.0	–2.8	1.1
Motor vehicles and parts	3361–3	3.2	–1.4	–.3	–5.9	–2.2	.1	.3	–.6	–2.1	–.4
Aerospace and miscellaneous transportation equipment	3364–9	–4.0	3.4	11.5	4.5	10.9	–.2	1.4	–3.6	–10.2	3.4
Furniture and related products	337	.2	3.4	1.6	–1.6	–1.7	.1	–.1	.0	–.4	1.2
Miscellaneous	339	.3	1.6	6.6	2.7	1.5	.2	–.5	–2.1	–2.0	–1.7
Nondurable manufacturing	...	.2	3.5	.7	1.3	.9	–.1	.3	–.2	–1.0	.3
Food, beverage, and tobacco products	311,2	2.5	1.3	4.1	.3	2.1	.0	.1	–1.1	–2.3	.4
Textile and product mills	313,4	–5.1	.5	–.3	–11.7	–8.1	–.4	1.2	–2.2	–4.0	–.2
Apparel and leather	315,6	–10.6	–8.9	–1.3	–.8	–2.0	–.1	.7	–1.7	–.7	1.3
Paper	322	–5.6	2.8	–.7	.3	–2.2	–.2	–.2	–.6	.4	.2
Printing and support	323	–2.7	2.4	.5	1.9	–1.3	–.3	.6	–1.4	–3.3	.9
Petroleum and coal products	324	.9	10.4	–3.7	2.2	–.5	–.2	.5	–.1	–.4	–.5
Chemical	325	1.9	6.6	–1.2	5.0	1.4	–.2	.5	1.3	1.3	.8
Plastics and rubber products	326	–.2	.9	2.6	–3.6	4.4	.0	.1	–.4	–3.9	–.7
Other manufacturing (non-NAICS)	1133, 5111	–2.8	2.0	–.5	–4.5	–1.4	.6	–.6	–1.2	–4.7	–.8
Mining	21	1.0	–.9	–4.9	8.2	.2	.3	–.2	.6	.2	–1.0
Utilities	2211,2	.6	1.8	2.0	–.7	3.1	.0	.1	–.1	–1.0	.2
Electric	2211	1.9	2.3	3.5	–1.2	3.3	.1	.1	.1	–1.2	–.1
Natural gas	2212	–6.2	–1.1	–4.6	1.5	2.0	–.2	.3	–1.2	–.4	2.2

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.

2. North American Industry Classification System.

3. Manufacturing comprises North American Industry Classification System (NAICS) manufacturing industries (sector 31-33) plus the logging industry and the newspaper, periodical, book, and directory publishing industries. Logging and publishing are classified elsewhere in NAICS (under agriculture and information respectively), but historically they were considered to be manufacturing industries and were included in the industrial sector under the Standard Industrial Classification (SIC) system. In December 2002 the Federal Reserve reclassified all its industrial output data from the SIC system to NAICS.

. . . Not applicable.

A.4. Rates of change in industrial production, special aggregates and selected detail, 2003–07[1]

Item	NAICS code[2]	Revised rate of change (percent)					Difference between rates of change: revised minus previous (percentage points)				
		2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Total industry	...	**1.5**	**3.1**	**2.6**	**1.7**	**2.1**	**.4**	**.1**	**–.6**	**–1.8**	**.4**
Energy	...	.7	1.3	–1.8	3.7	2.3	.1	–.2	.0	–.3	–.5
Consumer products	...	–1.8	3.9	1.7	–.2	1.9	–.1	.2	.1	–.8	.0
Commercial products	...	4.7	4.5	.4	1.2	2.0	.0	.0	–.1	–1.1	–1.2
Oil and gas well drilling	213111	21.3	8.4	11.9	14.8	–.8	.1	.1	.1	.1	–.2
Converted fuel	...	1.0	2.3	–2.6	2.5	5.3	.0	.2	–.1	.3	–1.0
Primary materials	...	–.1	–1.7	–4.6	6.4	1.6	.3	–.5	.3	–.4	–.3
Non-energy	...	1.7	3.5	3.9	1.1	2.1	.4	.2	–.7	–2.2	.6
Selected high-technology industries	...	23.8	9.4	22.4	17.3	22.3	6.7	–1.0	–5.7	–7.3	5.5
Computers and peripheral equipment	3341	9.9	1.6	28.8	18.0	16.7	5.1	–4.9	–1.5	5.9	–7.7
Communications equipment	3342	17.4	.7	13.7	20.6	20.6	3.5	–5.5	.8	5.8	5.9
Semiconductors and related electronic components	334412–9	34.0	17.3	24.0	15.4	25.9	9.5	3.6	–9.7	–19.4	11.4
Excluding selected high-technology industries	...	.2	3.1	2.7	.0	.8	.0	.3	–.4	–1.9	.3
Motor vehicles and parts	3361–3	3.2	–1.4	–.3	–5.9	–2.2	.1	.3	–.6	–2.1	–.4
Motor vehicles	3361	7.7	–2.7	–2.3	–7.0	–2.7	.0	.3	.2	–1.0	–1.2
Motor vehicle parts	3363	–1.9	–.8	–.6	–4.3	.5	.2	.3	–1.9	–4.1	.6
Excluding motor vehicles and parts	...	–.1	3.6	3.0	.6	1.1	.0	.3	–.4	–1.9	.3
Consumer goods	...	1.1	2.3	3.1	1.0	.3	.0	–.1	–.5	–.8	.0
Business equipment	...	–2.0	5.2	7.3	5.8	2.8	–.4	.8	–1.6	–4.4	.5
Construction supplies	...	.7	1.7	7.5	–3.7	–1.9	–.1	.2	–.4	–1.5	–.8
Business supplies	...	–.9	2.2	2.4	–1.6	–.1	.1	.2	–.7	–2.6	.0
Materials	...	–.5	5.0	.6	.7	1.8	–.1	.6	–.2	–1.6	.5
Measures excluding selected high-technology industries											
Total industry	...	.3	2.7	1.6	.9	1.2	.0	.2	–.4	–1.5	.2
Manufacturing[3]	...	.2	3.3	2.5	.1	1.1	.0	.3	–.4	–1.9	.3
Durable	...	.6	3.2	4.7	–.5	1.5	–.1	.4	–.5	–2.5	.4
Measures excluding motor vehicles and parts											
Total industry	...	1.4	3.5	2.8	2.1	2.4	.4	.1	–.6	–1.8	.4
Manufacturing[3]	...	1.6	4.2	4.0	1.7	2.6	.4	.2	–.7	–2.2	.7
Durable	...	3.5	5.1	8.1	2.8	4.8	.9	.2	–1.1	–3.2	1.2
Measures excluding selected high-technology industries and motor vehicles and parts											
Total industry	...	.1	3.1	1.7	1.4	1.4	.0	.2	–.3	–1.5	.2
Manufacturing[3]	...	–.1	3.8	2.7	.6	1.3	–.1	.3	–.4	–1.9	.4
Measures of non-energy materials inputs to											
Finished processors	...	3.7	6.0	5.6	2.8	5.1	1.4	.8	–2.7	–6.2	2.8
Primary and semifinished processors	...	.7	4.9	.1	.3	2.4	.0	.5	.1	–1.0	.2
Stage-of-process groups											
Crude	...	–.3	2.6	–6.6	7.2	1.7	.1	–.4	.7	.3	–.5
Primary and semifinished	...	1.1	3.7	3.3	–1.0	2.6	.5	.5	–1.0	–3.3	.7
Finished	...	2.7	2.4	5.4	3.4	1.7	.3	–.2	–.2	–.6	.2

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.

2. North American Industry Classification System.

3. See table A.3, note 3.

. . . Not applicable.

A.5. Rates of change for annual industrial production indexes, 2003–07[1]

Item	Revised rate of change (percent)					Difference between rates of change: revised minus previous (percentage points)				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Total industry	**1.2**	**2.5**	**3.3**	**2.2**	**1.7**	**.2**	**.0**	**.1**	**–1.8**	**–.4**
MARKET GROUPS										
Consumer goods	1.3	1.3	2.8	.3	1.7	.0	–.1	–.1	–1.0	–.2
Durable	3.2	1.1	.5	–1.3	–.3	–.1	–.3	–.5	–1.2	–1.3
Nondurable	.5	1.4	3.6	.8	2.3	.0	.0	.1	–.9	.1
Business equipment	–.3	5.2	7.3	10.4	3.3	–.5	.9	–.6	–1.3	–2.9
Defense and space equipment	6.3	–.8	10.5	–3.2	3.8	2.5	–1.0	5.1	–5.6	6.8
Construction supplies	–.4	2.1	4.5	2.2	–2.5	–.2	.2	–.3	–1.3	–1.2
Business supplies	1.7	2.2	3.4	.6	.6	.3	.0	.0	–2.4	–1.2
Materials	1.3	3.0	2.3	2.2	1.9	.4	–.1	.2	–2.4	–.1
Non-energy	1.8	4.3	3.9	2.5	2.1	.6	.0	.4	–3.4	.3
Energy	.0	–.4	–1.2	1.6	1.6	.1	–.2	.1	.0	–1.0
INDUSTRY GROUPS										
Manufacturing[2]	1.3	2.9	4.0	2.4	1.7	.2	.0	.1	–2.2	–.4
Manufacturing (NAICS)	1.5	3.1	4.2	2.8	1.8	.2	.1	.2	–2.2	–.2
Durable manufacturing	2.7	4.1	5.5	4.6	2.6	.4	.1	.0	–3.0	–.4
Nondurable manufacturing	.1	1.9	2.8	.8	1.0	–.1	.0	.4	–1.4	.1
Other manufacturing (non-NAICS)	–2.9	.8	.7	–4.3	–1.5	.1	–.1	–1.1	–3.0	–3.6
Mining	.2	–.6	–1.3	3.1	.1	.3	.0	.4	.4	–1.1
Utilities	1.9	1.4	2.1	–.6	3.3	.0	.0	.0	–.8	.4

1. The rates of change are calculated from annual averages of seasonally adjusted industrial production indexes rather than between the fourth quarter of one year and the fourth quarter of the next.

2. See table A.3, note 3.

A.6. Rates of change in capacity, by industry groups, 2003–07[1]

Item	Revised rate of change (percent)					Difference between rates of change: revised minus previous (percentage points)				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Total industry	**–.6**	**.2**	**.8**	**1.3**	**1.8**	**.3**	**.0**	**–.2**	**–1.1**	**.0**
Manufacturing[2]	–.6	.2	1.4	1.4	2.0	.3	.1	–.3	–1.3	–.2
Manufacturing (NAICS)	–.3	.2	1.5	1.4	2.0	.3	.1	–.3	–1.4	–.2
Durable manufacturing	.3	.5	2.6	2.4	3.3	.5	.0	–.7	–1.8	–.2
Nondurable manufacturing	–1.0	–.1	.5	.3	.7	.2	.3	.2	–.8	–.1
Other manufacturing (non-NAICS)	–4.8	–.6	–.2	1.1	.6	–1.0	–.5	–.8	.1	–.2
Mining	–1.4	–1.3	–1.1	1.4	1.7	.7	–1.0	.6	.8	1.3
Utilities	3.6	2.9	.7	.8	1.2	.5	.3	.7	–1.2	–.3
Selected high-technology industries	4.2	5.5	13.1	10.3	21.4	2.8	1.2	–5.2	–9.3	1.9
Manufacturing except selected high-technology industries[2]	–.7	–.2	.7	.8	.8	.1	.0	.1	–.6	–.2
Stage-of-process groups										
Crude	–1.8	–.7	–.8	.9	1.4	.4	–.6	.3	.7	1.0
Primary and semifinished	–.8	.7	.8	1.2	2.1	.6	.3	–.6	–1.8	–.1
Finished	.3	.4	2.3	1.8	1.7	.0	–.1	.3	–.5	–.3

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.

2. See table A.3, note 3.

A.7. Capacity utilization rates, by industry groups, 2004–07

Item	NAICS code[1]	Revised rate (percent of capacity, seasonally adjusted)					Difference between rates of change: revised minus previous (percentage points)			
		1972–2007 avg.	2004:Q4	2005:Q4	2006:Q4	2007:Q4	2004:Q4	2005:Q4	2006:Q4	2007:Q4
Total industry	...	**81.0**	**79.1**	**80.4**	**80.7**	**81.0**	**.0**	**–.2**	**–.8**	**–.5**
Manufacturing[2]	...	79.7	77.5	79.2	79.0	79.3	–.1	–.3	–1.1	–.5
Manufacturing (NAICS)	31-33	79.5	77.1	78.9	78.9	79.3	–.1	–.4	–.9	–.3
Durable manufacturing	...	78.0	74.8	78.0	77.3	77.8	.0	–.2	–1.1	–.3
Wood products	321	79.9	81.4	89.9	75.9	70.1	.1	1.4	1.6	–.1
Nonmetallic mineral products	327	79.4	80.3	83.3	78.9	78.2	–.8	–.5	–.8	–.2
Primary metal	331	80.9	86.7	83.9	80.8	83.9	–.1	.2	–1.4	–2.6
Fabricated metal products	332	77.5	73.8	78.0	79.9	81.3	.2	.1	–.3	.2
Machinery	333	78.7	73.2	78.5	79.4	77.3	–.2	–.2	–1.5	–.6
Computer and electronic products	334	78.3	71.1	74.7	78.0	77.4	–.6	–.4	.7	3.4
Electrical equip., appliances, and components	335	83.2	79.9	83.2	82.1	83.4	.8	–.2	–2.2	–2.1
Motor vehicles and parts	3361–3	77.4	79.2	78.3	72.3	72.4	.3	–.3	–2.4	–3.7
Aerospace and miscellaneous transportation equipment	3364–9	72.7	63.0	70.0	72.8	80.4	1.6	–.2	–5.9	–2.5
Furniture and related products	337	78.6	77.0	79.0	77.5	76.6	.5	.3	–.8	.6
Miscellaneous	339	76.6	74.9	76.9	76.5	74.7	–.1	–1.4	–2.3	–3.0
Nondurable manufacturing	...	81.6	79.8	80.0	80.8	81.0	–.3	–.6	–.8	–.4
Food, beverage, and tobacco products	311,2	81.5	78.4	80.7	80.3	81.1	.3	–.7	–1.9	–1.0
Textile and product mills	313,4	82.0	77.2	79.7	72.5	68.9	1.6	–.1	–3.3	–2.8
Apparel and leather	315,6	78.4	67.9	69.6	71.8	73.0	.0	–1.9	–2.3	–1.3
Paper	322	87.6	83.7	84.0	84.3	82.6	–.8	–1.0	–1.2	–1.4
Printing and support	323	83.5	76.5	77.7	78.5	76.4	.6	–.3	–1.9	–.7
Petroleum and coal products	324	85.9	92.0	87.3	88.9	88.9	–2.4	–.6	–1.2	–1.3
Chemical	325	78.3	78.1	75.5	79.1	78.9	–.4	–.1	1.4	1.4
Plastics and rubber products	326	83.6	83.8	85.9	82.3	84.6	–1.2	–1.4	–2.5	–2.1
Other manufacturing (non-NAICS)	1133, 5111	84.5	85.7	85.4	80.7	79.2	.5	.2	–3.9	–4.3
Mining	21	87.5	88.8	85.5	91.2	90.2	.4	.4	–.1	–1.9
Utilities	2211,2	86.8	84.6	85.7	84.4	85.9	.0	–.8	–.6	–.2
Selected high-technology industries	...	78.1	69.5	75.2	80.0	79.9	–1.2	–1.3	.3	2.0
Computers and peripheral equipment	3341	77.9	78.2	74.3	77.5	78.3	–1.6	–1.9	–.8	–2.3
Communications equipment	3342	75.7	52.4	61.8	73.3	80.1	–2.0	–2.0	.0	–1.9
Semiconductors and related electronic components	334412–9	80.8	77.4	84.2	85.1	80.5	.6	1.0	2.4	5.6
Measures excluding selected high-technology industries										
Total industry	...	81.2	79.7	80.7	80.7	81.0	.2	–.2	–1.0	–.8
Manufacturing[2]	...	79.8	78.1	79.5	79.0	79.2	.0	–.3	–1.4	–1.0
Stage-of-process groups										
Crude	...	86.6	88.0	83.3	89.2	89.3	.1	.4	.0	–1.1
Primary and semifinished	...	82.2	81.4	83.4	81.3	81.3	.0	–.1	–1.0	–.5
Finished	...	77.7	73.8	75.9	77.0	77.6	–.1	–.6	–1.3	–.7

1. North American Industry Classification System.
2. See table A.3, note 3.

... Not applicable.

A.8. Annual proportion in industrial production, by market groups and industry groups, 1999–2007

Item	NAICS code[1]	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total industry	...	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
MARKET GROUPS										
Final products and nonindustrial supplies	...	57.4	57.2	58.7	58.5	57.8	56.6	56.6	56.5	56.1
Consumer goods	...	28.1	28.3	29.8	30.8	30.7	29.9	29.6	29.1	29.3
Durable	...	8.0	7.8	8.1	8.9	8.7	7.9	7.4	7.0	6.7
Automotive products	...	3.9	3.7	4.0	4.7	4.6	4.0	3.6	3.3	3.2
Home electronics	...	.4	.4	.4	.4	.4	.4	.3	.3	.3
Appliances, furniture, carpeting	...	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.1
Miscellaneous goods	...	2.3	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.1
Nondurable	...	20.1	20.5	21.7	21.9	22.0	22.0	22.2	22.1	22.6
Non-energy	...	16.6	16.8	17.9	18.0	17.8	17.1	16.5	16.2	16.3
Foods and tobacco	...	9.1	9.3	9.9	9.7	9.7	9.4	9.0	8.8	9.0
Clothing	...	1.3	1.2	1.1	.9	.8	.7	.6	.6	.5
Chemical products	...	3.8	3.9	4.4	4.9	4.9	4.8	4.7	4.8	4.7
Paper products	...	1.9	1.9	2.0	2.0	1.8	1.7	1.7	1.6	1.6
Energy	...	3.5	3.7	3.8	3.9	4.2	4.9	5.7	5.8	6.4
Business equipment	...	11.8	11.6	11.2	10.2	9.6	9.4	9.3	9.6	9.4
Transit	...	2.3	2.0	2.0	1.8	1.6	1.6	1.6	1.8	1.7
Information processing	...	4.1	4.1	3.8	3.1	2.9	2.9	2.8	2.8	2.7
Industrial and other	...	5.4	5.6	5.3	5.3	5.0	4.9	4.9	5.0	5.0
Defense and space equipment	...	1.8	1.5	1.8	1.8	1.8	1.7	1.8	1.7	1.7
Construction supplies	...	4.3	4.2	4.3	4.3	4.3	4.3	4.4	4.4	4.2
Business supplies	...	11.1	11.1	11.1	11.0	11.0	10.8	10.9	10.8	10.6
Materials	...	42.6	42.8	41.3	41.5	42.2	43.4	43.4	43.5	43.9
Non-energy	...	33.1	32.1	30.6	30.5	30.0	30.0	29.6	29.6	29.3
Durable	...	21.4	20.8	19.5	19.0	18.6	18.5	18.1	18.0	17.6
Consumer parts	...	4.3	4.1	3.8	4.0	3.8	3.5	3.3	3.1	2.9
Equipment parts	...	8.1	8.1	7.3	6.6	6.5	6.4	6.2	6.1	6.0
Other	...	8.9	8.6	8.4	8.4	8.3	8.6	8.6	8.8	8.6
Nondurable	...	11.7	11.3	11.2	11.5	11.4	11.5	11.5	11.6	11.7
Textile	...	1.0	.9	.8	.8	.7	.7	.7	.6	.5
Paper	...	2.9	2.8	2.8	2.7	2.5	2.4	2.3	2.3	2.2
Chemical	...	4.5	4.2	4.1	4.5	4.6	5.2	5.4	5.5	5.8
Energy	...	9.5	10.6	10.6	11.0	12.2	13.3	13.8	13.9	14.6
INDUSTRY GROUPS										
Manufacturing[2]	...	85.5	84.0	83.5	83.2	81.7	80.5	79.5	79.2	78.7
Manufacturing (NAICS)	31–33	80.7	79.2	78.6	78.5	77.2	76.2	75.4	75.4	75.0
Durable manufacturing	...	46.6	45.3	44.0	43.2	42.0	40.7	39.6	39.6	38.5
Wood products	321	1.5	1.4	1.4	1.5	1.6	1.6	1.5	1.4	1.2
Nonmetallic mineral products	327	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2
Primary metal	331	2.8	2.5	2.3	2.3	2.3	2.7	2.6	2.8	2.7
Fabricated metal products	332	5.9	6.0	5.8	5.7	5.5	5.3	5.3	5.5	5.6
Machinery	333	5.8	5.9	5.5	5.3	5.0	4.9	4.9	5.0	4.9
Computer and electronic products	334	10.5	10.4	9.4	8.1	7.9	7.8	7.4	7.2	6.8
Electrical equipment, appliances, and components	335	2.5	2.5	2.4	2.2	2.0	1.9	1.9	1.9	1.9
Motor vehicles and parts	3361–3	7.0	6.6	6.5	7.4	7.2	6.4	5.9	5.5	5.1
Aerospace and miscellaneous transportation equipment	3364–9	3.7	3.2	3.7	3.5	3.3	3.1	3.2	3.3	3.5
Furniture and related products	337	1.7	1.7	1.7	1.8	1.7	1.6	1.6	1.5	1.4
Miscellaneous	339	2.8	2.9	3.1	3.3	3.3	3.1	3.1	3.1	3.1
Nondurable manufacturing	...	34.2	33.9	34.6	35.3	35.2	35.5	35.8	35.7	36.5
Food, beverage, and tobacco products	311,2	10.4	10.6	11.3	11.3	11.4	10.9	10.5	10.4	10.7
Textile and product mills	313,4	1.5	1.4	1.3	1.4	1.3	1.2	1.2	1.0	.9
Apparel and leather	315,6	1.4	1.3	1.2	1.0	.9	.7	.6	.6	.6
Paper	322	3.2	3.1	3.1	3.1	2.9	2.7	2.6	2.6	2.5
Printing and support	323	2.6	2.6	2.6	2.4	2.2	2.1	2.0	1.9	1.9
Petroleum and coal products	324	1.7	1.8	1.7	1.8	2.1	3.2	4.2	4.5	5.2
Chemical	325	9.5	9.3	9.7	10.7	10.8	11.2	11.3	11.4	11.6
Plastics and rubber products	326	3.8	3.7	3.7	3.8	3.6	3.4	3.3	3.2	3.0
Other manufacturing (non-NAICS)	1133, 5111	4.8	4.8	4.8	4.7	4.5	4.3	4.1	3.9	3.7
Mining	21	5.9	7.1	7.1	7.2	8.5	9.8	10.7	11.0	11.6
Utilities	2211,2	8.6	8.9	9.4	9.6	9.8	9.7	9.8	9.7	9.7
Electric	2211	7.4	7.6	8.0	8.2	8.2	8.0	8.0	8.1	8.0
Natural gas	2212	1.2	1.4	1.4	1.4	1.6	1.7	1.8	1.6	1.7

NOTE: The IP proportion data are estimates of the industries' relative contributions to the overall IP change between the reference year and the following year. For example, a 1 percent increase in durable goods manufacturing between 2007 and 2008 would account for a .385 percent increase in total IP.

1. North American Industry Classification System.
2. See table A.3, note 3.
. . . Not applicable.

A.9. Annual production and price indexes for selected communications equipment, 1998–2007

Year	Index, 2002=100											
	Data networking		Enterprise and home voice		Transmission and related[1]		Wireless system		Satellites and earth station		Other	
	Production	Prices	Production	Prices	Production	Prices	Production	Prices	Production	Prices	Production	Prices
1998	n.a.	234.4	n.a.	141.3	118.7	189.3	n.a.	167.7	76.7	163.1	83.4	108.4
1999	n.a.	194.4	n.a.	130.5	153.5	169.6	n.a.	146.2	68.8	145.2	86.1	106.3
2000	n.a.	174.1	n.a.	123.7	229.6	149.3	n.a.	131.3	92.7	131.7	110.7	100.4
2001	123.6	133.2	n.a.	111.1	202.5	116.5	n.a.	110.5	86.9	124.4	95.4	100.9
2002	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003	113.2	76.6	84.5	94.6	80.7	90.5	118.1	88.5	108.1	99.0	98.4	98.6
2004	124.6	59.9	71.0	87.6	76.5	83.2	151.3	79.3	154.1	83.2	90.6	99.4
2005	161.5	54.1	63.2	80.9	61.7	77.4	168.9	76.9	150.5	85.5	71.3	100.4
2006	255.6	51.3	59.7	78.8	69.5	66.5	134.8	64.4	306.1	64.2	67.4	99.8
2007	287.8	n.a.	56.5	n.a.	76.5	n.a.	127.5	n.a.	391.0	n.a.	77.8	n.a.

NOTE: The complete set of annual prices necessary to compute the annual price indexes for 2007 are not available. The estimates for the quarterly price indexes for 2007 (shown in table A.10) are based on only incomplete data.

1. Category consists of transmission, local loop, and legacy central office equipment.

n.a. Not available.

A.10. Quarterly production and price indexes for selected communications equipment, 1998:Q1–2008:Q1

Year and quarter	Index, 2002=100							
	Data networking		Enterprise and home voice		Transmission and related[1]		Wireless system	
	Production	Prices	Production	Prices[2]	Production	Prices	Production	Prices
1998:Q1	n.a.	n.a.	n.a.	n.a.	101.0	118.6	n.a.	n.a.
Q2	n.a.	n.a.	n.a.	n.a.	117.1	118.7	n.a.	n.a.
Q3	n.a.	n.a.	n.a.	n.a.	122.9	117.1	n.a.	n.a.
Q4	n.a.	n.a.	n.a.	n.a.	133.9	117.6	n.a.	n.a.
1999:Q1	n.a.	n.a.	n.a.	n.a.	131.9	120.2	n.a.	n.a.
Q2	n.a.	n.a.	n.a.	n.a.	142.9	127.2	n.a.	n.a.
Q3	n.a.	n.a.	n.a.	n.a.	166.1	129.2	n.a.	n.a.
Q4	n.a.	n.a.	n.a.	n.a.	173.1	128.0	n.a.	n.a.
2000:Q1	n.a.	n.a.	n.a.	n.a.	198.7	134.0	n.a.	121.8
Q2	n.a.	n.a.	n.a.	n.a.	232.7	138.0	n.a.	122.6
Q3	n.a.	n.a.	n.a.	n.a.	238.1	140.0	n.a.	123.7
Q4	n.a.	n.a.	n.a.	n.a.	249.3	135.6	n.a.	124.6
2001:Q1	150.8	148.0	n.a.	n.a.	241.9	115.2	n.a.	124.3
Q2	126.7	137.1	n.a.	n.a.	199.8	112.7	n.a.	122.3
Q3	110.0	127.4	n.a.	n.a.	218.9	109.5	n.a.	114.6
Q4	107.6	126.9	n.a.	n.a.	150.9	106.0	n.a.	110.6
2002:Q1	104.5	110.7	115.7	n.a.	132.8	102.3	97.8	109.1
Q2	99.6	107.3	102.1	n.a.	104.7	102.2	100.3	106.2
Q3	98.4	91.6	92.5	n.a.	87.7	98.0	99.0	94.0
Q4	97.7	90.6	91.1	n.a.	75.8	97.6	101.7	90.9
2003:Q1	97.2	87.9	91.4	104.3	81.3	94.7	100.4	87.5
Q2	110.4	80.8	84.8	100.7	78.7	91.1	102.6	83.8
Q3	119.8	70.7	89.3	97.9	78.6	89.2	124.6	69.3
Q4	125.2	63.0	73.6	97.2	84.3	91.6	143.0	65.8
2004:Q1	139.3	60.5	76.8	97.2	79.2	92.1	149.8	65.9
Q2	119.9	59.6	74.5	95.4	76.3	89.6	147.0	68.7
Q3	123.3	58.2	68.3	90.9	73.6	88.1	148.6	68.6
Q4	116.4	56.4	65.3	89.4	77.2	88.5	158.0	74.1
2005:Q1	132.0	53.9	60.1	86.4	71.1	85.2	164.5	77.2
Q2	147.7	53.5	61.8	86.7	63.4	79.3	174.4	74.8
Q3	162.1	53.0	66.8	82.9	58.2	79.2	171.0	70.3
Q4	203.6	51.9	64.7	82.1	54.6	76.4	163.7	66.4
2006:Q1	217.2	51.9	62.0	82.1	59.0	75.8	150.3	64.5
Q2	247.6	50.6	61.5	81.1	68.3	74.2	141.1	65.3
Q3	270.0	49.5	58.3	80.5	76.7	75.2	133.2	68.4
Q4	286.8	48.7	57.8	79.9	73.9	73.4	113.3	71.2
2007:Q1	281.1	49.4	58.5	80.4	75.3	71.1	116.0	70.9
Q2	287.2	50.1	56.0	78.0	77.8	69.0	112.2	68.7
Q3	288.2	48.9	58.0	77.5	77.6	67.2	129.3	58.3
Q4	294.9	47.6	54.2	76.6	75.5	66.5	150.5	48.7
2008:Q1	297.1	n.a.	52.9	n.a.	74.7	n.a.	163.7	n.a.

NOTE: Quarterly production and price indexes are not available for two categories of communications equipment shown in table A.9: "satellites and earth station" and "other."

1. Category consists of transmission, local loop, and legacy central office equipment.

2. Index, 2003=100.

n.a. Not available.

Economic Development Incentives: Research Approaches and Current Views

Dan Gorin, of the Board's Division of Consumer and Community Affairs, prepared this article.

Economic development incentives—state and local government efforts to encourage economic development—are one of a limited number of tools local policymakers have for stimulating local economies. Some broad measures—investments in infrastructure (such as transportation), human capital (education, for example), and social infrastructure (such as recreational facilities)—may produce significant results over the long term. Targeted measures crafted to attract or retain businesses—usually a tax preference or financial assistance—offer the possibility of a quick payoff.

Public interest in incentives has generally been muted, except when very generous incentive packages, egregious practices, or legal issues have prompted questions about their appropriateness and effectiveness. Policymakers struggling with practical decisions have frequently turned to economists for guidance: Should incentives be offered? If so, how large should they be? And how can an incentive program be designed to increase its effectiveness? Much of the research assessing the effectiveness of incentives has been inconclusive or unsatisfactory, in part because of methodological flaws and inadequate data.

Interest in incentives surged in the 1980s and 1990s as a result of very public bidding wars among localities to entice businesses to their communities. In particular, the dollar amount of incentive packages offered to automobile manufacturers looking to locate new facilities soared during that period. In 1980, Nissan received an estimated $33 million, or $8,000 per anticipated job, for locating a new facility in Tennessee. The amount of subsequent incentive packages handed out to Mazda, Saturn, DiamondStar, and Toyota, among others, rose over the next few years, and by 1987, Toyota was receiving an estimated $150 million, or $50,000 per anticipated job, for locating a new facility in Kentucky.[1] And the incentive packages were growing again before long. Although BMW's 1992 package to locate in South Carolina was reportedly just $150 million, Mercedes-Benz reportedly received $258 million the next year to locate a facility in Alabama.[2]

News accounts of ever-larger incentive packages caught the attention of economists and policymakers as well as the public. An essay entitled "Congress Should End the Economic War among the States" appeared in the 1994 Annual Report of the Federal Reserve Bank of Minneapolis.[3] A few years later, a conference on the same topic brought together policymakers, economists, tax experts, economic developers, and business-site location consultants from around the country to discuss the matter.[4] Many questions were raised, and research goals were identified, among them the goal of establishing good data with which to answer the economic questions.

In the past ten years, case studies, input-output analyses, and other research techniques have addressed some of the methodological flaws of earlier incentives studies. The availability of better data on both incentives and economic activity has also improved analyses of incentives research. The work described in this article illustrates some of the fresh ways that researchers have found to look at the effectiveness of incentives. The focus is not on proving or disproving the effectiveness of incentives as a

1. Jeffrey A. Finkle (1996), "Location Incentives Are Unfair and Poorly Justified," pp. 1–2, www.developmentalliance.com/docu/pdf/43300.pdf.

2. A detailed case study of the location of automobile assembly plants can be found on the Good Jobs First website at www.goodjobsfirst.org/corporate_subsidy/automobile_assembly_plants.cfm.

3. Melvin L. Burstein and Arthur J. Rolnick (1994), "Congress Should End the Economic War Among the States," Essay in 1994 Annual Report of the Federal Reserve Bank of Minneapolis, www.minneapolisfed.org/pubs/ar/ar1994.cfm?js=0

4. The conference, held in Washington, D.C., on May 21–22, 1996, was hosted by Minnesota Public Radio's Civic Journalism Initiative. For more information, see www.minneapolisfed.org/publications_papers/studies/econwar/index.cfm and related links.

means of spurring economic development. Rather, the intent is to demonstrate that new ways are being used to advance the discussion.

The Conventional Wisdom, Ten Years Ago

In the 1990s, many academics and policymakers expressed skepticism that state and local economic development incentives could induce firms to add jobs or invest in a particular locality. At the time, researchers tended to conclude that incentives were marginally effective at best. Such conclusions appeared to corroborate the general notion that incentives in the form of state and local tax breaks are ineffective because state and local taxes typically constitute a small portion of a business's overall costs. Furthermore, critics argued, if the incentives increased the amount of income or profit subject to federal income tax, a considerable portion of the amount saved through state and local tax relief would likely be offset by higher federal taxes.

Much research during the 1980s and 1990s was based on flawed data or used independent variables that did not accurately represent the dollar amount of incentives. For example, several studies used the number of incentive programs on a state's books as a proxy for the state's total development effort. But often this number does not provide a complete picture. Many states have on their books incentive programs that are dormant, unfunded, or known to be ineffective. And some states treat their incentives as multiple programs, while others provide the same benefits within a single program.

Other early research on incentives used the budget of a state's lead development agency as a proxy for development efforts. However, that amount is rarely an accurate indicator of the amount spent directly on incentives. For example, development agency funds are typically used for other aspects of development, such as marketing and staff payroll. Development agency funds are also likely to be used for activities not directly related to business development, such as housing development or the promotion of tourism. Moreover, funding for incentives may not come from a development agency's budget. If the incentive takes the form of a tax preference, an appropriation may not be necessary. And if an appropriation is necessary, the funding for incentives may come from the budget of a different agency, such as education or transportation.

Economic development data concerning the state of Oklahoma, provided by the National Association of State Development Agencies (NASDA), illustrate the inadequacy of some data collection efforts. According to NASDA, the state spent $20.45 million on economic development in fiscal 1997. But this amount was simply the budget for the Oklahoma Department of Commerce, the state's lead development agency. The state's single largest incentive that year—worth just more than $1 billion—was a set of sales tax exemptions available to all manufacturers for purchasing machinery, equipment, and goods used and consumed in manufacturing. An argument could be made that these sales tax exemptions were not truly incentives and, therefore, were appropriately *not* included in the NASDA total because they were nondiscretionary and fairly common among the states. But there are other reasons to view the single NASDA figure as inadequate. The most promoted incentive in Oklahoma in fiscal 1997—a wage subsidy offered under the state's Quality Jobs program—cost the state $21.1 million that year. But again, that amount was not part of the Department of Commerce's budget. A second incentive, a local property tax abatement costing $14.8 million in fiscal 1997, was a budget item at the state level, as the state reimbursed local governments providing the incentive; but this incentive was also not in the department's budget. A third incentive in fiscal 1997—$13.2 million in tax credits for investment and job creation—was a standard tax preference, not an appropriated expenditure. Clearly, the use of a narrowly focused budget figure as a proxy for the state's financial commitment to its major incentives, while seemingly logical, is problematic, and it is unlikely to result in meaningful conclusions as to the benefits of the incentives.

The Search for a Better Research Design

The work of several researchers began to change the conventional wisdom that business incentives were marginally effective at best, as Fisher and Peters noted in 1997.[5] By conducting and identifying studies that used more-detailed data and more-refined techniques, Newman and Sullivan compiled evidence of the effectiveness of incentives.[6] Bartik's contribution to incentives research was twofold: his comprehensive literature review brought to light a substantial body of work—released up through the early 1990s—

5. Peter S. Fisher and Alan H. Peters (1997), "Tax and Spending Incentives and Enterprise Zones," *New England Economic Review* (March–April), pp. 109–130, www.bos.frb.org/economic/neer/neer1997/neer297f.pdf.

6. Robert J. Newman and Dennis H. Sullivan (1988), "Econometric Analysis of Business Tax Impacts on Industrial Location: What Do We Know, and How Do We Know It?" *Journal of Urban Economics*, vol. 23 (2), pp. 215–234.

that tracked the relationship between incentives and state and local development; furthermore, his systematic analysis of such variables as employment, home prices, and wages in metropolitan areas illustrated the effect on these variables of economic growth that may result from incentives and other development efforts.[7]

Defining Economic Development Incentives

Although research on incentives improved through the 1990s, more clarity was needed to ensure that studies were based on complete data. At the root of the problem, as the Oklahoma example shows, was the lack of a comprehensive definition for "economic development incentives." Fisher and Peters clarified the problem by identifying five categories of incentives:[8]

1. one-time deals negotiated with individual firms,
2. grants and loans provided under programs that receive annual state appropriations,
3. programs establishing parameters and limits but allowing some degree of local government discretion,
4. incentives that function as entitlements, whereby a firm receives the benefit automatically provided its investment is in an eligible sector and the size of the investment or number of new jobs created exceeds some threshold, and
5. code features that apply to all firms, but benefit some more than others and are often advertised by economic development agencies as reasons to locate in a state.

To this list might be added changes to state statutes that have the effect of opening markets to firms in particular industries. Examples include statute changes to allow certain industries, such as corporate farming, to begin or expand operations in a state; changes to the apportionment formula for corporate income taxes (to be discussed later); and relaxation of state usury limits.[9]

7. Timothy Bartik (1991), "Who Benefits from State and Local Economic Development Policies?" Upjohn Institute.

8. Fisher and Peters, "Tax and Spending Incentives and Enterprise Zones."

9. Delaware and South Dakota, for example, relaxed their usury limits in an effort to induce large banks to locate their credit card operations within state borders—an effort that proved successful, as evidenced by the cluster of large banks with high credit card volumes located in Delaware and the South Dakota return address on many credit card statements. For more information, see Steve Young (2002), "Repealed Usury Law Helped Lure Industry," *Argus Leader*, March 24; and Diane Ellis (1998), "The Effect of Consumer Interest Rate Deregulation on Credit Card Volumes, Charge-Offs, and the Personal Bankruptcy Rate," FDIC Bank Trends Series 98–05 (Washington, D.C.: Federal Deposit Insurance Corporation, March), www.fdic.gov/bank/analytical/bank/bt_9805.html.

Fisher and Peters noted that public interest in economic development incentives tends to focus on one-time deals (category 1).[10] Much of the research on incentives, however, has focused on tax-related issues (categories 4 and 5), in part because identifying special provisions in state tax codes, and then calculating effective tax burdens, is generally easier than analyzing data for all the negotiated deals within a specific geographic region or for a particular type of program (assuming that all such data can even be amassed). Yet when a study considers only tax incentives offered by a state and ignores local or nontax incentives, any conclusions will likely be faulty, as research has shown that local and nontax incentives can easily account for more than half the value of an incentive package.

The following examples, based on actual state and local incentives, illustrate the need to consider the specifics of an incentive package. The first case involves property taxes, and the second, sales taxes.

- In one locality, a firm receives a property tax abatement on a building (category 3); in a second locality, a firm automatically qualifies for a similar abatement (category 4); and in a third locality, a firm receives reduced rent in a building owned by an industrial authority and not on the property tax rolls (category 1). The reported value of these commonly offered incentives may be the same, but researchers using different definitions or having incomplete information may reach very different conclusions about the effectiveness of these property tax incentives.
- One state has a sales tax provision that exempts, at all times, all purchases by manufacturers of new and used machinery and equipment; another state exempts purchases of only new machinery and equipment; a third state exempts purchases only when a facility is built; and a fourth state limits the exemption to certain geographic areas and to only those firms that apply for it. Once again, analyses that do not account for the differences among incentive programs across jurisdictions may reach different conclusions about the effectiveness of those programs.

Improving Incentives Research: Refined Approaches, Better Data Sources

Researchers have taken a number of approaches to measuring the effectiveness of incentives. Economet-

10. Fisher and Peters, "Tax and Spending Incentives and Enterprise Zones."

ric modeling has been a common approach, albeit one with weaknesses. Misspecification of variables, for example, can be a serious problem. Consider the various property tax incentives in the first of our prior examples. A model looking at only tax-based incentives will not capture the third type of property tax incentive described, whereby the building is kept off the property tax rolls altogether. Similarly, a model that incorporates only state-level tax incentives may be incomplete if local incentives constitute a large portion of an incentive package (as might be the case in the first type of property tax incentive described earlier). However, when the incentives studied are carefully identified and the data used are known to accurately represent the total incentive package, econometric modeling can provide a reliable picture of the effectiveness of incentives. Models are often used in conjunction with other research approaches, such as case studies and input-output analyses. In addition, incentives studies using all of these approaches may tap national, state, or local data sets.

Case Studies: Varied Approaches to Analyzing Incentives

Fisher and Peters created a hypothetical manufacturing firm, and then used a case-study approach to look at the effects of the incentives offered by enterprise zones in more than 20 states and 100 cities.[11] They considered the details of the many incentive programs they studied, specifically taking into account the type and dollar amount of the incentives. This specificity in defining the study's variables is notable. Fisher and Peters found that such incentives cut the firm's combined state and local taxes, on average and as a percentage of its new investment, by some 20 percent. Nevertheless, they believed the effect was too small to affect business-location decisions.

Using the actual example of General Motors, Bartik looked at several competing incentive packages and analyzed the benefit to the automaker (in terms of its estimated transportation, labor, and tax costs) of locating its Saturn plant in Spring Hill, Tennessee.[12] This actual case study is useful because it is limited to a specific firm and a finite number of locations. In another specific state case study, Loh considered the incentives offered by different communities within Ohio.[13] Limiting her analysis to one state allowed Loh to examine multiple categories of incentives available to businesses. Bartik's case study gauged effectiveness by determining whether the presence of an incentive made a particular location a better choice for General Motors than competing locations. Looking at effectiveness from a different perspective, Loh measured effectiveness in terms of the effect (such as employment growth or increased tax receipts), if any, on local economies. For a variation on Loh's approach, see the box "The Texas Local Economic Development Sales Taxes," which describes a case study focusing on a homogeneous region.

Input-Output Analyses: Examining Linkages

Some recent studies employed input-output analyses to examine how an incentive offered to a single large firm can ripple through an economy, in turn affecting such economic indicators as regional income and employment. Alwang, Peterson, and Mills reported on one such study, by the Virginia Economic Development Partnership, and then conducted further analysis.[14] The initial study was conducted in compliance with a Virginia requirement that a return-on-investment analysis be undertaken whenever state funds are to be used in an incentive package offered to a single firm. Alwang, Peterson, and Mills explain that they used Implan computer software to "examine the linkages between the firm in question and its suppliers, and expenditure patterns of people who earn incomes from the firm."[15] Their further analysis is significant because they were able to identify both the losers (such as firms that compete with the business being recruited) and winners (such as suppliers to the newly relocating firm and purchasers of its output) resulting from the awarding of an incentive.

Dauffenbach and Warner also used Implan software, in their case to develop a framework from which to study two of Oklahoma's largest state-level development incentives: wage subsidies provided under the "Quality Jobs" program and an exemption from the ad valorem tax.[16] They quantified the fiscal

11. Fisher and Peters, "Tax and Spending Incentives and Enterprise Zones." Enterprise zones are areas specially designated for development for various reasons. Businesses locating in enterprise zones are typically exempt from certain taxes and receive other economic assistance.

12. Timothy Bartik (1991), "Who Benefits from State and Local Economic Development Policies?"

13. Eng Seng Loh (1993), "The Effects of Jobs-Targeted Development Incentive Programs," *Growth and Change*, vol. 24 (Summer), pp. 365–83.

14. Jeffrey Alwang, Everett B. Peterson, and Bradford Mills (2001), "Assessing the Impacts of Incentives to Attract New Businesses: A Case Study of the Scrap Recycling Industry" (October 23). Preliminary report available at dls.state.va.us/pubs/hjr157.pdf.

15. Alwang, Peterson, and Mills, "Assessing the Impacts of Incentives to Attract New Businesses" p. 36.

16. Robert C. Dauffenbach and Larkin Warner (2004), "Oklahoma's Ad Valorem Tax Exemptions and the Quality Jobs Act: Analysis of Economic Impacts and Tests for Differential Growth," in Robert Dauffenbach, Alexander Holmes, Ronald L. Moomaw, Kent W. Olson,

benefits and costs of the two incentives and used the results to determine the incentives' effectiveness. For the Quality Jobs program, they calculated a benefit-cost ratio of 6.60; in other words, each direct dollar of incentive spending was associated with $6.60 of increased tax revenue. They then examined state-level employment data and found that industries that received large shares of Quality Jobs payments grew much faster than the national average for those industries.[17] Using the same approach to look at the ad valorem tax exemption, Dauffenbach and Warner concluded that it is a drag on the state budget and "fares poorly."

In the Oklahoma example, input-output analysis allowed Dauffenbach and Warner to estimate the state's rate of return on its investment in the two development incentive programs. The data generated by such an analysis can also be used to address the "but-for" question: but for the presence of the wage subsidies provided under the Quality Jobs program and by the tax exemption, would the employment gains have occurred? In other words, were these incentives a factor in the decision to invest in Oklahoma? Although it is a fundamental question in incentives policy, researchers have had a very difficult time answering the but-for question. No one has yet been able to create a research design that randomly assigns control and treatment groups. Still, Dauffenbach and Warner were able to quantify the economic and fiscal effects of growth *likely* induced by an incentive. Making the connection between incentives and growth, though, is still an educated conjecture.

Data-Driven Analyses: Examining Recently Available Data Sets

Many studies glean information from a local, state, or national data set. These data sets are a relatively new resource; many were unavailable to researchers until the mid-1990s. The included Texas case study lists local data from cities that did and did not adopt special taxes in order to analyze the effectiveness of the state's economic development sales taxes. In another study not explicitly considering incentives—rather it served as an examination of the effects on county employment—Edmiston used data on investments announced by firms adding at least 300 jobs at new or existing facilities in Georgia.[18] He corroborated the announcement data using state administrative records. Edmiston found that existing business expansions had a greater net effect on county employment than did the creation of new locations. This finding suggests that recruited businesses can crowd out local investment, resulting in smaller (though still positive) benefits for job growth.

Lee used a confidential national data set, the Longitudinal Research Database (LRD) compiled by the Census Bureau, which includes information from the quinquennial Census of Manufacturing.[19] This database allowed Lee to look at the effects of the initial locations and relocations of plants owned by manufacturing firms having multiple plants throughout the United States. Lee concluded that, for the years 1972 through 1992, plants located in states that implemented new incentive programs tended to increase total employment, capital, and output only slightly more than plants in other states.

Greenstone and Moretti drew on another national database in order to look at the siting of new, "million-dollar facilities" throughout the United States.[20] Using information from *Site Selection* magazine on "winning" and "runner-up" counties, in combination with other data, they were able to measure the consequences of a county winning such a facility. According to Greenstone and Moretti, winning counties had greater increases than corresponding runner-up counties in property values, wages, and local government revenues and expenditures in the years following a location. They noted that the possibility of winning a plant location invariably prompted competitions between jurisdictions as they tried to develop more-attractive tax packages for businesses.

New Tools and Resources: Providing Better and More-Comprehensive Analysis

The 1996 "War Among the States" conference called on state governments and other agencies to develop better information on the costs and benefits of eco-

and Larkin Warner, *State Policy and Economic Development in Oklahoma: 2004* (Oklahoma City: Oklahoma 21st Century, Inc.), pp.13–27, www.okstatechamber.com/file_upload/OK21st2004.pdf.

17. Dauffenbach and Warner's results are consistent with earlier survey work by Gorin suggesting that about half of all jobs in the Oklahoma program were induced by the presence of the incentive. See Dan Gorin (2000), "State Economic Growth Incentives and the Oklahoma Quality Jobs Program," *Oklahoma Policy Studies Review*, vol. 1, (Spring–Summer), pp. 7–12, www.libarts.ucok.edu/opsa/OPSR/Journal%20Vol1-Number1/page7-12.pdf.

18. Kelly Edmiston (2004), "The Net Effects of Large Plant Locations and Expansions on County Employment," *Journal of Regional Science*, vol. 44 (2), pp. 289–319.

19. Yoonsoo Lee (2004), "Geographic Redistribution of U.S. Manufacturing and the Role of State Development Policy," Working Paper 04–15 (Cleveland: Federal Reserve Bank of Cleveland, December), www.clevelandfed.org/Research/Workpaper/2004/WP04-15.pdf.

20. Michael Greenstone and Enrico Moretti (2004), "Bidding for Industrial Plants: Does Winning a 'Million Dollar Plant' Increase Welfare?" MIT Working Paper Series 04–39, (Cambridge, Mass.: Massachusetts Institute of Technology, November).

The Texas Local Economic Development Sales Taxes

In 1989, the Texas legislature amended existing state law to allow cities meeting certain criteria to adopt a dedicated sales tax to fund industrial development projects.[1] Follow-up legislation in 1991 allowed cities to adopt a sales tax dedicated to quality-of-life improvements. These two programs—known by their code designations as the section 4A tax and the section 4B tax—are commonly referred to as the Texas economic development sales taxes. Cities in counties whose population is less than 500,000, and smaller cities in the six largest Texas counties (Bexar, Dallas, El Paso, Harris, Tarrant, and Travis), are eligible to levy the taxes.

The taxes may be imposed only if the citizens of a city approve their use in a regular election; the taxes stay in effect either for the period specified on the ballot or, if no end date is specified, until they are repealed. Each of the two taxes may be authorized in increments of one-eighth of 1 percent, up to a maximum of ½ percent. A city may have the two taxes in force simultaneously. However, the combined rate of all local sales and use taxes, including these special taxes, may not, under Texas law, exceed 2 percent. The uses for the two taxes, as defined in the state laws creating them, are as follows:

- *Section 4A*. To acquire or pay for land, buildings, equipment, facilities, expenditures, targeted infrastructure and improvements for purposes related to manufacturing and industrial development.
- *Section 4B*. To undertake projects for quality-of-life improvements that will attract and retain primary employers. Money may be spent on land, buildings, equipment, and facilities expenditures and improvements for tourism, entertainment, recreation, athletic facilities, and parks; affordable housing; and municipal infrastructure.

1. For information about the Texas Economic Development Sales taxes, see www.window.state.tx.us/taxinfo/taxpubs/tx96_302.html. Section 4A and 4B program participation, by community, can be found at the Texas Comptroller of Public Accounts website, at www.window.state.tx.us/taxinfo/addit.html. City and county sales tax data used in this analysis came from a Freedom of Information request to that office. New and expanding investment records were provided by the state's Business and Industry Data Center through the Texas Office of the Governor, Department of Economic Development and Tourism www.governor.state.tx.us/ecodev.

Funds raised through a 4A tax are perhaps the clearest example anywhere of a dedicated pool of funds that policymakers may use at their discretion to offer incentives. Conversely, expenditures of funds raised through 4B taxes are more representative of the type of public expenditures for economic development desired by researchers and policymakers who downplay the effectiveness of direct business incentives. As of October 2007, of the more than 1,000 cities in Texas, the 4A tax was in place in 222, and the 4B tax was in place in 439. Because of the relatively high rate of participation in the programs, Texas may be an ideal case study for analyzing the effects of direct (4A) and indirect (4B) economic development incentives.

Cities adopting one or both of the taxes are required to establish a community corporation to administer the funds raised. The practical difference between the 4A and 4B taxes can be seen in the primary objectives of the community corporations as well as in the distribution of their spending (tables 1 and 2). According to the most recent state report on these incentives (covering fiscal 2005), job creation and job retention were the primary objectives in nearly four out of five cities that had enacted a 4A tax, compared with about half of the cities that had enacted a 4B tax. Sports, recreation, and tourism development were much more likely to be the focus of 4B cities. In fiscal 2005, about 24 percent of 4A tax revenues were spent on direct business incentives (such as buildings and equipment for businesses), compared with only 7 percent of 4B tax revenues. In addition, almost 60 percent of 4A revenues were

1. Objectives of economic development reported by adopting cities, by tax adopted, fiscal 2005

Percent

Objective	Tax adopted	
	4A	4B
Job creation and job retention	167	212
Infrastructure projects	101	254
Sports facilities and recreation	11	137
Tourism	14	125
Other	15	40
Number of cities	211	413

NOTE: Respondents were asked to indicate their primary objective for economic development but were allowed to identify more than one primary objective.

nomic development incentives and to disclose more information about incentives. Ten years ago, fewer than half of states regularly published detailed reports on their tax expenditures; but by 2006, according to the Center on Budget and Policy Priorities, two-thirds of states were regularly preparing such reports, with most of them made available online.

State tax expenditure reports generally contain information about budget outlays; some also contain data specifically on incentives. The 2005–07 Oregon tax expenditure report, for example, discusses the state's Strategic Investment Program. Under this major incentive program, in place since 1993, firms may qualify for a 15-year exemption from property

2. Distribution of expenditures of 4A and 4B funds by community development corporations, by type of expense and type of corporation, fiscal year 2005

Type of expense	All corporations (588 cities)		Section 4A corporations (208 cities)		Section 4B corporations (380 cities)	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Direct business incentives	80,397,570	14.6	59,118,504	24.4	21,279,066	6.9
Marketing and promotion	10,054,118	1.8	6,107,685	2.5	3,946,433	1.3
Debt service	112,558,737	20.4	38,292,808	15.8	74,265,929	24.1
Capital costs	221,698,352	40.2	97,206,877	40.1	124,491,475	40.4
Personnel	25,879,928	4.7	12,725,439	5.2	13,154,489	4.3
Administration	25,727,296	4.7	13,788,975	5.7	11,938,321	3.9
Affordable housing	2,429,992	.4	3,260	.0	2,426,732	.8
Payments to taxing units	31,264,632	5.7	4,520,531	1.9	26,744,101	8.7
Job training	1,771,460	.3	393,192	.2	1,378,268	.4
Other	39,106,266	7.1	10,384,887	4.3	28,721,379	9.3
Total	**550,888,351**	**100.0**	**242,542,158**	**100.0**	**308,346,193**	**100.0**

Note: Components may not sum to totals because of rounding.

spent on marketing and promotion, debt service, and capital costs. Much of the spending on debt service and capital costs is likely being used on land, the single most prevalent capital asset reported by all 4A and 4B cities.

Ultimately, analyzing program data (data on the presence, duration, and size of the taxes) in combination with general economic data (data on announced business investments and growth in the tax base) provides information on the effects of the taxes. A starting point for such an analysis would be to compare the growth of gross business sales in adopting and non-adopting cities. The data show that the average annual rate of growth of gross sales was higher in cities that had 4A taxes in at least half the years from 1992 to 2004 than in those that did not (table 3). The same relationship held for 4B cities and non-4B cities and for cities having both taxes and those having neither; in all three data sets, the differences were statistically significant.

Another way of looking at program performance is to compare the number of announced investments by new and expanding businesses in cities that had and had not adopted the section 4A tax. Table 4 shows that by 2003 some 20 percent of eligible Texas cities had adopted the 4A tax.[2] Those 4A cities accounted for more than 40 percent of the announcements by new businesses—the firms most likely to be affected by the presence of a development incentive. Among 4A cities, the prevalence of new-firm announcements was most pronounced in the cities that had populations between 5,000 and 30,000. Specifically, the 86 4A cities with between 5,000 and 30,000 residents accounted for 39.8 percent of all cities of this size and 54.2 percent of new-firm announcements. Among the cities with more than 30,000 residents, the 4A cities' shares were 30.5 percent of the total number of cities and 34.7 percent of new-firm announcements.

2. Developing an incentive takes some time. For this reason, cities in this analysis were accorded 4A status in the third year after they voted to enact the tax.

3. Average annual growth of gross sales in cities with and without 4A and 4B taxes, 1992 to 2004

City status	Average annual growth (percent)	T value for difference of means	Number
4A cities			
With tax during period	6.51	2.11	167
Without tax during period	5.18	...	789
4B cities			
With tax during period	6.87	4.01	255
Without tax during period	4.74	...	625
4A and 4B cities			
With both taxes during period	8.80	2.88	48
With neither tax during period	4.58	...	503
All Texas cities	5.48	...	1,012

Note: For cities without the tax(es), includes cities that did not have the tax during the entire period 1992–2004. For cities with the tax(es), includes only those cities that had the tax(es) for at least six years during the period 1992–2004. Excludes cities having either no population or no reported business sales in either 1992 or 2004.

taxes for new investments having an assessed value of more than $100 million. This exemption has been used by six large semiconductor-fabrication establishments. The tradeoff for the state for the fiscal year 2005–07 biennium was $159 million in lost property tax revenue versus a gain of $5.2 billion in continuing investment, some $16 million in additional property tax on related non-exempt investment, $24 million in community service fees paid in lieu of property taxes, and unknown additional jobs, payroll, and spin-off effects. These figures provide policymakers with hard data in evaluating the incentive's efficacy.

Other groups are also making information on incentives more widely available:

- The Council for Community and Economic Re-

4. Distribution of announcements of large business investments in cities eligible to adopt the 4A tax, 1989 to 2003

City population and status	Eligible cities		Announcements of new investment		Announcements of expansions	
	Number	Percent of total	Number	Percent	Number	Percent
Under 1,000						
With tax	27	5.7	2	40.0	6	54.5
Without tax	445	94.3	3	60.0	5	45.5
Total	**472**	**100.0**	**5**	**100.0**	**11**	**100.0**
1,000 to 4,999						
With tax	107	24.5	11	29.7	14	40.0
Without tax	330	75.5	26	70.3	21	60.0
Total	**437**	**100.0**	**37**	**100.0**	**35**	**100.0**
5,000 to 14,999						
With 4A tax	65	40.9	57	60.0	40	48.8
Without tax	94	59.1	38	40.0	42	51.2
Total	**159**	**100.0**	**95**	**100.0**	**82**	**100.0**
15,000 to 29,999						
With tax	21	36.8	47	48.5	41	34.7
Without tax	36	63.2	50	51.5	77	65.3
Total	**57**	**100.0**	**97**	**100.0**	**118**	**100.0**
30,000 and above						
With tax	18	30.5	126	34.7	116	29.8
Without tax	41	69.5	237	65.3	273	70.2
Total	**59**	**100.0**	**363**	**100.0**	**389**	**100.0**
All eligible cities						
With tax	238	20.1	243	40.7	217	34.2
Without tax	946	79.9	354	59.3	418	65.8
Percent in 4A cities	1,184	100.0	597	100.0	635	100.0

NOTE: For this table, cities were considered to have a 4A tax three years after enacting the tax. Large investments are investments worth more than $100,000 or adding more than 100 jobs.

The analysis of the effects of the Texas economic development sales taxes is extremely preliminary, and many questions remain unanswered. For example, what other factors (such as the presence of other incentives) could influence the finding that incentives made possible by the special sales taxes are increasing business investment? Furthermore, growth of gross sales and announcements of business investment are not the only ways to measure results. What other data, such as data on employment growth or property tax revenues, could be used as proxies for the effects of the taxes? And finally, if further studies confirm that the Texas economic development sales taxes are effective tools for stimulating local economies, can the relative effect of 4A and 4B spending in each major category—marketing and promotion, direct business incentives, or capital costs—be determined?

search (C2ER, formerly ACCRA) maintains a directory of state incentives that contains more than 1,500 records on distinct programs, many with contact information. Although this data set does not currently contain measures of the effects of incentive programs, the descriptions, some including citations of enabling legislation, are quite detailed. Policymakers can use the directory to compare incentive programs across states.

- The Census Bureau's Local Employment Dynamics database contains longitudinal data, by industry, on the formation, growth, and decline of establishments, as well as employee hirings and separations.
- The Census Bureau's American Community Survey (a new nationwide survey that will be an element of future censuses) will allow researchers to look at areas as small in size as a census tract and thereby improve researchers' ability to examine the effects of site-specific incentives.
- An increasing number of jurisdictions make available to the public tax data on real estate parcels. These databases provide such information as the market value of land and equipment—information that helps researchers examine business activity related to incentives.
- Good Jobs First (GJF), a national policy resource center promoting corporate and government accountability in economic development, has been instrumental in making incentive programs more transparent to the public. Spurred at least by lobbying by GJF state affiliates, a dozen states now disclose information about incentives provided to specific companies. The GJF website tracks legislation relating to disclosure laws and offers model text for state and local governments. GJF also

publishes reports on accountable development, that is, development programs that are transparent and include standards for evaluating the effectiveness of incentives.

Current Thinking on Incentives

The use of refined approaches and better data sets has improved researchers' ability to evaluate the effectiveness of specific incentive programs. But fundamental concerns remain, and some researchers have begun to write off economic development incentives as ineffective or inefficient for a host of reasons. Several arguments underlie their conclusions:

- The magnitude of any economic development incentive is generally too small to have a more-than-marginal influence on the behavior of the typical new, relocating, or expanding firm. As a result, public resources flow to firms that do not produce any economic benefits for the area.
- Incentives are distortionary, that is, they misallocate private resources by leading firms to move to or expand in suboptimal places.
- Incentives crowd out government spending on public goods.
- The provision of incentives is a zero-sum game: gains in any one location will be offset by losses in other locations.

These arguments are not without their shortcomings, as the following discussion demonstrates.

"Incentives Are Too Small to Matter"

Fisher and Peters put forward the "too small to matter" argument in their 2004 paper "The Failures of Economic Development Incentives."[21] In their analysis, they began by assuming that (1) an incentive that reduces a firm's state and local taxes will have a statistically significant effect on that firm's economic activity and (2) this effect is represented by an elasticity of –0.3 (the "consensus" elasticity put forward by Bartik), meaning that a 10 percent tax cut for businesses will produce a 3 percent increase in investment or jobs by firms eligible for the tax cut. Applying this elasticity ratio to their research, Fisher and Peters concluded that the incentives they analyzed were responsible for only about one in ten new jobs added in the enterprise zones: "Thus the best case is that incentives work about 10 percent of the time, and are simply a waste of money the other 90 percent."[22] They calculated that each incentive-induced job in an enterprise zone had a cost of some $42,000 over 20 years, and argued that even though the incentives did create jobs, the cost threw doubt on the incentives' effectiveness. Of course, this conclusion is based on a "consensus" elasticity of –0.3. If the actual elasticity were twice as large (–0.6), the success rate would be doubled, meaning that the incentives would generate 20 percent of the new jobs in the enterprise zones and could be revenue enhancing (under the reasonable assumption that the incentive-induced jobs generate $21,000 in tax revenue over 20 years, or slightly more than $1,000 a year).

Is it possible to design an incentive that is twice as successful as the across-the-board enterprise-zone tax cuts Fisher and Peters analyzed? Proponents argue that incentives can be made more effective by targeting them to the needs of a particular region or set of firms rather than applying them broadly to a large region or a wide range of businesses. One aspect of targeting is designing an incentive in such a way as to exclude from the program those firms that would invest in the region even if they did not receive the incentive. If a large enough number of such firms can be excluded, the effectiveness of that incentive can be improved. A second aspect of targeting is specifying qualification requirements so as to reduce the possibility of extending the incentive to firms that are not likely to change their behavior even if they do receive it. Dauffenbach and Warner and Gorin studied an incentive program with such a qualification requirement: recipients of the wage subsidy provided under Oklahoma's Quality Jobs program were required to create at least 100 new jobs, making the incentive more restrictive than other incentive programs in the state.[23] Both sets of researchers concluded that the targeted program was as much as 50 percent effective, that is, for every ten jobs created, five were induced by the subsidy. While the conclusions were not the statistically significant result of rigorously designed studies, the findings do merit consideration—and further study.

Although targeted incentives—such as those provided under Oklahoma's Quality Jobs program—may be more effective, targeting does raise the "but-for" question, as well as questions about fairness. To be efficient as well as effective, incentives must be

21. Peter Fisher and Alan Peters (2004), "The Failures of Economic Development Incentives," *Journal of the American Planning Association*, vol. 70, pp. 27–38 (Winter), http://local.law.umn.edu/uploads/images/2222/PetersFisherFailureofEconomicIncentives.pdf.

22. Fisher and Peters, "The Failures of Economic Development Incentives," p. 32.

23. Dauffenbach and Warner (2004), "Oklahoma's Ad Valorem Tax Exemptions and the Quality Jobs Act"; and Gorin, "State Economic Growth Incentives and the Oklahoma Quality Jobs Program."

Overcoming State-Tax-Related Market Distortions by Providing Local Incentives

Distortions Related to Corporate Income Tax Apportionment Formulas

Firms that produce and sell goods or services in more than one state generally are liable, in each of those states, for taxes on some portion of their corporate profits. Many states determine the proportion of a firm's profits subject to state taxation on the basis of three equally weighted factors: the percentage of the firm's (1) property located in the state, (2) sales made to residents of the state, and (3) payroll paid to residents of the state. Uniform application of this formula across the states would result in the states, collectively, taxing all of a firm's profit exactly once, and only once. Some states, however, emphasize the sales factor in their formula by making it twice as important as the other two factors, or double-weighting it. And a few states take the so-called single-sales-factor approach, basing the proportion of profits subject to state taxation solely on the percentage of sales in the state. Emphasizing the sales factor may increase a state's attractiveness as a place for corporate expansion, but such an approach results in market distortions compared with situations where the once-standard three-factor approach are employed.

Emphasis on the sales factor magnifies the problem of "nowhere income"—income that ends up not being taxed because a corporation has so little activity in a state to which a sale is allocated. In such case, a "nexus" does not exist and, therefore, the state does not have the authority to tax the corporation. Some states have enacted a "throwback rule," under which profits from out-of-state sales—profits that are not taxed by other states—are re-allocated to the enacting state.

Such tax code differences among states play into decisions by businesses planning new facilities and operations. Suppose, for example, that a firm planning to build two identical facilities tries to decide whether to locate both facilities in state A, both in state B, or one facility in each state. Assume that the firm knows that it will sell 5 percent of its output in each state and 90 percent in the rest of the country, and that both states tax corporate income at 6 percent of profits. State A will double-weight sales, while state B weights sales at 100 percent. State B does not have a throwback rule. Table 1 shows the firm's potential tax liability under several scenarios, assuming annual profits of $100 million.

Locating both facilities in state B would save either $5.7 million or $2.85 million more than locating both in state A, depending upon whether state A has a throwback rule. Locating one facility in each state would result in a tax liability either 20 or 5.5 times higher in state A than in state B. Thus, the firm might locate in state B—regardless of the

1. State tax liability for a hypothetical firm, under different scenarios

Dollars except as noted

Scenario	Firm's tax liability		Comment
	To state A	To state B	
Both facilities in state A			
With throwback rule	6,000,000	0	All profits revert to state A
Without throwback rule	3,150,000	0	52.5% of profits are assigned to state; the remainder are unassigned
Both facilities in state B	0	300,000	5% of profits are assigned to state B; the remainder are unassigned
One facility in each state			
State A with throwback rule	3,000,000	150,000	50% of profits revert back to state A
Neither state with throwback rule	825,000	150,000	State A accepts 27.5% of its profit; state B, 5%

carefully targeted to exclude firms whose behavior will not be affected by the presence of the incentive. Can governments differentiate firms whose decisions about growth are likely to be affected by incentives (that is, businesses that would not locate or expand in a region "but for" the incentive) from firms whose decisions do not depend on inducements? And would governments be willing to run the political risk of offering incentives to some firms but not others (or to offer different incentives to different firms)? Or would the practice of targeting incentives be viewed as inequitable? Gorin looked at both matters in connection with the Oklahoma Quality Jobs program. In a survey of participating firms, he found that the incentive was nearly twice as important in securing the location or expansion of firms planning to add at least 100 new jobs as it was in securing the location or expansion of firms expecting to add fewer than 100

difference in its operating costs in that state relative to its costs in state A—resulting in an inefficient allocation of resources.

State A could, to make itself a more attractive location, adopt the same apportionment formula and rules as state B, a strategy that could allow the firm to allocate its resources more efficiently; however, such a change could radically affect many additional firms in state A. Alternatively, state A might choose to use targeted incentives to overcome the distortions resulting from these differences in state tax code structures.[1]

Distortions Resulting from Application of the Freeport Exemption

The tax codes of most states include a "freeport exemption," which exempts from inventory tax or property tax all property that is in the state for the purpose of being assembled into other products (raw materials, for example) or for distribution (such as finished goods), provided that the property comes into the state and leaves the state within a short period (typically three or nine months). In practical terms, the exemption means that inventory in warehouses located in a state also serving as the "point of sale" generally is subject to property taxes. Thus, the freeport exemption can distort firms' decision-making by creating a preference to locate a warehouse or distribution center some distance from the intended market, specifically, in a location across a state border. The results of such a distortion can be seen in the proliferation of warehouses and distribution centers in Oklahoma, just north of the Oklahoma–Texas border, to serve markets around Dallas.

1. Michael Mazerov notes that at least eleven states estimated revenue loss attributable to adopting a sales-only formula. This loss of corporate income tax revenue was estimated to be above $100 million in California, Massachusetts, and New York. See Michael Mazerov (2005), "The 'Single Sales Factor' Formula for State Corporate Taxes: A Boon to Economic Development or a Costly Giveaway?," Center on Budget and Policy Priorities report, rev. September 1, www.cbpp.org/3-27-01sfp.htm. Smaller businesses that do not benefit from the change to a sales-only formula (because all of their sales are in-state) might even fare worse if their taxes are raised to compensate for the state tax revenue lost because of the change.

2. Property tax liability for a hypothetical firm, under different scenarios

Dollars except where noted

Inventory on hand	Inventory not eligible for freeport exemption (percent)	Effective property tax rate (percent)	Property tax liability
Oklahoma location			
100,000,000	10	1.10	110,000
Texas location			
100,000,000	90	2.85	2,565,000

Suppose that a firm planning to build a warehouse to serve the Dallas area market is trying to decide whether to locate in Oklahoma or Texas. It will import its entire product from outside both states and will sell 10 percent of the product in Oklahoma and 90 percent in Texas. The effective property tax rate is 1.1 percent in Oklahoma and 2.85 percent in Texas.[2] Property tax liability on inventory is calculated as:

Inventory on hand × Share of inventory not eligible for freeport exemption × Effective property tax rate.

Table 2 shows that, with an average inventory valued at $100 million, the firm would save almost $2.5 million annually in taxes by locating in Oklahoma—possibly more than it could save in shipping costs by locating the warehouse in the Dallas area, close to its major market.[3] Should a community in the Dallas area offer the firm an incentive—perhaps a partial property tax abatement—to locate closer to Dallas, the incentive could well overcome the misallocation of resources resulting from application of the freeport exemption.

2. The Oklahoma rate in this example is the average for Ardmore and Marietta, the two largest Oklahoma communities on Interstate 35, just north of the Oklahoma–Texas border (data from the Oklahoma Department of Commerce community profiles). The Texas rate is the average of five communities: Denton and Gainesville (two cities on Interstate 35 just south of the Oklahoma–Texas border); Dallas; and two Dallas suburbs, Plano and Carrolton (data from community websites).

3. The estimated annual property tax in Texas would be $100,000,000 × 90% × 2.85%, or $2,565,000, compared with $100,000,000 × 10% × 1.1%, or $110,000 in Oklahoma.

jobs.[24] This finding suggests that by specifying a readily identifiable criterion—number of new jobs to be added—the state was able to effectively limit participation in the incentive program. In other words, the survey data suggest that the state should be able to target the incentive. The question of political will was a different matter. Gorin noted that political considerations prompted the issuance of numerous regulatory proposals that would have weakened the targeting by reducing the threshold for program participation from 100 new jobs to a much lower number.

"Incentives Result in Misallocation of Private Resources"

Economic development incentives are intended to induce capital investment in a jurisdiction in which such investment might not otherwise take place. Opponents of incentives argue that such inducements

24. Gorin, "State Economic Growth Incentives and the Oklahoma Quality Jobs Program."

result in the misallocation of private resources because incentives cause capital to locate in a suboptimal location, one in which the market would not naturally place the investment. Opponents further argue that this incentive-induced distortion has a negative effect on other firms in the same jurisdiction (such as higher costs for purchased inputs, as discussed by Alwang, Peterson, and Mills[25]).

However, not all incentives distort the allocation of private resources. In fact, they can be used to offset distortions resulting from differences in tax bases across jurisdictions. Some jurisdictions may rely primarily on personal income as a basis for taxation, for example, while others may rely on personal property or retail sales. Two examples (see the box "Overcoming State-Tax-Related Market Distortions by Providing Local Incentives") illustrate how variations in regional tax structures can result in the misallocation of resources and how such distortions might be overcome through carefully designed incentives. These examples, representing actual situations faced by firms and jurisdictions (though the numbers used are hypothetical), suggest that more research is needed to determine the extent to which incentives actually distort the allocation of private resources.

"Incentives Given to Private Entities Crowd Out Public Spending"

Some critics argue that spending on incentives crowds out spending on public goods and services, such as education and transportation. Burstein and Rolnick, for example, write that "[w]hen competition takes the form of preferential treatment for specific businesses, it misallocates private resources and causes state and local governments to provide too few public goods."[26] Fisher and Peters have echoed this sentiment, and proposed that economic development incentives be discontinued in favor of spending on infrastructure and education.[27] However, quantifying the effects of spending on infrastructure and education may be just as difficult as quantifying the effects of spending on development incentives. And the presence of externalities associated with firm location (such as lower social safety net costs and higher property values resulting from a more robust economy) can make spending on incentives as appropriate for a government as spending on traditional public goods.

Bartik recommends that governments focus on productivity-enhancing incentives—such as job training and helping resident entrepreneurs prepare business plans—so that benefits might last longer.[28] Economic development initiatives can also be used to accomplish public objectives, and even save on costs, without explicitly spending public dollars. Maine's Progressive Alliance for Careers and Training program, for instance—a well-regarded effort targeted at building up small manufacturing, health care, and information technology industries in economically depressed areas of the state—tied financial assistance for participating firms to their hiring of newly trained and dislocated workers. Other incentives that have a public purpose include the zoning incentives offered by some jurisdictions in the Washington, D.C. metropolitan area. These incentives give developers the right to build extra units of residential housing on fixed parcels of land if the developer sets aside a certain percentage of the units for affordable housing. Contrary to the criticism that incentives necessarily crowd out the spending of limited public resources for public purposes, these examples show that incentives can induce the private sector to allocate resources for a public purpose.

"Incentives Are a Zero-Sum Proposition"

Critics of incentives often invoke the "zero-sum" argument, asserting that one locality's gain in jobs or other benefits is another locality's loss. Supporters counter that even if incentives simply move jobs from one place to another and spur no additional economic activity, they can still be beneficial overall. How is it possible that the same business investment can raise overall social welfare more in one place than another? Such a situation can arise if one community values the jobs and investment more than another.

Communities' respective valuations of an opportunity for a new or expanded business can differ for a variety of reasons: economic objectives (such as higher employment rates and improved workforce skills), community goals (such as growth), and views regarding externalities (for example, town A might be more inclined to have a prison or casino than town B, and city B might be more willing to accept additional noise or other adverse side effects than city A). One measure of this differing valuation or

25. Alwang, Peterson, and Mills, "Assessing the Impacts of Incentives to Attract New Businesses."

26. Melvin L. Burstein and Arthur J. Rolnick (1996), "Congress Should End the Economic War for Sports and Other Businesses" Federal Reserve Bank of Minneapolis, *fedgazette* (January), www.minneapolisfed.org/pubs/fedgaz/96-01/opinion.cfm.

27. Fisher and Peters, "Tax and Spending Incentives and Enterprise Zones."

28. Bartik, "Who Benefits from State and Local Economic Development Policies?"

intensity of preference is willingness to pay, which has as its proxy the size of the incentive package being offered by agents for a community. In some cases, these agents may act, at least in part, on their own preferences or perceptions about community wishes. In other cases, community preferences are affirmed explicitly through the democratic process when the public has the chance to vote on general or specific incentive packages. Community preference for a project may even be confirmed or disproved after the fact by citizen response to employment opportunities.

The Discussion Going Forward

The composition of economic development incentives may evolve over time in response to business and community needs and public concerns, but incentives will undoubtedly remain a tool used by policymakers to stimulate local and state economic development. Good public policy requires that the details of incentive packages be disclosed and that the effectiveness of incentives be measured. Policymakers can then be held accountable for their decisions on the basis of evidence rather than politics. New databases allowing more-accurate analysis are becoming available, and new data sources are beginning to make public the details of incentive packages. The research described in this article shows the ways in which data and methods have improved over the past ten years. Furthermore, the studies suggest that incentives can be effective in certain situations, and also buttress the case for further research that makes use of the new data and investigative tools. □

October 2008

Recent Payment Trends in the United States

Geoffrey R. Gerdes, of the Board's Division of Reserve Bank Operations and Payment Systems, prepared this article, with assistance from Kathy C. Wang.

Survey data collected for the Federal Reserve in 2007 show a continuation of significant changes in the way consumers and businesses make payments. Data previously published by the Federal Reserve show that in 2003 the number of electronic payments in the United States (made mostly through debit and credit card networks and the automated clearinghouse system) exceeded the number of check payments for the first time.[1] The recent data indicate that by 2006 the number of electronic payments was more than twice the number of check payments, or about two-thirds of all noncash payments (table 1, chart 1). The value of electronic payments has also grown substantially, but in 2006 they still accounted for less than half the value of noncash payments (45 percent).[2]

The use of checks has been declining since the mid-1990s, generally because check payments—and most likely some cash payments—are being replaced by payments made with electronic instruments. The latest data show a continuation of this trend. Consumers in particular are paying electronically much more often than in the past, with most of the increase between 2003 and 2006 due to a rapid rise in the number of debit card payments of relatively low value (on average, $39). Consumers' checks are also increasingly being "converted" into electronic payments made via the automated clearinghouse (ACH) system.[3] In 2006, about 8 percent of all checks written were converted to ACH payments, compared with fewer than 1 percent in 2003.

The interbank check-clearing system itself is also rapidly becoming more electronic, as original paper checks are increasingly being "truncated" and replaced with electronic images during the check-clearing process.[4] The apparent catalyst for the dramatic change in check clearing was passage of the Check Clearing for the 21st Century Act (Check 21). Signed into law in October 2003 and taking effect in October 2004, Check 21 allows a collecting bank to present a legally equivalent paper copy of an original check—called a "substitute check"—if the paying bank requires a check to be presented for payment in paper form.[5] In early 2007, an estimated 57 percent of all interbank checks in the United States were presented in original paper form and about 43 percent were truncated and ultimately presented to the paying bank either electronically or as a substitute check. Of the portion that were truncated, 66 percent were presented electronically. The number of checks presented electronically in 2007 was approximately three times the number presented electronically just one year earlier. More recent data on the portion of interbank checks presented by the Federal Reserve Banks indicate that dramatic changes have continued since the 2007 surveys. Data for June 2008, for example, indicate that about 53 percent of checks

NOTE: Darrel W. Parke and May X. Liu, of the Board's Division of Research and Statistics, provided valuable assistance with survey design, sampling, and production of the statistical estimates.

1. Previous reports include Geoffrey R. Gerdes, Jack K. Walton II, May X. Liu, and Darrel W. Parke (2005), "Trends in the Use of Payment Instruments in the United States," *Federal Reserve Bulletin*, vol. 91 (Spring), pp. 180–201, www.federalreserve.gov/pubs/bulletin/2005/spring05_payment.pdf; and Geoffrey R. Gerdes and Jack K. Walton II (2002), "The Use of Checks and Other Noncash Payment Instruments in the United States," *Federal Reserve Bulletin*, vol. 88 (August), pp. 360–74, www.federalreserve.gov/pubs/bulletin/2002/0802_2nd.pdf.

2. Payments transmitted over large-value funds transfer systems (such as Fedwire, operated by the Federal Reserve, and the Clearing House Interbank Payments System, or CHIPS, operated by the Clearing House Payments Company), sometimes called wholesale payments, are outside the scope of this article. These systems are used primarily for large monetary and financial transactions, such as overnight loans between depository institutions. Including such transactions in the calculations reported in this article would not meaningfully affect the total number of payments but would dramatically increase the value. An unknown number of transactions of other types are made over these systems by consumers and businesses.

3. Most check conversions take place at "lockboxes" to which bill payments are mailed; a small proportion take place at retail establishments when checks are tendered at the point of sale. Consumers whose checks are going to be converted are permitted to "opt out." Under the rules of the National Automated Clearinghouse Association (NACHA), corporate and business-format checks are not eligible for conversion to ACH payments.

4. Interbank checks are checks that pass between depository institutions.

5. Before Check 21, paying banks' requirement that the *original* check be presented was a major barrier to the widespread use of electronic check-clearing technology. The option of providing a substitute check gives depository institutions and their agents the freedom to use electronic check-processing methods for most or all of a check's journey to the paying bank, as the substitute check is needed only at the end of the process if the paying bank requires paper.

1. Noncash payments in the United States, by type of payment, 2003 and 2006

Type of payment	Number		Value					
			Nominal			Constant 2006 dollars		
	Billions of payments	Percent of total	Trillions of dollars	Percent of total	Average, in dollars	Trillions of dollars	Percent of total	Average, in dollars
2003								
Check[1]	37.3	45.8	41.1	60.9	1,103	45.1	60.9	1,209
Electronic	44.1	54.2	26.5	39.1	599	29.0	39.1	656
Debit card	15.6	19.2	.6	.9	40	.7	.9	44
Signature	10.3	12.6	.4	.6	42	.5	.6	46
PIN	5.3	6.6	.2	.3	38	.2	.3	42
Credit card	19.0	23.3	1.7	2.5	89	1.9	2.5	98
General-purpose[2]	15.2	18.7	1.4	2.1	93	1.5	2.1	102
Private-label[3]	3.8	4.6	.3	.4	76	.3	.4	83
ACH[4]	8.8	10.7	24.1	35.7	2,754	26.4	35.7	3,017
Retail	7.3	9.0	8.1	12.0	1,106	8.9	12.0	1,211
CCD	1.4	1.7	16.0	23.7	11,272	17.5	23.7	12,348
EBT[5]	.8	1.0	*	*	26	*	*	29
Total noncash payments	**81.4**	**100.0**	**67.6**	**100.0**	**830**	**74.1**	**100.0**	**909**
Memo								
Total checks written[6]	37.6	46.2	41.2	61.0	1,095	45.1	61.0	1,200
Checks converted to ACH	.3	.4	.1	.1	187	.1	.1	205
2006								
Check[1]	30.5	32.7	41.6	54.9	1,363	41.6	54.9	1,363
Electronic	62.8	67.3	34.2	45.1	544	34.2	45.1	544
Debit card	25.3	27.1	1.0	1.3	39	1.0	1.3	39
Signature	16.0	17.1	.6	.8	40	.6	.8	40
PIN	9.4	10.0	.3	.5	37	.3	.5	37
Credit card	21.7	23.3	2.1	2.8	98	2.1	2.8	98
General-purpose[2]	19.0	20.3	1.9	2.5	99	1.9	2.5	99
Private-label[3]	2.8	3.0	.3	.3	92	.3	.3	92
ACH[4]	14.6	15.7	31.0	40.9	2,121	31.0	40.9	2,121
Retail	12.6	13.5	12.1	16.0	959	12.1	16.0	959
CCD	2.0	2.2	18.9	25.0	9,384	18.9	25.0	9,384
EBT[5]	1.1	1.2	*	*	27	*	*	27
Total noncash payments	**93.3**	**100.0**	**75.8**	**100.0**	**812**	**75.8**	**100.0**	**812**
Memo								
Total checks written[6]	33.1	35.5	42.3	55.8	1,277	42.3	55.8	1,277
Checks converted to ACH	2.6	2.8	.7	.9	267	.7	.9	267
	Number		Value					
			Nominal			Constant 2006 dollars		
	Change over period (billions of payments)	Annual rate of change (percent)[7]	Change over period (trillions of dollars)	Annual rate of change (percent)[7]	Change in average over period (dollars)	Change over period (trillions of dollars)	Annual rate of change (percent)[7]	Change in average over period (dollars)
Change, 2003 to 2006								
Check	-6.8	-6.5	.5	.4	259	-3.5	-2.6	154
Electronic	18.6	12.5	7.7	8.9	-55	5.2	5.6	-112
Debit card	9.7	17.5	.4	16.0	-2	.3	12.6	-5
Signature	5.7	15.8	.2	14.3	-2	.2	10.9	-6
PIN	4.0	20.6	.1	19.5	-1	.1	15.9	-5
Credit card	2.8	4.6	.4	7.8	8	.3	4.6	*
General-purpose	3.7	7.6	.5	9.9	6	.3	6.6	-3
Private-label	-1.0	-9.6	*	-3.7	16	-.1	-6.6	9
ACH	5.9	18.7	6.9	8.8	-633	4.6	5.5	-896
Retail	5.3	19.8	4.0	14.3	-147	3.2	10.8	-252
CCD	.6	12.4	2.9	5.8	-1,888	1.4	2.6	-2,964
EBT	.3	10.0	*	11.1	1	*	7.8	-2
Total noncash payments	**11.9**	**4.6**	**8.2**	**3.9**	**-18**	**1.7**	**.8**	**-97**
Memo								
Total checks written	-4.5	-4.1	1.1	.9	181	-2.8	-2.1	77
Checks converted to ACH	2.3	98.7	.6	123.7	80	.6	117.0	62

Note: The number and value of checks and ACH payments for 2003 are revised from figures reported in Gerdes and Walton, "Trends in the Use of Payment Instruments in the United States," because of revisions to some banks' reported data and because an adjustment was made to account for rapidly changing ACH check conversion rates. The number and value of checks and ACH payments for 2006 are revised from figures reported in Federal Reserve System, "The 2007 Federal Reserve Payments Study." Components may not sum to totals and may not yield percentages shown because of rounding.

1. Checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Includes checks paid by depository institutions, U.S. Treasury checks, and U.S. Postal Service money orders.

2. Includes four widely accepted credit and charge card networks.

3. Includes private-label credit cards issued by oil companies and many large retailers.

4. Retail ACH payments include payroll, bill payments, and some payments associated with the retail sector of the economy. CCDs are cash concentration or disbursement transactions, about half of which are most likely internal corporate transfers. Retail includes all other ACH payments.

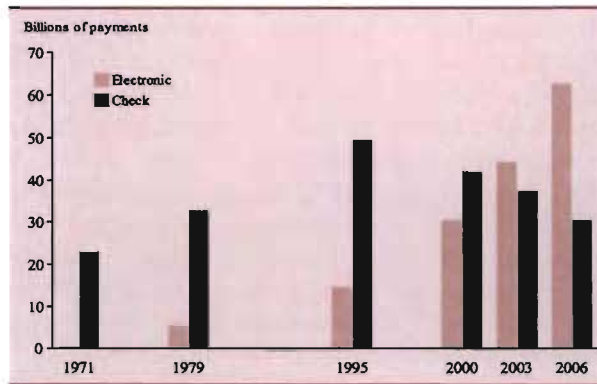
5. Electronic benefits transfer.

6. Total checks written includes checks paid through the check-clearing system and checks converted to ACH payments.

7. Compound annual growth rate.

* In absolute value, less than 0.05.

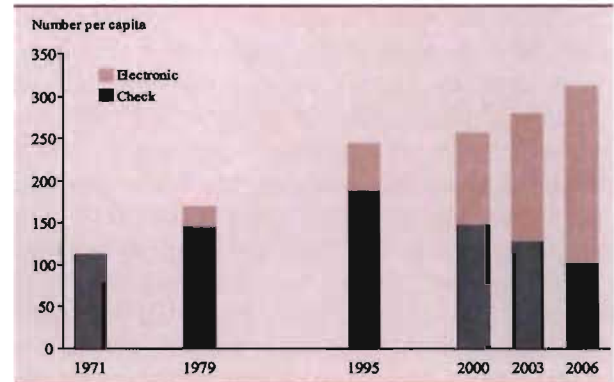
1. Noncash payments in the United States, selected years



NOTE: Check payments are checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Includes checks paid by depository institutions, U.S. Treasury checks, and U.S. Postal Service money orders. Checks converted to ACH payments are included in electronic payments.

SOURCES: The 1971 check figure is from a survey conducted for the Federal Deposit Insurance Corporation and reported in William R. Powers (1976), "A Survey of Bank Check Volumes," *Journal of Bank Research* (Winter); for all other years, Federal Reserve Board data.

2. Noncash payments per capita in the United States, selected years



NOTE: Check payments are checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Includes checks paid by depository institutions, U.S. Treasury checks, and U.S. Postal Service money orders. Checks converted to ACH payments are included in electronic payments.

SOURCES: The 1971 check figure is from a survey conducted for the Federal Deposit Insurance Corporation and reported in William R. Powers (1976), "A Survey of Bank Check Volumes," *Journal of Bank Research* (Winter); for all other years, Federal Reserve Board data.

presented to depository institutions through the Reserve Banks were presented electronically, compared with about 30 percent in early 2007.[6]

This article examines findings from two surveys on the use of noncash payment instruments in the United States conducted for the Federal Reserve—one of depository institutions (the 2007 depository institution survey) and the other of electronic payment networks, processors, and credit card issuers (the 2007 electronic payment survey). Analyses of change in recent years draw on similar surveys conducted in 2004 and 2001. The article also draws on a 2006 Board of Governors survey of checks paid by depository institutions. Information about the surveys is given in the appendix.

Trends in Noncash Payments

The total number of noncash payments in the United States (payments by check, ACH, debit and credit card, and electronic benefits transfer, or EBT) increased from 81 billion to 93 billion between 2003 and 2006, or 4.6 percent a year. The nominal value of noncash payments increased from $68 trillion to $76 trillion, or 3.9 percent a year, over the same period. Restating values in constant 2006 dollars, thereby taking into account price inflation averaging 3.1 percent a year over the period, shows that the constant-dollar, or "real," value of noncash payments increased only modestly between 2003 and 2006, about 0.8 percent a year.[7] With the number of noncash payments rising faster than the aggregate value, the constant-dollar average value of a payment declined $97 over the period (3.7 percent a year), compared with a decline of $56 between 2000 and 2003. These trends indicate that much of the growth in the number of noncash payments was due to a large increase in the number of smaller-value noncash payments.

Driven by various socioeconomic factors, the annual number of noncash payments per capita has more than doubled since the 1970s, rising from fewer than 150 in 1971 to more than 300 in 2006 (chart 2). Rising average wealth and income has allowed more consumption, which has evidently led to a rising number of payments for products and services that in the past households either provided for themselves or did without. Some of the increase in the number of noncash payments per capita most likely also came from the replacement of cash with noncash instruments, as many small-value payments once made in cash were increasingly being made via checks, or debit or credit cards. (There is, however, no direct evidence to show whether cash payments themselves increased or decreased overall.)

Growth in noncash payments may also be partly explained by changing payment processing methods themselves. In some cases, replacing a check with an electronic payment increases the number of transac-

6. The Reserve Banks are estimated to have processed just over 40 percent of all interbank checks in early 2007.

7. Adjustments for inflation were made using the implicit price deflator for U.S. gross domestic product. In this article, amounts not identified as constant dollars are nominal amounts, meaning that they are reported in actual dollars and have not been adjusted for inflation.

tions needed to support a single payment. For example, paying a bill online through a bank sometimes results in two ACH transactions (in contrast to only one check payment in the past)—one to move the funds from the payer's bank account to a service provider's general payment account, and another to move the funds from the general payment account to the biller's account. Likewise, processing practices that in the past might have involved consolidation of several payments into one check (a practice called "check and list") are in some cases being replaced by practices that generate individual ACH payments. While changes in processing methods undoubtedly play a role in the growth of noncash payments, the extent of such changes has not been measured.

Check Payments

The number of checks is declining both because fewer are being written and because some are being converted into electronic payments largely processed through the ACH system.[8] Because of a rise in check conversions, the number of checks being paid is falling faster than the number of checks being written. Tracking only paid checks, therefore, does not provide a complete picture of how checks are being used. Thus, this article reviews data on two types of checks:

- Checks paid—Checks that are "on us" (those involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks (those replaced with electronic images) presented either electronically or as paper substitute checks.
- Checks converted to electronic payments—Checks not processed through the check-clearing system but converted to electronic payments made via the ACH. These items are ACH payments and do not have or retain any legal status as checks. Instead, the original paper check that was converted is considered a "source document" for the ACH payment it generated.

For purposes of analysis, the aggregation of these two types of checks—paid checks and converted checks—is termed *checks written*.[9]

Checks Paid

The total number of checks paid in the United States declined from an estimated 37.3 billion in 2003 to 30.5 billion in 2006, a decline of 6.5 percent a year compared with an estimated decline of 3.8 percent a year from 2000 to 2003 (table 1).[10] The increase in the rate of decline can be explained by the rapid rise in the conversion of check payments into (electronic) ACH payments. After decades of being the dominant noncash payment type, by 2006 checks paid amounted to only one-third of all noncash payments (chart 1).

In 1971, approximately 112 consumer, business, and government checks were paid per capita in the United States (chart 2). At that time, cash was also used extensively to pay bills and to make other everyday payments, and the use of electronic payments was negligible by comparison. In subsequent years, the number of checks paid per capita rose, reaching 188 in 1995, with some checks replacing cash as a means of payment. The number of electronic payments per capita also grew, but it was still low relative to checks. After the mid-1990s, several factors—the buildup of infrastructure for credit and debit card payments, the expanding issuance of cards, and the increasing use of the ACH to make payroll and bill payments—combined to reduce the use of checks, and by 2006 the annual number of checks paid per capita had fallen to 102, which was 91 percent of the figure for 1971 and 54 percent of the figure for 1995.[11]

Even as the number of checks paid was declining, the nominal value of checks paid was increasing, from $41.1 trillion in 2003 to $41.6 trillion in 2006. In constant 2006 dollars, however, the value was decreasing—by 2.6 percent a year from 2003 to 2006, compared with a decrease of just 1.0 percent a year from 2000 to 2003. Because the number of checks paid was declining at a faster rate than the value, the average constant-dollar value of a check increased $154 over the latter period, reaching $1,363 in 2006. As discussed below, the increase in average value would not have been so great had the growth in

8. A small but unknown proportion of checks may also be being converted into electronic payments processed over debit card networks.

9. Although counted as "checks written," converted checks are not necessarily written in a literal sense, but may merely be "tendered," or offered in payment at the point of sale. A customer may fill in the check or may simply hand a blank check to a cashier, who scans the information imprinted on the check, voids the check, and returns it to the customer.

10. The 2003 estimate (earlier reported as 36.6 billion) and the 2000 to 2003 rate of decline are restatements of figures reported in Gerdes and others, "Trends in the Use of Payment Instruments." The restatements are discussed in the appendix.

11. The number of checks per capita has declined not only in the United States, but also in other countries. See the box "Payments in Other Countries."

Payments in Other Countries

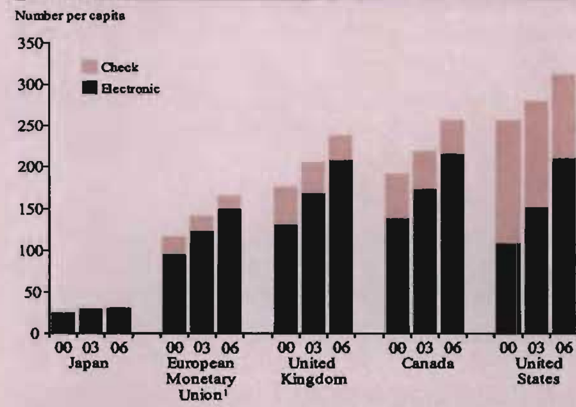
A comparison with selected industrialized economies—Japan, the European Monetary Union (EMU), the United Kingdom, and Canada—helps put the use of noncash payments in the United States in perspective. The number of checks per capita declined from 2000 to 2006 in all five economies (chart).[1]

Only in the United States, however, was there an accelerating decline in terms of both annual growth rate—a decline of 7.4 percent a year from 2003 to 2006 compared with a decline of 4.7 percent a year from 2000 to 2003—and absolute number of checks per capita—a decline of 26 checks per capita from 2003 to 2006 compared with a decline of 20 checks per capita from 2000 to 2003. Nevertheless, the United States continued to have a significantly higher number of checks per capita, albeit to a lesser extent than the years 2000 and 2003.

Among the economies considered, the number of electronic payments per capita rose fastest in the United States, at 11.4 percent a year from 2003 to 2006. By 2006, the number of electronic payments per capita surpassed the number per capita in all economies except Canada's. The U.S. check-clearing system itself is becoming more electronic, as may also be the case in other countries. Comparisons across economies of the number of checks and electronic payments should therefore take into consideration the extent of electronification in the various check-clearing systems.

1. The payments reported were made by both businesses and consumers. To account for differences in size among the economies, each economy's payment figures were put on a per capita basis by dividing them by the population of that economy.

Noncash payments per capita in selected economies, 2000, 2003, and 2006



1. The European Monetary Union is made up of Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, The Netherlands, Portugal, and Spain. Cyprus, Malta, and Slovenia joined the EMU after 2006 and were not included in calculations.

SOURCES: European Central Bank (2007), "Payment and Securities Settlement Systems in the European Union," August; Bank for International Settlements (2008), "Statistics on Payment Systems in the Group of Ten Countries," March; and Federal Reserve Board.

conversion of checks of relatively small value not been so substantial.

Checks Converted to Electronic Payments

The number of checks converted to electronic payments in 2006 was 2.6 billion, up from 0.3 billion in 2003 (table 1), almost doubling each year. As noted earlier, about 8 percent of checks written in 2006 were converted to ACH payments, compared with fewer than 1 percent in 2003. These were typically checks converted by companies receiving them through the mail in payment of a bill. Some checks were tendered at the point of sale in retail establishments and were converted either at the cash register and returned to the customer once the electronic information was captured, or in the back office and then archived or destroyed.

The average value of converted checks in 2006 was $267, up from $187 in 2003, for a growth rate of 12.5 percent a year. In constant 2006 dollars, however, the average value increased only 9.2 percent a year over the period. The average value of converted checks was substantially lower than the average value of paid checks, in part because ACH rules prohibit conversion of large-size business and other checks for large amounts.[12] In fact, in 2006 the average value of converted checks, which tend to be written by consumers, was very close to the average value of checks paid by credit unions (reported below), which generally serve consumer customers.

Total Checks Written

The total number of checks written (paid checks plus converted checks) declined 4.5 billion, or 4.1 percent a year, from 2003 to 2006, compared with 3.5 percent a year from 2000 to 2003 (table 1). (Checks paid declined even more—6.5 percent a year from 2003 to 2006 and 3.8 percent a year from 2000 to 2003.) The average value of checks written in 2006 was $1,277.

12. Large-size business checks are typically 8 or 9 inches long and have an "auxiliary on-us" field on the MICR line. Such checks, and any check for more than $25,000, are ineligible for conversion.

In constant 2006 dollars, the average value increased $77 (or 2.1 percent a year) from 2003 to 2006, compared with an increase of $92 (or 2.7 percent a year) from 2000 to 2003.

The increase in the constant-dollar average value of checks written combined with a substantial decline in the number written suggests that most checks being replaced with electronic payments were smaller-value checks—typically, checks written by consumers and, to some extent, by businesses to consumers. Business-to-business checks, on the other hand, were likely not being replaced as rapidly. Evidence presented later indicates that consumer-to-business debit card payments are probably responsible for most of the replacement of checks written.

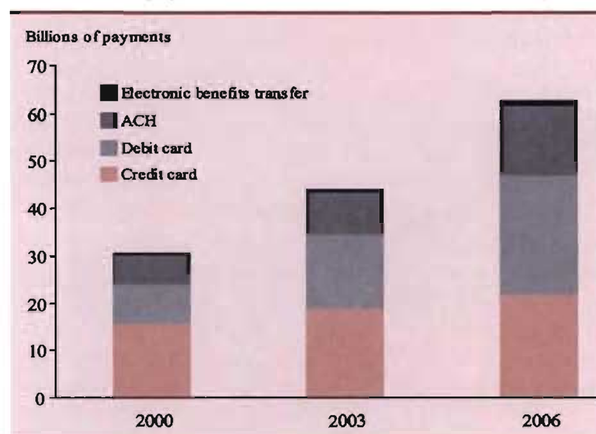
Electronic Payments

The number of payments made over the major electronic payment systems in the United States—the ACH system, debit and credit card systems, and the EBT system—grew from 44.1 billion to 62.8 billion between 2003 and 2006, for an annual rate of growth of 12.5 percent (table 1, chart 3). More than half the growth occurred in the debit card networks. However, among the major payment systems, the highest annual rate of growth (18.7 percent) was recorded by the ACH system, which started the period with a much smaller base than debit cards. Although the rate of growth of electronic payments was somewhat slower between 2003 and 2006 than between 2000 and 2003 (13.0 percent), the absolute increase in the number of electronic payments was 5.1 billion greater over the latter period.

The value of electronic payments increased more slowly than the number (8.9 percent a year compared with 12.5 percent a year), and the average value of electronic payments declined from $599 to $544 over the period. In constant 2006 dollars, the average value declined 6.1 percent a year. Some of this decline was due to the replacement of smaller-value checks by ACH payments, and some was due to the large increase in relatively small debit card payments.

Increases in the number of payments made over the major electronic payment systems are due to increasing use of both traditional and innovative ways of initiating payments. In addition, the use of private-label prepaid cards, an innovation not included in the figures for the major electronic payment systems, has become significant. (See the box "Innovations in Electronic Payments" for a discussion of prepaid cards and other new ways of initiating payments.)

3. Electronic payments in the United States, selected years



SOURCE: Federal Reserve Board.

Automated Clearinghouse Payments

An automated clearinghouse payment can be either a credit transfer or a debit transfer. A *credit transfer* is a transaction in which the payer's bank originates the payment, sending funds to ("crediting") the payee's bank account. A typical use of an ACH credit transfer is for payroll, with an employer initiating a "direct deposit" from its bank account into that of an employee. A *debit transfer* is a transaction originated by the payee's bank, which draws funds out of ("debits") the payer's bank account. The processing flow for a debit transfer is similar to the flow for a check sent by the bank of first deposit to the payer's bank for collection. Converted checks are a relatively new type of ACH debit transfer; another, more traditional type is an arrangement whereby a biller, such as an insurance or mortgage company, by prior customer authorization, periodically withdraws funds from a customer's transaction account at a depository institution.

Most of the growth in ACH payments between 2003 and 2006 (approximately three-fourths) came from ACH debit transfers, which increased 27.7 percent a year and by 2006 had surpassed credit transfers for the first time. Just over half the growth in debit transfers came from an increase in check conversion. The large majority of converted checks were checks mailed to billers and converted at so-called lockboxes, identified within the ACH system as accounts receivable check conversion (ARC) transactions (table 2).[13] Growth in the conversion of checks at the

13. Rules for using the ACH system, promulgated by NACHA, require banks to identify each payment according to a set of standard entry classification (SEC) codes. References to "ARC" and similar abbreviations in this section are SEC codes.

point of purchase (POP transactions) lagged by comparison, and back-office conversion (BOC) was new and relatively small in 2007.

An additional 1.4 billion of combined credit and debit transfer growth came from traditional prearranged payment and deposit (PPD) transactions, most likely many of which also replaced checks. Almost 1.0 billion of growth came from payments initiated over the Internet (WEB transactions). WEB transactions made at retail websites may have replaced or augmented payments made by credit or debit card, while WEB transactions made at billers' websites may have replaced checks sent through the mail.

Almost all the increase in the volume of transactions over the ACH system came from payments that were smaller in value than typical ACH payments in the past. In constant dollars, the average value of an ACH payment dropped 11 percent a year from 2003, falling to $2,121 in 2006. The constant-dollar average value of the debit transfer portion of ACH fell more than half, dropping 21.1 percent a year to reach $1,535 in 2006. This huge drop in constant-dollar average value is reflected in the growth rates for debit payments, which grew less than 1 percent a year in constant-dollar value—considerably less than the 27.7 percent annual growth in number of debit payments.

Distinguishing between large-value CCD (cash concentration or disbursement) transactions (traditionally used for internal movement of corporate account balances) and the more typical business and consumer payments called "retail" (a category that includes payroll, bill payments, and some payments associated with the retail sector of the economy) gives a different picture of change (tables 1 and 2).[14] As a proportion of retail ACH payments, checks converted to ACH payments (ARC and POP transactions) rose from only 4.5 percent in 2003 to a sizable 20.7 percent in 2006.[15] The increase in such payments—ACH payments arising from check conversion—is the primary reason for the decline in the average value of ACH payments (and of retail ACH payments in particular).

While the number of CCD transactions rose 12.4 percent a year, the average value of a CCD payment declined almost 9 percent in constant 2006 dollars over the period. The 2006 average value was nearly one-fourth below the 2003 constant-dollar average value. Changes in the use of CCD transactions are less understood than are changes in the use of retail ACH payments. The decline in average value may, for example, be a sign of growing use of such transactions by smaller businesses, or a movement of some very large ACH payments to on-us transactions (internal to a depository institution) or to large-value funds transfer systems.

Card Payments

The number of payments made by debit, credit, or EBT card grew by 12.8 billion from 2003 to 2006, reaching 48.1 billion and exceeding the number of checks paid by 17.6 billion (table 1, chart 3). Debit card payments grew more than payments of other types, rising 9.7 billion over the period and contributing three times more to card growth than other types of cards combined. By 2006, the number of debit card payments (25.3 billion) exceeded the number of credit card payments (21.7 billion).

The value of debit card payments in 2006 ($1.0 trillion), however, was less than half the value of credit card payments ($2.1 trillion). The average value of debit card payments declined to $39 in 2006, a decrease of about $1 from 2003. The average value of credit card payments rose to $98, an increase of about $8 from 2003. In constant dollars, the average value of a debit card payment decreased about 4 percent a year, while the average value of a credit card payment decreased only slightly (0.01 percent a year).

The decline in the constant-dollar average value of debit card payments and the virtually flat growth in the constant-dollar value of credit card payments suggest that much of the growth of payments by cards derived from payments of relatively small value—payments that otherwise would quite likely have been made in cash. Data reported by some card networks suggest that a large share of card payments in 2006 were of relatively small value: an estimated 48 percent of combined debit and credit card payments (almost 23 billion) were for amounts less than $25; 26 percent were for amounts less than $15; and 3 percent were for amounts less than $5.[16] Of the

14. Traditionally, CCD transactions have been thought of as transfers initiated by large corporations to move funds between their own accounts for internal business and financial purposes; as such, they are not the focus of this article. However, a survey of members of the Association of Financial Professionals (AFP) conducted by Dove Consulting and the AFP in 2003 suggests that around half of CCDs are payments between counterparties, and not just internal transfers. The proportion of CCD value accounted for by payments between counterparties is unknown.

15. Coding for a third type of ACH payment arising from check conversion—back office check conversion, SEC code BOC—took effect in 2007; use of the code was not significant during the study period.

16. Estimates are based on data collected by Dove Consulting for the Cash Product Office at the Federal Reserve Bank of San Francisco.

Innovations in Electronic Payments

The 2007 electronic payment survey collected information about several significant types of "emerging payments," including prepaid cards, online bill payments, person-to-person Internet payments, contactless payments, and other, less frequently used types such as proprietary ACH card payments, deferred payments, and mobile payments (those made from portable electronic devices such as a cellular phone).[1]

Electronic prepaid cards have become increasingly important replacements for paper-based payment instruments and related devices, such as gift certificates, paper tickets and tokens, and check-based rebates.[2] A substantial number of prepaid cards are private-label, so-called "closed-loop" or "closed-system," cards. This type of card can be used only for purchases at, for example, a merchant's chain of stores (similar to private-label credit cards) and are often given as gifts or used to access a municipality's public transportation system. About 3 billion payments, with a total value of $36.6 billion and an average value of $12, are estimated to have been made in 2006 with private-label prepaid cards.[3] These payments are not included in national card payment totals. If they were, they would add more than 6 percent to the number of card payments nationwide in 2006.

General-purpose, so-called "open-loop" or "open-system," prepaid cards that can be processed on existing general-purpose credit card or debit card networks also have been in use over the past decade.[4] Uses include as gifts and for new types of electronic benefit transfers (including state-administered child support disbursement programs and unemployment insurance), international remittance payments, payment of health care expenses, and payroll. An estimated 0.3 billion open-system prepaid card payments, with a total value of $13 billion and an average value of $41, were made in 2006.[5] As the number of closed-system prepaid card payments is estimated to have been ten times the number of open-system payments and the value three times that of open-system payments, it is clear that closed-system cards have been relatively more successful to date. The lower popularity of open-system prepaid cards may be due in part to fees charged by third-party issuers—designed to recoup costs—that are not typically charged on closed-system cards, which are essentially issued by payees. These payments are included in, but add an insignificant percentage to, national card payment totals and, depending on the network, are included in either debit card or credit card payments.

The vast majority of card payments made within the United States are still being made using magnetic stripe technology. More advanced chip-based technology, though available on so-called "smart cards" for years, remains in limited use because merchants have not extensively adopted terminals that can read them. Other technologies, such as radio frequency identification (RFID), are also being used for making payments on a limited basis. RFID technology in the form of an electronic key fob has, for example, been in use for more than a decade to make payments at the retail outlets of one large oil company (Exxon-Mobil).[6] Such devices can be used to initiate individual payments from almost any debit card or credit card account. RFID technology is also being used by highway authorities to make toll transactions more convenient. At least 2 billion payments, with a value of $3.6 billion, were initiated with RFID transponders at toll authorities in 2006. Toll transponders (such as EZPass) carry a balance and typically are

1. Figures for prepaid card payments reported in this box are national estimates because they include an estimated amount for the networks that did not report. Figures for other emerging payments include only reported amounts and therefore are lower bounds for the national totals. Data collection and estimation are by Dove Consulting.

2. The term "prepaid" is associated with products for which the prefunded value is recorded in a remote database that must be accessed for payment authorization. The term describes most of the prefunded cards currently in use in the United States. Most prepaid cards serve a single purpose, but some may combine multiple functions on one card. In addition, some prepaid cards, such as payroll cards, government benefit cards, and some gift cards, can be reloaded with value. For more information on prepaid cards and related business and regulatory concerns, see a summary of the November 12, 2004, Federal Reserve System Payment System Development Committee (PSDC) roundtable on stored-value cards at www.federalreserve.gov/paymentsystems/storedvalue/default.htm.

3. About one-third of the total was reported directly; the remainder was estimated on the basis of available information. Efforts were made to use available information to keep estimates within reasonable boundaries, but the amount of uncertainty is unknown.

4. Like debit cards that can be authorized with a signature, some prepaid cards may bear the symbol of a major credit card network and may be used like a credit card.

5. About one-third of the total was reported directly: the remainder was estimated. Efforts were made to use available information to bound estimates, but the amount of uncertainty is unknown.

6. The amount of use has not been reported.

more than 1.4 billion card payments made for amounts of less than $5, the majority (53 percent) were debit card payments authorized on the basis of a personal identification number (PIN).

Although data from other years are not available, it is likely that the share of relatively small payments has increased in recent years as card networks have made infrastructure and policy changes that accommodate the needs of previously cash-only merchants. For example, some quick-service restaurant chains, including McDonald's, began accepting cards at most of their locations in 2004 because of improvements

automatically reloaded with a fixed amount once the balance drops below a set limit.[7]

An RFID feature has also been added to existing smart chip-based credit and debit card programs to create "contactless" cards such as MasterCard's PayPass and American Express's Express Pay. These and similar cards can be used at some gas stations, quick-service restaurants (for example, McDonalds), convenience stores (for example, 7–11 stores), and pharmacy chains (for example, CVS). Using this technology, a consumer is able to initiate a payment through the major credit or debit card networks by waving either a card or an electronic key fob near a payment terminal—rather than by swiping a card and authorizing by either PIN or signature—thereby reducing the amount of time and effort required to make a purchase. MasterCard reported that by the first quarter of 2008, the number of cards that included PayPass technology and the number of merchants accepting them both had at least doubled in a year.[8] While the number and value of card payments initiated using this technology is unknown, use is most likely still low at this time.

About 3.4 billion online bill payments, with a total value of $1.2 trillion and an average value of $345, are estimated to have been initiated from consumer banking websites in 2006. The first consumer banking websites allowing the initiation of bill payment were reportedly introduced in the mid-1990s, shortly after commercial use of web technology began to take hold. Since then, depository institutions have increasingly offered websites capable of supporting bill payment and other types of transactions. In early 2003, fewer than half of commercial banks and state-regulated savings institutions offered transactional websites, but by early 2008, over 80 percent offered them; in early 2004, only 43 percent of federally regulated savings institutions offered them, but by early 2008, 73 percent did; and in early 2003, 29 percent of credit unions offered them, but by early 2008, 58 percent did.[9]

The number of payments initiated directly from billers' own websites, rather than depository institutions' websites, is unknown. Industry research suggests that the number was initially greater than the number of payments through banking sites. Billers may credit accounts faster, and many offer greater choice of payment instruments, allowing the use of credit or debit cards while also offering payment methods—such as online banking sites—that use the ACH system (discussed above) or that generate a so-called "remotely created check" written by the payees' bank. Some studies also suggest that payments through online banking sites could be growing faster than those made directly at billers' websites.[10] Banks continue to work with large billers to provide bill presentment along with payment for customers who use their online websites. In some cases, switching to this payment method eliminates the periodic mailing of paper statements as well as the return of a check in the mail.

Over 0.5 billion emerging payments of other types, with a value of about $35 billion and an average value of $67, are estimated to have been made in 2006. A small number were ACH payments initiated with proprietary, merchant-issued cards (often associated with, for example, some grocery store customer-loyalty programs), mobile payments, and deferred payments (such as those offered by Bill Me Later for certain web purchases), but the vast majority of these were person-to-person web payments. The U.S. Department of Commerce estimates that Internet (web) sales totaled about $128 billion in 2007, compared with $28 billion in 2000. As a fraction of total retail sales, e-commerce grew from less than 1 percent in 2000 to over 3 percent in 2007. Thus, while Internet commerce is growing rapidly, it remains a small fraction of retail sales. As e-commerce grows, new and innovative methods of making electronic payments can also be expected to take hold.

7. The reloading may be done automatically by means of credit card or through the ACH, or by the customer initiating a payment by cash or check.

8. Although growth was significant, the totals are small compared with the total number of credit cards and the number of merchants that accept them. See Daniel Wolfe and Marc Hochstein (2008), "PayPass Issuance, Acceptance Double," *American Banker*, vol. 178 (May 2), p. 8.

9. Data are from depository institution reports filed with the Federal Reserve Board. These percentages represent upper bounds on the percentages of depository institution bill-payment websites because the share of these transactional websites that offer bill payment is unknown.

10. Several articles in *American Banker*, including the following, report on some of these studies: Daniel Wolfe and Will Wade (2004), "CheckFree: Consolidators Will Win E-Billing Battle," May 21; Daniel Wolfe (2004), "Environment for EBPP Seen Shifting in Bankers' Favor," June 29; Steve Bills (2004), "The Tech Scene: Instant Credit Gives Billers Big Edge in Web Payment," October 6; Chris Costanzo (2006), "Can Banks Catch Up to Billers in Presentment?" March 28; and Steve Bills (2007), "CheckFree Deal: A Biller Willing to Use Bank Sites," December 7.

allowing faster authorizations, new rules lifting signature requirements for low-value payments, and lower fees for certain types of quick-service merchants.[17]

Debit Card Payments. Debit card payments typically are authorized either with a PIN or, if it carries the Visa or MasterCard brand, by the cardholder's signature (like a credit card). In some cases, such as when a purchase is made on a merchant's website or over the telephone, the cardholder is not required to authorize the payment with a PIN or a signature. Because such payments are processed on the same

17. For details see, for example, W.A. Lee (2004), "How Cards Finally Won Reluctant McDonald's Over," *American Banker*, vol. 169 (59), pp. 1–2.

2. ACH transactions in the United States, by type of transaction, 2003 and 2006

Type of transaction	Number: Billions of transactions	Number: Percent of total	Value: Trillions of dollars	Value: Percent of total	Value: Average, in dollars	Percent returned
2003						
Retail	7.3	83.8	8.1	33.6	1,106	1.5
ARC	.2	2.0	.1	.2	296	.8
POP	.2	1.8	*	*	70	2.0
PPD	6.0	68.3	6.4	26.6	1,072	1.1
RCK	*	.3	*	*	155	54.5
TEL	.2	1.7	.1	.2	374	7.0
WEB	.6	7.0	.2	.7	291	1.8
Other	.2	2.6	1.4	5.8	6,239	.2
CCD	1.4	16.2	16.0	66.4	11,272	.4
Total ACH transactions	**8.8**	**100.0**	**24.1**	**100.0**	**2,754**	**1.3**
2006						
Retail	12.6	86.2	12.1	39.0	959	1.3
ARC	2.3	15.9	.7	2.2	290	.4
POP	.3	2.0	*	.1	81	1.7
PPD	7.4	50.4	8.1	26.2	1,102	1.1
RCK	*	.2	*	*	164	57.6
TEL	.4	2.4	.1	.5	403	6.5
WEB	1.7	11.3	.6	2.1	386	1.5
Other	.6	4.1	2.5	8.0	4,194	.2
CCD	2.0	13.8	18.9	61.0	9,384	.4
Total ACH transactions	**14.6**	**100.0**	**31.0**	**100.0**	**2,121**	**1.1**

Type of transaction	Number: Change over period (billions of transactions)	Number: Annual rate of change (percent)[1]	Value: Change over period (trillions of dollars)	Value: Annual rate of change (percent)[1]	Value: Change in average over period (dollars)	Percent returned: Change over period (percentage points)
Change, 2003 to 2006						
Retail	5.3	19.8	4.0	14.3	−147	−.2
ARC	2.1	137.6	.6	136.0	−6	−.4
POP	.1	22.1	*	28.2	11	−.3
PPD	1.4	7.2	1.7	8.2	31	*
RCK	*	−3.1	*	−1.2	9	3.2
TEL	.2	32.7	.1	36.1	29	−.4
WEB	1.0	39.1	.5	53.0	96	−.3
Other	.4	38.4	1.1	21.2	−2,045	−.1
CCD	.6	12.4	2.9	5.8	−1,888	*
Total ACH transactions	**5.9**	**18.7**	**6.9**	**8.8**	**−633**	**−.2**

NOTE: Retail ACH payments include payroll, bill payments, and some payments associated with the retail sector of the economy. ARC, accounts receivable check conversion; POP, point-of-purchase check conversion; PPD, prearranged payment and deposit; RCK, re-presented check; TEL, telephone "e-check"; WEB, web "e-check." CCDs are cash concentration or disbursement transactions, about half of which are most likely internal corporate transfers. Components may not sum to totals and may not yield percentages shown because of rounding.

1. Compound annual growth rate.

* In absolute value, less than 0.05.

networks as signature payments, they are included in the figures for signature payments. Most debit cards can be used not only to make payments, but also to access an ATM network by entering a PIN.

The number of signature-based debit card payments in the United States grew from 10.3 billion in 2003 to 16.0 billion in 2006, for an annual growth rate of 15.8 percent. The growth, which accounted for most of the increase in debit card payments, reflects incentives offered by issuing banks to users who authorize payments with a signature rather than a PIN. The average value of a signature-based debit payment decreased from $42 in 2003 to $40 in 2006. In constant 2006 dollars, the average value of a signature-based debit payment was flat from 2000 to 2003 but dropped $6 from 2003 to 2006.

The number of debit card payments authorized with a PIN grew from 5.3 billion in 2003 to 9.4 billion in 2006. In absolute numbers, growth was greater for signature-based debit payments; but the rate of growth was greater for PIN-based payments—20.6 percent a year versus 15.8 percent a year. The average value of a PIN-based debit card payment declined from $38 in 2003 to $37 in 2006. In constant 2006 dollars, the average value fell $12 from 2000 to 2003 and another $5 from 2003 to 2006.

When a debit card is used to make a purchase authorized with a PIN, some merchants may, on request by the user, return part of the payment in cash. Debit card purchases involving the return of cash are typically called "cash back" transactions. In such cases, the value of the payment includes both the

value of the purchase and the value of the cash returned. The values of PIN-based debit card payments for 2003 and 2006 reported above have been adjusted to exclude an estimated portion of payment value returned in cash.[18] In 2006 an estimated 11.2 percent of PIN-based debit card payments involved the return of cash to the card user, and an estimated 8.5 percent of the total value was returned as cash.[19] For PIN-based debit card payments that involved cash back, the value of the cash returned averaged about $31.[20]

Credit Card Payments. Overall, the number of credit card payments grew at a relatively modest 4.6 percent a year from 2003 to 2006. The number of payments made by general-purpose credit card (Visa, MasterCard, American Express, and Discover) rose from 15.2 billion to 19.0 billion over the period, for a growth rate of 7.6 percent a year. The number of payments made by private-label credit card, typically issued by retail merchants and oil companies, dropped to 2.8 billion in 2006, declining 9.6 percent a year from 2003 to 2006. The decline may have been influenced by an expansion of programs that co-brand store cards with general-purpose credit cards.[21]

Users who have been issued a PIN with their credit card can use the card to obtain a cash advance at an ATM designed to accept credit cards. Credit cards are used far less often than debit/ATM cards to obtain cash. In 2006, the number of credit card cash advances, estimated at 87 million, amounted to 0.4 percent of total credit card payments and less than 0.8 percent of total credit card value.[22] These figures suggest that credit cards are probably used primarily to obtain cash in emergencies or when no other effective alternative exists, most likely because of the typically higher fees and lower limits on cash advances. The average value of such advances in 2006, at $190, was considerably higher than the average value of either ATM withdrawals or cash back on debit card purchases.

Trends in Cash Payments

Information on the use of cash for payments is difficult to obtain directly. Data showing a large increase in the number of card payments, in combination with reports that some formerly cash-only businesses are now accepting card payments, provide some indirect evidence that cash is increasingly being replaced by cards. Additional indirect evidence on the use of cash comes from trends in cash obtained using ATM, debit, and credit cards and from trends in per capita currency in circulation.

The number of ATM withdrawals—data collected as part of the 2004 and 2007 depository institution surveys—dropped slightly between 2003 and 2006, from 5.9 billion to 5.8 billion. The value of withdrawals rose, however, from $497 billion to $579 billion. The average value of a withdrawal was $100 in 2006, compared with $85 in 2003, for an annual rate of growth of 5.6 percent (2.4 percent in constant dollars).

Industry reports indicate that the number of ATMs in the United States more than tripled from 1995 to 2005 (growing at 12.5 percent a year) but dropped for the first time in 2006.[23] Industry data also indicate that the number of ATM transactions overall—including cash and check deposits, cash withdrawals, electronic funds transfers, and balance inquiries—grew from 1995 to 2004, though at a much slower pace (1.4 percent a year). Reports that the number of ATM transactions has declined since then are consistent with an increase in the number of debit card purchases involving cash back as well as other factors, such as a decrease in the use of checks, some of which would have been deposited at ATMs. The number of daily cash withdrawals per ATM averaged 43 in 2003 but had dropped to 40 by 2006.

Consumers may have been replacing ATM withdrawals with cash-back transactions partly for conve-

18. Estimates of amounts returned to card users in 2003 and 2006 were based on data provided by a few large debit card networks. The amount returned in 2000 is unknown. Therefore, how much of the decline in the average value of a PIN-based debit payment between 2000 and 2003 should be attributed to a decline in cash back, and how much to a decline in average purchase value, is unclear. All of the decline in average value between 2003 and 2006 can be attributed to a decline in average purchase value.

19. Estimates are based on information from the few debit card networks that were able to report the value of cash back and the number of PIN-based debit payments that involved the return of cash.

20. Because cash back was reported as a separate aggregate, it is not possible from the survey data to compare the average value of a PIN-based debit card payment that involved cash back with the average value of one that did not.

21. Payments by such "co-branded" cards are included in the totals for general-purpose credit cards.

22. The estimated value does not include any cash given back by a merchant as part of a credit card purchase at the point of sale. The amount given back in this way is likely to be small, as the merchant must pay the credit card network a percentage of the entire charge, including a percentage of the amount of cash given back. At least one very large merchant (Wal-Mart) reportedly allows up to $20 in cash back on credit card purchases.

23. The source for 1995–2003 information on the number of ATMs is "Bank Network News and Debit Card News" (New York: Faulkner and Gray). Information on ATMs for 2004–2006 is from "EFT Data Book" (New York: Thomson Media). Also see Committee on Payment and Settlement Systems (2008), *Statistics on Payment and Settlement Systems in Selected Countries: Figures for 2006* (Basel: Bank for International Settlements, March) for a variety of statistics on currency and other payment instruments (www.bis.org/publ/cpss82.pdf).

3. Debits to transaction accounts held at depository institutions, by type and size of institution, 2007

Type and size of institution (transaction deposits in millions of dollars)	Number of institutions	Check payments[1]			ACH payments[2]			Debit card payments		
		Number (billions)	Value (trillions of dollars)	Average value (dollars)	Number (billions)	Value (trillions of dollars)	Average value (dollars)	Number (billions)	Value (trillions of dollars)	Average value (dollars)
All institutions	**13,316**	**29.38**	**41.164**	**1,401**	**18.07**	**142.688**	**7,896**	**30.35**	**1.244**	**41**
600 and above	106	17.34	30.679	1,770	13.05	135.935	10,419	19.55	.812	42
200–599	225	2.50	2.752	1,100	1.26	3.068	2,440	2.66	.104	39
100–199	475	1.92	1.848	963	.93	1.178	1,273	2.13	.085	40
0–99	12,510	7.62	5.883	772	2.84	2.508	883	6.01	.244	41
Commercial banks	**6,186**	**24.36**	**38.787**	**1,592**	**14.82**	**139.430**	**9,406**	**21.32**	**.887**	**42**
600 and above	86	16.09	29.820	1,854	11.95	134.011	11,211	16.78	.698	42
200–599	141	1.85	2.432	1,315	.83	2.675	3,223	1.23	.049	40
100–199	320	1.34	1.564	1,167	.57	.936	1,628	.98	.040	41
0–99	5,639	5.09	4.970	977	1.47	1.809	1,234	2.34	.100	43
Savings institutions	**1,072**	**2.28**	**1.588**	**696**	**1.57**	**2.643**	**1,684**	**3.33**	**.137**	**41**
600 and above	15	1.13	0.807	715	.98	1.886	1,929	2.29	.095	41
200–599	28	.24	0.175	741	.16	.281	1,767	.30	.012	41
100–199	50	.22	0.167	752	.11	.147	1,295	.24	.010	41
0–99	979	.70	0.439	631	.32	.329	1,030	.49	.020	41
Credit unions	**6,058**	**2.74**	**0.789**	**288**	**1.68**	**.615**	**367**	**5.70**	**.220**	**39**
600 and above	5	.12	0.052	430	.11	.039	335	.48	.019	39
200–599	56	.42	0.145	348	.27	.111	414	1.13	.043	38
100–199	105	.36	0.118	329	.24	.096	403	.91	.035	38
0–99	5,892	1.84	0.474	258	1.06	.370	350	3.19	.124	39

NOTE: Annualized figures based on survey data for March and April 2007. Excludes institutions that had no transaction deposits. The number and value of debits to transaction accounts are revised from figures reported in Federal Reserve System, "The 2007 Federal Reserve Payments Study." See the appendix for details. Components may not sum to totals because of rounding.

1. Checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Does not include U.S. Treasury checks and U.S. Postal Service money orders.

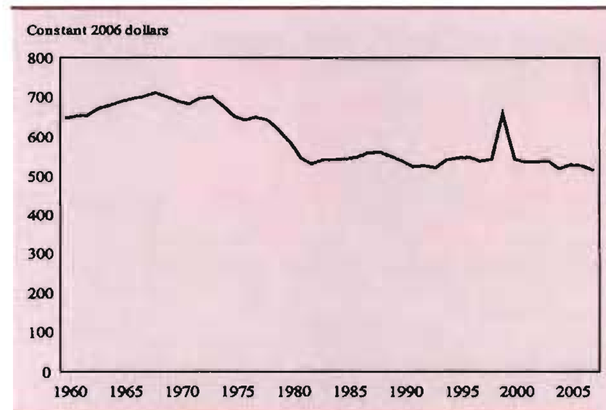
2. Electronic payments processed through the automated clearinghouse system, including checks converted to electronic payments.

nience and partly to avoid ATM fees. Although the number of ATM withdrawals has declined slightly, growth in cash back from debit card purchases has been quite strong. More than 1.0 billion PIN-based debit card payments in 2006 involved a return of cash to the card holder (average of $31), compared with fewer than 0.6 billion in 2003.

The sum of the number of ATM withdrawals and PIN-based debit card payments involving cash back grew from 6.5 billion in 2003 to 6.9 billion in 2006. As noted elsewhere, credit cards were used to obtain cash advances a relatively small number of times in 2006 (87 million). The total amount of cash obtained in 2006 from these sources—ATM withdrawals, cash back from debit card purchases, and credit card cash advances—was $628 billion.

Change in the constant-dollar value per capita of low-denomination currency in circulation from 1960 to 2007 provides a long view of changes (chart 4).[24] Generally, low-denomination currency has historically been used for making payments within U.S.

4. Value of low-denomination currency in circulation per capita, 1960–2007



NOTE: Includes $1, $2, $5, $10, and $20 notes.
SOURCE: Federal Reserve Board.

borders, while $50 and $100 notes have been used primarily as stores of value both domestically and abroad and have been used much less frequently for domestic payments.[25] The constant-dollar value of low-denomination currency in circulation peaked at

24. Currency in circulation—which includes all currency in the possession of consumers, businesses, and banks, except the Federal Reserve Banks, including vault cash and currency held inside ATMs—reached $792 billion at the end of 2007.

25. An unknown and most likely small amount of low-denomination currency is also used abroad.

3.—Continued

ATM withdrawals			Total debits to transaction accounts			MEMO		
Number (billions)	Value (trillions of dollars)	Average value (dollars)	Number (billions)	Value (trillions of dollars)	Average value (dollars)	Transaction deposits (billions of dollars)	Total deposits (billions of dollars)	Total assets (billions of dollars)
5.82	**.579**	**100**	**83.62**	**185.7**	**2,220**	**843**	**7,177**	**11,196**
3.59	.387	108	53.53	167.8	3,135	474	4,430	7,585
.50	.045	90	6.92	6.0	863	74	670	952
.42	.038	90	5.40	3.1	583	65	481	624
1.30	.109	84	17.78	8.7	492	230	1,596	2,036
3.89	**.404**	**104**	**64.40**	**179.5**	**2,787**	**658**	**5,590**	**8,952**
3.08	.334	109	47.90	164.9	3,442	409	3,911	6,740
.22	.019	89	4.12	5.2	1,255	48	468	672
.18	.016	90	3.07	2.6	833	44	303	402
.42	.034	82	9.31	6.9	743	158	909	1,138
.67	**.067**	**99**	**7.85**	**4.4**	**565**	**95**	**958**	**1,507**
.41	.043	104	4.81	2.8	588	57	469	784
.07	.007	95	.77	.5	619	9	89	145
.06	.006	93	.64	.3	515	6	76	102
.13	.011	90	1.63	.8	490	22	324	475
1.25	**.108**	**86**	**11.37**	**1.7**	**152**	**89**	**629**	**737**
.10	.010	96	.81	.1	146	8	50	61
.21	.019	89	2.02	.3	157	17	114	134
.19	.017	89	1.69	.3	156	14	102	120
.75	.063	83	6.84	1.0	151	50	363	423

around $700 per capita in the late 1960s and early 1970s and then dropped relatively quickly until 1980, when it was around $500 per capita. Except for small fluctuations and a brief spike in 1999 due to a temporary increase in currency stock held at banks in response to the threat of a so-called millennium bug, the constant-dollar value of currency in circulation per capita has been flat since 1980. It is possible, though only speculation, that if recent trends continue, the per capita number of cash payments may begin to decline in the near future.[26]

Payments and Withdrawals from Accounts at Depository Institutions

The 2004 and 2007 depository institution surveys collected data on the number and value of several types of debits to transaction accounts—including check payments, ACH payments, debit card payments (both signature-based and PIN-based), and ATM withdrawals—from a representative sample of depository institutions of different types and sizes (table 3).[27] The surveys provide enough information to study trends and variation in account debits by type and size of institution and by region. Combined with another survey conducted in 2006, enough information was available to study trends and variation in the use of electronic images and paper in check processing.

The estimates reported in this section are annualized from data for March and April of 2004 and 2007 and are referred to as 2004 and 2007 estimates.

Shares of Account Debits among Depository Institutions

For purposes of estimation and data analysis, depository institutions were grouped by type—commercial banks, savings institutions, and credit unions—and, within each type, by size—largest, large, medium, and small. Collectively, the largest institutions (those with transaction deposits of $600 million or more) continued in 2007 to pay (on their customer's behalf) the majority of account debits, with their shares of each type of payment remaining nearly the same as in 2004. In 2007, this small group, comprising fewer than 1 percent of the 13,316 depository institutions that had transaction deposits at that time, held more than 56 percent of total transaction deposits and paid 64 percent of account debits by number and more than 90 percent by value (table 4). In fact, the largest depository institutions paid most of the debits of each payment type by both number and value. Among types of account debits, the largest institutions' share by number was highest for ACH payments, at 72 percent, and smallest for checks, at 59 percent.

26. For another look at trends in the use of cash, see Paul W. Bauer and Daniel A. Littman (2007), "Are Consumers Cashing Out?" Federal Reserve Bank of Cleveland, *Economic Commentary* (October 1), www.clevelandfed.org/research/commentary/2007/100107.cfm.

27. Other means of debiting transaction accounts include internal transfers within a depository institution, wires over large-value funds transfer systems, and cash payments by tellers that do not involve a check.

4. Distribution of debits to transaction accounts among depository institutions, by type and size of institution, 2007

Percent

Type and size of institution (transaction deposits in millions of dollars)	Number of insti-tutions	Check payments[1]		ACH payments[2]		Debit card payments		ATM withdrawals		Total debits to transaction accounts		MEMO		
		Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Trans-action deposits	Total deposits	Total assets
All institutions	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
600 and above	.8	59.0	74.5	72.2	95.3	64.4	65.3	61.8	66.8	64.0	90.4	56.2	61.7	67.7
200–599	1.7	8.5	6.7	7.0	2.1	8.8	8.3	8.6	7.8	8.3	3.2	8.8	9.3	8.5
100–199	3.7	6.5	4.5	5.1	.8	7.0	6.8	7.3	6.6	6.5	1.7	7.7	6.7	5.6
0–99	93.8	25.9	14.3	15.7	1.8	19.8	19.6	22.4	18.8	21.3	4.7	27.3	22.2	18.2
Commercial banks	**46.5**	**82.9**	**94.2**	**82.0**	**97.7**	**70.2**	**71.3**	**66.9**	**69.8**	**77.0**	**96.7**	**78.1**	**77.9**	**80.0**
600 and above	.7	54.7	72.4	66.2	93.9	55.3	56.1	52.9	57.8	57.3	88.8	48.5	54.5	60.2
200–599	1.2	6.3	5.9	4.6	1.9	4.1	3.9	3.7	3.3	4.9	2.8	5.6	6.5	6.0
100–199	2.8	4.6	3.8	3.2	.7	3.2	3.2	3.0	2.7	3.7	1.4	5.2	4.2	3.6
0–99	41.9	17.3	12.1	8.1	1.3	7.7	8.0	7.2	6.0	11.1	3.7	18.7	12.7	10.2
Savings institutions	**8.0**	**7.8**	**3.9**	**8.7**	**1.9**	**11.0**	**11.0**	**11.6**	**11.5**	**9.4**	**2.4**	**11.3**	**13.3**	**13.5**
600 and above	.1	3.8	2.0	5.4	1.3	7.6	7.6	7.1	7.4	5.8	1.5	6.8	6.5	7.0
200–599	.3	.8	.4	.9	.2	1.0	1.0	1.2	1.2	.9	.3	1.1	1.2	1.3
100–199	.4	.8	.4	.6	.1	.8	.8	1.0	1.0	.8	.2	.8	1.1	.9
0–99	7.2	2.4	1.1	1.8	.2	1.6	1.6	2.2	2.0	2.0	.4	2.7	4.5	4.2
Credit unions	**45.4**	**9.3**	**1.9**	**9.3**	**.4**	**18.8**	**17.7**	**21.5**	**18.7**	**13.6**	**.9**	**10.6**	**8.8**	**6.6**
600 and above	*	.4	.1	.6	*	1.6	1.5	1.7	1.7	1.0	.1	.9	.7	.5
200–599	.2	1.4	.4	1.5	.1	3.7	3.4	3.6	3.3	2.4	.2	2.0	1.6	1.2
100–199	.6	1.2	.3	1.3	.1	3.0	2.8	3.2	2.9	2.0	.1	1.7	1.4	1.1
0–99	44.6	6.3	1.2	5.8	.3	10.5	10.0	13.0	10.9	8.2	.6	5.9	5.1	3.8

NOTE: Percentages based on annualized figures derived from survey data for March and April 2007. Excludes institutions that had no transaction deposits. The number and value of debits to transaction accounts are revised from figures reported in Federal Reserve System, "The 2007 Federal Reserve Payments Study." See the appendix for details. Components may not sum to totals because of rounding.

1. Checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Does not include U.S. Treasury checks and U.S. Postal Service money orders.

2. Electronic payments processed through the automated clearinghouse system, including checks converted to electronic payments.

* In absolute value, less than 0.05.

By type, commercial banks, which serve a broad range of customers, including consumers and large corporations, held the majority of transaction deposits (78.1 percent) and assets (80.0 percent) in 2007. About 77.0 percent of account debits by number, and 96.7 percent by value, were paid from accounts at these banks. The second largest type of depository institution, as measured by both transaction deposits (11.3 percent) and assets (13.5 percent), were savings institutions, which generally serve consumer and business customers, but not the largest corporations; 9.4 percent of account debits, representing 2.4 percent of total account debit value, were paid from accounts at these institutions. Credit unions, which generally serve consumer customers rather than businesses, had the smallest share of transaction deposits (10.6 percent) and assets (6.6 percent). Although they accounted for a larger proportion of account debits by number (13.6 percent) than did savings institutions, they accounted for a smaller proportion by value (less than 1 percent).

As in 2004, the average value of account debits in 2007 varied with depository institution size. For ACH payments in particular, a substantial amount of value (93.9 percent) was concentrated at the largest commercial banks, compared with 66.2 percent by number. A substantial portion of this value can be explained by unusually high average ACH values at a handful of institutions. As discussed later in the section "On Us Payments," much of this concentration in ACH value is from internal payments.

Generally, the average values of ACH and check payments increase in tandem with increasing commercial bank size because of the greater presence of large business customers at larger commercial banks.[28] The group with the lowest average values for ACH and check payments was credit unions, which,

28. In 2000 the average value of checks written by consumers was about $350, and by businesses, $1,700. These are the author's own estimates based on a study in which individual checks that could be classified were sorted by payer. See Federal Reserve System (2002), "Retail Payment Research Project: A Snapshot of the U.S. Payments

as previously noted, typically do not handle transaction accounts for businesses. The average value of debit card payments did not vary significantly with depository institution type or size, while average ATM withdrawals generally were larger at the largest institutions.

Changes in Shares from 2004 to 2007

The share of checks paid by commercial banks increased 2.6 percentage points from 2004 to 2007, reaching 82.9 percent (despite a decline of almost 4.7 billion in the number of checks paid). The share of checks paid by credit unions dropped 2.2 percentage points over the period, to 9.3 percent. The share of checks paid by savings institutions remained relatively flat, dropping only 0.4 percentage point. This pattern—decreasing share of checks for credit unions, which generally serve only consumers, and increasing share for commercial banks, which serve businesses in addition to consumers—provides evidence that consumers' use of checks is declining faster than businesses' use of checks. The decrease for credit unions is due both to fewer checks being written by credit union customers and to more of these customers' checks being converted to ACH payments.

The share of ACH payments at savings institutions increased markedly from 2004 to 2007 (from 4.9 percent to 8.7 percent) because of a relatively large increase in the number of such payments at those institutions (from 0.5 billion to 1.6 billion, about 45 percent a year). In contrast to the 3.8 percentage point annual increase in share by number was a 0.6 percentage point annual decline in share by value, leading to a steep drop in the average value of ACH payments at savings institutions (26.4 percent a year). A significant increase in the conversion of small-value consumer checks into ACH payments and a decrease in the number of large-value ACH payments reported (due to greater accuracy on the part of some institutions) most likely were factors in these changes.[29]

Distribution of Depository Institutions' Account Debits

Overall, in 2007 about 36 percent of account debits were made by debit card, 35 percent were made by check, 22 percent were ACH payments, and 7 percent were cash withdrawals from ATMs (table 5).[30] The distribution had changed substantially from 2004, when 26 percent of account debits were made by debit card, 51 percent were made by check, 15 percent were ACH payments, and 8 percent were cash withdrawals from ATMs. In 2004, checks were the predominant payment type at institutions of all types; by 2007, debit cards had become the predominant payment type overall, and predominant at credit unions, savings institutions, and the largest commercial banks, while checks continued to be predominant at smaller commercial banks.

At institutions of all types, check payments as a proportion of all debits to transaction accounts declined between 2004 and 2007—from 43 percent to 24 percent at credit unions; from 47 percent to 29 percent at savings institutions; and from 53 percent to 38 percent at commercial banks.[31] In 2007, as in 2004, there was an inverse relationship between the size of a given type of institution and its proportion of the total that were check payments: generally, the larger the institution, the smaller the share of checks with respect to total account debits. For commercial banks, the proportion of check payments at small banks (those with less than $100 million in deposits) was about 55 percent, and at the largest banks, 34 percent. The proportion of checks may be smaller at larger depository institutions because larger institutions may provide for (and perhaps encourage) greater use of ACH and debit cards. Larger depository institutions may also serve more-sophisticated or larger customers that may be more willing or able than less-sophisticated or smaller customers to take advantage of cost savings or other benefits afforded by other types of payment.

In contrast to checks, ACH payments as a proportion of all debits to transaction accounts increased at institutions of all types between 2004 and 2007—from 9 percent to 15 percent at credit unions; from 8 percent to 20 percent at savings institutions; and from 17 percent to 23 percent at commercial banks. At commercial banks, the proportion of ACH payments by number increased with increasing size, possibly because of greater use of ACH by large corporate account holders. The proportion of ACH

Landscape," pp. 12–14, www.frbservices.org/files/communications/pdf/research/RetailPaymentsResearchProject.pdf.

29. See the appendix for details on changes in reporting accuracy.

30. The shares of account debits at depository institutions overall differ from the shares of corresponding payments in total noncash payments (as reported in table 1), mainly because debits to deposit accounts include ATM withdrawals and do not include credit card payments.

31. Generally, ACH and debit card payments grew as a proportion of account debits between 2004 and 2007, and check payments and ATM withdrawals declined as a proportion, across institutions of all types and sizes.

5. Distribution of debits to transaction accounts at depository institutions, by type of debit, 2007

Percent

Type and size of institution (transaction deposits in millions of dollars)	Check payments[1]		ACH payments[2]		Debit card payments		ATM withdrawals		Total debits to transaction accounts	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
All institutions	**35.1**	**22.2**	**21.6**	**76.8**	**36.3**	**.7**	**7.0**	**.3**	**100.0**	**100.0**
600 and above	32.4	18.3	24.4	81.0	36.5	.5	6.7	.2	100.0	100.0
200–599	36.2	46.1	18.2	51.4	38.4	1.7	7.2	.8	100.0	100.0
100–199	35.5	58.7	17.1	37.4	39.5	2.7	7.8	1.2	100.0	100.0
0–99	42.9	67.3	16.0	28.7	33.8	2.8	7.3	1.2	100.0	100.0
Commercial banks	**37.8**	**21.6**	**23.0**	**77.7**	**33.1**	**.5**	**6.0**	**.2**	**100.0**	**100.0**
600 and above	33.6	18.1	25.0	81.3	35.0	.4	6.4	.2	100.0	100.0
200–599	44.8	47.0	20.1	51.7	29.8	.9	5.2	.4	100.0	100.0
100–199	43.7	61.2	18.7	36.6	31.8	1.6	5.7	.6	100.0	100.0
0–99	54.7	71.9	15.7	26.2	25.1	1.4	4.5	.5	100.0	100.0
Savings institutions	**29.1**	**35.8**	**20.0**	**59.6**	**42.4**	**3.1**	**8.6**	**1.5**	**100.0**	**100.0**
600 and above	23.5	28.5	20.3	66.6	47.7	3.4	8.6	1.5	100.0	100.0
200–599	30.8	36.9	20.7	59.1	39.1	2.6	9.4	1.4	100.0	100.0
100–199	34.7	50.7	17.7	44.6	38.1	3.0	9.5	1.7	100.0	100.0
0–99	42.6	54.9	19.6	41.2	30.0	2.5	7.8	1.4	100.0	100.0
Credit unions	**24.1**	**45.6**	**14.8**	**35.5**	**50.2**	**12.7**	**11.0**	**6.2**	**100.0**	**100.0**
600 and above	15.0	44.0	14.1	32.4	58.6	15.6	12.3	8.1	100.0	100.0
200–599	20.6	45.7	13.3	35.0	55.7	13.4	10.5	5.9	100.0	100.0
100–199	21.1	44.4	14.0	36.1	53.9	13.2	11.0	6.3	100.0	100.0
0–99	26.9	46.0	15.5	35.9	46.6	12.0	11.0	6.1	100.0	100.0

NOTE: Percentages based on annualized figures derived from survey data for March and April 2007. Excludes institutions that had no transaction deposits. The number and value of debits to transaction accounts are revised from figures reported in Federal Reserve System, "The 2007 Federal Reserve Payments Study." See the appendix for details. Components may not sum to totals because of rounding.

1. Checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Does not include U.S. Treasury checks and U.S. Postal Service money orders.

2. Electronic payments processed through the automated clearinghouse system, including checks converted to electronic payments.

payments for savings institutions and credit unions did not show a clear relationship with size.

The proportion of debit card payments in account debits for credit unions was just over 50 percent, higher than the proportion for savings institutions (42 percent) and commercial banks (33 percent). Similarly, the proportion of ATM withdrawals was greater for savings institutions and credit unions—9 percent and 11 percent, respectively—than for commercial banks (6 percent). That debit card payments and ATM withdrawals are proportionally more prevalent at credit unions than at other types of institutions is not unexpected, given their base of primarily consumer customers.

Estimates from the 2007 depository institution survey indicate that signature-based debit card payments, at 19.1 billion (63 percent of total debit card payments), were not quite twice as common as PIN-based debit card payments, at 11.2 billion (37 percent of total debit card payments). Estimates from the 2004 depository institution survey were in similar proportion—11.7 billion (65 percent) signature-based and 6.3 billion (35 percent) PIN-based. The ratio of signature-based to PIN-based debit card payments was roughly similar across institutions of different types and sizes. There was, however, substantial variation among responding institutions within size and type categories.

Electronic and Paper Check Processing

The traditional method of collecting a check is to deposit it at a depository institution, which, if the check is drawn on a different institution (an "interbank check"), then collects the funds by presenting the original paper check to the institution responsible for paying it, the "paying bank." Presentment to the paying bank is done either directly or through one or more intermediaries or agents, such as a Federal Reserve Bank or a private clearinghouse. Use of original paper checks requires timely physical sorting and transportation, often to remote, small-volume locations, making this method of check clearing relatively costly compared with modern electronic methods.

As an alternative to the presentment of original checks, some depository institutions have for decades, by agreement, transmitted electronic information about the checks they present. In this form of check presentment—a method historically called electronic

6. Checks paid by depository institutions, by form of presentment, and electronic checks deposited, 2007

Item	Number		Value		
	Billions of checks	Percent of interbank checks	Trillions of dollars	Percent of interbank checks	Average, in dollars
Checks paid[1]	29.4	...	41.2	...	1,401
Interbank checks	23.3	100.0	29.3	100.0	1,256
Paper	16.7	71.7	21.8	74.4	1,303
Original	13.3	56.9	15.6	53.1	1,172
Substitute	3.0	12.6	5.7	19.5	1,936
ECP	.5	2.2	.6	1.9	1,064
Electronic	6.6	28.3	7.5	25.6	1,137
Image	6.4	27.5	7.4	25.4	1,161
MICR	.2	.8	.1	.2	280
On-us checks	6.1	...	11.9	...	1,958
Electronic checks deposited[2]					
Client image	1.4	...	2.5	...	1,697
Branch/ATM image	2.1	...	2.0	...	927
MEMO					
Checks converted to ACH	3.3	...	.8	...	260

NOTE: Annualized figures based on survey data for March and April 2007. Excludes institutions that had no transaction deposits. The number and value of checks are revised from figures reported in Federal Reserve System, "The 2007 Federal Reserve Payments Study." See the appendix for details. Components may not sum to totals because of rounding.

1. Does not include U.S. Treasury checks and U.S. Postal Service money orders. A substitute check is a special paper copy of the original check. ECP is electronic check presentment with a paper check to follow, also called same-day settlement. Electronic checks do not involve presentment of a paper check and include checks presented as images as well as checks presented using only data from the magnetic ink character recognition (MICR) line at the bottom of the check.

2. Client images are checks remotely deposited electronically as images by bank customers. Branch/ATM images are checks imaged either at an ATM or within a branch and forwarded on for collection.

... Not applicable.

check presentment (ECP)—the paper checks are typically also delivered to the paying bank. But doing this for all checks would require banks to obtain agreements with all counterparties—including a very large number of institutions to which checks are presented infrequently and in small volume. Further, as noted, ECP typically includes the delivery of the paper checks to the paying bank, limiting the amount of cost savings that can be obtained. In the past, many depository institutions preferred the status quo—exchanging original paper checks, which increased float for the paying bank—to adopting electronic check-clearing methods.[32] Thus, even with some potential benefits, depository institutions and their agents were unable to substantially expand the proportion of checks they presented electronically. In 2007, an estimated 0.5 billion checks were presented by ECP (table 6).

With the changes governing check processing resulting from the Check 21 law, banks may now truncate all checks and replace them with electronic images, presenting them electronically to paying banks that agree or as paper substitute checks to those that require paper.[33] The Reserve Banks and some private clearinghouses are facilitating the transition to the use of electronics by offering incentives for depositing electronic images of checks and accepting electronic images for presentment.

The costs and benefits of adopting electronic check image processing vary, are changing rapidly, and can be influenced by a variety of factors. For institutions that outsource some part of check processing, the timing of adoption may depend on when correspondent banks or third-party processors adopt. Each depository institution chooses a time to adopt on the basis of the expected future costs and benefits of adopting at that time. In the long run, all depository institutions that process checks most likely will adopt electronic image processing methods.

Survey data collected in 2006 and 2007 indicate that there have already been rapid changes in the number of checks deposited and presented electronically and in the percentage of depository institutions accepting electronic image presentment. Data from early 2007 show that at that time there were meaningful differences in the level of adoption of electronic

32. See James McAndrews and William Roberds (2000), "The Economics of Check Float," Federal Reserve Bank of Atlanta, *Economic Review*, vol. 85 (4th quarter), pp. 17–27, for a discussion of the issues.

33. As noted in the introduction to this article, Check 21 (Check Clearing for the 21st Century Act) removed a legal impediment to the replacement, during the collection process, of paper checks with electronic information ("check truncation"). Under Check 21, a paying bank that does not accept electronic images of checks for payment must accept a "substitute check." For additional information, see www.federalreserve.gov/paymentsystems/truncation/default.htm.

7. Distribution of interbank checks paid by depository institutions, by form of presentment, 2007

Percent

Type and size of institution (transaction deposits in millions of dollars)	Paper		Electronic		Total	
	Number	Value	Number	Value	Number	Value
All institutions	**71.7**	**74.4**	**28.3**	**25.6**	**100.0**	**100.0**
Commercial banks	**69.8**	**73.7**	**30.2**	**26.3**	**100.0**	**100.0**
600 and above	69.2	73.9	30.8	26.1	100.0	100.0
200–599	84.3	83.6	15.7	16.4	100.0	100.0
100–199	72.2	68.4	27.8	31.6	100.0	100.0
0–99	65.6	69.6	34.4	30.4	100.0	100.0
Savings institutions	**91.9**	**91.9**	**8.1**	**8.1**	**100.0**	**100.0**
600 and above	96.7	96.6	3.3	3.4	100.0	100.0
200–599	94.2	94.0	5.8	6.0	100.0	100.0
100–199	89.2	91.1	10.8	8.9	100.0	100.0
0–99	83.9	82.6	16.1	17.4	100.0	100.0
Credit unions	**70.4**	**71.8**	**29.6**	**28.2**	**100.0**	**100.0**
600 and above	98.0	97.9	2.0	2.1	100.0	100.0
200–599	78.0	80.3	22.0	19.7	100.0	100.0
100–199	78.6	80.6	21.4	19.4	100.0	100.0
0–99	65.2	64.0	34.8	36.0	100.0	100.0

NOTE: Percentages based on annualized figures derived from survey data for March and April 2007.

image processing among groups of institutions, revealing that the timing of adoption was related to institution size and type. However, there were also substantial differences between institutions within groups, evidence that size and type are not the only important indicators of the timing of adoption.

Monthly data also reveal that between the reference period of the 2007 survey (March and April) and June 2008, the proportion of checks deposited with and presented by the Federal Reserve Banks as electronic check images increased substantially, as did the proportion of institutions depositing and receiving such images through the Reserve Banks. The rapid increases reflect more-recent changes within the interbank check-clearing system overall and suggest that the differences among groups of institutions are less pronounced now. If, as expected, the rapid adoption of electronic check image processing continues, the check-clearing system will become predominantly electronic within only a few years.[34]

Checks Paid, by Form of Presentment

A depository institution that requires presentment of a paper check receives either the original check or, if the check was truncated and replaced with an electronic image, a substitute check. Figures based on data for March and April 2007 suggest that at that time, an annualized 13.3 billion original interbank checks and about 3.0 billion substitute interbank checks were being presented (table 6).[35] Another 6.6 billion interbank checks were being presented electronically (28.3 percent of interbank checks). Most of these (6.4 billion) were presented as images; the remainder were "MICR presentments," whereby only limited information about the check (account number and dollar amount) is provided to the paying bank at the time of presentment.[36] In all, an annualized 9.5 billion checks, or 40.9 percent of interbank checks, were truncated and presented electronically or as substitute checks in 2007.

Commercial banks and credit unions paid paper and electronic interbank checks in about the same proportions in 2007: roughly 70 percent paper and 30 percent electronic (table 7). Savings institutions, at over 90 percent paper and fewer than 10 percent electronic, paid a much smaller proportion of checks electronically or as substitute checks.

For each type of depository institution, the proportion of checks presented to them electronically generally increased with decreasing size. One explanation could be that small institutions are more likely than medium-size and large institutions to use intermediaries, such as third-party processors or correspondent banks, that take advantage of the economies of scale and scope available with electronic check processing.

34. Checks converted to electronic ACH payments and therefore not processed within the check-clearing system are outside the scope of this discussion.

35. Another 0.5 billion checks were presented using ECP, that is, same-day settlement with paper to follow.

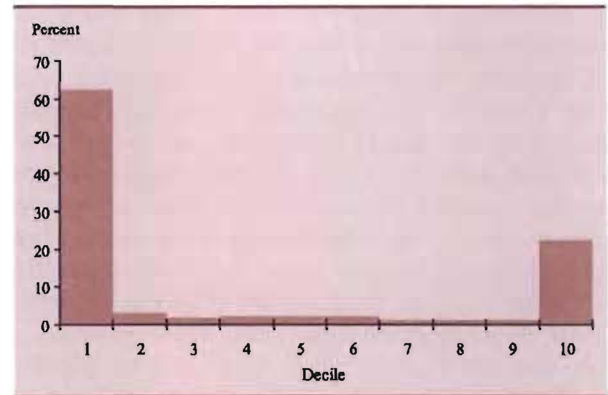
36. Additional information, such as an image of the check, is not routinely provided with MICR presentments but generally can be provided on request.

Such intermediaries play an important role in the adoption of electronic check image processing because they can help depository institution customers adopt sooner by, for example, providing incentives and standardized processes for receiving electronic check image presentment. Smaller institutions may also be better able to use "off-the-shelf" electronic check processing solutions that can help speed adoption. Among commercial banks, the largest received a high proportion of electronic check images compared with large and medium-size banks. The largest commercial banks may have adapted their proprietary check-processing systems to handle electronic check presentments sooner because they have greater opportunities for cost savings from economies of scale and scope and the capacity to manage multiple platforms.

When a depository institution adopts technology enabling it to accept electronically presented interbank checks, the extra cost of simultaneously supporting two technologies (traditional paper and new electronic technology) creates incentives to stop supporting paper technology.[37] The survey data provide evidence that most depository institutions use mainly one or the other technology. About 85 percent of institutions received nearly all check presentments in either paper or electronic form in April 2007. A plot of survey respondents by the proportion of interbank checks they received in electronic form reveals that most respondents were concentrated at the tails of the distribution, meaning that most responding institutions in the sample received almost all check presentments in one form or the other (chart 5). At least some depository institutions, however, apparently supported both forms of check presentment, as an estimated 15 percent received between 10 and 90 percent of interbank checks as truncated checks.[38] Some of these institutions may have continued the exchange of local paper checks through clearinghouses when it was cost effective to do so while receiving other checks in electronic form, and some may have been in the midst of a transition to receiving all interbank checks electronically.

Overall, an estimated 42 percent of depository institutions received at least some interbank check presentments in electronic form (table 8).[39] The proportion receiving some or all checks in paper or electronic form varied by size and type of institution. About half of the largest and medium-size commercial banks received at least some electronic checks, while about 40 percent of the large and small ones did. For credit unions, the proportion of institutions accepting electronic presentment increased with decreasing size, rising from about 25 percent of the largest to 46 percent of the smallest. Only 17 percent of the largest savings institutions received some

5. Distribution of responding institutions by the proportion of interbank checks they received in electronic form, 2007



NOTE: The proportion of interbank checks presented electronically to the depository institutions ranged from 0 to 100 percent. In this chart, the range is divided into deciles, and each bar shows the percentage of respondents whose proportions fell within that increment. For example, the bar labeled decile 1 shows the percentage of depository institutions that reported receiving up to 10 percent of the interbank checks presented to them in electronic form.

8. Depository institutions receiving interbank check presentments in electronic form, 2007

Percent

Type and size of institution (transaction deposits in millions of dollars)	Some electronic	All electronic
All institutions	**41.6**	**24.4**
Commercial banks	**40.8**	**22.0**
600 and above	50.9	.0
200–599	38.6	5.3
100–199	50.6	18.4
0–99	40.2	23.0
Savings institutions	**25.6**	**16.1**
600 and above	16.7	.0
200–599	50.0	12.5
100–199	35.3	5.9
0–99	24.5	17.0
Credit unions	**45.3**	**28.3**
600 and above	25.0	.0
200–599	27.8	11.1
100–199	30.4	13.0
0–99	45.7	28.7

NOTE: Percentages based on annualized figures derived from survey data for April 2007.

37. Because a paper check presented over the counter at a bank may not be refused, some paper processing is inevitable. But depository institutions may create electronic images of any paper checks they receive.

38. Depository institutions that receive some paper may or may not create electronic images of the checks for internal processing purposes.

39. Estimates are based on the portion of complete survey responses for check payments that did not require the use of imputed data (see the appendix).

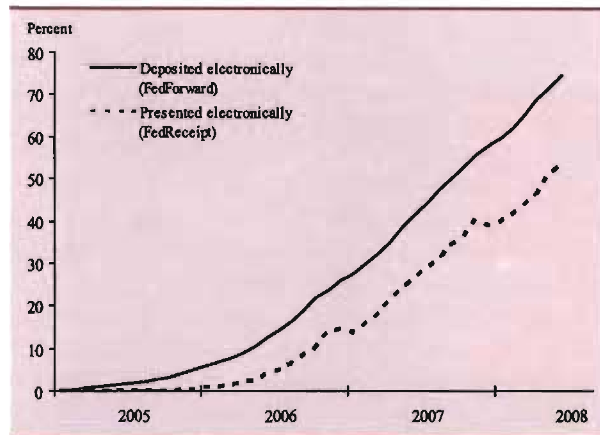
electronic checks, while about half of the large ones did, and the proportion declined as size declined from large to small.

An estimated 24 percent of depository institutions reported receiving all interbank check presentments in electronic form. (A depository institution reporting that it received all check presentments electronically may have designated a third-party processor, a correspondent bank, or a Reserve Bank as its presentment point. Given that the probability of receiving a paper check was still high during the survey period, that designee likely received some paper checks, which it forwarded to the customer as electronic images.) None of the largest institutions of any type received all checks in electronic form. Commercial banks and credit unions showed a pattern of increasing proportions of institutions receiving all checks electronically with decreasing size, while for savings institutions there was no clear relationship between size and the proportion receiving all checks electronically.

Credit unions as a group had the highest proportion of institutions receiving at least some interbank checks electronically (45 percent) and the highest proportion receiving all electronically (28 percent). Many credit unions traditionally have provided information about checks paid only as line-item entries on customers' bank statements and likely have faced the fewest obstacles to receiving electronic information in place of paper checks.[40] The smallest credit unions were more likely to accept some or all checks electronically than larger ones. Smaller institutions, including smaller credit unions, are more likely to use correspondent banks, corporate credit unions, third-party processors, or Reserve Banks as their presentment point and to outsource some of the processing, receiving all checks in electronic form. Thus, in some cases the agent designated as the presentment point may have received checks in paper form and sent them to client institutions in electronic form.

While the use of electronic check processing methods was not universal in 2007, comparison with earlier data shows that substantial growth had occurred over a period of one year. Estimates from a survey conducted by the Board in 2006 show that an annualized 2.4 billion checks were presented electronically in March 2006, implying year-to-year growth of 273 percent. An annualized 1.0 billion substitute checks were presented that same month, implying year-to-year growth of 304 percent. The proportion of depository institutions receiving electronically presented checks also increased substantially; overall, the proportion receiving some checks electronically increased about 10 percentage points and the proportion receiving all electronically, which was relatively low in early 2006, increased about 16 percentage points from 2006 to 2007.

6. Checks deposited and presented electronically through the Reserve Banks, 2005–2008



SOURCE: Federal Reserve System Retail Payments Office.

Other data show that electronic presentment of checks processed by the Reserve Banks has increased rapidly.[41] Presentment of electronic check images to depository institutions by the Reserve Banks, referred to as FedReceipt, was first offered in 2005.[42] The percentage of FedReceipt checks in all checks presented by the Reserve Banks grew somewhat during the initial months, reaching only 1.44 percent by March of 2006 (chart 6). During March and April 2007, the same time period as the 2007 survey, around 20 percent of checks presented by the Reserve Banks were presented by electronic image, a lower proportion than estimated for interbank checks overall (about 28 percent). The proportion of images in all checks presented by the Reserve Banks was over 53 percent by June 2008, for an annualized growth rate of 119 percent since the 2007 survey, likely reflecting a high overall growth rate for check presentments using electronic images.

40. Commercial banks and savings institutions, after paying the original canceled checks, have traditionally mailed them to account holders along with their periodic statements. Many depository institutions of all types now offer access to check images on online banking websites and have reduced the mailing of checks to customers. (In 2007, about three-fourths of commercial banks and two-thirds of savings institutions had online banking websites capable of supporting transactions; over half of credit unions did.)

41. The Reserve Banks are estimated to have processed 42 percent of all interbank commercial checks processed in the United States in 2006, down from 54 percent in 2003.

42. Reported figures include electronic check images presented using the FedReceipt and FedReceipt Plus products. FedReceipt users, at no charge, received checks as electronic images or as paper, depending on the way the check was deposited and processed. FedReceipt Plus customers received all check presentments as images and paid for imaging those checks that were not deposited as images.

Electronic Check Deposits

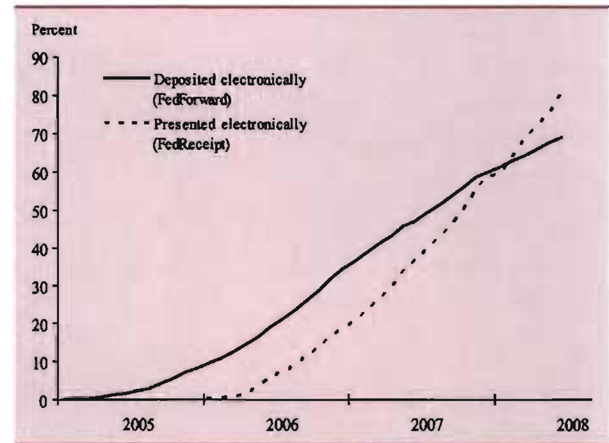
Some depository institutions have begun to allow check depositors (businesses and even, perhaps, consumers) to truncate checks and make deposits by sending electronic check images (known as "client images") from a remote location rather than by physically depositing the paper checks. During the study period, 1.4 billion checks were deposited as client images (table 6). Another means of check electronification is for a depository institution to image check deposits at special image-capable ATMs, or at the branch at which the check was deposited, and then forward the image on for collection. During the study period, 2.1 billion checks were replaced with such "branch/ATM" images. Collectively, these methods of imaging check deposits remotely are referred to as "remote deposit capture."

Depository institutions can also image checks at their central processing locations, combine them with any images deposited by customers or captured at ATMs or branches, and electronically deposit an electronic bundle of individual check images (known as a cash letter) for collection through a Reserve Bank, private clearinghouse, or third-party processor. The 2007 survey did not collect information on methods used for check collection, and industry-level data are incomplete.

Depository institutions' electronic depositing of check images with the Reserve Banks, through FedForward, began in 2004 (chart 6). During March and April 2007, the same time period as the 2007 study, around 33 percent of checks deposited by Reserve Bank customers were contained in electronic image cash letters. The proportion of checks deposited by electronic image with the Reserve Banks had grown an annualized 93 percent since April 2007, reaching about 74 percent by June 2008.

The number of checks deposited electronically with the Reserve Banks has always led the number of electronic checks presented, likely reflecting the transition costs to depository institutions before receiving check presentments electronically and the lower prices charged by the Reserve Banks and other intermediaries for electronic check deposits.[43] Some paying banks may also prefer to receive paper check presentments because they mail canceled paper checks back to account holders along with periodic statements. Until February 2008, the proportion of depository institutions depositing electronic check images with the Reserve Banks had exceeded the proportion receiving them (chart 7). In that month the proportions were about equal, and by June 2008 the proportion of depository institutions using FedReceipt reached almost 81 percent, compared with 69 percent using FedForward.

7. Depository institutions depositing checks electronically, and receiving checks presented electronically, through the Reserve Banks, 2005–2008



Source: Federal Reserve System Retail Payments Office.

The figures indicate that the check-clearing system is rapidly transitioning to electronic processes and that the variation in adoption by size and type of institution has most likely changed dramatically since March and April 2007.

"On Us" Payments

Clearing and settlement of on-us payments—payments that involve only one depository institution—occurs internally at the depository institution, so many of the costs associated with coordinating payments with other depository institutions are not incurred.[44]

Among depository institutions, commercial banks, which typically have business customers, generally had the highest proportion of on-us account debits, by both number and value, while credit unions, which typically do not have business customers, had the lowest (table 9). Most checks involved a business and

43. Although prices for electronic check deposits were generally lower than those for paper check deposits, they were higher if substitute checks had to be created because the paying bank required paper.

44. For checks and ACH, "on us" means that the payer and the payee use the same depository institution. For ATMs, the term means that the withdrawal occurred at a proprietary ATM (an ATM owned by the account holder's depository institution). Data on on-us debit card payments were not collected. On-us account debits plus interbank account debits sum to total payments.

9. Proportion of selected debits to transaction accounts at depository institutions that were on-us, 2007

Percent

Type and size of institution (transaction deposits in millions of dollars)	Check payments[1]		ACH payments[2]		ATM withdrawals	
	Number	Value	Number	Value	Number	Value
All institutions	**20.6**	**28.8**	**17.0**	**74.0**	**61.1**	**65.0**
Commercial banks	**23.3**	**29.7**	**17.6**	**74.6**	**68.4**	**71.4**
600 and above	21.0	28.1	20.0	76.1	69.9	73.0
200–599	26.4	37.4	12.2	54.4	68.0	67.6
100–199	24.8	33.8	12.3	35.6	66.8	66.6
0–99	29.2	33.7	3.0	12.8	58.4	60.1
Savings institutions	**12.0**	**19.0**	**28.1**	**60.7**	**62.7**	**65.5**
600 and above	10.9	18.2	36.1	69.3	65.4	68.7
200–599	12.9	19.1	27.8	51.6	64.8	67.3
100–199	12.4	19.1	12.0	38.4	59.2	61.8
0–99	13.3	20.4	9.3	29.5	54.3	54.2
Credit unions	**3.7**	**6.8**	**1.1**	**1.6**	**37.6**	**40.9**
600 and above	1.2	2.3	1.9	1.6	52.4	51.7
200–599	4.0	7.4	1.2	1.5	48.2	49.8
100–199	4.1	7.1	1.8	1.8	44.8	47.2
0–99	3.7	7.0	.9	1.5	30.8	34.9

NOTE: Percentages based on annualized figures derived from survey data for March and April 2007. Excludes institutions that had no transaction deposits. The number and value of debits to transaction accounts are revised from figures reported in Federal Reserve System, "The 2007 Federal Reserve Payments Study." See the appendix for details.

1. Checks paid, that is, checks that were on-us (involving only one depository institution) and checks processed through the interbank check-clearing system, including original paper checks and truncated checks presented either electronically or as paper substitute checks. Does not include U.S. Treasury checks and U.S. Postal Service money orders.

2. Electronic payments processed through the automated clearinghouse system, including checks converted to electronic payments.

a consumer, so banks with both business and consumer customers were more likely to have on-us payments.[45]

Overall, 21 percent of checks paid in 2007 were on-us checks, about 2 percentage points lower than the estimate from the 2004 depository institution survey. The on-us proportion declined overall for commercial banks and increased overall for savings institutions and credit unions. Commercial banks had a higher on-us proportion (23 percent) in 2007 than both savings institutions (12 percent) and credit unions (4 percent). In light of the dramatic growth of check conversion, one possible explanation for increases in the proportion of on-us account debits at all but the largest commercial banks and savings institutions is that smaller proportions of those institutions' on-us checks were eligible-for-conversion consumer-to-business checks.

The proportion of on-us ACH payments fell from 20 percent to 17 percent between 2004 and 2007. By value, however, the proportion increased substantially, from 43 percent to 74 percent. For both years, the estimated on-us proportion by value was overstated, apparently because a handful of very large institutions included internal account-balancing and settlement transactions, called offset entries, in their reported ACH values. The increase in the proportion by value was due to a change in the survey form, which allowed the separate reporting of network and on-us ACH volumes for 2007, leaving the overstatement to affect mainly the on-us amounts.[46]

Excluding the overstated ACH values, the largest proportions of on-us account debits, by both number and value, were consistently for ATM withdrawals. Most check and ACH transactions involve payments to other parties, who choose the depository institution in which to deposit funds. In the case of ATM withdrawals, the account holder plays the role of payee and payer, choosing the depository institution in both cases. Not surprisingly, therefore, these account debits are more likely to be on-us. Between 2004 and 2007, the on-us portion of ATM withdrawals overall increased slightly, from less than 60 percent to over 61 percent by number, and from over 62 percent to 65 percent by value. For commercial banks, more than 68 percent of ATM withdrawals

45. Gerdes and Walton, "The Use of Checks and Other Noncash Payment Instruments."

46. Because the 2004 survey form intermingled interbank and on-us figures, institutions that had problems distinguishing offset entries appeared to have overestimated the value of both on-us and interbank ACH. While offset entries continued to appear in the on-us figures for 2007 and apparently have grown substantially larger for a few very large institutions, network value was not as overstated in 2007 as it was in 2004, owing in part to clarification of the survey instrument and to heightened efforts to inform survey respondents through additional communications.

were on-us in 2007 (71 percent by value). The larger on-us shares for ATM withdrawals also reflect account holder avoidance of the fees commonly charged for using an ATM owned by another depository institution or other company (non-proprietary ATMs). Commercial banks generally have the largest networks of ATMs, making their ATMs more accessible to customers. Even credit unions, which own relatively few ATMs and for which the on-us ratios for checks and ACH were quite small, as a group had a relatively large on-us share for ATM withdrawals of 38 percent (41 percent by value).

Regional Variation

Use of debit cards, checks, ACH, and ATM withdrawals differed among the four major regions of the United States defined by the U.S. Census Bureau: Northeast, South, Midwest, and West. Use of these instruments also varied between urban and rural locations.

Variation by Geographic Region

In 2007, the number of payments by check as a proportion of total account debits ranged from a low of 31 percent in the West to a high of 38 percent in the South (table 10). The proportion of payments by debit card ranged from a low of 33 percent in the Northeast to a high of 42 percent in the West. While the proportion of debit card payments nationwide (36 percent) was greater than the proportion of check payments nationwide (35 percent), by region that relationship held only in the West.[47] In fact, in the West the number of debit card payments exceeded the number of check payments by almost 37 percent. The proportion of ACH payments by number ranged from a low of 20 percent in the South to a high of 25 percent in the Northeast. The proportion of ATM withdrawals by number also was lowest in the South, at 6 percent, and highest in the Northeast, at 8 percent.

In terms of value, check payments as a proportion of total account debits ranged from a low of 14 percent in the West to a high of 33 percent in the South. ACH payments followed the opposite pattern, accounting for a low of 66 percent of total account debits by value in the South and a high of 85 percent in the West. The opposite pattern was due mainly to an especially high average ACH value in the West. (The average ACH value ranged from a low of $5,211 in the South to a high of $13,381 in the West.) The average value of check payments ranged from a low of $1,226 in the Midwest to a high of $1,646 in the Northeast. By contrast, the average value of debit card payments differed little across regions, ranging from a low of $39 in the Midwest to a high of $42 in the Northeast and West. For ATM withdrawals, the lowest average value was also in the Midwest, at $95, and the highest was in the West, at $104.

Some differences across regions may be due to differences in population size. The number of account debits per capita in 2007 ranged from a low of 252 in the South to a high of 304 in the Northeast (the Midwest, at 303 account debits per capita, was a close second).[48] For debit card payments, the annual number per capita was highest in the West, at 119, and lowest in the South, at 90. The annual value of debit card payments per capita also was highest in the West, at $4,987, and lowest in the South, at $3,675. For check payments, the annual number per capita was lowest in the West, at 87, and highest in the Midwest, at 109. The value of checks per capita was also lowest in the West, but it was highest in the Northeast. For ATM withdrawals, both annual number and annual value per capita were highest in the Northeast and lowest in the South.

Other differences across regions may be due to differences in economic output (defined as the sum of gross state output for the states in the region). To address this possibility, the regions were put on a comparable basis by calculating payment figures in terms of number or value of account debits per $1,000 of economic output. The number of account debits per $1,000 of regional output in 2007 ranged from a low of 6.0 in the South to a high of 7.3 in the Midwest. The number of checks per $1,000 of economic output was lowest in the West, at 1.9, and highest in the Midwest, at 2.6. The value of checks per $1,000 of economic output was also lowest in the West, at $2,806, but was highest the Northeast, at $3,477.

Urban and Rural Variation

In 2007, both the total number and the total value of payments were much smaller for rural areas than for urban areas, reflecting the smaller population and

47. National data for 2006 show that the number of card payments exceeded the number of check payments. However, data on the regional use of credit cards are unavailable, so it is not possible to assess the relative use of cards overall among regions.

48. Note that per capita figures are based on the entire population and include all payments, not just those made by consumers. Thus, figures do not represent the behavior of adult consumers or heads of household.

10. Debits to transaction accounts at depository institutions, by geographic region, 2007

Item	Northeast			South			Midwest			West			Total		
	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions
Number (billions)	**11.0**	**5.5**	**16.6**	**15.7**	**11.8**	**27.5**	**10.5**	**9.6**	**20.0**	**13.7**	**5.9**	**19.5**	**50.9**	**32.8**	**83.6**
Check	3.7	2.0	5.7	5.4	5.1	10.5	3.4	3.9	7.2	4.0	2.0	6.0	16.4	12.9	29.4
ACH	3.0	1.2	4.1	3.4	2.1	5.5	2.9	1.6	4.5	2.9	1.0	3.9	12.2	5.9	18.1
Debit card	3.6	1.8	5.4	5.9	3.9	9.8	3.6	3.4	7.0	5.8	2.4	8.2	18.8	11.5	30.4
ATM	.8	.5	1.3	1.0	.7	1.7	.6	.7	1.3	1.0	.4	1.4	3.4	2.4	5.8
Value (trillions of dollars)	**29.9**	**3.3**	**33.2**	**33.3**	**9.9**	**43.2**	**41.9**	**5.3**	**47.3**	**56.8**	**5.3**	**62.1**	**161.8**	**23.8**	**185.7**
Check	7.7	1.7	9.4	8.9	5.2	14.1	5.8	3.1	8.9	6.5	2.3	8.8	29.0	12.2	41.2
ACH	21.9	1.5	23.4	24.0	4.5	28.5	35.9	2.1	38.0	49.9	2.9	52.8	131.7	11.0	142.7
Debit card	.2	.1	.2	.2	.2	.4	.1	.1	.3	.2	.1	.3	.8	.5	1.2
ATM	.1	*	.1	.1	.1	.2	.1	.1	.1	.1	*	.1	.4	.2	.6
Distribution by number (percent)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Check	33.5	36.2	34.4	34.1	43.4	38.1	32.3	40.2	36.0	29.3	33.9	30.7	32.3	39.5	35.1
ACH	26.9	21.0	24.9	21.7	17.6	19.9	27.5	17.2	22.6	21.5	17.0	20.2	24.0	17.9	21.6
Debit card	32.3	33.0	32.6	37.7	32.9	35.6	34.2	35.5	34.8	42.1	41.6	41.9	37.0	35.2	36.3
ATM	7.3	9.8	8.1	6.5	6.1	6.3	6.0	7.2	6.6	7.1	7.5	7.2	6.7	7.3	7.0
Distribution by value (percent)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Check	25.8	51.2	28.3	26.8	52.1	32.6	13.8	57.8	18.7	11.5	42.9	14.2	17.9	51.2	22.2
ACH	73.4	45.1	70.6	72.1	45.8	66.0	85.7	38.6	80.4	87.9	54.3	85.0	81.4	46.0	76.8
Debit card	.5	2.3	.7	.7	1.6	.9	.3	2.4	.6	.4	2.0	.6	.5	2.0	.7
ATM	.3	1.5	.4	.3	.6	.4	.2	1.1	.3	.2	.8	.2	.2	.9	.3
Number per capita	**202**	**101**	**304**	**144**	**108**	**252**	**158**	**145**	**303**	**198**	**85**	**283**	**170**	**110**	**280**
Check	68	37	104	49	47	96	51	58	109	58	29	87	55	43	98
ACH	54	21	76	31	19	50	43	25	68	43	14	57	41	20	60
Debit card	65	33	99	54	36	90	54	51	106	83	35	119	63	39	102
ATM	15	10	25	9	7	16	10	10	20	14	6	20	11	8	19
Value per capita (dollars)	**546,933**	**60,329**	**607,262**	**305,563**	**91,302**	**396,865**	**634,262**	**80,374**	**714,636**	**821,110**	**76,335**	**897,445**	**541,738**	**79,760**	**621,498**
Check	141,109	30,868	171,977	82,006	47,540	129,546	87,532	46,461	133,993	94,669	32,717	127,387	96,959	40,824	137,784
ACH	401,403	27,195	428,598	220,289	41,781	262,070	543,611	31,049	574,659	721,467	41,488	762,955	440,938	36,672	477,611
Debit card	2,808	1,381	4,190	2,252	1,423	3,675	2,130	1,968	4,098	3,454	1,532	4,987	2,605	1,561	4,166
ATM	1,612	885	2,497	1,016	558	1,575	990	896	1,886	1,519	597	2,116	1,236	702	1,937
Average value (dollars)	**2,702**	**596**	**2,000**	**2,119**	**844**	**1,573**	**4,013**	**554**	**2,358**	**4,152**	**901**	**3,177**	**3,181**	**727**	**2,220**
Check	2,081	842	1,646	1,667	1,013	1,348	1,717	797	1,226	1,634	1,140	1,470	1,762	942	1,401
ACH	7,379	1,279	5,665	7,045	2,197	5,211	12,516	1,245	8,405	16,933	2,879	13,381	10,804	1,864	7,896
Debit card	43	41	42	41	40	41	39	38	39	41	43	42	41	40	41
ATM	109	89	101	108	85	98	104	86	95	109	93	104	108	88	100

lower economic output of rural areas (table 11).[49] Check payments constituted 46 percent of debits to transaction accounts in rural areas and 34 percent in urban areas. In contrast, electronic debits—ACH and debit card payments and ATM withdrawals—were relatively more common in urban areas. Among electronic debits, the urban-rural difference was greatest for debit card payments, which accounted for 37 percent of account debits in urban areas compared with 31 percent in rural areas.

For all types of account debits, the number and value of payments per capita was higher in urban areas, reflecting greater wealth and business activity. The average value of debit card payments was roughly the same in urban and rural areas ($41 versus $40), but the average value of check payments, ACH payments, and ATM withdrawals was smaller in rural areas.

Comparison with Earlier Findings

The annual number of check payments declined in all regions between 2004 and 2007 (data not shown). The most pronounced decline occurred in the Midwest—almost 35 checks per capita. The smallest decline was in the Northeast—over 21 checks per capita. The number of checks declined faster in rural areas over the period, at 10.7 percent a year, than in urban areas, at 5.7 percent a year.

For debit card payments, the largest increase in the annual number per capita was in the Northeast, at

49. Note that by definition, rural areas include some suburban areas surrounding cities.

10.—Continued

Item	Northeast			South			Midwest			West			Total		
	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions	Multi-region	Single region	All institutions
Number per $1,000 of output[1]	**4.1**	**2.0**	**6.1**	**3.4**	**2.6**	**6.0**	**3.8**	**3.5**	**7.3**	**4.4**	**1.9**	**6.2**	**3.9**	**2.5**	**6.4**
Check	1.4	.7	2.1	1.2	1.1	2.3	1.2	1.4	2.6	1.3	.6	1.9	1.3	1.0	2.2
ACH	1.1	.4	1.5	.7	.5	1.2	1.0	.6	1.6	.9	.3	1.3	.9	0.4	1.4
Debit card	1.3	.7	2.0	1.3	.8	2.1	1.3	1.2	2.5	1.8	.8	2.6	1.4	0.9	2.3
ATM	.3	.2	.5	.2	.2	.4	.2	.3	.5	.3	.1	.4	.3	0.2	0.4
Value per $1,000 of output (dollars)	**11,057**	**1,220**	**12,277**	**7,294**	**2,179**	**9,473**	**15,260**	**1,934**	**17,194**	**18,090**	**1,682**	**19,772**	**12,309**	**1,812**	**14,121**
Check	2,853	624	3,477	1,958	1,135	3,092	2,106	1,118	3,224	2,086	721	2,806	2,203	928	3,131
ACH	8,115	550	8,665	5,258	997	6,256	13,079	747	13,826	15,895	914	16,809	10,018	833	10,852
Debit card	57	28	85	54	34	88	51	47	99	76	34	110	59	35	95
ATM	33	18	50	24	13	38	24	22	45	33	13	47	28	16	44
Number-to-deposits ratio[2]	**95.5**	**96.5**	**95.8**	**127.6**	**72.7**	**96.4**	**124.9**	**81.7**	**99.7**	**124.1**	**79.6**	**106.3**	**117.6**	**79.9**	**99.2**
Check	32.0	34.9	33.0	43.5	31.5	36.7	40.3	32.8	35.9	36.4	26.9	32.6	38.0	31.6	34.9
ACH	25.7	20.3	23.9	27.7	12.8	19.2	34.3	14.1	22.5	26.7	13.5	21.4	28.2	14.3	21.4
Debit card	30.9	31.8	31.2	48.1	23.9	34.4	42.8	29.0	34.7	52.2	33.1	44.6	43.5	28.1	36.0
ATM	7.0	9.5	7.8	8.3	4.4	6.1	7.5	5.9	6.6	8.8	6.0	7.7	7.9	5.8	6.9
Value-to-deposits ratio[3]	**258,098**	**57,506**	**191,675**	**270,333**	**61,401**	**151,632**	**501,318**	**45,293**	**235,101**	**515,268**	**71,682**	**337,579**	**374,115**	**58,094**	**220,312**
Check	66,590	29,424	54,283	72,551	31,971	49,496	69,185	26,183	44,081	59,408	30,723	47,917	66,958	29,735	48,842
ACH	189,423	25,922	135,282	194,891	28,098	100,130	429,668	17,497	189,051	452,740	38,959	286,990	304,504	26,711	169,306
Debit card	1,325	1,317	1,322	1,992	957	1,404	1,684	1,109	1,348	2,168	1,439	1,876	1,799	1,137	1,477
ATM	761	843	788	899	376	602	782	505	620	953	561	796	853	511	687
Number of institutions	1,958	162	2,120	4,385	265	4,650	4,705	308	5,013	1,859	205	2,064	12,907	940	13,847
Population (millions)	...	...	54.6	...	...	108.9	...	...	66.1	...	...	69.1	...	...	299
Output (billions of dollars)	...	...	2,700	...	...	4,562	...	...	2,749	...	...	3,138	...	...	13,149
Transaction deposits (billions of dollars)	116	57	173	123	162	285	84	117	201	110	74	184	433	410	843

NOTE: Annualized figures based on survey data for March and April 2007. Multiregion institutions are those that have deposits in more than one region; single-region institutions have deposits in only one region. The Northeast region includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The South region includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Components may not sum to totals and may not yield percentages shown because of rounding.

1. Output is measured as the sum of the gross state products in the region.
2. Annual number of debits per $1,000 of transaction deposits.
3. Annual value of debits per $1,000 of transaction deposits.

* In absolute value, less than 0.05.

. . . Not applicable.

SOURCES: Federal Reserve; and U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

47.7 per capita, followed closely by the Midwest, at 46.5 per capita; the smallest increase was in the South, at 31.3 payments per capita, followed by the West, at 39.3 per capita. In 2004, the Northeast had the lowest number of debit card payments per capita; by 2007 that region, at 99 payments per capita, had surpassed the South, at 90 per capita—but both regions remained behind the Midwest, which at 106 payments per capita had come closer to the West, at 119 per capita. The proportion of account debits that were debit card payments increased faster in rural areas, at 14.4 percent a year, than in urban areas, at 11.9 percent a year.

Returned Checks and ACH Payments

Some checks that are presented for payment are returned unpaid because of insufficient funds, closed accounts, fraud, or other reasons. The same is true for ACH payments.[50] Because some payments returned for insufficient funds are presented again ("re-presented"), and may be returned yet again if funds

50. Credit card and debit card payments may fail because of credit limits or insufficient funds, closed accounts, disputes, or fraud. Because most card payments are approved in real time and are not returned in the same sense as are checks and ACH payments, they are outside the scope of this discussion.

11. Debits to transaction accounts at depository institutions, by urban or rural location, 2007

Item	Urban	Rural	Total
Number (billions)	**72.2**	**11.4**	**83.6**
Check	24.2	5.2	29.4
ACH	16.0	2.0	18.0
Debit card	26.8	3.5	30.4
ATM	5.2	.6	5.8
Value (trillions of dollars)	**169.3**	**16.2**	**185.5**
Check	36.2	4.9	41.1
ACH	131.4	11.1	142.6
Debit card	1.1	.1	1.2
ATM	.5	.1	.6
Distribution by number (percent)	**100.0**	**100.0**	**100.0**
Check	33.5	45.9	35.2
ACH	22.2	17.7	21.5
Debit card	37.2	31.0	36.3
ATM	7.2	5.4	6.9
Distribution by value (percent)	**100.0**	**100.0**	**100.0**
Check	21.4	30.1	22.2
ACH	77.6	68.7	76.9
Debit card	.7	.9	.7
ATM	.3	.3	.3
Number per capita	**298**	**201**	**280**
Check	100	92	98
ACH	66	36	60
Debit card	111	62	102
ATM	21	11	19
Value per capita (dollars)	**699,174**	**286,358**	**620,961**
Check	149,619	86,232	137,609
ACH	542,828	196,703	477,250
Debit card	4,563	2,468	4,166
ATM	2,164	955	1,935
Average value (dollars)	**2,344**	**1,424**	**2,219**
Check	1,497	934	1,397
ACH	8,215	5,532	7,915
Debit card	41	40	41
ATM	101	88	100
Number-to-deposits ratio[1]	**102.4**	**83.0**	**99.2**
Check	34.3	38.1	34.9
ACH	22.7	14.7	21.4
Debit card	38.0	25.7	36.0
ATM	7.4	4.5	6.9
Value-to-deposits ratio[2]	**239,919**	**264,263**	**220,122**
Check	51,341	35,602	48,781
ACH	186,269	81,210	169,179
Debit card	1,566	1,019	1,477
ATM	743	394	686
Number of institutions	9,934	5,467	15,401
Population (millions)	242.2	56.6	298.8
Transaction deposits (billions of dollars)	706	137	843

NOTE: Annualized figures based on survey data for March and April 2007. Excludes institutions that had no transaction deposits. Urban areas are defined as metropolitan statistical areas or New England county metropolitan statistical areas, and rural areas as all other areas. Rural areas include some urbanized areas, such as outlying suburbs that surround metropolitan statistical areas. Components may not sum to totals and may not yield percentages shown because of rounding.

1. Annual number of debits per $1,000 of transaction deposits.

2. Annual value of debits per $1,000 of transaction deposits.

SOURCES: Federal Reserve; and U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

are still unavailable, the same returned payments may have been counted more than once. Therefore, the ratio of the number of times a payment, say a check, is returned to the total number of check payments is an upper bound on the probability that a check will be returned.

Returned Checks

Checks were returned an estimated 187 million times in 2003, compared with 153 million times in 2006. It is estimated that check returns accounted for, at most, 0.51 percent of the estimated total number of checks paid in 2006, or about 5.1 returns for every 1,000 checks paid—about the same proportion as in 2003—compared with about 5.8 returns for every 1,000 checks paid in 2000.

Some checks returned for insufficient funds are re-presented through the ACH system. When such ACH payments, identified by SEC code as RCK ("re-presented check"), are themselves returned, they are returned through the ACH system and are no longer identified as check returns. In 2006, about 21 million checks were re-presented through the ACH system. More than half of these ACH check re-presentments (about 12 million) were themselves returned. The number and value of RCK ACH payments that were returned changed little between 2003 and 2006. The number of returned checks processed through the check collection system (153 million) and the ACH system in 2006 totaled close to 165 million, or 5.5 returns for every 1,000 checks presented, also virtually unchanged since 2003.

Returned ACH Payments

About 1.3 percent of retail network ACH payments were returned in 2006, or 12.7 returns for every 1,000 payments, over twice the rate for checks (table 2). Only about 0.4 percent of large-value CCD (cash concentration or disbursement) transactions were returned, a smaller proportion than for checks or retail ACH payments. The percentage of retail ACH payments returned declined from 2003 (when it was 1.5 percent), while the percentage of CCD transactions returned remained flat.[51] Most ACH returns in 2006 were PPDs (prearranged payment and deposit entries), by far the largest type of ACH payment by number, with a rate of 1.1 percent. The second and

51. The 2003 percentages for retail ACH payments and CCD transactions referred to in this sentence are revised from those reported in Gerdes and others, "Trends in the Use of Payment Instruments," due to a revision to the estimate of total ACH payments and a change in the method of calculation.

third most returns were for WEB (web e-check) and TEL (telephone e-check) transactions, which had return rates of 1.5 percent and 6.5 percent, respectively. RCK (re-presented check) payments had the highest return rate, at 58 percent.

After having risen between 2000 and 2003, the return rates for all types of ACH transactions examined except ACH RCKs declined between 2003 and 2006. The reversal may confirm anecdotal evidence that in response to earlier increases in ACH fraud, the banking industry stepped up measures to reduce the incidence of fraud and to hold depository institutions more accountable for customer abuse of the ACH network. The declines suggest that such efforts are having an effect on returns.

Summary and Conclusions

At some point between 2003 and 2006, the number of payments made by credit or debit card in the United States for the first time surpassed the number of checks paid. And also for the first time, the number of debit card payments surpassed the number of credit card payments. Among the major payment types, the greatest percentage increase, by number of payments, was for payments made using the automated clearinghouse system, in part because of a rapid increase in the conversion of checks into electronic ACH payments. The number of checks written continued the decline observed in earlier periods, and the decline accelerated because of ACH check conversion. By 2006, the number of payments made by electronic means was twice the number of payments made by check.

Later data show that by March and April 2007, the number of debit card payments exceeded the number of check payments. Debit card payments accounted for more than half of all debits to transaction accounts at credit unions, which serve mainly consumer customers, while checks continued to be predominant at commercial banks, which also serve business customers. The number of debit card payments per capita in the Northeast and Midwest regions had begun to catch up to the West, while growth in the South lagged by comparison.

Electronic methods of check clearing are rapidly replacing traditional paper methods. From early 2006 to early 2007, the number of checks presented electronically tripled. The number of substitute checks—which are created for banks that demand paper after a check has been replaced with an electronic image—also tripled during the period. The creation of substitute checks allows banks to electronify their processes even if their paying bank counterparties are not ready to do so. In the first quarter of 2007, about 41 percent of interbank checks were electronified for some part of the check-clearing process (28 percent were presented as images, and 13 percent were presented as substitute checks). More recent data show very rapid increases in the proportions of checks presented by and deposited with the Federal Reserve Banks as electronic images.

Implementation of changes that enable the electronic processing of checks requires the commitment and coordination of substantial resources. Depository institutions, third-party processors, and the Reserve Banks have been investing in new technological capabilities to support electronic check processing. Despite the substantial cost of making the transition, electronic processing of checks is moving ahead at a rapid pace.

Changes in payments behavior are due to a number of factors, including technology, preferences, and costs as well as the regulations, policies, and practices that govern the payments system. The recent rapid growth in electronic payments was supported by a very long buildup of technical infrastructure and by spreading acceptance of traditional electronic payment instruments. Legal and regulatory changes have removed significant barriers to the growth of electronic payments. Against this backdrop, rapid changes in the payment system will likely continue through the rest of this decade—and into the next.

Appendix: Sources of Data and Methods of Estimation

Recent estimates of the number and value of noncash payments came from two surveys conducted in 2007—one of depository institutions (the 2007 depository institution survey) and the other of electronic payment networks, card issuers, and card processors (the 2007 electronic payment survey). Similarly, the estimates for earlier years came from 2004 and 2001 surveys of depository institutions (the 2004 and 2001 depository institution surveys) and electronic payment networks, card issuers, and card processors (the 2004 and 2001 electronic payment surveys).[52]

52. The 2001, 2004, and 2007 surveys were conducted by the Retail Payments Office at the Federal Reserve Bank of Atlanta in collaboration with Board staff. Global Concepts assisted with all three depository institution surveys; in addition, International Communications Research (ICR) assisted with the 2007 and 2004 surveys, and Westat assisted with the 2001 survey. Dove Consulting assisted with all three electronic payment surveys.

The report of the 2007 depository institution survey, "The Depository Institutions Payments Study: A Survey of Depository Institutions for the 2007 Federal Reserve Payments Study" (March 2008), and the report of the 2007 electronic payment survey, "The Electronic Pay-

The 2004 and 2007 depository institution surveys were similar in most respects. However, the 2007 survey collected additional information on paper and electronic methods of clearing checks. In this article, that additional information is compared with information on methods of clearing checks collected by the Board in a 2006 survey on check losses incurred by, and the funds availability and check-clearing practices of, depository institutions.[53] The 2001 depository institution survey collected information only about checks and did not collect information about other debits to transaction accounts.

2007 Depository Institution Survey

Survey Design

The 2007 depository institution survey collected information from three types of institutions: commercial banks (including agencies and branches of foreign banks); savings institutions (savings banks and savings and loan associations); and credit unions. Information was collected on several types of debits to transaction accounts: checks paid, ACH payments, debit card payments (both signature-based and PIN-based), and ATM withdrawals. (Large-value transfers and teller window withdrawals, which create debits, as well as credit card and currency payments were outside the scope of the survey.)

Depository institutions were asked to report, via questionnaire, the number and dollar value of debits to their accounts, by type of debit, during each of the months March and April 2007. They were also asked to report the number and value of returned checks and, for all debit types except debit card payments, the number and value of on-us debits (debits for which the payee's account and the payer's account are at the same depository institution). As noted earlier, detailed information about methods of check clearing was requested, including number and value of checks presented by form of presentment (paper, either original or substitute, and electronic, either image or MICR line) and number and value of deposited checks (with number of client images and branch/ATM images identified separately).

ments Study: A Survey of Electronic Payments for the 2007 Federal Reserve Payments Study" (March 2008), as well as documents related to the earlier surveys, are available at www.frbservices.org/communications/payment_system_research.html.

53. The 2006 survey was conducted by the Board for a report to Congress. See Board of Governors of the Federal Reserve System (2007), *Report to the Congress on the Check Clearing for the 21st Century Act of 2003* (Washington: Board of Governors, April), www.federalreserve.gov/boarddocs/RptCongress/check21/check21.pdf.

The population from which the 2007 sample was drawn comprised 13,319 depository institutions (bank subsidiaries of multibank holding companies were treated as a single entity) that reported transaction deposits greater than zero as of September 2006 (June 2006 for credit unions). Based on experience with the 2001 and 2004 depository institution surveys, which had overall response rates higher than 50 percent, a stratified random sample of 2,700 depository institutions was estimated to be needed to produce national estimates of the number and value of debits made via check with a desired precision of at least ±5 percent at a 95 percent level of confidence.

For sampling and estimation purposes, depository institutions were separated into four groups—commercial banks; credit unions; and two types of savings institutions, those federally regulated by the Office of Thrift Supervision and those regulated by states.[54] The largest institutions in each group, as determined by the value of their transaction deposits, and some institutions known to have highly unusual check volumes, such as issuers of rebate checks, were sampled with certainty, meaning that all were included in the sample. The remaining institutions in each group were then stratified by the value of their transaction deposits—eight strata for commercial banks, seven strata for credit unions, and ten strata for savings institutions (five for federally regulated and five for state regulated).

The final sample allocation was determined so as to minimize the approximate standard error of the estimated total number of checks. Because the strata containing the larger depository institutions typically accounted for more paid checks in the 2001 and 2004 samples and had greater variance, they were assigned a larger proportion of the sample. The allocation of the sample between the institution types gave more weight to commercial banks because they were expected to account for a disproportionate share of checks and other account debits, but it also took into account the desirability of producing estimates by depository institution type.

In all, 1,554 commercial banks, 333 savings institutions, and 813 credit unions were included in the sample. Responses were received from 853 commercial banks (including all of the 38 largest), 191 savings institutions (including the 18 largest), and

54. The 2001 and 2004 surveys included a fifth group—domestically chartered branches of foreign banks. Those institutions had low rates of response and collectively accounted for a very small number and value of payments, and it was determined that they could be excluded from the 2007 survey without a significant loss of information.

393 credit unions (including the 5 largest), for a total of 1,437 respondents.

By the time survey responses had been received, later data on transaction deposits—data as of March 31, 2007—had become available. Using those later data, the sample and population were restratified to produce estimates for the 13,316 depository institutions that reported transaction deposits greater than zero as of April 30, 2007, the end of the period for which data were collected. The major change resulting from the restratification was an adjustment to the largest size stratum for each depository institution group so that it would be a certainty stratum (that is, all members of the stratum must have responded to the overall survey, although not necessarily to each item). Strata also changed somewhat because of the entry and exit of some institutions between November 2006, when the sample was drawn, and April 2007, and also because of changes in the value of transaction deposits between September 2006, when transaction deposits used for the sample were reported, and March 2007.

Item Nonresponse and Imputation

Each respondent was asked to provide four figures (number and value for March and April of 2006) for each item in three questionnaire sections—16 items concerning checks, 9 concerning ACH payments, and 5 concerning ATM withdrawals and debit card payments—for a total of 120 figures. With 1,437 institutions responding overall, there was a potential for 172,440 *completed* figures.

Each item included in the survey had logical relationships with other items. For example, groups of subtotals should add up to—or, for incomplete sets, be less than—totals; and number-value pairs should not have a zero amount accompanied by a nonzero amount. In order to use the variety of standard statistical methods that require a rectangular dataset and to make the estimates adhere to logical relationships, missing figures needed to be estimated using a statistical process called imputation. Prior to imputation, responses were checked, and for any violations of identified logical constraints, respondents were contacted and, when appropriate, data edits were made. In most cases in which logical inconsistencies could not be resolved, figures were considered missing and subsequently were imputed.

Of the 1,437 respondents, one-fourth provided all the requested figures, half reported at least 70 percent of the figures, and about two-thirds reported at least 33 percent of the figures. Almost all of the remaining one-third reported only 8 percent or fewer of the requested figures. As a result, some responses were not complete enough to produce reliable imputed figures.

Because some respondents were able to provide reasonable responses for some survey sections but not for others, imputation and estimation was conducted by section. For the checks section to be considered "complete" (that is, eligible for the imputation process), a response was needed for at least one of the four figures for total paid checks. A total of 1,281 responses met this criterion, for a potential of 81,984 figures; of these, 34,597 figures (42 percent) were missing and were imputed. For the ACH payments section, a response needed to provide at least one figure for number of network or on-us ACH debits or credits to be considered complete. (A response providing value figures only was not deemed sufficient because some respondents' total ACH value was known to be overstated due to problems distinguishing ACH payments from other types of transactions, as reported elsewhere in this appendix.) A total of 1,287 responses met this criterion, for a potential of 46,332 figures; of these, 19,232 figures (42 percent) were missing. For the ATM/debit card section, a response needed to provide at least one number or value for total ATM withdrawals, PIN-based debit card payments, or signature-based debit card payments to be considered complete. A total of 904 responses met this criterion, for a potential of 18,080 figures; of these, 2,146 figures (12 percent) were missing.

For imputation, respondents were grouped by type (commercial bank, savings institution, or credit union) and a matrix of covariances between figures in each section was estimated using a method that produces maximum-likelihood estimates in the presence of missing data through the use of an iterative technique called the EM algorithm.[55] A value was imputed for each missing figure, and after adjustments were made to ensure that logical relationships were not violated, the imputed values produced on the final iteration of the EM algorithm were used for estimation. The imputation model for each missing figure was a linear regression on a related figure from 50 other respondents closest in size as measured by value of transaction deposits. Imputations were performed in a hierarchical fashion, by filling in totals first, followed by subtotals. Independent variables for the regressions were selected by identifying the closest reported

55. For information on the technique, see Roderick J.A. Little and Donald B. Rubin (2002), *Statistical Analysis with Missing Data*, 2nd ed. (Hoboken, N.J.: Wiley), sections 11.2.1–11.2.2 (pp. 223–25).

figure in a set of four or, if a subtotal was to be imputed, a total within a logical relationship.

Each fitted regression yielded a predicted value and an associated standard deviation for the missing item. Six datasets containing both actual responses and imputations were created. The first dataset contained imputations that used the predicted, or expected, value only. To arrive at an imputed value for the other five datasets, a random deviate was added to the predicted value, drawn from a normal distribution having a mean of zero and the standard deviation from the fitted regression. This imputation procedure was repeated five times, each time using a newly drawn deviate in the calculation, to create the five additional datasets. All the summary statistics based on the 2007 depository institution survey are estimates calculated from the first dataset. The variation among the estimates calculated using the other five datasets provided information about the uncertainty in the overall estimate arising from the imputations and was used to compute standard errors.

Estimation

The actual and imputed data for respondents were converted to estimates for the population using a separate ratio estimator for each stratum, with the value of transaction deposits being the covariate for each item. That is, for a given item and within a stratum, the sum of the respondents' data was multiplied by the ratio of the transaction deposits in the population to the transaction deposits at the responding institutions. The associated sampling standard error was based on a classical statistical formula that accounts for the uncertainty arising from the use of a sample rather than a census, and on the variation among imputed figures that accounts for the uncertainty arising from the fact that some items needed to be imputed.

The 95 percent confidence intervals for the national estimate of checks were ±1.9 percent of the number of checks paid and ±2.3 percent of the value of checks paid. Both confidence interval half-widths were just one-tenth of one percentage point larger than those for the 2004 estimates, despite having used data from fewer respondents (1,281 versus 1,501). The confidence intervals for the national estimates of other account debits were generally larger than those for the 2004 depository institution survey.

Estimates by Geographic Region and by Urban or Rural Location of Deposits. Although the survey was not explicitly designed to facilitate geographic analysis of account debit patterns, the responses were sufficient, when combined with external data on each depository institution's total deposits distributed by region, to make broad comparisons possible. For each of four regions—Northeast, South, Midwest, and West—separate estimates were calculated for single-region depository institutions (those having deposits in only one region) and multiregion depository institutions (those having deposits in more than one region).

The survey did not directly collect regional data from multiregion depository institutions. Information on the distribution of each depository institution's total deposits (transaction plus savings deposits) was available, so each type of account debit for each multiregion depository institution in the population was assumed to be distributed across regions in proportion to the location of the institution's deposits, and its data were allocated to regions accordingly.[56] Separate estimates were produced for each region using the data from single-region depository institutions and the allocated portion of multiregion depository institutions. New, separate ratio estimators were produced following the procedure described in the preceding section. It turned out that national estimates obtained from aggregating these regional estimates were about the same as those obtained from the original analysis.[57] For presentation purposes, any difference was proportionally allocated to the regional estimates so that the sums of the regional estimates added up precisely to the national estimates.

The assumption that the payments and transaction deposits of depository institutions are regionally distributed in proportion to the distribution of their total deposits is consistent with the hypothesis that customers of multiregion depository institutions are more similar to each other in their payments behavior, even when they are located in different regions, than they are to customers of different depository institutions. To put it another way, the regional estimates assume that the regional fractions of a depository institution's customers exhibit similar payments behavior. While no better alternative for constructing regional estimates appears to exist given available data, the assumption could affect the accuracy of regional estimates, as the allocation of transaction deposits (or account debits) would be too large (too small) for a region if the actual ratio of total deposits to transac-

56. For credit unions, the geographic distributions of an institution's branches served as a proxy for the geographic distribution of its total deposits.

57. Differences between the sum of regional estimates and the corresponding national estimates did not exceed 1 percent.

tion deposits (or account debits) for a multiregion institution was higher (lower) in that region.

The uncertainties that arise from allocation of data to regions described above cause difficulties for the statistical analysis of the estimated differences among regions. Sampling standard errors were, therefore, not calculated for the regional estimates.[58]

Estimates of urban and rural debit activity were constructed using a method similar to that used to construct regional estimates. Urban areas were defined as metropolitan statistical areas, and rural areas as all other areas. Thus, some urbanized areas, such as some outlying suburbs that surround metropolitan statistical areas, were included in the rural regions.

2007 Electronic Payment Survey

For the 2007 electronic payment survey, questionnaires were sent to all 73 well-established electronic payment networks, card issuers, and card processors in order to estimate the number and value of electronic payments originated in the United States in 2006 by means of commonly used payment instruments—general-purpose and private-label credit cards, signature-based and PIN-based debit cards, ACH payments, and electronic benefits transfers.

Electronic payment networks, card issuers, and card processors can generally supply accurate data on the number and value of the payments they process from business records, and 89 percent of established entities responded with information. Known information on nonrespondents showed that, collectively, the number and value of payments processed by this group were likely very small. An informal method based on publicly available information was used to estimate number and value of payments for nonrespondents; overall, the estimated portion of the total for nonrespondents was 0.2 percent by number and 0.1 percent by value.[59]

Questionnaires were also sent to 33 emerging payments companies that handle online bill payment transactions, RFID transponder–initiated payments, and a variety of other kinds of payments that appear to have potential for growth in the United States, such as person-to-person Internet payments, proprietary cards issued by merchants that can initiate an ACH payment, mobile payments, and deferred payments. Surveys were returned by 16 companies. Number or value of payments for nonrespondents was not estimated, so reported totals for emerging payments are lower bounds for the national totals.

For the 2006 estimates, special efforts were made in estimating the number and value of payments using prepaid cards. A total of 52 prepaid card companies were sent questionnaires, and 38 responded.[60] National totals were constructed using respondent information as well as public information about nonrespondents. Nevertheless, the totals for payments by prepaid card are not as reliable as the totals for payments by established types of payments, as the reported portion of totals for prepaid cards was only 58 percent, by both number and value, compared with an overall reported portion for established payments of greater than 99 percent.

Comparison of 2006 and 2007 Estimates

This article reports estimates of the national number and value of payments in two ways—annualized March and April 2007 estimates of debits from accounts at depository institutions (check, ACH, and debit card payments and ATM withdrawals) and calendar-year 2006 estimates for check, ACH, debit card, and credit card payments, electronic benefits transfers, and ATM withdrawals. The 2007 estimates of account debits are based only on the 2007 depository institution survey, whereas the 2006 estimates for checks and ACH payments also use information from the 2007 electronic payment survey. The 2006 estimates of debit and credit card payments and EBTs are based solely on the 2007 electronic payment survey. The 2007 estimates of ATM withdrawals from the depository institution survey are used for the 2006 estimates.

Estimates of checks paid in 2007 are for commercial checks only (checks reported by depository institutions), whereas estimates of total checks paid in 2006 are the sum of U.S. Treasury checks, U.S. Postal Service money orders, and commercial checks. The estimates of commercial checks paid for 2006 are adjusted versions of the estimates of commercial checks paid for 2007. The adjustment involved the use of NACHA data showing rapid changes in the number of checks converted per month throughout 2006 and early 2007. As a result, the annualized total number of checks converted in March and April 2007 was an estimated 3.39 billion, compared with 2.61 billion in 2006, a difference of 778 million. The differ-

58. For additional details on the regional estimates see Gerdes and others, "Trends in the Use of Payment Instruments."

59. Because of the informal estimation approach, no statistical method of estimating uncertainty was available. Public information about nonrespondents, however, suggests that the number and value of payments they process constitute very small portions of the totals.

60. States were also surveyed about the use of prepaid cards for state-provided benefit programs, and 37 states provided information. Payments made with such cards are a subset of total prepaid payments.

ence in value was $178 billion. These differences represent a lower bound estimate (because of the decline in checks) of checks that would have been counted as paid checks if data had been collected during 2006. Based on this argument, the 2006 estimates for commercial checks were calculated as the sums of these differences and the 2007 estimates for commercial checks paid. Based on the same argument, similar adjustments were made for the 2003 estimates of checks paid.

The 2007 electronic payment survey collected information on the number and value of network (interbank) ACH payments. The 2007 depository institution survey collected information on the number and value of network, on-us, and direct (bilaterally exchanged) ACH payments. Separate proportions of ACH debits and credits by number estimated from the depository institution survey, combined with network ACH debit and credit data from the 2007 electronic payment survey, were used to estimate total on-us ACH payments in 2006. Direct ACH payments were negligible and were included in the on-us figures. The total number of ACH payments in 2006 was calculated as the sum of these on-us figures and the estimates of the number of network ACH payments from the 2007 electronic payment study.

The 2007 estimates for the total value of ACH payments are much higher than the estimates for 2006. Some of the large commercial banks that responded to the depository institution surveys had difficulty distinguishing ACH payments from large-value funds transfers called offset entries, inflating the value of on-us ACH payments by an unknown amount.[61] The 2006 estimates of the value of on-us ACH payments were calculated based on the assumption that the average value of on-us ACH payments is equal to the average value of network ACH payments. Actual on-us ACH value may be somewhere between the two estimates. These estimates—appropriately adjusted—were used in conjunction with annual 2006 totals provided by electronic payment networks in the electronic payment surveys to estimate the 2006 figures.

For estimates of total ACH, data from the 2007 depository institution survey were used to estimate the fractions of ACH transactions, by number, that were on-us and cleared in-house (separately for debit and credit transfers). The estimated fractions were applied to 2006 network ACH payment estimates from the electronic payment survey to estimate on-us ACH payments for 2006. These were added to the network ACH payments in 2006 to yield estimates for total ACH. □

61. The difficulty in separating offset entries from ACH payments was due to the use of a shared platform to process both, a common practice at some of the largest depository institutions. The difficulty, which involves a small number of very large value entries, did not substantially affect the estimates of the number of ACH payments.

December 2008

The 2007 HMDA Data

Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner, of the Division of Research and Statistics, prepared this article. Cheryl R. Cooper, Christa N. Gibbs, Rebecca Tsang, and Sean Wallace provided research assistance.

The Home Mortgage Disclosure Act of 1975 (HMDA) requires most mortgage lending institutions with offices in metropolitan areas to publicly disclose information about their home-lending activity. The information includes characteristics of the home mortgages that lenders originate or purchase during a calendar year, the geographic location of the properties related to these loans, and demographic and other information about the borrowers.[1] The disclosures are intended not only to help the public determine whether institutions are adequately serving their communities' housing finance needs but also to facilitate enforcement of the nation's fair lending laws and to inform investment in both the public and private sectors.

Under the 1975 act, the Federal Reserve Board implements the provisions of HMDA through regulation.[2] In addition, the Federal Financial Institutions Examination Council (FFIEC) is responsible for collecting the HMDA data and facilitating public access to the information.[3] Each September, the FFIEC releases summary tables pertaining to lending activity from the previous calendar year for each reporting lender and an aggregation of home-lending activity by metropolitan statistical area (MSA).[4] The FFIEC also makes available a consolidated data file containing virtually all the reported information for each lending institution.[5]

The HMDA data consist of information reported by about 8,600 home lenders, including all of the nation's largest mortgage originators. The loans reported are estimated to represent about 80 percent of all home lending nationwide; thus, they likely provide a broadly representative picture of home lending in the United States.

This article presents key findings from the 2007 HMDA data. In doing so, it highlights the notable changes in relationships that are revealed when the 2007 data are compared with data from earlier years.[6] Because of the importance of the loan-pricing information included in the HMDA data and because of the recent turmoil in the residential mortgage market, particularly the higher-priced segment of the market, much of the focus here is on the data pertaining to that market segment.[7]

1. A description of the items reported under HMDA is provided in appendix A.

2. HMDA is implemented by Regulation C (12 C.F.R. pt. 203) of the Federal Reserve Board. More information about the regulation is available at www.federalreserve.gov.

3. The FFIEC (www.ffiec.gov) was established by federal law in 1979 as an interagency body to prescribe uniform examination procedures, and to promote uniform supervision, among the federal agencies responsible for the examination and supervision of financial institutions. The member agencies are the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the National Credit Union Administration, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision.

4. For the 2007 data, the FFIEC prepared more than 63,000 MSA-specific reports on behalf of reporting institutions. These and other reports are made available to the public by the FFIEC.

5. The only reported items not included in the data made available to the public are the date of application and the date on which action was taken on the application. These items are withheld to help ensure that the individuals involved in the application cannot be identified.

6. Previously published assessments include Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner (2007), "The 2006 HMDA Data," *Federal Reserve Bulletin*, vol. 93 (December 21), pp. A73–A109; Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner (2006), "Higher-Priced Home Lending and the 2005 HMDA Data," *Federal Reserve Bulletin*, vol. 92 (September 8), pp. A123–66; and Robert B. Avery, Glenn B. Canner, and Robert E. Cook (2005), "New Information Reported under HMDA and Its Application in Fair Lending Enforcement," *Federal Reserve Bulletin*, vol. 91 (Summer), pp. 344–94.

7. Borrowers in the higher-priced market segment generally fall into one of two market categories—"subprime" or "near prime" (sometimes referred to as "alt-A"). Individuals in the subprime category generally pay the highest prices because they tend to pose the greatest credit or prepayment risk. Statistics prepared by the lending industry do not characterize lending as higher priced but rather use the terms *subprime* or *alt-A*. Thus, when presenting data from industry sources on loan performance or other aspects of the mortgage market, this article will often refer to data on the subprime, alt-A, or prime lending market.

Mortgages with annual percentage rates (APRs, which encompass interest rates and fees) above designated thresholds are referred to here as "higher-priced loans"; all other loans are referred to as "lower priced." For loans with spreads above designated thresholds, revised Regulation C requires the reporting of the spread between the APR on a loan and the rate on Treasury securities of comparable maturity. The thresholds for reporting differ by lien status: 3 percentage points for first liens and 5 percentage points for junior, or subordinate, liens.

Further details are in note 12, p. A126, of Avery, Brevoort, and Canner, "Higher-Priced Home Lending and the 2005 HMDA Data."

Turmoil in the Mortgage Market

Both primary and secondary mortgage markets experienced considerable stress in 2007, a condition that has continued into 2008.[8] Delinquency rates on higher-priced home loans, particularly those with adjustable-rate features, first began to increase notably in 2006; those rates then rose sharply during 2007 and far outpaced the performance problems that also emerged in the lower-priced segment of the market.[9]

One consequence of deteriorating loan performance and widespread declines in home values was a sharp contraction in 2007 in the willingness of lenders and investors to offer loans to higher-risk borrowers or, in some cases, to offer certain loan products that entailed features associated with elevated credit risk.[10] Moreover, to the extent that credit was still available, loan prices rose sharply, largely because of concerns about repayment prospects. In addition, many lenders whose business models relied on a robust secondary market to purchase the loans they originated were forced to cease or curtail operations, as they could no longer obtain funds to operate or find investors willing to purchase their loan originations.

Difficulties in the higher-priced portion of the mortgage market spilled over to other market segments, including the market for loans for large amounts (the so-called jumbo market), in which credit spreads widened substantially. The widening of spreads led to higher interest rates on such loans, which effectively reduced credit availability.[11]

The 2007 HMDA data reflect the difficulties in the housing and mortgage markets. Many reporting institutions experienced a sharp reduction in loan applications and originations, particularly in the higher-priced segments of the mortgage market. Also, some lenders that had previously reported HMDA data ceased operations during 2007 and did not file a HMDA report even though they extended loans during part of that year.[12] Although nonreporting by lenders that ceased operations affects the comprehensiveness of the HMDA data each year to some extent, nonreporting in 2007 had a much larger effect than in previous years. For 2007, many more lenders than in earlier years ceased operations because of a bankruptcy or other adverse business event, and the nonreporting institutions accounted for a significant minority of the loans originated in 2006 and an even larger share of the higher-priced loans made that year. Most important, the effects of nonreporting in the 2007 HMDA data amplified the measured decline in higher-priced lending from 2006. The amplification occurred because some of the lenders that ceased operations originated loans in 2007, and according to these institutions' lending profiles in 2006, a disproportionate share of those originations consisted of higher-priced loans. For this reason, some caution should be exercised in using the 2007 data to document the full extent of the disruptions in the higher-priced lending market in that year. The effects of nonreporting are difficult to quantify. This issue, among others, is addressed later in the article.

General Findings from the 2007 HMDA Data

For 2007, lenders covered by HMDA reported information on 21.4 million applications for home loans. Almost all of the applications were for loans to be secured by one- to four-family (referred to here as "single family") houses (table 1). These applications resulted in more than 10.4 million loan extensions (data not shown in table). Lenders also reported information on 4.8 million loans that they had purchased from other institutions and on 433,000 requests for pre-approvals of home-purchase loans that had not resulted in a loan origination (data not shown in table); the pre-approval requests were turned down by the lender or were granted but not acted on by the applicant.

The total number of reported applications fell about 6.0 million, and the number of reported loans fell 3.5 million—or 22 percent and 25 percent,

8. See, for example, Randall S. Kroszner (2007), "The Challenges Facing Subprime Mortgage Borrowers," speech delivered at the Consumer Bankers Association 2007 Fair Lending Conference, Washington, November 5, www.federalreserve.gov/newsevents/speech/kroszner20071105a.htm.

9. Data from LoanPerformance, a subsidiary of First American CoreLogic, Inc., show that 20.4 percent of the subprime loans with adjustable-rate features were seriously delinquent at the end of 2007. By comparison, 8.2 percent of fixed-rate subprime loans, 1.0 percent of fixed-rate prime loans, and 4.2 percent of adjustable-rate prime loans were seriously delinquent at the end of that year.

10. Industry sources indicate that the dollar amount of originations of subprime loans fell 68 percent from 2006 to 2007, to a level of only $191 billion. Subprime loan originations in 2007 were the smallest since 2001. See Inside Mortgage Finance (2008), *The 2008 Mortgage Market Statistical Annual*, vol. 1: *The Primary Market* (Bethesda, Md.: Inside Mortgage Finance Publications).

11. Jumbo loans are loans that exceed the size limits set for loans that Fannie Mae and Freddie Mac are permitted to purchase (conforming loans). Fannie Mae and Freddie Mac are government-sponsored enterprises that focus on conventional loans that meet certain size limits and other underwriting criteria. Available data indicate that the dollar amount of originations of jumbo loans fell nearly 30 percent from 2006 to 2007. See Inside Mortgage Finance, *The 2008 Mortgage Market Statistical Annual*.

12. As in earlier years, some institutions ceased operations because of a merger or acquisition. Lending by these institutions is reported, in most cases, by the acquiring institution on a consolidated basis or as two distinct filings.

1. Home loan and reporting activity of lending institutions covered under the Home Mortgage Disclosure Act, 1990–2007

Number

Year	Applications received for home loans on 1–4 family properties, and home loans purchased from another institution (millions)						Reporters	Disclosure reports[2]
	Applications				Loans purchased	Total[1]		
	Home purchase	Refinance	Home improvement	Total[1]				
1990	3.3	1.1	1.2	5.5	1.2	6.7	9,332	24,041
1991	3.3	2.1	1.2	6.6	1.4	7.9	9,358	25,934
1992	3.5	5.2	1.2	10.0	2.0	12.0	9,073	28,782
1993	4.5	7.7	1.4	13.6	1.8	15.4	9,650	35,976
1994	5.2	3.8	1.7	10.7	1.5	12.2	9,858	38,750
1995	5.5	2.7	1.8	10.0	1.3	11.2	9,539	36,611
1996	6.3	4.5	2.1	13.0	1.8	14.8	9,328	42,946
1997	6.8	5.4	2.2	14.3	2.1	16.4	7,925	47,416
1998	8.0	11.4	2.0	21.4	3.2	24.7	7,836	57,294
1999	8.4	9.4	2.1	19.9	3.0	22.9	7,832	56,966
2000	8.3	6.5	2.0	16.8	2.4	19.2	7,713	52,776
2001	7.7	14.3	1.9	23.8	3.8	27.6	7,631	53,066
2002	7.4	17.5	1.5	26.4	4.8	31.2	7,771	56,506
2003	8.2	24.6	1.5	34.3	7.2	41.5	8,121	65,808
2004	9.8	16.1	2.2	28.1	5.1	33.3	8,853	72,246
2005	11.7	15.9	2.5	30.2	5.9	36.0	8,848	78,193
2006	10.9	14.0	2.5	27.5	6.2	33.7	8,886	78,638
2007	7.6	11.5	2.2	21.4	4.8	26.2	8,610	63,055

NOTE: Here and in all subsequent tables, components may not sum to totals because of rounding, and, except as noted, applications exclude requests for pre-approval that were denied by the lender or were accepted by the lender but not acted upon by the borrower. In this article, applications are defined as being for a loan on a specific property; they are thus distinct from requests for pre-approval, which are not related to a specific property.

1. Applications for multifamily homes are included only in the total columns; for 2007, these applications numbered 54,232.

2. A report covers the mortgage lending activity of a lender in a single metropolitan statistical area in which it had an office during the year.

SOURCE: Here and in the subsequent tables and figure except as noted, Federal Financial Institutions Examination Council, data reported under the Home Mortgage Disclosure Act (www.ffiec.gov/hmda).

respectively—from 2006 (2006 data not shown in tables). Lending for both home purchase and refinancing fell as slower house price appreciation and, in some areas, outright declines in property values diminished the attractiveness of buying and selling properties or limited opportunities to refinance outstanding loans. The imposition of tighter underwriting standards, an increase in mortgage interest rates, and the elimination of some loan products used to stretch affordability also contributed to the reduction in lending. Finally, a portion of the decline in lending activity was due to the nonreporting of loans made by institutions that reported data for 2006 but discontinued operations during 2007.

Reporting Institutions

For 2007, 8,610 institutions reported under HMDA: 3,910 commercial banks, 929 savings institutions (savings and loans and savings banks), 2,019 credit unions, and 1,752 mortgage companies (table 2). In total, the number of reporting institutions fell about 3 percent from 2006, primarily because of a relatively large decline in the number of independent mortgage companies—that is, mortgage companies that were neither subsidiaries of depository institutions nor affiliates of bank or savings association holding companies that reported data.

In total, 169 institutions that reported 2006 data did not report data pertaining to 2007 lending activity (these institutions ceased operations and were not merged into, or acquired by, another reporting entity). Some of the institutions that did not report were high-volume originators. In the aggregate, these nonreporting institutions accounted for about 2.4 million loans or applications that did not result in a credit extension, or about 7 percent of all the loan and

2. Distribution of reporters covered by the Home Mortgage Disclosure Act, by type of institution, 2006–07

Type	2006		2007	
	Number	Percent	Number	Percent
Depository institution				
Commercial bank	3,900	43.9	3,910	45.4
Savings institution	946	10.6	929	10.8
Credit union	2,036	22.9	2,019	23.4
All	6,882	77.4	6,858	79.7
Mortgage company				
Independent	1,328	14.9	1,124	13.1
Affiliated[1]	676	7.6	628	7.3
All	2,004	22.6	1,752	20.3
All institutions	**8,886**	**100**	**8,610**	**100**

1. Subsidiary of a depository institution or an affiliate of a bank holding company.

application records included in the 2006 HMDA data. (The effects of such nonreporting on the 2007 data are discussed in more detail later in the article.)

Disposition of Applications, Loan Types, and Activities Related to the Home Ownership and Equity Protection Act

For purposes of analysis, loan applications and loans reported under HMDA can be grouped in many ways; here the analysis focuses on 25 distinct product categories characterized by loan and property type, purpose of the loan, and lien and owner-occupancy status. Each product category contains information on the number of total and pre-approval applications, application denials, originated loans, loans with prices above the reporting thresholds established by Regulation C for identifying higher-priced loans, loans covered by the Home Ownership and Equity Protection Act (HOEPA), and the mean and median annual percentage rate (APR) spreads for loans priced above the reporting thresholds specified in Regulation C (tables 3 and 4).[13] The following sections highlight some notable aspects of the HMDA data for 2007 and, where relevant, earlier years.

Conventional and Government-Backed Loans

As in earlier years, most reported home loan activity in 2007 involved conventional loans—that is, non-government-backed loans (table 3). Such loans accounted for about 94 percent of all loan extensions in 2007.

The share of all HMDA-reported loans backed by the Federal Housing Administration (FHA) had fallen over the past several years, from about 16 percent in 2000 to less than 3 percent in 2005 and 2006. More-limited product availability and the imposition of tighter underwriting standards in the higher-priced segment of the conventional mortgage market in 2007 encouraged borrowers to take out FHA loans. Also, toward the latter part of 2007, the FHA created a new lending program, FHASecure, to help qualified individuals with higher-priced conventional loans refinance into an FHA loan.[14] The number of FHA-backed first-lien loans used to purchase homes or refinance a home loan increased nearly 20 percent from 2006, and the FHA's share of all home lending increased to 4.6 percent in 2007 (data not shown in tables).[15] The sharp curtailment of credit availability in the subprime portion of the market, recent steps to increase the maximum loan values that are eligible for FHA loan insurance, and a newly enacted foreclosure prevention law are likely to result in a higher incidence of FHA-insured lending in 2008.[16]

Loan Size and Borrower Incomes

For each loan made, the HMDA data include the amount borrowed and the incomes of the borrowers that were relied on in the loan underwriting decision. The analysis in this section considers four loan categories: (1) conventional loans that met the threshold for reporting as higher-priced loans under HMDA, (2) all other conventional loans, (3) FHA-insured loans, and (4) loans guaranteed by the Department of Veterans Affairs. The analysis is limited to site-built, owner-occupied, one- to four-family units, and the four categories are applied separately to home-purchase loans and to refinancings.

For 2007, about 91 percent of conventional loans for home purchase and about the same proportion of such loans for refinancing, whether higher priced or not, were within the conforming loan-size limits established for Fannie Mae and Freddie Mac (table 5).[17] Higher-priced loans tended to be somewhat smaller than others; for example, among conventional home-purchase loans, the mean size of higher-priced mortgages was $208,000, compared with $248,000 for others (table 5, memo item).

FHA-insured loans tend to be considerably smaller than conventional loans; the difference reflects the relatively low insurance limits of the FHA and the focus of the program on lower- and middle-income borrowers who tend to buy more modestly priced

13. HOEPA is implemented by Federal Reserve Board Regulation Z (12 C.F.R. pt. 226). Transition rules governing the reporting of the expanded HMDA data create problems for assessing the data on loan pricing, manufactured-home lending, and pre-approvals. The transition rules had a large influence on the data reported for 2004 and much smaller effects on the 2005 and 2006 data. In the 2007 data, transition rules affected only about 2,100 applications and 192 loans; the analyses here exclude those applications and loans when considering data on loan pricing, manufactured-home lending, and pre-approvals.

14. See U.S. Department of Housing and Urban Development, Federal Housing Administration (2007), "Bush Administration to Help Nearly One-Quarter of a Million Homeowners Refinance, Keep Their Homes," press release, August 31, www.hud.gov/news/release.cfm?content=pr07-123.cfm.

15. In contrast, the number of reported first-lien home-purchase loans or refinancings that involved loans guaranteed by the Department of Veterans Affairs fell about 2 percent from 2006.

16. Housing and Economic Recovery Act of 2008, Pub. L. No. 110-289 (2008).

17. For 2007, the conforming loan-size limit was $417,000 for a single-unit property, with limits 50 percent higher for properties in Alaska and Hawaii. Higher limits are also established for two-, three-, and four-unit properties; however, because the HMDA data do not distinguish among properties with fewer than five units, the analysis here uses the $417,000 limit.

homes. For 2007, the mean size of FHA-insured home-purchase loans was $142,000.

Borrower incomes differ substantially by loan product and loan pricing (table 6). Most notably, the mean income of borrowers with conventional loans, regardless of loan pricing, was about 72 percent higher than that of borrowers with FHA-insured loans (data derived from memo items in table). Among those obtaining conventional home-purchase mortgages, the mean income of individuals meeting the conforming loan-size limit established for Fannie Mae and Freddie Mac was $83,600, versus a mean income of $293,100 for those exceeding the conforming loan-size limit. Again, among borrowers with conventional loans, those using higher-priced loans to purchase a home or to refinance had a mean income about 20 percent lower than that of borrowers not paying higher prices.

Non-Owner-Occupant Lending

Part of the strong performance of housing markets over the first half of this decade was due to the growth in sales of homes to investors or individuals purchasing second or vacation homes, units collectively described as "non-owner occupied." HMDA data help document the role of investors and second-home buyers in the housing market because the data indicate whether the subject property is intended as the borrower's principal dwelling—that is, as an owner-occupied unit.[18]

The share of non-owner-occupant lending among first-lien loans to purchase one- to four-family site-built homes rose in every year between 1996, when it was 6.4 percent, and 2005, when it reached a high of 17.3 percent (table 7). For 2006, the share fell somewhat, to 16.5 percent, and in 2007 it declined further, to 14.9 percent. Falling non-owner-occupant lending likely reflected the reduced incentives for such borrowing as house prices weakened or fell in many parts of the country and as the imposition of tighter lending standards for borrowers in this market segment reduced access to credit.

Piggyback Lending

In recent years, so-called piggyback loans emerged as an important segment of the conventional mortgage market, particularly regarding loans to purchase homes. In piggyback lending, borrowers simultaneously receive a first-lien mortgage and a junior-lien (piggyback) loan. The piggyback loan finances the portion of the purchase price not being financed by the first mortgage and sometimes any cash payment that might have been made; the junior-lien loan may amount to as much as 20 percent of the purchase price.

Piggyback loans are generally used to reduce the cost of financing a home purchase. Often, they are designed to have a first-lien loan that can be financed at a lower price than a single loan for the total amount borrowed, such that the gains from the reduced finance costs on the first-lien loan outweigh the higher finance costs on the junior-lien loan portion of the total borrowing. A prime example is the practice of structuring the first-lien loan to avoid paying for private mortgage insurance (PMI) (for more information about PMI, see appendix B). Many of these loan transactions are structured so that the first-lien loan is eligible for sale to Fannie Mae or Freddie Mac, both of which require PMI on first-lien loans for amounts that exceed 80 percent of the value of the property backing the loan. Another example is the structuring of the loan transaction so that the first-lien loan can be more readily securitized in the secondary market. This practice has been common in the secondary market for subprime loans. Yet another example arises when the total amount requested exceeds the loan-size limits for Fannie Mae and Freddie Mac, thereby requiring the borrower to pay the higher interest rate usually charged on jumbo loans. Keeping the size of the first-lien loan within the amount that conforms to the loan-size limits of Fannie Mae and Freddie Mac can possibly result in lower overall financing costs.

The HMDA data can be used to help document the extent of piggyback lending over time. However, because not all lenders submit HMDA data, some of the junior-lien loans that are reported may not have the corresponding first-lien loan reported, and some of the first-lien loans that are reported may not have the associated junior-lien loan reported. Also, some piggyback loans may be home equity lines of credit (HELOCs) rather than closed-end loans. Under the provisions of Regulation C, lenders need not report HELOCs. Nonetheless, a loan-matching process can be undertaken to determine which reported junior-lien loans appear to be associated with a reported first-lien loan. A junior-lien loan was identified as a piggyback to a reported first-lien loan if both loans (1) were conventional

18. An investment property is a non-owner-occupied dwelling that is intended to be continuously rented. Some non-owner-occupied units—vacation homes and second homes—are for the primary use of the owner and thus would not be considered investment properties. The HMDA data do not, however, distinguish between these two types of non-owner-occupied dwellings.

3. Disposition of applications for home loans, and origination and pricing of loans, by type of home and type of loan, 2007

Type of home and loan	Applications				Loans originated							
	Number submitted	Acted upon by lender			Number	Loans with APR spread above the threshold[1]						
						Number	Percent	Distribution, by percentage points of APR spread				
		Number	Number denied	Percent denied				3–3.99	4–4.99	5–6.99	7–8.99	9 or more
1–4 FAMILY												
NONBUSINESS RELATED[3]												
Owner occupied												
Site-built												
Home purchase												
Conventional												
First lien	4,654,084	4,120,941	783,972	19.0	2,928,820	411,263	14.0	49.4	17.1	26.8	6.5	.3
Junior lien	927,255	828,053	170,231	20.6	548,567	118,673	21.6	...	...	65.8	30.0	4.3
Government backed												
First lien	550,551	493,260	79,818	16.2	392,157	11,504	2.9	91.1	3.5	1.7	3.6	.1
Junior lien	1,348	1,138	85	7.5	1,008	65	6.4	...	...	76.9	18.5	4.6
Refinance												
Conventional												
First lien	8,550,904	6,920,906	2,758,715	39.9	3,391,604	735,150	21.7	39.1	19.6	33.8	7.4	.1
Junior lien	1,408,232	1,228,245	450,348	36.7	636,443	120,854	19.0	...	...	58.0	32.4	9.5
Government backed												
First lien	342,768	288,814	91,106	31.5	179,330	11,893	6.6	92.1	4.3	2.7	.9	.0
Junior lien	710	527	151	28.7	316	63	19.9	...	...	65.1	31.7	3.2
Home improvement												
Conventional												
First lien	721,417	627,577	277,983	44.3	291,043	87,774	30.2	38.8	21.7	30.3	8.8	.5
Junior lien	949,861	863,800	341,244	39.5	429,624	72,114	16.8	...	...	45.3	32.5	22.2
Government backed												
First lien	10,962	9,614	2,347	24.4	6,666	410	6.2	59.5	7.6	22.7	8.0	2.2
Junior lien	3,407	2,789	866	31.1	1,577	1,044	66.2	...	...	39.8	31.6	28.5
Unsecured (conventional or government backed)	347,359	340,661	167,456	49.2	146,395	...	...	...	...	...	...	...
Manufactured												
Conventional, first lien												
Home purchase	359,351	347,819	175,312	50.4	94,247	57,954	61.5	25.8	23.9	31.0	13.5	5.8
Refinance	146,597	132,750	64,384	48.5	55,069	30,880	56.1	29.1	26.2	32.9	9.8	2.0
Other	141,807	127,179	48,899	38.4	69,077	16,142	23.4	36.0	12.2	24.8	16.5	10.4
Non-owner occupied[4]												
Conventional, first lien												
Home purchase	908,416	813,364	167,875	20.6	564,719	112,711	20.0	59.4	20.0	15.6	4.5	.5
Refinance	927,485	799,914	269,634	33.7	447,071	79,204	17.7	52.8	18.5	21.8	6.5	.4
Other	275,273	244,145	87,984	36.0	129,959	31,731	24.4	15.5	7.3	45.0	21.6	10.6
BUSINESS RELATED[3]												
Conventional, first lien												
Home purchase	19,798	17,626	1,983	11.3	14,863	881	5.9	60.5	14.5	23.7	1.0	.2
Refinance	27,267	24,630	2,977	12.1	20,707	1,112	5.4	60.0	16.5	20.2	2.7	.5
Other	7,156	6,867	1,074	15.6	5,463	149	2.7	28.9	11.4	45.0	12.1	2.7
MULTIFAMILY[5]												
Conventional, first lien												
Home purchase	48,635	46,057	1,991	4.3	43,063	2,904	6.7	44.7	23.0	11.6	15.1	5.6
Refinance	43,127	37,951	4,333	11.4	32,401	2,808	8.7	51.1	27.9	13.2	7.5	.3
Other	15,488	13,356	1,728	12.9	11,164	491	4.4	34.6	13.4	31.6	13.8	6.5
Total	**21,389,258**	**18,337,983**	**5,952,496**	**32.5**	**10,441,353**	**1,907,774**	**18.3**	**36.4**	**15.7**	**34.1**	**11.5**	**2.4**

NOTE: Excludes transition-period applications (those submitted before 2004) and transition-period loans (those for which the application was submitted before 2004).

1. Annual percentage rate (APR) spread is the difference between the APR on the loan and the yield on a comparable-maturity Treasury security. The threshold for first-lien loans is a spread of 3 percentage points; for junior-lien loans, it is a spread of 5 percentage points.

2. Loans covered by the Home Ownership and Equity Protection Act of 1994 (HOEPA), which does not apply to home-purchase loans.

3. Business-related applications and loans are those for which the lender reported that the race, ethnicity, and sex of the applicant or co-applicant are "not applicable"; all other applications and loans are nonbusiness related.

4. Includes applications and loans for which occupancy status was missing.

5. Includes business-related and nonbusiness-related applications and loans for owner-occupied and non-owner-occupied properties.

... Not applicable.

loans involving property in the same census tract, (2) were originated by the same lender with approximately the same dates of loan application and closing, and (3) had the same owner-occupancy status and identical borrower income, race or ethnicity, and sex.

3. Disposition of applications for home loans, and origination and pricing of loans, by type of home and type of loan, 2007—*Continued*

Loans originated			MEMO Transition-period applications (those submitted before 2004)					
Loans with APR spread above the threshold[1]								
APR spread (percentage points)		Number of HOEPA-covered loans[2]	Number submitted	Number denied	Percent denied	Loans originated		Number of HOEPA-covered loans[2]
Mean	Median					Number	Percent with APR spread above threshold	
4.5	4.0	...	305	10	5.9	67	6.0	...
6.6	6.3	...	19	1	9.1	6	0	...
3.5	3.2	...	26	0	0	12	50.0	...
6.7	6.4	...	0	0	0	0	0	...
4.8	4.5	3,145	1.488	17	1.6	30	20.0	0
6.9	6.6	1,951	36	1	4.2	4	25.0	0
3.4	3.2	120	16	2	22.2	4	25.0	0
6.7	6.4	0	1	0	0	0	0	0
4.8	4.5	1.214	3	0	0	2	0	0
7.5	7.3	2,827	1	0	0	0	0	0
4.5	3.6	6	0	0	0	0	0	0
7.5	7.4	6	0	0	0	0	0	0
...	...	...	0	0	0	0	0	...
5.5	5.0	...	4	0	0	1	0	...
5.1	4.8	1.184	9	0	0	1	0	0
5.6	5.1	810	4	0	0	1	0	0
4.2	3.8	...	50	0	0	11	0	...
4.4	3.9	156	94	3	5.0	9	33.3	0
6.2	5.9	73	6	0	0	4	50.0	0
4.2	3.7	...	5	0	0	5	0	...
4.3	3.8	3	5	0	0	5	0	0
5.3	5.2	1	1	0	0	1	0	0
5.0	4.2	...	32	0	0	25	16.0	...
4.4	4.0	6	1	0	0	1	0	0
5.5	5.1	2	9	0	0	3	0	0
5.1	**4.8**	**11,504**	**2,115**	**34**	**2.3**	**192**	**14.1**	**0**

Extent of piggyback lending. The HMDA data show that lenders extended a substantial number of junior-lien loans to help individuals purchase homes (for both owner-occupied and non-owner-occupied purposes) in 2005 and 2006 but that such lending contracted sharply in 2007.[19] For 2005, lenders reported on about 1.37 million junior-lien loans used to purchase homes; for 2006, they reported on about 1.43 million (data not shown in tables). In 2007, lenders covered by HMDA reported information on only about 600,000 junior-lien loans to purchase homes, a decline of nearly 60 percent from the 2006 level.

Regarding piggyback lending, our matching algorithm indicates that about 12 percent of the 2.9 million 2007 first-lien home-purchase loans on owner-occupied site-built homes for one to four families

19. A similar matching process was used to identify piggyback loans used for refinancing. HMDA reporting requirements, however, are less comprehensive for refinance loans, and therefore junior-lien loans used for refinancing are less likely to be reported. As a result, we do not report data on piggyback loan transactions used for refinancing.

4. Home-purchase lending that began with a request for pre-approval: Disposition and pricing, by type of home, 2007

Type of home	Requests for pre-approval			Applications preceded by requests for pre-approval[1]		
	Number acted upon by lender	Number denied	Percent denied	Number submitted	Acted upon by lender: Number	Acted upon by lender: Number denied
1–4 FAMILY						
NONBUSINESS RELATED[3]						
Owner occupied						
Site-built						
Conventional						
First lien	754,318	209,478	27.8	420,435	371,847	37,300
Junior lien	95,782	28,538	29.8	54,088	48,760	5,585
Government backed						
First lien	85,606	31,821	37.2	55,236	48,944	5,524
Junior lien	95	13	13.7	84	72	4
Manufactured						
Conventional, first lien	45,358	22,802	50.3	42,728	37,831	20,624
Other	6,418	2,361	36.8	4,918	3,632	1,094
Non-owner occupied[4]						
Conventional, first lien	69,916	16,237	23.2	48,688	42,576	6,639
Other	6,040	1,850	30.6	4,637	4,020	1,032
BUSINESS RELATED[3]						
Conventional, first lien	1,169	131	11.2	1,126	943	102
Other	209	19	9.1	202	161	12
MULTIFAMILY[5]						
Conventional, first lien	321	109	34.0	220	164	23
Other	35	1	2.9	34	22	1
Total	**1,065,267**	**313,360**	**29.4**	**632,396**	**558,972**	**77,940**

NOTE: Excludes transition-period requests for pre-approval (those submitted before 2004). See general note to table 1.

1. These applications are included in the total of 21,389,258 reported in table 3.

2. See note 1, table 3.

3. Business-related applications and loans are those for which the lender reported that the race, ethnicity, and sex of the applicant or co-applicant are "not applicable"; all other applications and loans are nonbusiness related.

4. Includes applications and loans for which occupancy status was missing.

5. Includes business-related and nonbusiness-related applications and loans for owner-occupied and non-owner-occupied properties.

. . . Not applicable.

involved a piggyback loan reported by the *same* lender, a proportion that was down 45 percent from 2006 (data not shown in tables).

Changing nature of piggyback lending. A comparison of the 2007 HMDA data with the HMDA data for earlier years suggests that the nature of piggyback lending has changed. The HMDA data for 2005, 2006, and 2007 can be used to distinguish three types of piggyback loan arrangements: (1) those likely to be used as substitutes for PMI, (2) those intended primarily to keep the size of the first-lien loan within the limits set for loans that Fannie Mae and Freddie Mac are allowed to purchase in a given year, and (3) those used for other purposes, most likely to facilitate sale of the loan to the secondary market.

For purposes of this analysis, piggyback loans were assumed to be in the first category if two conditions were satisfied: (1) The first-lien loan in a piggyback loan transaction was not higher priced, and (2) the combined loan amount of the first- and junior-lien loans was less than the conforming loan-size limit. Piggyback loans were assumed to be in the second category if three conditions were satisfied: (1) The first-lien loan in a piggyback loan transaction was not higher priced, (2) the amount of the first-lien loan was under the conforming loan-size limit, and (3) the combined loan amount of the first- and junior-lien loans exceeded the conforming loan-size limit. For the first two categories of piggyback loans, the presumption is that the piggyback loan was used to facilitate sales to Fannie Mae or Freddie Mac. Consequently, in the analysis, we distinguish between loans that have been sold to Fannie Mae and Freddie Mac and those that might be sold. The third category of piggyback loans consists of those that do not appear eligible to be sold to these two entities because the first-lien loan is higher-priced or the loan amount exceeds the conforming loan-size limit.[20]

The analysis indicates that the share of piggyback loans used to keep the first-lien loan within the

20. Higher-priced loans are generally not eligible for purchase by Fannie Mae or Freddie Mac. Such loans typically involve elevated credit risk or have other features that tend to make them ineligible for purchase by these institutions.

4. Home-purchase lending that began with a request for pre-approval: Disposition and pricing, by type of home, 2007—*Continued*

Loan originations whose applications were preceded by requests for pre-approval										MEMO Applications with transition-period requests for pre-approval (request submitted before 2004)				
Number	Loans with APR spread above the threshold[2]													
	Number	Percent	Distribution, by percentage points of APR spread					APR spread (percentage points)		Number submitted	Number denied	Percent denied	Loans originated	
			3–3.99	4–4.99	5–6.99	7–8.99	9 or more	Mean spread	Median spread				Number	Percent with APR spread above threshold
302,513	19,003	6.3	65.5	18.6	12.9	2.5	.4	4.0	3.6	7	0	0	2	0
35,759	3,609	10.1	. . .	. . .	71.9	21.9	6.2	6.4	5.9	3	0	0	2	0
41,437	1,357	3.3	74.3	9.7	3.5	12.5	0	4.0	3.4	8	0	0	7	85.7
64	1	1.6	. . .	. . .	100	0	0	5.3	5.3	0	0	0	0	0
9,754	6,999	71.8	14.3	23.2	45.2	15.1	2.1	5.6	5.5	0	0	0	0	0
2,425	331	13.6	73.7	.3	6.0	19.9	0	4.3	3.3	0	0	0	0	0
31,846	3,856	12.1	60.6	20.4	14.7	3.7	.5	4.2	3.7	1	0	0	1	0
2,209	405	18.3	.2	0	52.6	32.3	14.8	7.1	6.8	0	0	0	0	0
803	53	6.6	58.5	17.0	15.1	9.4	0	4.4	3.8	1	0	0	0	0
140	12	8.6	33.3	0	33.3	25.0	8.3	5.9	5.8	0	0	0	0	0
125	13	10.4	76.9	7.7	7.7	7.7	0	3.9	3.2	0	0	0	0	0
20	2	10.0	0	0	100	0	0	6.0	6.0	0	0	0	0	0
427,095	**35,641**	**8.3**	**48.0**	**17.1**	**25.4**	**8.0**	**1.5**	**4.6**	**4.1**	**20**	**0**	**0**	**12**	**50.0**

5. Cumulative distribution of home loans, by loan amount and by purpose, type, and pricing of loan, 2007

Percent

Upper bound of loan amount (thousands of dollars)[1]	Home purchase					Refinance				
	Conventional			FHA	VA	Conventional			FHA	VA
	Lower priced	Higher priced	Total			Lower priced	Higher priced	Total		
24	.2	1.0	.3	.1	.0	.7	2.3	1.1	.1	.1
49	1.8	5.5	2.3	2.2	.4	3.3	7.1	4.1	1.0	.9
74	6.3	15.5	7.6	11.3	2.5	8.9	16.1	10.5	6.0	4.7
99	13.3	26.4	15.1	26.6	8.8	16.4	26.2	18.5	17.3	13.5
124	23.2	37.0	25.2	42.6	18.5	25.7	37.2	28.2	32.7	25.2
149	33.5	47.3	35.5	60.6	32.9	34.5	47.0	37.2	50.2	40.1
174	43.2	55.6	45.0	75.0	47.8	43.5	55.8	46.2	65.1	53.0
199	51.4	62.3	53.0	85.1	60.6	51.1	62.8	53.7	76.5	64.5
224	59.1	68.2	60.4	90.9	70.4	58.5	69.0	60.8	84.8	74.3
249	65.0	73.1	66.1	94.2	78.9	64.2	73.9	66.3	89.8	81.7
274	70.2	77.2	71.2	96.3	85.0	69.6	77.9	71.4	93.4	87.5
299	74.3	80.5	75.2	97.7	89.3	73.7	81.2	75.3	95.7	91.0
324	78.3	83.4	79.0	98.5	92.5	77.9	84.1	79.2	97.3	93.9
349	81.3	85.7	81.9	99.1	94.9	80.9	86.4	82.1	98.4	95.8
374	84.0	87.9	84.5	99.7	96.7	83.8	88.5	84.8	99.6	97.5
399	86.2	89.8	86.7	99.7	98.0	86.1	90.1	87.0	99.7	98.6
417	90.5	91.4	90.6	99.8	99.5	90.3	91.5	90.5	99.7	99.6
449	91.2	92.7	91.4	99.9	99.6	91.2	92.9	91.6	99.8	99.8
499	92.7	94.6	93.0	99.9	99.8	92.9	94.9	93.3	99.9	99.9
549	94.2	96.1	94.5	100	99.9	94.5	96.3	94.9	100	99.9
599	95.2	97.0	95.5	100	99.9	95.5	97.2	95.9	100	100
649	96.2	97.8	96.4	100	100	96.5	97.9	96.8	100	100
699	96.8	98.3	97.0	100	100	97.2	98.4	97.4	100	100
749	97.3	98.6	97.5	100	100	97.6	98.7	97.8	100	100
799	97.7	98.8	97.9	100	100	98.0	98.9	98.2	100	100
More than 799	100	100	100	100	100	100	100	100	100	100
MEMO *Loan amount (thousands of dollars)*										
Mean	247.9	207.9	242.3	142.3	193.1	243.9	203.2	235.0	160.3	181.7
Median[1]	194	157	189	134	179	195	157	186	149	168

NOTE: For definitions of lower- and higher-priced lending, see text note 7.

1. Loan amounts are reported under the Home Mortgage Disclosure Act to the nearest $1,000.

FHA Federal Housing Administration.

VA Department of Veterans Affairs.

6. Cumulative distribution of home loans, by borrower income and by purpose, type, and pricing of loan, 2007

Percent

Upper bound of borrower income (thousands of dollars)[1]	Home purchase					Refinance				
	Conventional			FHA	VA	Conventional			FHA	VA
	Lower priced	Higher priced	Total			Lower priced	Higher priced	Total		
24	2.4	5.3	2.8	4.6	.7	2.7	5.1	3.2	2.9	3.6
49	24.2	35.1	25.7	43.5	28.2	22.6	33.6	25.0	34.2	29.4
74	48.2	61.0	49.9	78.1	66.3	48.2	61.9	51.2	72.2	65.8
99	65.9	76.6	67.4	92.4	87.5	67.4	78.9	69.9	91.1	86.4
124	77.4	85.3	78.5	96.9	95.7	79.4	87.7	81.2	97.4	95.5
149	84.1	90.0	84.9	98.4	98.5	85.9	92.0	87.3	99.0	98.5
199	91.5	94.9	91.9	99.3	99.8	92.7	96.1	93.5	99.7	99.6
249	94.7	96.9	95.0	99.6	99.9	95.6	97.6	96.0	99.8	99.9
299	96.3	97.8	96.5	99.7	100	96.9	98.4	97.2	99.8	99.9
More than 299	100	100	100	100	100	100	100	100	100	100
MEMO Borrower income, by selected loan type (thousands of dollars)[2]										
All										
Mean	105.5	85.5	102.8	59.8	68.3	101.3	80.6	96.8	64.2	67.7
Median[1]	77	62	75	53	62	76	63	73	59	63
Below the conforming loan size[3]										
Mean	85.7	70.5	83.6	...	...	84.5	68.2	80.9	...	...
Median[1]	71	59	70	...	...	72	60	69	...	...
Above the conforming loan size[4]										
Mean	298.1	256.3	293.1	...	...	259.1	218.2	251.2	...	...
Median[1]	210	181	205	...	...	184	163	180	...	...

NOTE: For loans with two or more applicants, HMDA-covered lenders report data on only two. Income for two applicants is reported jointly. For definitions of lower- and higher-priced lending, see text note 7.

1. Income amounts are reported under HMDA to the nearest $1,000.

2. By size, all loans backed by the FHA or VA are conforming.

3. The conforming loan-size limit established for most loan purchases by Fannie Mae and Freddie Mac is $417,000. For more information, see text note 17.

4. Loans above $417,000, the conforming loan-size limit established for most loan purchases by Fannie Mae and Freddie Mac, are sometimes referred to as jumbo loans. For more information, see text notes 11 and 17.

. . . Not applicable.

FHA Federal Housing Administration.

VA Department of Veterans Affairs.

7. Non-owner-occupied lending as a share of all first liens to purchase one- to four-family site-built homes, by number and dollar amount of loans, 1990–2007

Percent

Year	Number	Dollar amount
1990	6.6	5.9
1991	5.6	4.5
1992	5.2	4.0
1993	5.1	3.8
1994	5.7	4.3
1995	6.4	5.0
1996	6.4	5.1
1997	7.0	5.8
1998	7.1	6.0
1999	7.4	6.4
2000	8.0	7.2
2001	8.6	7.6
2002	10.5	9.2
2003	11.9	10.6
2004	14.9	13.1
2005	17.3	15.7
2006	16.5	14.8
2007	14.9	13.8

conforming loan-size limit increased in 2007 from 2006 and 2005. For example, the share of lower-priced piggyback loans used to keep the first-lien loan within the conforming loan-size limits increased from 8.8 percent in 2006 to 12.3 percent in 2007 (data derived from table 8). The number of piggyback loans sold to Fannie Mae or Freddie Mac that were used to keep the first-lien loan within the conforming loan-size limits also increased from 2006 to 2007—by some 63 percent—despite a sharp decline in the total number of piggyback loans over this period. These results suggest that in 2007 relatively more borrowers used their piggybacks to take advantage of the lower rates available on the first-lien portion of their piggyback arrangements than to obtain a needed source of down payment.

In contrast, the data suggest that the use of piggyback loans as a substitute for PMI declined in 2007 from 2006. This was true of the loans sold to Fannie Mae and Freddie Mac as well as those that potentially were eligible for sale. The use of piggyback loans for purposes that made the loans non-eligible for sale to Fannie Mae and Freddie Mac also declined significantly. The decrease was most precipitous for higher-

8. Distribution of piggyback loan transactions involving home purchases, by status of first-lien loan, 2004–07

Status of first-lien loan	2004		2005		2006		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Higher priced	105,463	18.88	535,004	50.90	465,154	43.75	62,461	16.05
Lower priced								
Sold to Fannie Mae or Freddie Mac								
Combined with junior-lien loan								
Total is above the conforming loan size	4,503	.81	7,691	.73	10,154	.95	16,546	4.25
Total is less than or equal to the conforming loan size	55,233	9.89	76,804	7.31	121,821	11.46	103,831	26.68
Not sold to Fannie Mae or Freddie Mac								
Above the conforming loan size	62,104	11.12	60,666	5.77	57,138	5.37	32,301	8.30
Less than or equal to the conforming loan size								
Combined with junior-lien loan								
Total is above the conforming loan size	40,725	7.29	43,734	4.16	42,704	4.02	23,761	6.11
Total is less than or equal to the conforming loan size	290,602	52.02	327,270	31.13	366,306	34.45	150,254	38.61
Total lower priced	453,167	81.12	516,165	49.10	598,123	56.25	326,693	83.95
Total	**558,630**	**100**	**1,051,169**	**100**	**1,063,277**	**100**	**389,154**	**100**

NOTE: In piggyback lending, borrowers simultaneously receive a first-lien loan and a junior-lien (piggyback) loan to purchase a home from the same lender. For definitions of higher- and lower-priced lending, see text note 7; for explanation of the conforming loan size established for most loan purchases by Fannie Mae and Freddie Mac, see note 3, table 6; for definition of jumbo loans, see note 4, table 6.

priced first-lien loans, which fell 87 percent. This development was consistent with, and indeed part of, the more general mortgage market turmoil in 2007.

Piggyback lending and mortgage market difficulties. Piggyback loans have contributed to the current mortgage market difficulties. As noted, many home purchases financed with piggyback loans were used to minimize the cash contributions of borrowers toward the purchase of the property. Because loan arrangements involve little borrower equity at the time of purchase, if housing prices fall, as they have in many areas of the country for the past year or so, borrowers may find that they owe more on their combined first- and junior-lien loans than the value of the property. Borrowers in these circumstances are much more likely to default than those with an equity stake in the property.[21]

Piggyback loan arrangements also can make it much more difficult to work out loan difficulties should borrowers fall behind on their loan payments. If property values have fallen below the amount owed on the combined loans, the junior-lien holder often has little prospect of recovering any money if the property is sold—either through a short sale or as a consequence of foreclosure. If the holders of the first- and junior-lien loans are different parties, the interests of the two loan holders may conflict, and the junior-lien holder may have little interest in working with the borrower or the holder of the first lien on a short sale or loan modification unless the first-lien holder provides the junior-lien holder with some financial incentive.

Little information is available on the frequency with which holders of first liens and junior liens differ. The HMDA data provide an opportunity to examine the relationships among loan holders in piggyback loan arrangements, as the data include information on whether or not a reported loan was held in portfolio or sold; if the loan was sold, the data also indicate the type of purchaser.

The analysis here divides lenders into groups based on the type of originator. The analysis focuses on piggyback loan transactions in which the first- and junior-lien loans were used to buy a property and the dates of the loan originations occurred in the first 10 months of the calendar year. The date restriction addresses the concern that loan sales may not be immediate and that originations near the end of the year that are reported in the data as retained in portfolio may not be, as at least some of the loan sales do not occur until the next calendar year. Because the pattern of loan holding and sale may differ by the credit risk embedded in the loans, the analysis is conducted separately for home-purchase transactions in which the first-lien loan was higher priced (table 9).

For each group, the analysis indicates the proportion of loan originations in which the lender held both

21. See Ronel Elul (2006), "Residential Mortgage Default," Federal Reserve Bank of Philadelphia, *Business Review* (Third Quarter), pp. 21–30; and Kerry D. Vandell (1995), "How Ruthless Is Mortgage Default? A Review and Synthesis of the Evidence," *Journal of Housing Research*, vol. 6 (2), pp. 245–64.

9. Distribution of lower- and higher-priced first-lien loans in piggyback loan transactions involving home purchases, by type of lender and lien status of loan that lender held at year-end, 2004–07

Percent

Lien status of loan that lender held at year-end	Type of lender			
	Depository	Mortgage company affiliate of depository	Independent mortgage company	Total
	Lower-priced first-lien loans involved in piggyback loan transactions			
2004				
First lien and junior lien	31.3	13.5	10.4	17.2
First lien only	29.8	21.0	5.4	15.4
Junior lien only	11.5	2.8	3.5	5.8
Neither[1]				
Different purchaser type	6.9	32.3	12.7	14.4
Same purchaser type	20.5	30.4	67.9	47.3
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	29.7	17.2	53.0	100
2005				
First lien and junior lien	38.4	20.0	10.7	21.6
First lien only	33.8	25.1	2.8	17.2
Junior lien only	3.2	3.5	5.2	4.2
Neither[1]				
Different purchaser type	6.6	23.2	12.4	12.5
Same purchaser type	18.0	28.2	68.9	44.5
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	32.9	18.7	48.4	100
2006				
First lien and junior lien	35.7	11.1	20.7	23.6
First lien only	38.3	21.5	5.2	19.5
Junior lien only	1.8	6.1	1.9	2.8
Neither[1]				
Different purchaser type	8.9	35.8	11.8	16.0
Same purchaser type	15.3	25.5	60.4	38.1
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	32.9	21.3	45.8	100
2007				
First lien and junior lien	40.9	7.2	19.3	28.3
First lien only	43.0	67.2	11.0	38.1
Junior lien only	.5	.4	1.3	.7
Neither[1]				
Different purchaser type	7.3	12.8	11.7	9.6
Same purchaser type	8.3	12.4	56.7	23.3
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	51.9	18.7	29.4	100
	Higher-priced first-lien loans involved in piggyback loan transactions			
2004				
First lien and junior lien	6.4	7.2	11.7	9.5
First lien only	3.4	2.9	7.5	5.7
Junior lien only	2.2	1.7	1.5	1.7
Neither[1]				
Different purchaser type	8.4	42.6	6.3	12.3
Same purchaser type	79.5	45.7	73.0	70.8
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	28.7	14.9	56.3	100
2005				
First lien and junior lien	20.7	14.7	16.5	17.1
First lien only	25.1	16.7	4.4	10.7
Junior lien only	1.5	1.7	4.5	3.5
Neither[1]				
Different purchaser type	2.4	22.7	14.1	13.1
Same purchaser type	50.3	44.3	60.5	55.7
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	20.5	16.2	63.3	100

9. Distribution of lower- and higher-priced first-lien loans in piggyback loan transactions involving home purchases, by type of lender and lien status of loan that lender held at year-end, 2004–07—*Continued*

Percent

Lien status of loan that lender held at year-end	Type of lender			
	Depository	Mortgage company affiliate of depository	Independent mortgage company	Total
2006				
First lien and junior lien	15.1	9.8	13.9	13.3
First lien only	10.5	21.5	6.4	10.6
Junior lien only	.9	2.6	1.7	1.7
Neither[1]				
Different purchaser type	6.2	10.0	12.5	10.5
Same purchaser type	67.2	56.1	65.5	63.9
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	23.2	21.6	55.2	100
2007				
First lien and junior lien	60.2	64.2	28.0	52.6
First lien only	12.5	8.0	2.7	8.0
Junior lien only	1.8	1.7	4.5	2.5
Neither[1]				
Different purchaser type	7.0	.7	5.4	4.1
Same purchaser type	18.5	25.4	59.5	32.7
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	33.3	38.5	28.2	100
	Total			
2004				
First lien and junior lien	27.7	12.7	10.6	16.0
First lien only	26.0	18.6	5.7	13.9
Junior lien only	10.2	2.7	3.2	5.2
Neither[1]				
Different purchaser type	7.2	33.6	11.7	14.1
Same purchaser type	29.0	32.4	68.7	50.8
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	29.6	16.9	53.5	100
2005				
First lien and junior lien	31.4	17.5	14.1	19.3
First lien only	30.4	21.1	3.8	13.8
Junior lien only	2.6	2.6	4.8	3.8
Neither[1]	93.9	58.1	76.2	36.9
Different purchaser type				
Same purchaser type	5.0	23.0	13.4	12.8
Total	30.7	35.9	64.0	50.3
MEMO				
Percentage of piggyback loan originations	26.6	17.4	56.0	100
2006				
First lien and junior lien	28.3	10.5	17.4	19.0
First lien only	28.3	21.5	5.8	15.6
Junior lien only	1.5	4.5	1.8	2.3
Neither[1]				
Different purchaser type	7.9	24.3	12.1	13.5
Same purchaser type	33.9	39.2	62.9	49.5
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	28.6	21.5	49.9	100
2007				
First lien and junior lien	43.2	24.0	20.7	32.4
First lien only	39.4	49.7	9.6	33.0
Junior lien only	.6	.8	1.8	1.0
Neither[1]				
Different purchaser type	7.3	9.2	10.7	8.7
Same purchaser type	9.5	16.3	57.2	24.9
Total	100	100	100	100
MEMO				
Percentage of piggyback loan originations	48.8	22.0	29.2	100

NOTE: For definition of piggyback lending, see note to table 8; for definitions of lower- and higher-priced lending, see text note 7.

1. For purchaser types, see appendix A in the text.

the first-lien loan and the piggyback loan at the end of the year or the incidence in which the loan holders differed. The following three lender categories are considered: (1) depository institutions, (2) mortgage company affiliates of depositories, and (3) independent mortgage companies. The analysis examines loan originations from 2004 through 2007 (excluding originations from the final two months of each year). The analysis focuses on these four years because data on lien status were not included in the HMDA data for the years before 2004.

As mentioned earlier, the mortgage market turmoil that deepened greatly during 2007 affected many aspects of the market, including the market for piggyback loans. The HMDA data reflect these events. Regarding piggyback lending patterns, relationships found in 2004, 2005, and 2006 are in some respects similar to, but in others notably different from, relationships found in 2007. For example, independent mortgage companies were a significant source of piggyback credit until 2007. Before 2007, independent mortgage companies extended between 46 percent and 53 percent of the lower-priced piggyback loans and, depending on the year, between 55 percent and 63 percent of the higher-priced piggyback loans. From 2004 to 2006, depository institutions accounted for about 30 percent of the lower-priced piggyback loans and about 20 percent to more than 28 percent of the higher-priced piggyback loans. In 2007, the depositories accounted for a much larger share of the piggyback loans that were reported—about 52 percent of such loans that were lower priced and about 33 percent of those that were higher priced.

The HMDA data indicate that in most piggyback loan transactions one or both loans were sold by the lender. Overall, for loans originated in 2004, 2005, or 2006, both loans in higher-priced piggyback transactions were held in portfolio less than 20 percent of the time. For lower-priced piggyback transactions, both loans were held in portfolio somewhat more often. The experience in 2007 was different, particularly regarding piggyback transactions in which the first-lien loan was higher priced: Here, in more than one-half of the transactions, both loans were held in the originating institutions' portfolios. The relatively low incidence of piggyback loan holding for loans originated before 2007 means that for those loan transactions in which defaults occur, loss mitigation problems are likely to be more difficult.

Patterns of loan holding or sale differ some by originator. For each of the years considered, depository institutions were more likely than independent mortgage companies to hold in portfolio both loans in a piggyback loan transaction. For example, in 2006, depositories held both loans in lower-priced piggyback transactions about 36 percent of the time; independent mortgage companies held both loans about 21 percent of the time. Also, in 2006, depositories were more likely than other originators to hold in portfolio both loans in a piggyback transaction when the first-lien loan was higher priced. In 2007, the likelihood of a depository's holding both loans in portfolio when the first-lien loan was higher priced increased substantially, from about 15 percent of the transactions in 2006 to about 60 percent. Mortgage company affiliates of depositories also experienced a similar substantial increase in the incidence of holding both loans in a piggyback transaction involving higher-priced first-lien loans: The incidence rose from 10 percent in 2006 to 64 percent in 2007.

Loans Covered by HOEPA

Under HOEPA, certain types of mortgage loans that have rates or fees above specified levels require additional disclosures to consumers and are subject to various restrictions on loan terms. Under the 2002 revisions to Regulation C, the expanded HMDA data include a code to identify whether a loan is subject to the protections of HOEPA.[22]

Before the release of the 2004 data, little information was publicly available about the extent of HOEPA-related lending or the number or types of institutions involved in that activity.[23] For 2007, roughly 1,050 lenders reported extending about 11,500 loans covered by HOEPA (data not shown in tables). Only 11 lenders made 100 or more HOEPA loans, and most lenders did not report any such loans (data not shown in tables). In the aggregate, HOEPA-related lending accounts for a very small proportion of the mortgage market: HOEPA loans made up less than 0.2 percent of all the originations of home-secured refinancings and home-improvement loans reported for 2007 (data derived from table 3).[24]

22. This reporting requirement relates to whether the loan is subject to the original protections of HOEPA, as determined by the coverage test in the Federal Reserve Board's Regulation Z, 12 C.F.R. pt. 226.32(a). The required reporting is not triggered by the more recently adopted protections for "higher-priced mortgage loans" under Regulation Z, notwithstanding that those protections were adopted under authority given to the Board by HOEPA. See 73 *Federal Register* 44522 (July 30, 2008).

23. Although the expanded HMDA data provide important new information, the data do not capture all HOEPA-related lending. Some HOEPA loans are extended by institutions not covered by HMDA, and some HOEPA loans made by HMDA-covered institutions are not reported under Regulation C, which implements HMDA. The extent of HOEPA-related lending not reported under HMDA is unknown.

24. HOEPA does not apply to home-purchase loans.

The 2007 HMDA Data on Loan Pricing

The following sections assess the loan-pricing information in the 2007 HMDA data. The analysis considers changes in the incidence of higher-priced lending, APR spreads paid on loans above the price-reporting thresholds, and a description of the institutions involved in higher-priced lending.

Factors That Influence Higher-Priced Lending

The reported incidence of higher-priced lending under HMDA can be affected by three broad factors (to be explained shortly) that are related to mortgage market conditions and the general economic environment prevailing in a given year. In addition, the extent of nonreporting by lenders that cease operations during, or shortly after the end of, a calendar year can influence the incidence of higher-priced lending.

The three broad, market-environment-related factors that influence the incidence of higher-priced lending are (1) changes in the interest rate environment, particularly changes in short-term rates relative to longer-term rates; (2) changes in the business practices of mortgage lenders and investors, particularly in the array of products offered and the willingness or ability of the parties to bear credit risk (for example, the willingness to offer loans with high loan-to-value ratios or adjustable-rate loans with initial discounted interest rates); and (3) changes in the borrowing practices and perceptions of consumers (such as changes in preferences for investment properties or in perceptions of future house price movements) or in consumers' credit-risk profiles (for example, changes in the distribution of credit risks for those seeking and obtaining loans).

Aside from the effects that these broad economic factors may have on the incidence of higher-priced lending, changes in the number, size, and product offerings of reporters can matter. Of particular import for users of the HMDA data are the effects on the incidence of higher-priced lending of lenders that extended loans during a portion of 2007 but ceased operations during that year or in early 2008 and, consequently, did not report any data to the FFIEC. In most years, nonreporting has little effect on the HMDA data overall or on any particular aspect of the data. But, as discussed later, it has a significant influence on the 2007 data because the institutions that ceased operations were generally focused on higher-priced loans, and some of these lenders extended large numbers of such loans in previous years.

Incidence of Higher-Priced Lending

As in earlier years, most loans reported in 2007 were not higher priced as defined under Regulation C. Among all the HMDA-reported loans, 18.3 percent were higher priced in 2007, down significantly from 28.7 percent in 2006 (data for 2007 shown in table 3; data for 2006 not shown). The incidence of higher-priced lending fell or was little changed across all loan product categories.

A number of factors account for the decline in the incidence of higher-priced lending as measured in the HMDA data. After increasing mildly in the first part of 2007, interest rates generally fell during the remainder of 2007 and ended the year well below the initial levels; the decrease likely contributed to the observed decline from 2006 in the incidence of higher-priced loans reported in 2007. Previous analyses of changing patterns in the reported incidence of higher-priced lending from 2004 through 2005 found that increases in short-term interest rates relative to longer-term rates help explain a portion of the increase over the period in the incidence of higher-priced lending, as more higher-risk adjustable-rate loans moved above the HMDA price-reporting thresholds.[25] From 2006 to 2007, the pattern reversed as short-term rates fell more than longer-term rates, which suggests that some higher-risk adjustable-rate loans likely fell below the HMDA price-reporting thresholds. However, given the magnitude of the difficulties in the mortgage and housing markets, it seems very likely that changes in lender and investor circumstances and risk tolerances, changes in borrower conditions and preferences, and nonreporting by certain lenders explain most of the reported decline in the incidence of higher-priced lending.[26]

Rate Spreads for Higher-Priced Lending

Most higher-priced loans have APR spreads within 1 or 2 percentage points of the HMDA reporting thresholds. For example, for higher-priced conventional first-lien loans for owner-occupied site-built

25. See Avery, Brevoort, and Canner, "Higher-Priced Home Lending and the 2005 HMDA Data."

26. Some of the change in lender behavior may stem from regulatory guidance provided by the bank regulatory agencies to banking institutions regarding their subprime and nontraditional lending activities. See Board of Governors of the Federal Reserve System (2007), "Federal Financial Regulatory Agencies Issue Final Statement on Subprime Mortgage Lending," press release, June 29, www.federalreserve.gov/newsevents/press/bcreg/20070629a.htm; and Board of Governors of the Federal Reserve System (2006), "Federal Financial Regulatory Agencies Issue Final Guidance on Nontraditional Mortgage Product Risks," press release, September 29, www.federalreserve.gov/newsevents/press/bcreg/20060929a.htm.

homes, two-thirds of the loans have spreads within 2 percentage points of the reporting threshold (table 3).

As in earlier years, only a relatively small proportion of first-lien loans have very large spreads—7 percentage points or more. Similarly, only a relatively small proportion of junior-lien loans have spreads of 9 percentage points or more.

Lenders and Higher-Priced Lending

Most institutions covered by HMDA do little or no higher-priced lending. For 2007, 56 percent of the 8,610 reporting institutions extended fewer than 10 higher-priced loans, and 33 percent of them originated no higher-priced loans (table 10). At the other end of the spectrum, nearly 1,000 lenders reported making at least 100 higher-priced loans, and these institutions accounted for 94 percent of all such loans. The share of higher-priced lending attributable to the 10 lenders with the largest volume of higher-priced loans dropped from 59 percent in 2005 to 35 percent in 2006 and then to 31 percent in 2007 (data not shown in table).

Higher-Priced Lending Specialists

Another way to assess the higher-priced lending market is to examine the extent to which institutions that originate higher-priced loans may be considered "specialists" in that activity—that is, institutions that have a large proportion of their lending in the higher-priced category. Such specialized institutions can have a business orientation that is quite different from that of other lenders. For example, many of these institutions hold relatively few loans in portfolio and rely greatly on their ability to sell loans to the secondary market.

Taking 60 percent of loan originations as a benchmark for defining higher-priced specialists, the analysis finds that 243 of the 987 lenders reporting at least 100 higher-priced loans, or about 3 percent of *all* reporting institutions, might be classified as specialists (data not shown in tables). These specialized lenders accounted for nearly 40 percent of all the higher-priced lending reported in the 2007 HMDA data.

10. Higher-priced lending: Distribution by number of higher-priced loans extended and by the number and percent of HMDA reporters and higher-priced loans, 2007

Number of higher-priced loans extended	HMDA reporters		Higher-priced loans	
	Number	Percent	Number	Percent
0	2,804	32.6	0	.0
1–4	1,282	14.9	2,788	.1
5–9	726	8.4	4,925	.3
10–24	1,212	14.1	19,425	1.0
25–49	881	10.2	31,127	1.6
50–99	718	8.3	50,742	2.7
100 or more	987	11.5	1,798,767	94.3
Total	**8,610**	**100**	**1,907,774**	**100**

NOTE: For definition of higher-priced lending, see text note 7.
HMDA Home Mortgage Disclosure Act of 1975.

Turmoil in Mortgage Markets and Coverage of the 2007 HMDA Data

Excluding government-backed lending, the HMDA data for 2007 show a substantial decline in mortgage lending activity from 2006 in all segments of the market. These declines are apparent whether the metric used to measure lending activity is loan applications, loan originations, loan purpose or type, or lending categorized by loan pricing. The HMDA data can be used to gauge the changes in lending activity by type of lender, population group, and geographies sorted along a number of dimensions, including demographic characteristics or measures of housing and mortgage market conditions.

The Effects of Lenders That Ceased Operations

As noted earlier, an issue when using the 2007 HMDA data is that some lenders ceased operations partway through 2007, yet none of their lending activity is included in the 2007 data because they did not report. As part of the HMDA data collection effort, staff members of the Federal Reserve Board track each financial institution that is expected to report (including all lenders that reported data for the previous calendar year) and contact, or attempt to contact, those that did not submit a report.[27] In some cases, nonreporting is due to a cessation of business; in others, it is the result of a merger, acquisition, or consolidation. When a merger, acquisition, or consolidation occurs, all lending by the institutions covered by HMDA in that year is reported by the surviving entity; only when an institution goes out of business is the volume of reported loans possibly affected. In some cases, a business closure does not compromise the completeness of the HMDA data because some of the closed institutions report lending activity for the portion of the year in which they extended loans.

27. Sometimes contacting a nonreporting lender is impossible because the firm has ceased operations.

Measuring the Activity of Nonreporters

The Federal Reserve's respondent tracking report records what happened to each institution that failed to report. For institutions that ceased operations, the tracking report also records, to the extent possible, the month that operations were discontinued. The tracking report indicates that 169 institutions that reported HMDA data for 2006 ceased operations during 2007 (or the very end of 2006) and did not report lending activity for 2007 (for a list of the institutions that ceased operations and did not report, see appendix table A.1, which has been posted separately as an Excel file).[28] Of these institutions, two were subsidiaries of banking institutions, and the remainder were independent mortgage companies. (All other lenders that ceased operations in 2007 either reported data for 2007 or were merged or acquired, and their 2007 lending activity was reported by the surviving entity.)

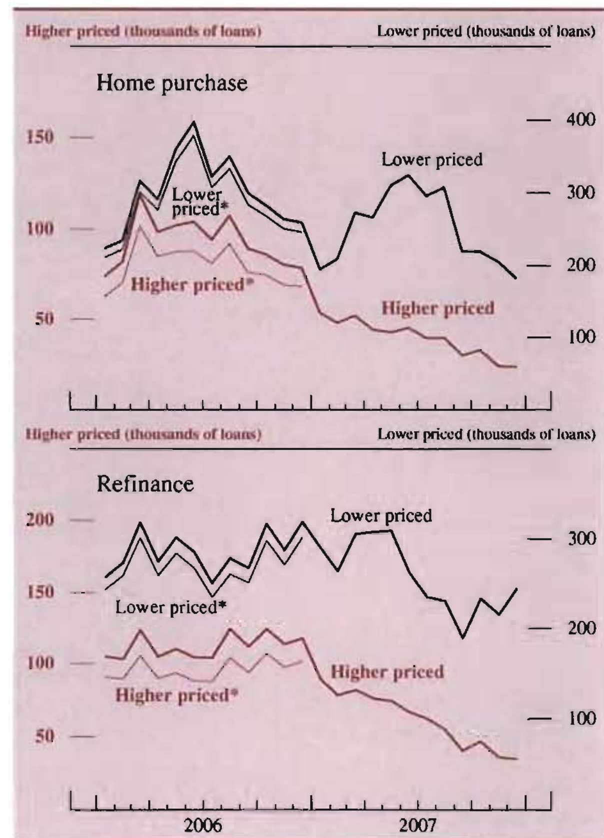
It appears impossible to know how many loans these 169 institutions originated in 2007 before discontinuing operations. To help gauge their potential importance, an analysis of the lending activity of these institutions as recorded in the 2006 HMDA data was undertaken. Specifically, the 2006 HMDA data were reaggregated to exclude the lenders that ceased operations and did not report in 2007. Although many of these lenders extended relatively few loans (30 percent of the lenders extended fewer than 250 conventional first-lien loans for site-built properties in 2006), a few were among the nation's leading lenders in 2006. Moreover, some of these institutions were particularly active in the higher-priced segment of the home-purchase or refinance market. In the aggregate, these companies accounted for nearly 15 percent of the higher-priced conventional first-lien loans for site-built properties reported in 2006, and they accounted for about 8 percent of all conventional first-lien loans for such properties (data not shown in tables).[29]

Time Pattern of Lending Activity

The dates of loan origination reported in the HMDA data can be used to review the pattern of monthly loan extensions over the course of 2006 and 2007 to help distinguish the effects of the mortgage market turmoil on reported loan activity from the effects of closed lenders not reporting 2007 activity. For this analysis, we focus on home-purchase and refinance lending for site-built properties. The volume of home-purchase originations peaked in June 2006 and declined over the rest of the year (figure 1). The pattern for refinancings was less consistent, as monthly originations varied over the course of the year, with high points reached in both March and October 2006.

Data for 2007 show a substantial falloff in activity from December 2006. The abrupt decline from December 2006 to January 2007 is likely a result of a combination of nonreporting by the 169 institutions that ceased operations and the mortgage and housing market turmoil in 2007 that caused most lenders to reduce origination activity. Among home-purchase loans, the greatest falloff in reported activity was in the higher-priced segment, in which originations dropped some 32 percent from December 2006 to January 2007. Overall, home-purchase lending fell

1. Volume of home-purchase and refinance loans originated: Higher- and lower-priced loans, and such loans excluding those originated by closed lenders, by month of origination, 2006-07



NOTE: The data are monthly. Loans are conventional first-lien mortgages for site-built properties and exclude business loans. Closed lenders are lenders that reported data for 2006 under the Home Mortgage Disclosure Act (HMDA) but that subsequently ceased operations and did not report HMDA data for 2007. For definitions of higher- and lower-priced loans, see text note 7.

* Excluding loans originated by closed lenders.

28. The list of lenders that ceased operations and did not report is as comprehensive as possible at this time. If additional information becomes available, the list will be updated.

29. Calculations exclude home-improvement loans and business-related loans.

27 percent over this period. A similar pattern was found for refinancings.

To better evaluate the effects of nonreporting on loan volumes in the early part of 2007, the loans of the 169 lenders that ceased operations and did not report were removed from the total loan volumes reflected in the 2006 HMDA data. Excluding these lenders reduces by about 25 percent the differences in the level of home-purchase (and refinance) lending reported between the end of 2006 and January 2007. The reduction is larger for the higher-priced loan segment (about 42 percent), a finding that reflects the greater focus of these institutions on that segment of the market. The fact that a large drop in lending activity is still observed after removing from the 2006 data the institutions that ceased operations indicates that most of the decline in reported lending from 2006 to 2007 was due to the effects of the market turmoil and not nonreporting.

Higher-Priced Lending by Lender Type

Lending activity can be described by type of lender. Four groups of lenders are considered here: depository institutions and three types of mortgage companies—namely, independents, direct subsidiaries of depository institutions, and affiliates of depository institutions. In 2004 and 2005, independent mortgage companies originated about one-half of the higher-priced conventional first-lien loans related to site-built homes and about 30 percent of all conventional first-lien loans (table 11). Depository institutions extended about one-fourth of the higher-priced

11. Distribution of higher-priced lending, by type of lender, and incidence at each type of lender, 2004–07

Percent except as noted

Type of lender	Higher-priced loans			Memo: All loans	
	Number	Distribution	Incidence	Number	Distribution
			2004		
Independent mortgage company	789,337	50.6	25.5	3,093,777	27.8
Depository	403,661	25.9	8.0	5,017,334	45.2
Subsidiary of depository	179,375	11.5	9.0	1,993,212	17.9
Affiliate of depository	187,296	12.0	18.6	1,006,481	9.1
Total	1,559,669	100	14.0	11,110,804	100
			2005		
Independent mortgage company	1,525,424	52.0	41.4	3,684,489	31.0
Depository	670,024	22.8	12.8	5,217,810	43.8
Subsidiary of depository	381,228	13.0	20.7	1,842,652	15.5
Affiliate of depository	357,689	12.2	30.9	1,157,421	9.7
Total	2,934,365	100	24.7	11,902,372	100
			2006		
Independent mortgage company	1,280,987	45.7	41.5	3,083,947	31.2
Depository	800,421	28.5	18.7	4,285,896	43.4
Subsidiary of depository	346,882	12.4	22.9	1,517,564	15.4
Affiliate of depository	377,286	13.4	37.9	996,614	10.1
Total	2,805,576	100	28.4	9,884,021	100
			2006 (excluding loans by closed lenders)[1]		
Independent mortgage company	880,927	36.7	37.6	2,341,193	25.6
Depository	800,421	33.4	18.7	4,285,896	46.9
Subsidiary of depository	338,758	14.1	22.5	1,508,231	16.5
Affiliate of depository	377,286	15.7	37.9	996,614	10.9
Total	2,397,392	100	26.3	9,131,934	100
			2007		
Independent mortgage company	292,571	20.5	20.1	1,453,385	19.0
Depository	654,176	45.8	14.8	4,408,656	57.7
Subsidiary of depository	229,340	16.1	19.8	1,158,064	15.2
Affiliate of depository	252,739	17.7	40.6	622,571	8.1
Total	1,428,826	100	18.7	7,642,676	100

Note: Conventional first-lien mortgages for site-built properties; excludes business loans. For definition of higher-priced lending, see text note 7.

1. Closed lenders are lenders that reported data for 2006 under the Home Mortgage Disclosure Act (HMDA) but that subsequently ceased operations and did not report HMDA data for 2007.

loans and about 45 percent of all loans. The HMDA data for 2006 show that independent mortgage companies accounted for a somewhat smaller share of the higher-priced loan market (but a nearly equivalent share of the entire market): In that year, these companies extended 46 percent of the higher-priced loans and 31 percent of all loans.

As noted earlier, in 2007, turmoil in the subprime mortgage sector caused a number of lenders to cease operations, curtail their activities, or transfer their business to others; all but two of the institutions that ceased operations were independent mortgage companies. The HMDA data portray the diminished role of independent mortgage companies in the home-lending market: In 2007, these companies originated 21 percent of the reported higher-priced loans and 19 percent of all loans.

The reduced role of the independent mortgage companies in the 2007 HMDA data is due partly to some of these lenders ceasing operations and partly to a curtailment of activity among surviving institutions of this type. Because the independent mortgage companies that ceased operations in 2007 did not report any activity, it is impossible to determine the magnitude of their lending in 2007. To help gauge their potential importance, the 2006 HMDA data were re-aggregated to exclude the independent mortgage companies that ceased operations during 2007 and did not report. Excluding these closed institutions reduces by some 31 percent the number of higher-priced loans originated by lenders in the independent mortgage company category in 2006 and raises by between about 14 percent and 17 percent the share of higher-priced lending accounted for by the other types of lenders in that year (data derived from table 11).

In the 2007 HMDA data, depository institutions are the leading providers of higher-priced loans. In part, this finding is a reflection of the sharp reduction in lending by independent mortgage companies (both those that continued to operate throughout 2007 and those that closed and did not report). The increased role of depository institutions in the higher-priced segment of the market is not an indication of expanded lending; the number of higher-priced loans that depository institutions extended in 2007 was some 18 percent below the corresponding total for 2006. Rather, the increased role of such institutions reflects the large contraction in activity of other institutions in this part of the market.

2006 Lending Profile of the 169 Closed Institutions That Did Not Report

One way to learn about the activities of the institutions that ceased operations in 2007 and did not report data is to examine the nature of their lending activities in 2006 and to compare it with the lending of the other reporting institutions for that year. For the analysis, lending activities are described by a wide range of borrower, location, and loan characteristics and by local housing or mortgage market conditions (table 12).

The analysis identifies many differences between the lending activities of the 169 institutions in 2006 and those of the other HMDA reporters. Most striking is the much higher incidence of higher-priced lending for the 169 institutions than for the other reporters. This difference is revealed in the profile of lending arrayed by either borrower income or by race or ethnicity of the borrower. For all income categories, the incidence of higher-priced lending for the 169 institutions is about double the rate for the other HMDA reporters. Also striking is the very high incidence of higher-priced lending for blacks (74 percent) and Hispanic whites (63 percent) among the 169 lenders. Regarding their overall lending, the 169 lenders extended a higher share of their loans to blacks and Hispanic whites than the other HMDA reporters, and they also extended a higher share of loans to borrowers in census tracts with larger fractions of minority populations or lower incomes.

In 2006, the 169 institutions tended to extend somewhat larger loans and nearly double the share of piggyback loans. The loans they originated also were more likely to be for properties in the western region of the country and in metropolitan areas that experienced greater recent declines in home values and greater increases in mortgage delinquencies.

Changes in Lending Activity by Borrower and Geography

The HMDA data can be used to track changes in mortgage market activity between 2006 and 2007. Over this period, the mortgage market transitioned from one characterized by a relatively high incidence of higher-priced lending and of mortgage loan sales to one with a substantially lower share of both higher-priced lending and loans sold to the secondary mar-

12. Distribution of all loans and of lower- and higher-priced loans, and incidence of lower- and higher-priced lending, for the 169 closed lenders and for all other lenders, by characteristic of borrower and of loan and by location of property, 2006

Percent

Characteristic and status	Closed lenders					All other lenders				
	All loans	Lower-priced loans		Higher-priced loans		All loans	Lower-priced loans		Higher-priced loans	
	Distribution	Distribution	Incidence[1]	Distribution	Incidence[1]	Distribution	Distribution	Incidence[1]	Distribution	Incidence[1]
BORROWER										
Income ratio (percent of area median)[2]										
Lower	12.1	11.2	45.2	12.9	54.8	14.5	14.4	72.7	14.9	27.3
Middle	9.0	7.5	40.7	10.4	59.3	10.6	10.4	71.8	11.2	28.2
High	70.5	70.3	48.6	70.8	51.4	69.0	69.3	73.6	68.3	26.4
Missing[3]	8.4	11.1	64.2	5.9	35.8	5.9	6.0	74.7	5.6	25.3
Total	100	100	48.8	100	51.2	100	100	73.3	100	26.7
Minority status[4]										
Black or African American	16.7	9.5	26.1	22.7	73.9	9.7	6.5	49.3	18.9	50.7
Hispanic white	22.1	17.8	36.6	25.8	63.4	14.6	12.5	63.0	20.7	37.0
Asian	4.3	5.2	55.1	3.5	44.9	4.5	5.1	83.4	2.9	16.6
Non-Hispanic white	56.9	67.5	54.1	48.0	45.9	71.2	76.0	78.9	57.5	21.1
Total[5]	100	100	45.6	100	54.4	100	100	73.9	100	26.1
Sex										
Single female	31.1	27.7	40.4	34.0	59.6	24.8	23.2	68.9	29.1	31.1
Single male	40.0	36.7	41.7	42.9	58.3	33.0	30.7	68.4	39.4	31.6
Joint female and male[6]	28.8	35.7	56.3	23.1	43.7	42.2	46.0	80.2	31.5	19.8
Total[5]	100	100	45.5	100	54.5	100	100	73.5	100	26.5
LOAN										
Amount of loan (thousands of dollars)										
Less than 100	15.3	8.7	26.3	20.8	73.7	20.5	17.8	63.6	28.0	36.4
100–249	49.0	50.4	47.3	47.9	52.7	48.0	48.5	74.2	46.4	25.8
250 or more	35.7	40.9	52.7	31.3	47.3	31.5	33.7	78.3	25.6	21.7
Total[5]	100	100	46.0	100	54.0	100	100	73.3	100	26.7
Owner-occupancy status										
Owner	85.1	85.1	46.0	85.0	54.0	86.2	86.3	73.4	86.2	26.6
Non-owner[7]	14.9	14.9	45.9	15.0	54.1	13.8	13.7	73.2	13.8	26.8
Total[5]	100	100	46.0	100	54.0	100	100	73.3	100	26.7
Type of property										
1–4 family site-built	99.6	99.3	45.9	99.8	54.1	98.0	98.6	73.8	96.2	26.2
Manufactured home	.4	.7	73.8	.2	26.2	2.0	1.4	49.9	3.8	50.1
Total[5]	100	100	46.0	100	54.0	100	100	73.3	100	26.7
Piggyback status										
Piggyback[8]	23.2	19.8	39.3	26.1	60.7	12.7	10.3	59.3	19.5	40.7
Not piggyback	76.8	80.2	48.0	73.9	52.0	87.3	89.7	75.4	80.5	24.6
Total[5]	100	100	46.0	100	54.0	100	100	73.3	100	26.7
LOCATION OF PROPERTY, BY FREDDIE MAC REGION[9]										
Northeast	18.9	19.5	46.9	18.3	53.1	22.1	22.6	74.9	20.8	25.1
Southeast	20.8	18.3	39.8	22.9	60.2	22.1	21.2	70.6	24.4	29.4
North Central	13.1	10.3	35.5	15.5	64.5	16.7	16.4	72.0	17.5	28.0
Southwest	12.7	12.1	43.2	13.1	56.8	13.7	13.2	70.6	15.1	29.4
West	34.5	39.8	52.2	30.2	47.8	25.5	26.6	76.7	22.3	23.3
Total[5]	100	100	45.3	100	54.7	100	100	73.3	100	26.7
CENSUS TRACT OF PROPERTY										
Income ratio (percent of area median)[10]										
Lower	24.2	18.0	33.7	29.3	66.3	17.9	14.7	60.4	26.5	39.6
Middle	49.2	48.4	44.4	49.9	55.6	50.9	50.2	72.2	53.1	27.8
High	26.6	33.6	57.0	20.9	43.0	31.2	35.1	82.6	20.4	17.4
Total[5]	100	100	45.2	100	54.8	100	100	73.3	100	26.7

ket. As noted, a comparison of lending activity in these two years is complicated by an underreporting of loans in 2007 because some lenders went out of business during the year and did not report HMDA data. Most of the lenders that did not report data for 2007 exited the market by the middle of that year, and therefore underreporting of data is much less likely to be a problem for the last half of the year. Consequently, to reduce the uncertain effects of underreporting, we compare mortgage market activity in the first six months of 2006 with that in the last six months of 2007.

The comparison focuses primarily on the changes in the number of originated loans, although changes in the number of applications and of denials are also examined. Comparisons of loan originations are made

12. Distribution of all loans and of lower- and higher-priced loans, and incidence of lower- and higher-priced lending, for the 169 closed lenders and for all other lenders, by characteristic of borrower and of loan and by location of property, 2006—*Continued*

Percent

Characteristic and status	Closed lenders					All other lenders				
	All loans	Lower-priced loans		Higher-priced loans		All loans	Lower-priced loans		Higher-priced loans	
	Distribution	Distribution	Incidence[1]	Distribution	Incidence[1]	Distribution	Distribution	Incidence[1]	Distribution	Incidence[1]
Racial or ethnic composition (minorities as a percent of population)										
Less than 10	22.0	23.9	49.0	20.5	51.0	32.4	34.5	78.0	26.7	22.0
10–50	48.5	53.5	49.9	44.3	50.1	47.9	49.2	75.3	44.3	24.7
50 or more	29.5	22.6	34.7	35.1	65.3	19.7	16.3	60.8	28.9	39.2
Total[5]	100	100	45.2	100	100	100	100	73.3	100	26.7
Credit score of borrowers (percent of mortgage borrowers with scores below 600)[11]										
20 or more	17.3	9.8	26.0	23.7	74.0	13.9	10.2	53.7	24.1	46.3
10–20	32.8	30.0	42.1	35.2	57.9	30.6	28.5	68.4	36.3	31.6
Less than 10	49.9	60.1	55.5	41.1	44.5	55.5	61.3	81.0	39.6	19.0
Total[5]	100	100	46.0	100	54.0	100	100	73.3	100	26.7
MSA OF PROPERTY										
Real price appreciation of real estate (percent)[12]										
–8 or less	54.6	55.9	46.4	53.6	53.6	44.3	44.4	73.6	44.3	26.4
–8-0	33.8	32.4	43.6	34.9	56.4	41.9	41.8	73.5	42.1	26.5
0 or more	11.6	11.7	45.7	11.6	54.3	13.8	13.8	74.0	13.6	26.0
Total[5]	100	100	45.4	100	54.6	100	100	73.6	100	26.4
Change in delinquency rate (percent)[13]										
0.5 or less	27.9	27.3	44.2	28.5	55.8	37.0	36.7	72.7	37.8	27.3
0.5–2	44.9	43.0	43.3	46.5	56.7	42.9	42.4	72.3	44.5	27.7
2 or more	27.2	29.7	49.5	25.1	50.5	20.1	20.9	76.4	17.8	23.6
Total[5]	100	100	45.2	100	54.8	100	100	73.3	100	26.7

NOTE: Conventional first-lien mortgages for home purchase or refinance for single-family houses; excludes business loans. For definition of closed lenders, see note 1, table 11; for definitions of lower- and higher-priced lending, see text note 7.

1. Distribution sums horizontally.

2. Borrower income is the total income relied upon by the lender in the loan underwriting. Income is expressed relative to the median family income of the metropolitan statistical area (MSA) or statewide non-MSA in which the property being purchased is located. "Lower" is less than 80 percent of the median; "middle" is 80 percent to 119 percent; and "high" is 120 percent or more.

3. Information for income or property location was missing on the application.

4. Categories for race and ethnicity reflect the revised standards established in 1997 by the Office of Management and Budget. Applicants are placed under only one category for race and ethnicity, generally according to the race and ethnicity of the person listed first on the application. However, under race, the application is designated as *joint* if one applicant reported the single designation of white and the other reported one or more minority races. If the application is not joint but more than one race is reported, the following designations are made: If at least two minority races are reported, the application is designated as *two or more minority races;* if the first person listed on an application reports two races, and one is white, the application is categorized under the minority race. For loans with two or more applicants, lenders covered under the Home Mortgage Disclosure Act report data on only two.

5. Excludes loans for which the information for the characteristic was missing on the application and loans deemed business related or multifamily.

6. On the applications for these loans, one applicant reported "male," and the other reported "female." For female and for male, only sole applicants were considered. Excludes loans for which sex was missing on the application and loans involving two females or two males.

7. Includes loans for which occupancy status was missing.

8. For definition of piggyback lending, see note to table 8.

9. Freddie Mac defines its regions as follows: *Northeast:* N.Y., N.J., Pa., Del., Md., D.C., Va., W.V., P.R., Maine, N.H., Vt., Mass., R.I., Conn., V.I.; *Southeast:* N.C., S.C., Tenn., Ky., Ga., Ala., Fla., Miss.; *North Central:* Ohio, Ind., Ill., Mich., Wis., Minn., Iowa, N.D., S.D.; *Southwest:* Texas, La., N.M., Okla., Ark., Mo., Kan., Colo., Neb., Wyo.; *West:* Calif., Ariz., Nev., Ore., Wash., Utah, Idaho, Mont., Hawaii, Alaska, Guam.

10. The income category of a census tract is the median family income of the tract relative to that of the metropolitan statistical area (MSA) or statewide non-MSA in which the tract is located. "Lower" is less than 80 percent of the median; "middle" is 80 percent to 119 percent; and "high" is 120 percent or more.

11. Data from Equifax drawn from credit records of individuals as of December 31, 2006. A score below 600 generally conforms with borrowers in the subprime portion of the mortgage market. Includes all borrowers with an outstanding mortgage regardless of the year in which the loan was taken out.

12. Housing price index from the Office of Federal Housing Enterprise Oversight. House price changes calculated using the percent change in the index from the fourth quarter of 2006 through the first quarter of 2008. Based on the change in median home values for a constant 2000-defined geography.

13. Delinquency rates from Trend Data, a product of TransUnion LLC. The change in the mortgage delinquency rate is calculated using delinquency rates from the fourth quarter of 2003 to the fourth quarter of 2007.

for both lower-priced and higher-priced loans. Within the category of higher-priced loans, differentiation is made by the size of the reported APR spread. Loans for home purchase and for refinancing are examined separately, and the analysis is restricted to first-lien loans secured by a site-built property. Unlike some of the earlier analyses, we do not differentiate between government-backed and conventional loans. Changes in the number of loan originations are examined by borrower race or ethnicity, borrower income, census-tract income, and owner-occupancy status of the property securing the loan.

13. Change in the number of loan applications, denials, and originations, and change in the number of lower- and higher-priced originations, for all loans and for jumbo loans, by characteristic of borrower and of census tract, 2006:H1 through 2007:H2

A. Home purchase

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Applications		Loans originated						Jumbo				
					Higher priced								
						Distribution, by percentage points of APR spread[1]			Applications				
	Number acted upon by lender	Number denied	All	Lower priced	All	3–3.99	4–4.99	5 or more	Number acted upon by lender	Number denied	All	Lower priced	Higher priced
OWNER OCCUPIED													
BORROWER													
Minority status[2]													
Black or African American	–31.9	–25.7	–35.2	–2.3	–69.4	11.2	–46.7	–89.0	–37.3	–10.7	–57.2	–39.7	–74.5
Hispanic white	–42.1	–30.7	–48.8	–26.8	–75.7	–25.0	–66.4	–94.0	–57.3	–32.5	–72.8	–65.1	–83.1
Other minority[3]	–23.1	–20.7	–26.2	–15.3	–73.4	–24.7	–71.2	–93.1	–35.9	–26.9	–43.4	–36.2	–75.6
Non-Hispanic white	–20.1	–18.0	–21.8	–14.3	–60.0	–11.4	–47.6	–88.5	–31.7	–12.1	–40.2	–37.1	–62.3
Missing[4]	–27.5	–29.2	–26.3	–9.8	–71.1	–11.2	–56.0	–91.1	–31.5	–19.0	–38.8	–31.2	–71.4
Minority status, by income category[5]													
Lower													
Black or African American	–30.8	–30.3	–30.0	5.2	–65.7	43.7	–32.8	–88.0	–15.0	–7.4	–25.9	.0	–87.5
Hispanic white	–24.6	–21.7	–27.3	–4.7	–60.5	–1.2	–44.6	–90.6	–30.9	–12.2	–70.2	–65.0	–82.4
Other minority[3]	–14.0	–12.0	–16.4	–6.0	–61.6	6.1	–54.6	–90.6	–36.5	–30.5	–53.7	–53.9	–50.0
Non-Hispanic white	–19.8	–20.3	–20.3	–11.7	–54.6	13.7	–35.8	–88.8	–20.7	1.9	–38.6	–34.9	–63.3
Total	–22.9	–24.1	–22.6	–9.2	–59.2	15.4	–38.0	–88.9	–26.9	–13.3	–42.6	–37.8	–70.0
Middle													
Black or African American	–29.5	–24.7	–31.8	7.7	–64.4	28.9	–47.0	–90.0	–14.1	2.8	–29.2	–14.6	–55.6
Hispanic white	–36.9	–28.8	–42.1	–13.1	–70.3	–6.4	–64.0	–94.7	–44.4	–29.6	–58.3	–46.8	–80.5
Other minority[3]	–17.5	–14.7	–20.2	–8.8	–75.1	–3.1	–68.9	–93.4	–27.8	–11.7	–35.6	–31.4	–80.3
Non-Hispanic white	–20.0	–19.7	–21.1	–12.2	–71.0	.6	–49.7	–90.1	–33.8	–12.9	–42.0	–40.6	–56.9
Total	–23.6	–23.2	–24.7	–10.1	–67.9	3.0	–54.0	–91.3	–31.7	–15.5	–40.9	–36.1	–68.2
High													
Black or African American	–31.8	–20.3	–38.7	–6.9	–72.9	–.3	–57.5	–89.6	–38.1	–13.4	–57.2	–36.6	–76.4
Hispanic white	–48.8	–35.4	–57.3	–35.8	–81.5	–29.7	–75.1	–94.7	–57.7	–34.3	–72.9	–64.3	–83.9
Other minority[3]	–23.6	–23.9	–27.0	–15.8	–77.1	–23.9	–75.9	–93.6	–34.6	–27.9	–42.0	–34.4	–75.7
Non-Hispanic white	–16.9	–12.9	–19.6	–13.3	–61.2	–15.7	–51.1	–87.0	–30.7	–12.5	–39.1	–36.1	–62.3
Total	–23.9	–21.7	–26.6	–14.6	–71.3	–17.6	–61.9	–90.9	–35.9	–20.6	–44.9	–37.7	–73.6
Missing[4]	–61.6	–36.4	–68.4	–67.7	–70.3	–70.2	–64.8	–80.7	–51.2	–2.9	–64.3	–64.6	–63.6
CENSUS TRACT OF PROPERTY													
Income category[6]													
Lower	–32.9	–29.5	–26.2	–13.2	–70.0	–8.1	–53.9	–90.8	–36.8	–19.3	–46.5	–38.8	–73.0
Middle	–24.8	–22.6	–27.2	–13.2	–65.8	–10.3	–52.7	–90.3	–37.2	–19.3	–47.0	–40.0	–72.9
High	–24.8	–18.5	–27.1	–16.3	–66.7	–20.4	–57.7	–90.0	–36.4	–19.8	–45.5	–38.8	–72.8
Total owner occupied	–25.2	–23.4	–26.9	–14.4	–67.1	–12.4	–54.1	–90.4	–36.6	–19.5	–45.9	–39.0	–72.9
NON-OWNER OCCUPIED[7]													
Total	–38.2	–29.2	–41.5	–32.6	–64.5	–52.0	–57.1	–86.1	–37.5	–25.3	–44.5	–40.2	–64.7
Total	**–27.4**	**–24.4**	**–29.3**	**–17.3**	**–66.6**	**–25.7**	**–54.7**	**–89.9**	**–36.7**	**–20.2**	**–45.7**	**–39.2**	**–71.9**

NOTE: Conventional first-lien mortgages for site-built properties; excludes business loans and applications, applications in U.S. territories, and applications missing census-tract information. For definitions of lower- and higher-priced lending, see text note 7; for definition of jumbo loans, see note 4, table 6.

1. See note 1, table 3.
2. See note 4, table 12.
3. Other minority consists of American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.
4. Information for the characteristic was missing on the application.
5. See note 2, table 12.
6. See note 10, table 12.
7. Includes applications and loans for which occupancy status was missing.

Changes in Lending Activity by Characteristic of Borrower and Census Tract

All borrower and census-tract groups, whether characterized by race or ethnicity, income, or owner-occupancy status, experienced a decline in the number of loan originations for home purchase and for refinancing (tables 13.A and 13.B, column 3). The percentage decline in loan originations was largest for Hispanic whites and for blacks. For example, home-purchase loans to Hispanic white and black borrowers fell 49 percent and 35 percent respectively, while such loans to non-Hispanic white borrowers fell 22 percent over the same period. Even when changes for borrowers of similar income levels are compared, differences across racial or ethnic groups are found. However, the overall differences across income classes, whether

13. Change in the number of loan applications, denials, and originations, and change in the number of lower- and higher-priced originations, for all loans and for jumbo loans, by characteristic of borrower and of census tract, 2006:H1 through 2007:H2—*Continued*

B. Refinance

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Applications		Loans originated										
					Higher priced				Jumbo				
						Distribution, by percentage points of APR spread[1]			Applications				
	Number acted upon by lender	Number denied	All	Lower priced	All	3–3.99	4–4.99	5 or more	Number acted upon by lender	Number denied	All	Lower priced	Higher priced
OWNER OCCUPIED													
BORROWER													
Minority status[2]													
Black or African American	-18.3	-.1	-37.4	-16.0	-59.0	-23.8	-51.6	-71.8	-25.3	15.0	-61.8	-57.2	-68.6
Hispanic white	-15.7	19.1	-40.6	-28.4	-63.4	-17.9	-55.2	-81.9	-22.1	26.5	-58.9	-55.2	-67.4
Other minority[3]	-12.2	14.6	-30.9	-22.3	-60.8	-25.6	-51.2	-79.5	-23.2	16.2	-49.1	-45.2	-66.6
Non-Hispanic white	-15.6	-3.8	-24.4	-15.5	-51.9	-20.3	-42.9	-71.2	-28.2	11.1	-49.6	-48.4	-55.7
Missing[4]	-29.4	-28.8	-33.1	-16.8	-62.5	-19.5	-57.4	-79.5	-27.0	-9.8	-47.3	-44.4	-57.0
Minority status, by income category[5]													
Lower													
Black or African American	-23.6	-11.4	-39.3	-9.8	-61.1	-25.9	-55.3	-72.6	6.2	19.1	-60.8	-32.0	-88.5
Hispanic white	-16.2	4.0	-35.5	-14.3	-66.0	-22.6	-58.0	-82.6	20.3	42.4	-54.2	-39.2	-90.5
Other minority[3]	-13.4	-1.6	-27.2	-13.8	-60.6	-34.2	-53.5	-75.0	23.7	36.8	-50.0	-49.0	-55.6
Non-Hispanic white	-24.6	-19.4	-29.9	-18.7	-54.8	-22.8	-47.5	-72.3	-4.6	4.5	-27.0	-17.6	-63.9
Total	-26.6	-21.6	-32.7	-16.9	-58.9	-24.0	-52.2	-74.7	-4.9	5.1	-38.2	-28.0	-71.6
Middle													
Black or African American	-14.5	9.1	-36.5	-11.7	-59.6	-21.0	-51.8	-72.3	-9.3	37.9	-69.8	-58.7	-80.9
Hispanic white	-14.0	24.5	-39.5	-23.8	-65.8	-16.9	-59.1	-82.4	-12.8	40.8	-63.7	-55.7	-84.2
Other minority[3]	-10.5	16.7	-30.1	-19.8	-61.2	-25.4	-49.1	-78.5	-11.3	35.0	-54.8	-49.4	-81.5
Non-Hispanic white	-16.0	-3.3	-25.3	-14.4	-54.3	-21.9	-46.3	-71.7	-33.5	3.7	-67.3	-62.2	-83.7
Total	-17.8	-4.1	-29.5	-15.5	-58.5	-21.5	-50.7	-74.9	-26.0	7.3	-64.9	-58.3	-82.3
High													
Black or African American	-10.5	19.1	-36.3	-21.9	-55.3	-16.4	-44.7	-70.5	-27.6	13.0	-62.0	-57.9	-67.9
Hispanic white	-13.5	29.1	-41.9	-32.9	-60.9	-7.7	-50.1	-81.4	-24.0	23.2	-58.8	-55.1	-67.3
Other minority[3]	-9.9	25.0	-30.6	-23.0	-61.1	-17.9	-51.5	-81.8	-24.1	13.8	-48.5	-44.4	-66.0
Non-Hispanic white	-6.1	15.0	-18.4	-11.3	-47.0	-10.1	-35.2	-70.0	-27.7	12.1	-49.0	-47.7	-55.2
Total	-9.6	11.0	-24.1	-15.1	-52.7	-10.3	-41.6	-74.2	-26.3	9.7	-50.4	-47.9	-60.0
Missing[4]	-40.8	-32.8	-44.5	-42.7	-54.2	-54.4	-50.3	-57.3	-35.1	.8	-52.3	-53.9	-44.2
CENSUS TRACT OF PROPERTY													
Income category[6]													
Lower	-23.2	-10.6	-29.0	-21.0	-59.3	-22.0	-51.4	-74.8	-25.7	10.1	-51.5	-49.9	-59.1
Middle	-17.9	-7.5	-28.9	-15.9	-55.1	-21.2	-46.7	-73.0	-26.4	8.9	-51.7	-49.3	-60.9
High	-15.4	-1.1	-28.8	-17.8	-56.8	-17.6	-48.3	-77.8	-26.3	8.7	-50.7	-48.0	-61.0
Total owner occupied	-18.3	-6.8	-28.8	-17.3	-56.5	-20.6	-48.2	-74.4	-26.4	9.0	-51.1	-48.5	-60.6
NON-OWNER OCCUPIED[7]													
Total	-7.8	23.9	-23.0	-8.3	-60.5	-37.4	-49.9	-81.3	-19.1	16.2	-40.0	-32.8	-66.2
Total	**-17.4**	**-4.8**	**-28.2**	**-16.4**	**-56.9**	**-22.9**	**-48.3**	**-75.0**	**-25.8**	**9.5**	**-50.1**	**-47.2**	**-61.1**

NOTE: See notes to table 13.A.

measured by the borrower's income or the median income for the census tract, are much smaller than the differences across racial or ethnic groups. There are two notable exceptions: (1) The number of refinance loans to high-income borrowers declined less than the number to middle- or lower-income borrowers, and (2) lending to borrowers with missing income declined much more than that to borrowers whose income was reported. Loans to borrowers with nonreported income may include a disproportionate share of stated-income or no-documentation loans, two products that experienced a sharp decline in 2007.

Most of the reduction in loan volume appears to be driven by declines in the number of applications. A portion of the decline in loan originations is also accounted for by a modest increase in denial rates. The increase in the denial rate is due to a smaller reduction in the number of denials (tables 13.A and 13.B, column 2) than in the number of applications (column 1).

The falloff in loan volumes differed substantially across loan-pricing categories. For example, the number of home-purchase loans with APR spreads of 5 percentage points or above declined almost 90 percent, whereas the number of lower-priced home-purchase loans declined only 17 percent. Differences in declines across pricing categories appear to explain at least a portion of the racial differences described earlier. For example, when comparisons are made for borrowers within each of the 12 combinations of borrower income and loan-pricing categories, the decline in home-purchase lending to blacks was lower than the decline in such lending to non-Hispanic whites in 10 of the 12 cases. Thus, the much larger overall decline in lending to blacks must be driven by the fact that blacks in 2006 were disproportionately in loan-pricing categories that experienced very large rates of decline. This pattern was less evident for refinance loans: Black borrowers tended to have greater declines than non-Hispanic whites, even when the comparison was made for borrowers of the same borrower income and loan-pricing category. However, these within-category differences were much smaller than the overall racial differences between black and non-Hispanic white borrowers. Generally, the large differences in the rates of decline in lending to Hispanic whites and non-Hispanic whites persisted across the loan-pricing categories. These differences appear to have been driven primarily by geography. For example, the rate of decline in higher-priced home-purchase lending to Hispanic whites was 15 percentage points greater than the decrease in such lending to non-Hispanic whites. More than two-thirds of this difference can be attributed to differences in the distribution of Hispanic whites and non-Hispanic whites across MSAs (data not shown in tables). This finding suggests that the higher rates of decline in lending to Hispanic whites can be attributed primarily to a higher proportion of Hispanic white borrowers in MSAs where lending has declined the most.

The recent mortgage market turmoil has raised concerns about the condition of the market for loans above the conforming loan-size limit established by Fannie Mae and Freddie Mac (jumbo loans). The 2006 and 2007 HMDA data provide an opportunity to profile changes in this market segment. The number of jumbo loan originations declined from the first half of 2006 to the last half of 2007 by a larger percentage than overall lending (46 percent compared with 29 percent), and it did so for every demographic category. Further, for both lower-priced and higher-priced loan categories, declines in loan originations were greater for jumbo loans than for overall lending. The difference was particularly large for lower-priced loans. For example, jumbo lower-priced refinance loans fell by almost one-half, while overall lower-priced refinance loans declined 16 percent.

Changes in Lending by Type of Lender

Changes in the number of loan originations differ substantially across types of lenders (tables 14.A and 14.B). For example, the number of higher-priced refinance loans originated by independent mortgage companies declined 85 percent between the first half of 2006 and the last half of 2007. In contrast, the number of such loans originated by depository institutions within their assessment areas actually rose 8 percent over the same period.[30] These differences are indicative of depository institutions' larger market shares (in total lending and higher-priced lending) in their assessment areas. However, the data in these tables show that the shift in market share from independent mortgage companies to depositories in their assessment areas has had very different patterns across racial or ethnic groups. For example, depository institutions experienced an increase in their volume of lower-priced home-purchase lending to black borrowers in their assessment areas by about one-fifth for each income category. In contrast, lower-priced home-purchase lending by depositories to non-Hispanic white borrowers in their assessment areas fell for each income class. Similar differences are shown for higher-priced loans. Overall, higher-priced home-purchase lending by depository institutions in their assessment areas fell 17 percent, whereas higher-priced lending to black borrowers fell only 3 percent.

Another way of looking at differences in loan originations across types of lenders is to examine how the changes differed across geographies that were predominantly served by specific lender types in 2006 (tables 15.A and 15.B). Here we identify those census tracts where 50 percent or more of the loans in 2006 were originated by (1) independent mortgage companies, (2) depository institutions in their assessment areas, or (3) lenders that went out of business during 2007 (this group includes the 169 lenders that did not

30. Larger commercial banks and savings associations covered by the Community Reinvestment Act of 1977 (CRA)—generally those with assets of $1 billion or more—are required to identify the census tracts in their CRA assessment areas as of the end of each calendar year. That information was used to determine which loans in the HMDA data were for properties within the lenders' CRA assessment areas. When lenders were part of a bank or thrift holding company, the combined assessment areas of all banks in the holding company were used for the analysis.

report HMDA data for 2007 as well as those lenders that went out of business and either reported 2007 HMDA data or were merged or acquired).

Higher-priced home-purchase or refinance lending declined more than the overall market in census tracts that in 2006 were primarily served by lenders that went out of business by 2007. This was also true for census tracts that had been heavily served by independent mortgage companies. In contrast, the decline in higher-priced lending in census tracts that were primarily served by depository institutions in their assessment areas was smaller than the declines in other census tracts. Patterns for lower-priced loans are less consistent. For example, the number of lower-priced home-purchase loans in census tracts that in 2006 were primarily served by lenders that went out of business in 2007 declined less than the number of such loans extended to borrowers in other census tracts. In contrast, the number of lower-priced refinance loans in census tracts that were primarily served by lenders that went out of business in 2007 declined at a higher rate than the number of these loans in other census tracts.

Differences in the rates of decline across racial or ethnic groups for these census tracts characterized by concentrated lending are sometimes quite large. For example, higher-priced home-purchase loans to black borrowers in census tracts primarily served by lenders that went out of business declined 70 percent between the first half of 2006 and the last half of 2007. In contrast, higher-priced home-purchase loans to non-Hispanic whites declined 53 percent over the same period. Interestingly, the number of lower-priced home-purchase loans to black borrowers in these census tracts increased 7 percent, while the number extended to non-Hispanic whites in the tracts decreased 3 percent.

We also look at census tracts concentrated by factors other than lender type. Specifically, we examine census tracts of two types: (1) those where 50 percent or more of the originated loans in 2006 were higher priced and (2) those where 50 percent or more of the loans were sold in the secondary market. The data indicate that the decline in the number of higher-priced loan originations in the second half of 2007 was greater in census tracts with a high concentration of sold loans in 2006 (72 percent) than in census tracts with a high concentration of higher-priced lending (57 percent). For both home-purchase and refinance loans, and for both higher-priced and lower-priced loans, census tracts with high concentrations of sold loans showed higher-than-average declines.

Changes in Lending by House Price Movements

To investigate the potential relationship between changes in housing market conditions and changes in lending activity from 2006 to 2007, metropolitan statistical areas were grouped into two categories corresponding to the percentage changes in the House Price Index of the Office of Federal Housing Enterprise Oversight (OFHEO) from the first quarter of 2003 through the fourth quarter of 2006.[31] Each of the two groups was split again according to the percentage changes in the index from the fourth quarter of 2006 through the first quarter of 2008. This process grouped census tracts in MSAs into those that, in the initial period, had either relatively weak growth or strong growth in home values and, in the more recent period, had small decreases, large decreases, or increases in home values.

As noted, the HMDA data show a marked decline in lending from 2006 to 2007. The falloff in lending activity is related to the pattern of house price changes over the previous few years. MSAs that experienced larger declines in house prices from the fourth quarter of 2006 through the first quarter of 2008 generally experienced larger declines in loan activity than MSAs in which house prices did not fall (tables 16.A and 16.B). Furthermore, in MSAs where house prices declined, the fall in home mortgage activity was relatively greater in those MSAs that had experienced larger house price appreciation from the first quarter of 2003 through the fourth quarter of 2006. Thus, the MSAs that experienced both the sharpest declines in recent house prices and the largest increases in house prices in the preceding four years experienced the largest declines in mortgage activity. For example, the volume of lower-priced home-purchase lending for owner-occupied properties fell 53 percent in MSAs that experienced large recent declines in home values after experiencing significant run-ups in such values in the preceding four years. By comparison, areas that also had large recent declines in house prices but smaller house price appreciation before 2006 experienced a decline of lower-priced home-purchase lending for owner-occupied properties of about 5.3 percent. The severity of declines in home lending was larger for higher-priced loans than for lower-priced loans regardless of the changes in house price patterns in recent years.

31. OFHEO's House Price Index has been renamed the Federal Housing Finance Agency House Price Index. More information about the index is available at www.ofheo.gov/hpi.aspx.

14. Change in the number of lower- and higher-priced loan originations, by type of lender and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2

A. Home purchase

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Lower-priced loans				Higher-priced loans			
	All	Type of lender			All	Type of lender		
		Depository, by property location		Independent mortgage company		Depository, by property location		Independent mortgage company
		Within assessment area[1]	Outside of assessment area			Within assessment area[1]	Outside of assessment area	
OWNER OCCUPIED								
BORROWER								
Minority status[2]								
Black or African American	-2.3	17.8	4.8	-27.0	-69.4	-2.7	-63.0	-87.0
Hispanic white	-26.8	-.9	-30.2	-47.6	-75.7	-24.0	-69.9	-91.5
Other minority[3]	-15.3	1.5	-17.4	-35.5	-73.4	-16.7	-68.0	-90.4
Non-Hispanic white	-14.3	-4.2	-14.1	-29.5	-60.0	-17.4	-52.1	-82.7
Missing[4]	-9.8	7.0	-3.9	-33.7	-71.1	-23.0	-53.7	-89.2
Minority status, by income category[5]								
Lower								
Black or African American	5.2	20.6	12.3	-18.6	-65.7	-1.6	-60.0	-84.3
Hispanic white	-4.7	8.2	-11.8	-17.5	-60.5	-17.2	-55.0	-83.6
Other minority[3]	-6.0	1.3	-7.5	-16.5	-61.6	-16.1	-57.2	-83.3
Non-Hispanic white	-11.7	-5.1	-11.2	-22.9	-54.6	-20.5	-47.7	-77.9
Total	-9.2	-.4	-8.0	-23.7	-59.2	-17.4	-52.1	-81.2
Middle								
Black or African American	7.7	22.5	11.9	-9.4	-64.4	1.7	-64.6	-87.0
Hispanic white	-13.1	9.1	-19.1	-27.7	-70.3	-13.8	-69.9	-90.5
Other minority[3]	-8.8	5.9	-12.4	-22.6	-75.1	-16.2	-66.2	-87.3
Non-Hispanic white	-12.2	-2.2	-13.0	-24.3	-71.0	-20.9	-54.8	-82.6
Total	-10.1	1.5	-10.8	-23.2	-67.9	-16.7	-60.3	-86.1
High								
Black or African American	-6.9	17.1	-.7	-33.3	-72.9	-3.5	-66.7	-89.2
Hispanic white	-35.8	-7.1	-37.5	-58.2	-81.5	-29.5	-77.0	-94.0
Other minority[3]	-15.8	1.5	-19.0	-36.6	-77.1	-15.5	-73.1	-92.5
Non-Hispanic white	-13.3	-2.7	-13.2	-29.9	-61.2	-5.7	-53.9	-85.0
Total	-14.6	-1.0	-14.8	-33.5	-71.3	-12.5	-63.8	-89.8
Missing[4]	-67.7	-40.8	-64.9	-86.4	-70.3	-48.7	-48.8	-91.1
CENSUS TRACT OF PROPERTY								
Income category[6]								
Lower	-13.2	6.5	-14.3	-35.9	-70.0	-14.5	-62.3	-88.9
Middle	-13.2	-1.0	-11.9	-30.7	-65.8	-19.2	-57.5	-85.8
High	-16.3	-4.7	-16.4	-32.4	-66.7	-15.5	-58.1	-86.8
Total owner occupied	-14.4	-1.5	-13.9	-32.1	-67.1	-17.2	-58.8	-86.9
NON-OWNER OCCUPIED[7]								
Total	-32.6	-15.3	-33.6	-56.9	-64.5	-16.0	-57.4	-91.8
Total	**-17.3**	**-3.6**	**-17.4**	**-35.5**	**-66.6**	**-16.9**	**-58.6**	**-87.7**

NOTE: Conventional first-lien mortgages for site-built properties; excludes business loans. For definitions of lower- and higher-priced lending, see text note 7.

1. Includes lending by nonbank affiliates in the assessment areas of depository institutions covered by the Community Reinvestment Act of 1977. For more information, see text note 30.
2. See note 4, table 12.
3. Other minority consists of American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.
4. Information for the characteristic was missing on the application.
5. See note 2, table 12.
6. See note 10, table 12.
7. Includes loans for which occupancy status was missing.

House price changes in the initial period affected the magnitude of changes in refinance and home-purchase markets differently. Markets that experienced strong gains in home values from 2003 to 2006 experienced smaller declines in refinance lending relative to the declines in home-purchase lending than did markets that witnessed the same recent changes in home values but weaker initial house price increases. This may be because those refinancing benefited from the earlier increase in home values and had more equity to extract or to offer as a down payment on the new loan.

Changes in Lending by the Severity of Changes in Mortgage Delinquency Rates

To investigate the potential relationship between changes in mortgage market conditions and changes

14. Change in the number of lower- and higher-priced loan originations, by type of lender and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2—*Continued*

B. Refinance

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Lower-priced loans				Higher-priced loans			
	All	Type of lender			All	Type of lender		
		Depository, by property location		Independent mortgage company		Depository, by property location		Independent mortgage company
		Within assessment area[1]	Outside of assessment area			Within assessment area[1]	Outside of assessment area	
OWNER OCCUPIED								
BORROWER								
Minority status[2]								
Black or African American	-16.0	-12.5	-5.7	-33.6	-59.0	-1.5	-46.3	-84.1
Hispanic white	-28.4	-15.6	-17.6	-56.7	-63.4	18.6	-52.5	-89.0
Other minority[3]	-22.3	-13.6	-16.2	-45.0	-60.8	3.5	-51.2	-87.6
Non-Hispanic white	-15.5	-13.2	-8.3	-30.3	-51.9	7.2	-38.9	-83.4
Missing[4]	-16.8	-10.6	2.0	-48.6	-62.5	6.7	-44.6	-81.2
Minority status, by income category[5]								
Lower								
Black or African American	-9.8	-9.6	-2.1	-20.6	-61.1	-16.4	-49.4	-84.5
Hispanic white	-14.3	-8.2	-1.4	-38.5	-66.0	-10.8	-53.1	-89.9
Other minority[3]	-13.8	-8.7	-10.4	-27.9	-60.6	-26.7	-48.7	-85.8
Non-Hispanic white	-18.7	-21.0	-11.5	-25.7	-54.8	-10.5	-42.8	-84.2
Total	-16.9	-17.9	-7.4	-28.9	-58.9	-13.5	-45.5	-84.2
Middle								
Black or African American	-11.7	-10.9	1.7	-28.9	-59.6	1.6	-46.3	-84.2
Hispanic white	-23.8	-16.6	-8.8	-49.2	-65.8	9.5	-55.5	-89.1
Other minority[3]	-19.8	-18.3	-11.8	-32.8	-61.2	-8.4	-51.9	-86.1
Non-Hispanic white	-14.4	-14.9	-6.9	-25.0	-54.3	.8	-41.2	-83.4
Total	-15.5	-15.2	-4.9	-30.7	-58.5	.7	-44.7	-83.9
High								
Black or African American	-21.9	-15.3	-12.1	-43.0	-55.3	23.9	-41.0	-84.3
Hispanic white	-32.9	-16.3	-24.2	-63.7	-60.9	52.6	-53.0	-88.9
Other minority[3]	-23.0	-12.5	-16.3	-49.8	-61.1	26.4	-53.2	-89.1
Non-Hispanic white	-11.3	-7.0	-2.7	-31.2	-47.0	34.6	-33.0	-82.9
Total	-15.1	-8.5	-5.3	-39.3	-52.7	37.6	-39.0	-84.1
Missing[4]	-42.7	-24.1	-38.8	-68.3	-54.2	-20.0	-35.3	-80.4
CENSUS TRACT OF PROPERTY								
Income category[6]								
Lower	-21.0	-14.7	-10.8	-42.2	-59.3	4.7	-45.9	-85.2
Middle	-15.9	-13.5	-6.2	-33.8	-55.1	5.7	-40.9	-83.5
High	-17.8	-12.0	-9.7	-38.8	-56.8	14.7	-44.4	-83.7
Total owner occupied	-17.3	-13.2	-8.0	-36.8	-56.5	7.2	-42.8	-84.0
NON-OWNER OCCUPIED[7]								
Total	-8.3	7.8	-2.2	-46.9	-60.5	17.3	-47.0	-92.8
Total	**-16.4**	**-11.0**	**-7.4**	**-37.7**	**-56.9**	**8.3**	**-43.2**	**-84.9**

NOTE: See notes to table 14.A.

in lending activity from 2006 to 2007, census tracts in MSAs were grouped into three categories according to the percentage change in their MSA-wide rate of serious mortgage delinquency from the fourth quarter of 2003 through the fourth quarter of 2007.[32] This process grouped census tracts in MSAs into those that had relatively healthy, moderate, or weak-performing mortgage markets over the past few years.

The 2006 and 2007 HMDA data show that changes in lending activity across MSAs were related not only to the magnitude and timing of changes in home prices but also to changes in mortgage performance. In particular, the falloff in loan activity was larger in MSAs that experienced the largest percentage increases in their rates of serious mortgage delinquency from the fourth quarter of 2003 through the fourth quarter of 2007 (table 17). This pattern held for both lower- and higher-priced lending and for virtually all demographic groups. For example, for lower-priced

32. Mortgage market delinquency rates by MSA were obtained from the Trend Data database; Trend Data is a registered trademark of TransUnion LLC (products.trendatatu.com/faqs.asp). Trend Data are based on the credit records of a geographically stratified random sample of about 30 million anonymous individuals drawn each quarter since 1992. The rate of serious mortgage delinquency is the percentage of outstanding mortgages that are 90 or more days delinquent or in foreclosure at the time the sample is pulled.

15. Change in the number of lower- and higher-priced loan originations, by type of loan concentration and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2

A. Home purchase

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Lower-priced loan originations						Higher-priced loan originations					
	All lower-priced	Higher-priced loan concentration	Sold loan concentration[1]	Lender out-of-business loan concentration[2]	Independent mortgage company loan concentration	Depository within assessment area loan concentration[3]	All higher-priced	Higher-priced loan concentration	Sold loan concentration[1]	Lender out-of-business loan concentration[2]	Independent mortgage company loan concentration	Depository within assessment area loan concentration[3]
OWNER OCCUPIED												
BORROWER												
Minority status[4]												
Black or African American	−2.3	−10.9	−1.9	6.8	−2.6	5.1	−69.4	−62.2	−72.2	−70.1	−71.9	−39.0
Hispanic white	−26.8	−34.4	−29.0	−27.1	−30.3	−10.8	−75.7	−75.4	−78.3	−82.7	−79.1	−45.6
Other minority[5]	−15.3	−9.7	−17.3	4.0	−21.2	10.7	−73.4	−70.3	−76.7	−76.0	−78.7	−37.1
Non-Hispanic white	−14.3	−15.2	−14.1	−2.8	−16.4	−9.1	−60.0	−49.9	−66.1	−52.9	−66.1	−30.6
Missing[6]	−9.8	−7.2	−10.5	−7.1	−17.3	−2.4	−71.1	−62.8	−75.2	−82.0	−78.3	−35.7
Minority status, by income category[7]												
Lower												
Black or African American	5.2	6.8	6.5	11.5	8.0	9.5	−65.7	−44.8	−68.5	−67.0	−67.3	−37.3
Hispanic white	−4.7	−.2	−5.7	−8.0	2.2	−8.1	−60.5	−42.1	−63.8	−66.7	−62.2	−41.7
Other minority[5]	−6.0	4.3	−5.3	24.8	2.2	−10.1	−61.6	−54.8	−66.8	−56.7	−67.5	−34.4
Non-Hispanic white	−11.7	−9.9	−10.8	−9.4	−8.1	−9.5	−54.6	−34.7	−60.6	−44.6	−57.4	−33.5
Total	−9.2	−7.3	−7.7	−5.7	−4.4	−9.2	−59.2	−38.4	−64.4	−61.6	−62.9	−35.2
Middle												
Black or African American	7.7	5.3	7.6	7.9	12.1	15.2	−64.4	−48.8	−73.8	−69.4	−71.4	−24.2
Hispanic white	−13.1	−2.2	−19.3	−6.3	−8.9	−10.2	−70.3	−65.7	−78.6	−83.7	−76.7	−43.5
Other minority[5]	−8.8	−.8	−11.7	31.7	−3.2	12.6	−75.1	−58.3	−74.5	−69.4	−75.3	−38.8
Non-Hispanic white	−12.2	−11.8	−12.7	−.2	−11.4	−9.0	−71.0	−47.8	−68.7	−51.5	−66.6	−32.6
Total	−10.1	−8.9	−10.7	2.8	−8.0	−6.4	−67.9	−51.9	−73.4	−72.9	−72.4	−34.5
High												
Black or African American	−6.9	−17.8	−6.8	9.7	−10.9	.4	−72.9	−70.7	−75.4	−75.2	−76.4	−50.6
Hispanic white	−35.8	−42.3	−38.2	−36.0	−42.1	−10.7	−81.5	−80.3	−83.5	−86.6	−84.5	−51.1
Other minority[5]	−15.8	−10.4	−19.3	−4.0	−25.4	15.0	−77.1	−72.9	−81.0	−79.6	−81.5	−35.6
Non-Hispanic white	−13.3	−15.1	−12.8	1.4	−17.6	−7.6	−61.2	−54.5	−68.1	−59.1	−69.4	−24.9
Total	−14.6	−15.2	−16.0	−6.7	−22.1	−3.6	−71.3	−65.2	−76.9	−79.9	−78.8	−29.8
Missing[6]	−67.7	−59.3	−73.4	−62.0	−75.8	−41.5	−70.3	−59.8	−72.6	−60.6	−73.3	−51.7
CENSUS TRACT OF PROPERTY												
Income category[8]												
Lower	−13.2	−9.3	−14.8	−2.5	−17.6	−3.4	−70.0	−60.0	−73.8	−77.0	−76.2	−38.3
Middle	−13.2	−12.7	−14.7	−6.3	−17.0	−3.1	−65.8	−56.5	−71.6	−68.5	−73.0	−31.2
High	−16.3	−16.3	−14.8	−11.2	−20.0	−9.3	−66.7	−61.0	−71.3	−73.2	−71.6	−34.7
Total owner occupied	−14.4	−14.7	−14.8	−6.4	−18.2	−6.2	−67.1	−59.1	−72.3	−73.8	−73.8	−33.6
NON-OWNER OCCUPIED[9]												
Total	−32.6	−23.8	−39.5	−16.6	−40.4	−13.8	−64.5	−45.9	−69.6	−66.7	−69.9	−40.6
Total	**−17.3**	**−16.0**	**−18.8**	**−7.9**	**−21.7**	**−7.3**	**−66.6**	**−57.0**	**−71.7**	**−72.6**	**−73.1**	**−35.1**

NOTE: See general note to table 14.A. Loan concentration is by census tract. Lending in a census tract is defined as concentrated if 50 percent or more of the loans originated in the tract in 2006 had a particular characteristic or if 50 percent or more of the loans originated in the tract in that year were originated by a particular type of lender.

1. Sold loans are loans sold by the originator within the calendar year of origination.

2. Lenders that went out of business consist of lenders that ceased operations during 2007 (this group includes the 169 lenders that did not report data for 2007 under the Home Mortgage Disclosure Act as well as those lenders that went out of business and either reported 2007 HMDA data or were merged or acquired).

3. For explanation of lending within assessment area, see note 1, table 14.A.

4. See note 4, table 12.

5. Other minority consists of American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.

6. Information for the characteristic was missing on the application.

7. See note 2, table 12.

8. See note 10, table 12.

9. See note 7, table 12.

home-purchase loans, the decline in lending in MSAs experiencing smaller increases in delinquency rates was about one-half of that in MSAs experiencing very significant changes in delinquency rates. The decline in lending was particularly severe for higher-priced loans in MSAs with very significant increases in delinquency rates: Lending of such loans fell more than 81 percent from 2006 to 2007. The relationship between the decline in lending activity and the severity of changes in mortgage delinquency was similar for refinancings, although the falloff in activity was more muted.

15. Change in the number of lower- and higher-priced loan originations, by type of loan concentration and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2—*Continued*

B. Refinance

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Lower-priced loan originations						Higher-priced loan originations					
	All lower-priced	Higher-priced loan concentration	Sold loan concentration[1]	Lender out-of-business loan concentration[2]	Independent mortgage company loan concentration	Depository within assessment area loan concentration[3]	All higher-priced	Higher-priced loan concentration	Sold loan concentration[1]	Lender out-of-business loan concentration[2]	Independent mortgage company loan concentration	Depository within assessment area loan concentration[3]
OWNER OCCUPIED												
BORROWER												
Minority status[4]												
Black or African American	−16.0	−32.0	−15.7	−30.6	−27.5	−3.5	−59.0	−43.7	−63.4	−61.0	−65.1	−12.7
Hispanic white	−28.4	−40.2	−27.0	−35.9	−34.5	−20.2	−63.4	−55.3	−66.2	−64.2	−66.4	−32.6
Other minority[5]	−22.3	−20.1	−25.9	−27.3	−34.9	7.2	−60.8	−51.2	−65.8	−60.4	−68.4	−31.2
Non-Hispanic white	−15.5	−21.8	−17.7	−19.8	−26.3	−9.0	−51.9	−39.9	−59.9	−50.8	−62.3	−15.8
Missing[6]	−16.8	−20.1	−19.0	−29.7	−28.7	−10.3	−62.5	−48.0	−66.9	−64.0	−66.8	−30.2
Minority status, by income category[7]												
Lower												
Black or African American	−9.8	−18.9	−10.1	−22.5	−4.9	−6.5	−61.1	−31.4	−65.8	−60.9	−67.3	−19.1
Hispanic white	−14.3	−20.8	−16.3	−23.0	−8.1	−12.9	−66.0	−45.2	−69.0	−68.7	−69.5	−41.0
Other minority[5]	−13.8	3.5	−20.5	−26.2	−11.4	59.9	−60.6	−46.0	−65.3	−50.9	−67.1	−50.5
Non-Hispanic white	−18.7	−21.5	−20.5	−18.4	−8.6	−13.9	−54.8	−37.0	−62.0	−51.9	−63.5	−22.0
Total	−16.9	−19.7	−18.1	−22.2	−23.1	−11.4	−58.9	−39.6	−64.9	−61.3	−66.8	−25.4
Middle												
Black or African American	−11.7	−24.9	−12.7	−32.1	4.9	3.0	−59.6	−45.2	−64.0	−64.8	−65.9	−2.4
Hispanic white	−23.8	−31.7	−24.9	−34.2	7.7	−21.8	−65.8	−57.6	−69.2	−63.4	−68.5	−26.2
Other minority[5]	−19.8	−21.8	−21.5	−22.5	−3.9	−6.3	−61.2	−56.1	−65.8	−60.5	−67.9	−39.7
Non-Hispanic white	−14.4	−20.1	−17.0	−19.6	.4	−6.9	−54.3	−44.5	−61.0	−54.6	−64.6	−22.3
Total	−15.5	−21.2	−17.8	−26.7	−26.0	−7.4	−58.5	−48.1	−64.4	−62.5	−66.6	−21.8
High												
Black or African American	−21.9	−37.3	−21.4	−34.6	19.5	1.8	−55.3	−50.7	−59.5	−58.1	−62.6	−8.5
Hispanic white	−32.9	−43.8	−29.0	−38.3	38.2	−16.4	−60.9	−56.8	−63.2	−62.5	−64.4	−29.1
Other minority[5]	−23.0	−20.4	−27.0	−25.8	31.5	6.7	−61.1	−51.2	−66.5	−63.7	−69.3	−20.0
Non-Hispanic white	−11.3	−20.2	−12.1	−17.2	18.8	−5.3	−47.0	−39.2	−56.3	−48.4	−60.0	−6.4
Total	−15.1	−22.0	−16.8	−25.8	−29.8	−4.7	−52.7	−43.5	−60.0	−57.4	−62.5	−11.1
Missing[6]	−42.7	−46.7	−45.3	−51.2	−50.8	−39.5	−54.2	−36.7	−56.7	−39.0	−54.6	−13.6
CENSUS TRACT OF PROPERTY												
Income category[8]												
Lower	−21.0	−28.8	−22.1	−31.4	−30.7	−11.4	−59.3	−37.7	−63.8	−62.7	−66.0	−19.8
Middle	−15.9	−23.6	−18.5	−24.9	−28.0	−2.3	−55.1	−40.9	−62.5	−54.9	−64.2	−17.2
High	−17.8	−21.7	−18.3	−21.5	−28.7	−12.2	−56.8	−47.6	−63.2	−57.9	−63.8	−22.4
Total owner occupied	−17.3	−22.9	−19.3	−26.9	−28.8	−8.3	−56.5	−43.6	−63.0	−59.6	−64.7	−18.8
NON-OWNER OCCUPIED[9]												
Total	−8.3	−11.7	−10.2	−12.2	19.8	3.5	−60.5	−48.7	−65.8	−67.3	−68.7	−29.4
Total	**−16.4**	**−21.8**	**−18.3**	**−25.2**	**−27.4**	**−6.9**	**−56.9**	**−44.1**	**−63.3**	**−60.7**	**−65.2**	**−19.9**

NOTE: See notes to table 15.A.

Differences in Lending Outcomes by Race, Ethnicity, or Sex of the Borrower

The HMDA data allow comparisons of the outcomes of the lending process across borrowers grouped by their race, ethnicity, or sex. Three outcomes are considered here: (1) the incidence of higher-priced lending, (2) the mean APR spreads paid by borrowers with higher-priced loans, and (3) denial rates. Analyses of HMDA data from earlier years revealed substantial differences in the incidence of higher-priced lending and in denial rates across racial and ethnic lines; analyses further showed that such differences could not be fully explained by factors included in the HMDA data.[33] Studies also found that differences across groups in mean APR spreads paid by those with higher-priced loans were generally small.

The analysis here uses the 2007 HMDA data to examine these three lending outcomes across racial, ethnic, and gender groups. The analysis focuses on conventional first-lien home-purchase and refinance

33. See Avery, Brevoort, and Canner, "The 2006 HMDA Data" and "Higher-Priced Home Lending and the 2005 HMDA Data"; see also Avery, Canner, and Cook, "New Information Reported under HMDA."

16. Change in the number of lower- and higher-priced loan originations, by recent change in house price index in metropolitan statistical area and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2

A. Home purchase

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Lower priced							Higher priced						
	Loans to all MSAs	Change in house price index in MSA, 2006:Q4 to 2008:Q1 (percent)						Loans to all MSAs	Change in house price index in MSA, 2006:Q4 to 2008:Q1 (percent)					
		Large decrease (−8 or less)		Small decrease (−8-0)		Increase (0 or more)			Large decrease (−8 or less)		Small decrease (−8-0)		Increase (0 or more)	
		Change in house price index in MSA, 2003:Q1 to 2006:Q4 (percent)							Change in house price index in MSA, 2003:Q1 to 2006:Q4 (percent)					
		Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)		Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)
OWNER OCCUPIED														
BORROWER														
Minority status[1]														
Black or African American	−2.9	−8.5	−21.7	1.6	−3.6	.8	2.8	−69.9	−57.9	−81.2	−68.8	−71.9	−67.5	−61.2
Hispanic white	−27.7	−20.7	−45.4	−5.8	−30.6	−4.5	−1.2	−76.3	−60.2	−85.6	−60.8	−77.3	−56.8	−58.8
Other minority[2]	−15.9	−12.1	−31.3	−4.8	−12.9	−8.0	−8.1	−74.5	−57.4	−83.5	−66.5	−74.4	−60.1	−58.9
Non-Hispanic white	−15.6	−15.4	−29.1	−11.7	−18.8	−11.0	−10.1	−62.7	−46.7	−76.9	−57.4	−68.2	−55.3	−57.0
Missing[3]	−10.2	−14.0	−31.7	−5.4	−11.3	1.5	6.5	−72.6	−76.5	−83.6	−70.1	−73.5	−62.6	−60.1
Minority status, by income category[4]														
Lower														
Black or African American	5.1	−15.3	20.9	−1.2	13.7	2.5	−.2	−66.0	−58.8	−69.7	−65.8	−67.0	−68.2	−60.3
Hispanic white	−4.5	−27.4	21.5	−9.9	−5.7	−7.3	−3.9	−61.1	−57.6	−65.6	−60.8	−67.0	−56.6	−54.0
Other minority[2]	−6.1	−18.4	43.3	−2.8	−3.0	−19.1	−10.4	−62.8	−60.7	−65.8	−65.4	−64.9	−60.6	−58.9
Non-Hispanic white	−12.5	−14.1	6.9	−13.6	−13.2	−14.1	−10.6	−56.8	−42.5	−65.8	−54.5	−64.4	−54.5	−57.2
Total	−9.6	−15.9	12.1	−12.5	−8.7	−11.6	−8.7	−60.9	−52.4	−66.2	−59.4	−66.4	−59.6	−57.8
Middle														
Black or African American	7.2	6.4	18.6	5.5	2.9	10.2	7.5	−71.0	−57.7	−79.9	−72.1	−72.6	−69.9	−63.9
Hispanic white	−14.0	−12.1	−3.6	−7.1	−26.0	−2.1	.5	−75.7	−70.5	−79.7	−71.3	−80.0	−57.7	−63.0
Other minority[2]	−9.6	−13.0	11.7	−7.8	−13.3	−14.4	−8.2	−72.5	−49.1	−77.9	−74.6	−75.0	−67.1	−58.3
Non-Hispanic white	−13.4	−17.1	−7.9	−13.0	−17.2	−12.1	−9.5	−65.1	−49.7	−73.8	−61.7	−71.0	−60.2	−61.6
Total	−11.0	−14.8	−4.0	−11.3	−15.7	−8.8	−6.5	−69.9	−56.7	−77.9	−66.3	−74.8	−63.3	−62.4
High														
Black or African American	−7.9	−6.4	−33.9	7.6	−10.7	6.0	7.9	−73.4	−53.3	−83.6	−72.2	−74.8	−62.4	−58.9
Hispanic white	−36.9	−11.5	−54.6	8.1	−34.1	12.1	7.1	−81.9	−48.3	−87.9	−50.3	−79.2	−51.8	−58.1
Other minority[2]	−16.4	−3.8	−36.5	.4	−10.2	6.4	−2.9	−78.0	−60.8	−84.5	−62.8	−75.7	−51.2	−59.0
Non-Hispanic white	−14.8	−13.2	−33.5	−5.9	−18.0	−5.1	−7.2	−64.4	−49.5	−78.4	−56.6	−67.4	−49.8	−50.7
Total	−16.0	−10.4	−38.0	−3.4	−17.2	−1.8	−3.9	−73.5	−58.1	−84.5	−59.8	−73.4	−54.1	−53.6
Missing[3]	−68.5	−50.6	−79.7	−58.3	−70.6	−61.6	−56.9	−70.6	−66.7	−77.5	−60.8	−72.2	−65.3	−65.2
CENSUS TRACT OF PROPERTY														
Income category[5]														
Lower	−14.0	−30.2	−32.4	−11.7	−14.8	−2.8	−3.2	−70.9	−62.2	−84.9	−64.6	−73.5	−58.5	−58.3
Middle	−14.8	−15.4	−33.1	−9.6	−19.1	−6.5	−5.5	−68.7	−53.3	−82.5	−60.6	−72.7	−58.9	−58.5
High	−16.8	−7.9	−32.1	−10.0	−17.5	−12.1	−11.7	−67.7	−45.4	−79.0	−59.4	−70.1	−61.8	−58.0
Total owner occupied	−36.1	−5.3	−52.9	−15.4	−41.0	−19.0	−28.8	−66.3	−61.1	−80.2	−58.6	−69.6	−56.3	−59.5
NON-OWNER OCCUPIED[6]														
Total	−15.5	−14.6	−32.6	−10.0	−17.8	−8.6	−7.4	−69.1	−55.1	−82.4	−61.5	−72.4	−59.6	−58.4
Total	**−18.5**	**−14.0**	**−37.1**	**−10.5**	**−21.5**	**−9.8**	**−10.8**	**−68.5**	**−56.6**	**−82.0**	**−60.9**	**−71.9**	**−59.0**	**−58.6**

NOTE: See general note to table 14.A.

1. See note 4, table 12.

2. Other minority consists of American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.

3. Information for the characteristic was missing on the application.

4. See note 2, table 12.

5. See note 10, table 12.

6. Includes loans for which occupancy status was missing.

MSA Metropolitan statistical area.

SOURCE: For house price index, Office of Federal Housing Enterprise Oversight (www.ofheo.gov/hpi.aspx).

loans for owner-occupied, one- to four-family, site-built homes, as these are the loan product categories included in the HMDA data with the largest number of reported loans.

Although the HMDA data include a variety of detailed information about mortgage transactions, many key factors that are considered by lenders in credit underwriting and pricing are not included. However, analysis using the HMDA data can account for some factors likely related to the lending process. Specifically, the HMDA data allow an accounting for property location (for example, the same metropolitan area), income relied on in underwriting, loan amount, time of year when the loan was made, and the presence of a co-applicant. To the extent that some of these HMDA factors are not used directly in

16. Change in the number of lower- and higher-priced loan originations, by recent change in house price index in metropolitan statistical area and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2—*Continued*

B. Refinance

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Lower priced							Higher priced						
	Loans to all MSAs	Change in house price index in MSA, 2006:Q4 to 2008:Q1 (percent)						Loans to all MSAs	Change in house price index in MSA, 2006:Q4 to 2008:Q1 (percent)					
		Large decrease (−8 or less)		Small decrease (−8-0)		Increase (0 or more)			Large decrease (−8 or less)		Small decrease (−8-0)		Increase (0 or more)	
		Change in house price index in MSA, 2003:Q1 to 2006:Q4 (percent)							Change in house price index in MSA, 2003:Q1 to 2006:Q4 (percent)					
		Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)		Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)	Small increase (less than 30)	Large increase (30 or more)
OWNER OCCUPIED														
BORROWER														
Minority status[1]														
Black or African American	−16.8	−37.9	−49.4	−6.3	−16.4	14.2	13.7	−60.7	−72.0	−73.1	−57.2	−64.2	−52.8	−39.8
Hispanic white	−29.2	−18.6	−44.4	−2.0	−20.1	5.0	28.4	−64.1	−73.8	−70.8	−53.1	−63.5	−55.6	−35.2
Other minority[2]	−23.2	14.3	−42.4	.6	−14.7	10.2	10.1	−62.5	−43.9	−73.2	−55.2	−60.8	−46.9	−40.6
Non-Hispanic white	−17.1	−24.6	−42.7	−11.1	−17.3	.6	.6	−55.4	−68.5	−68.9	−54.7	−59.7	−46.2	−39.3
Missing[3]	−18.5	−32.4	−37.7	−5.7	−15.7	10.1	8.8	−63.3	−81.0	−67.0	−65.5	−64.7	−56.4	−53.8
Minority status, by income category[4]														
Lower														
Black or African American	−10.2	−38.5	−38.7	−11.0	−12.5	7.8	13.2	−62.8	−73.9	−76.4	−61.0	−66.6	−58.9	−46.3
Hispanic white	−14.4	−18.8	−28.3	−3.6	−12.6	−5.7	23.6	−66.7	−70.4	−72.8	−63.6	−68.5	−62.8	−48.1
Other minority[2]	−14.4	−19.8	−28.5	−12.0	−12.0	−4.5	−1.1	−62.7	−57.7	−74.3	−60.7	−65.1	−53.7	−52.7
Non-Hispanic white	−19.3	−32.5	−37.2	−19.4	−20.4	−11.8	−7.5	−58.2	−69.4	−74.1	−58.4	−64.8	−50.1	−45.4
Total	−17.3	−33.3	−34.4	−17.5	−17.6	−8.5	−3.0	−61.4	−72.0	−73.9	−60.3	−66.4	−54.4	−47.7
Middle														
Black or African American	−12.3	−40.5	−46.6	−2.0	−13.0	27.8	15.0	−61.0	−70.5	−75.2	−54.9	−65.2	−50.2	−38.0
Hispanic white	−24.8	−30.5	−38.4	−7.9	−18.3	10.2	27.1	−66.6	−82.1	−74.0	−59.5	−66.3	−51.8	−35.9
Other minority[2]	−20.6	−6.0	−38.5	−3.5	−18.4	11.8	10.6	−63.0	−67.2	−74.8	−57.0	−63.4	−48.6	−40.9
Non-Hispanic white	−15.5	−28.8	−39.9	−11.9	−17.4	.7	.8	−57.4	−68.6	−73.4	−55.8	−62.3	−47.3	−41.1
Total	−16.7	−29.8	−39.5	−10.6	−16.9	4.2	3.8	−60.8	−71.5	−73.8	−57.5	−64.4	−49.1	−42.9
High														
Black or African American	−23.6	−36.6	−52.8	−1.1	−20.2	20.6	23.7	−57.4	−65.5	−71.8	−49.4	−60.6	−39.0	−19.9
Hispanic white	−33.8	−4.6	−48.3	15.0	−18.9	31.1	47.1	−61.7	−65.9	−69.5	−34.4	−58.5	−39.8	−15.7
Other minority[2]	−23.9	39.6	−43.4	16.8	−10.1	24.6	22.3	−62.5	−4.8	−73.1	−47.9	−58.0	−37.4	−26.2
Non-Hispanic white	−13.8	−15.4	−42.8	.1	−11.8	12.7	10.3	−51.2	−65.9	−66.1	−47.6	−53.8	−38.5	−29.3
Total	−17.6	−14.3	−43.6	1.6	−12.6	15.2	13.4	−55.7	−66.4	−67.7	−48.9	−56.7	−40.4	−30.2
Missing[3]	−43.2	−12.0	−61.0	−31.7	−46.4	−20.9	−33.8	−54.5	−79.7	−55.4	−57.5	−50.4	−58.5	−55.0
CENSUS TRACT OF PROPERTY														
Income category[5]														
Lower	−21.9	−36.4	−43.3	−15.2	−15.0	−4.0	5.1	−60.6	−72.3	−70.8	−60.1	−62.4	−50.5	−42.8
Middle	−18.0	−27.7	−43.6	−11.1	−16.7	2.4	4.6	−58.6	−71.3	−71.0	−55.3	−62.2	−48.0	−41.0
High	−18.7	−16.2	−41.1	−4.7	−18.8	6.2	1.4	−58.3	−67.1	−66.4	−54.6	−61.2	−51.4	−41.9
Total owner occupied	−10.1	−15.3	−24.8	−7.1	−7.1	−.5	8.3	−62.6	−65.5	−74.0	−60.4	−63.0	−54.4	−53.2
NON-OWNER OCCUPIED[6]														
Total	−18.8	−24.8	−42.6	−9.7	−17.1	2.9	3.6	−59.1	−70.8	−69.9	−56.4	−62.0	−49.4	−41.7
Total	**−18.0**	**−24.2**	**−40.7**	**−9.5**	**−16.2**	**2.6**	**4.1**	**−59.4**	**−70.1**	**−70.3**	**−56.9**	**−62.1**	**−50.0**	**−42.8**

NOTE: See notes to table 16.A.

loan underwriting or pricing, they are included in the analysis as proxies for at least some of the factors that are considered. Because of the focus here on specific loan product categories, the analysis already accounts in broad terms for loan type and purpose, type of property securing the loan, lien status, and owner-occupancy status. Given that lenders offer a wide variety of conventional loan products for which basic terms can differ substantially, the analysis can only be viewed as suggestive.

The pricing analysis focuses on both the incidence of higher-priced lending and the mean APR spreads paid by borrowers with higher-priced loans. Comparisons of average outcomes for each racial, ethnic, or gender group are made both before and after accounting for differences in the borrower-related factors cited earlier (income; loan amount; location of the property, or MSA; presence of a co-applicant; and, in the comparisons by race and ethnicity, sex) and for differences in borrower-related factors *plus* the spe-

17. Change in the number of lower- and higher-priced loan originations for home purchase and for refinancing, by change in mortgage delinquency rate in metropolitan statistical area and by characteristic of borrower and of census tract, 2006:H1 through 2007:H2

Percent

Characteristic of borrower and of census tract, by owner-occupancy status of property	Home purchase						Refinance					
	Lower priced			Higher priced			Lower priced			Higher priced		
	Change in mortgage delinquency rate in MSA (percent)[1]											
	Small change (less than 50)	Large increase (50–200)	Very large increase (200 or more)	Small change (less than 50)	Large increase (50–200)	Very large increase (200 or more)	Small change (less than 50)	Large increase (50–200)	Very large increase (200 or more)	Small change (less than 50)	Large increase (50–200)	Very large increase (200 or more)
OWNER OCCUPIED												
BORROWER												
Minority status[2]												
Black or African American	2.7	-4.4	-18.5	-63.7	-70.7	-81.5	10.9	-17.7	-49.0	-46.9	-66.2	-73.3
Hispanic white	-4.4	-27.4	-46.9	-58.6	-74.8	-86.3	19.0	-21.2	-45.1	-41.5	-66.0	-70.7
Other minority[3]	-14.1	-12.7	-22.4	-62.5	-73.5	-82.0	4.9	-17.6	-35.0	-43.1	-64.6	-70.5
Non-Hispanic white	-12.3	-16.8	-22.1	-57.3	-63.6	-74.7	-1.6	-17.3	-37.7	-43.4	-61.3	-66.7
Missing[4]	3.4	-12.6	-25.9	-62.2	-72.7	-83.6	8.8	-18.5	-35.5	-55.7	-67.5	-65.7
Minority status, by income category[5]												
Lower												
Black or African American	2.6	5.9	24.6	-62.3	-69.0	-69.0	8.7	-15.4	-38.5	-51.5	-69.7	-77.7
Hispanic white	-4.8	-7.9	22.0	-54.9	-63.6	-66.0	14.8	-15.6	-28.3	-49.5	-71.0	-73.4
Other minority[3]	-12.7	-8.9	27.3	-57.5	-65.6	-67.9	-2.7	-20.5	-13.5	-52.3	-65.4	-74.1
Non-Hispanic white	-13.1	-13.5	-3.1	-56.1	-56.6	-64.8	-10.1	-22.5	-30.9	-49.2	-63.8	-70.2
Total	-10.5	-10.8	3.1	-58.1	-62.7	-66.8	-5.5	-20.8	-29.8	-51.3	-67.2	-72.2
Middle												
Black or African American	8.7	4.3	19.4	-65.6	-72.0	-81.6	15.5	-13.3	-45.0	-45.3	-66.4	-75.5
Hispanic white	-2.1	-23.2	-3.1	-63.7	-77.6	-80.8	18.9	-19.0	-39.8	-41.9	-68.8	-74.2
Other minority[3]	-14.9	-12.5	11.1	-65.5	-74.5	-77.3	3.0	-16.2	-35.4	-46.0	-66.0	-73.2
Non-Hispanic white	-11.6	-16.3	-8.1	-61.7	-66.5	-72.8	-1.8	-18.0	-33.8	-45.0	-63.3	-71.0
Total	-8.8	-14.6	-4.4	-63.2	-71.9	-78.1	1.5	-17.6	-36.1	-46.8	-65.7	-72.6
High												
Black or African American	3.9	-7.1	-34.1	-63.8	-71.6	-84.1	15.4	-20.2	-52.9	-36.3	-60.5	-71.7
Hispanic white	3.1	-30.9	-56.3	-55.2	-78.8	-88.4	33.9	-19.7	-48.8	-30.1	-60.1	-69.4
Other minority[3]	-10.6	-8.0	-28.3	-64.4	-75.1	-83.3	14.4	-13.2	-35.9	-31.8	-64.3	-69.8
Non-Hispanic white	-9.2	-14.8	-26.9	-52.9	-65.5	-77.4	7.8	-10.6	-39.0	-34.4	-57.0	-64.2
Total	-6.4	-14.5	-32.6	-56.2	-71.9	-84.5	10.3	-12.3	-40.3	-36.7	-59.4	-66.3
Missing[4]	-59.8	-71.3	-74.0	-66.7	-71.9	-72.9	-28.9	-41.9	-58.6	-53.5	-56.3	-52.1
CENSUS TRACT OF PROPERTY												
Income category[6]												
Lower	-4.8	-15.0	-26.8	-58.4	-70.6	-84.3	4.8	-18.5	-42.0	-45.5	-64.5	-71.1
Middle	-8.6	-16.6	-26.3	-59.9	-69.0	-81.9	1.9	-18.3	-39.5	-45.5	-64.0	-69.2
High	-13.0	-16.4	-26.3	-59.5	-68.6	-77.8	-1.0	-17.0	-36.6	-47.8	-63.2	-63.2
Total owner occupied	-28.3	-39.5	-43.6	-58.8	-68.4	-76.8	5.8	-11.3	-24.5	-51.9	-65.1	-73.7
NON-OWNER OCCUPIED[7]												
Total	-9.8	-16.3	-26.4	-59.4	-69.4	-81.8	1.3	-17.9	-39.0	-46.0	-64.0	-68.5
Total	**-12.5**	**-19.7**	**-29.2**	**-59.3**	**-69.2**	**-81.1**	**1.8**	**-17.2**	**-37.5**	**-46.6**	**-64.1**	**-69.0**

NOTE: See general note to table 14.A.

1. Mortgage delinquency rate is the percentage of mortgage borrowers 90 days or more delinquent; calculated using delinquency rates for each metropolitan statistical area (MSA) from 2003:Q4 to 2007:Q4.
2. See note 4, table 12.
3. Other minority consists of American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.
4. Information for the characteristic was missing on the application.
5. See note 2, table 12.
6. See note 10, table 12.
7. Includes loans for which occupancy status was missing.

SOURCE: For delinquency rate statistics, Trend Data, a product of TransUnion LLC.

cific lending institution used by the borrower.[34] The method of controlling for these factors is to group borrowers into cells in which the individuals in each cell are similar along each dimension considered.

Comparisons for lending outcomes across groups are of three types: gross (or "unmodified"), modified to account for borrower-related factors (or "borrower modified"), and modified to account for borrower-related factors plus lender (or "lender modified"). For purposes of presentation, the borrower- and lender-modified outcomes shown in the tables are normalized so that, *for the base comparison group* (non-

34. Excluded from the pricing analysis are applicants residing outside the 50 states and the District of Columbia as well as applications deemed to be business related.

Hispanic whites in the case of comparison by race and ethnicity and males in the case of comparison by sex), the mean at each modification level is the same as the gross mean. Consequently, the borrower- and lender-modified outcomes for any other group represent the expected average outcome under the assumption that the members of that group had the same distribution of control factors (income, loan amount, and the like) as the base comparison group.

As noted earlier, mortgage market conditions changed significantly over the course of 2007. To help account for the possible effects of these changing conditions on the patterns of lending outcomes across population groups, the tables presented in this section show loan activity by half-year for both 2006 and 2007. Our analysis of the lenders that did not report in 2007 but that did so in 2006 indicates that by the second half of 2007 virtually all of these lenders had gone out of business. As noted, these lenders tended to be relatively more focused on the higher-priced segment of the market and on lending to minority borrowers. Consequently, the lending data for the second half of 2007 likely reflect a "truer" picture of the entire market for that period than the data for the first half of 2007, which do not include loans extended during this period by lenders that ultimately ceased operations and did not report.

Although the focus of the discussion that follows is on differences in lending outcomes across groups, it is important to keep in mind that, as shown earlier, the overall, or gross, incidence of higher-priced lending in 2007 fell sharply from 2006. This drop was experienced by all groups of borrowers regardless of race, ethnicity, or sex. The decline is apparent when comparing the unmodified incidences in higher-priced lending in 2007 for different groups with the unmodified incidences experienced by these groups in 2006.

Incidence of Higher-Priced Lending by Race and Ethnicity

The 2007 HMDA data, like those from earlier years, indicate that black and Hispanic white borrowers are more likely, and Asian borrowers less likely, to obtain loans with prices above the HMDA price-reporting thresholds than are non-Hispanic white borrowers. These relationships are found for both home-purchase loans and refinancings regardless of the specific period considered (tables 18.A and 18.B). Gross differences in the incidence of higher-priced lending between non-Hispanic whites, on the one hand, and blacks or Hispanic whites, on the other, are large, but these differences are substantially reduced after controlling for borrower-related factors plus lender. Differences in the incidences of higher-priced lending between Asians and non-Hispanic whites are generally relatively small.

In the second half of 2007, for conventional home-purchase loans, the gross mean incidence of higher-priced lending was 29.5 percent for blacks and 9.2 percent for non-Hispanic whites, a difference of 20.3 percentage points (table 18.A). Borrower-related factors included in the HMDA data accounted for 4.3 percentage points of the difference. Controlling further for the lender reduces the remaining gap to 11.1 percentage points. The results for Hispanic whites are similar to those for blacks. The difference between the gross mean incidence of higher-priced lending for Hispanic whites (24.3 percent) and the corresponding incidence for non-Hispanic whites (9.2 percent) is 15.1 percentage points. Borrower-related factors included in the HMDA data accounted for 5.7 percentage points of the difference. Controlling further for the lender reduces the remaining gap to 6.2 percentage points. The situation for Asians differs greatly from that for blacks or Hispanic whites: Compared with non-Hispanic whites, Asians had a lower mean incidence of higher-priced lending for home-purchase loans on both a gross and a modified basis.

Comparing the differences in the incidences of higher-priced lending between the various minority groups and non-Hispanic whites in the second half of 2006 with the differences between these groups in the second half of 2007 reveals relatively little change in the gaps modified for borrower-related factors plus lender. For example, the fully modified gap between blacks and non-Hispanic whites was 13.4 percentage points in the second half of 2006 and 11.1 percentage points in the second half of 2007. Similarly, the fully modified gap between Hispanic whites and non-Hispanic whites was 6.6 percentage points in the second half of 2006 and 6.2 percentage points in the second half of 2007.

Rate Spreads by Race and Ethnicity

The 2007 data indicate that among borrowers with higher-priced loans, the gross mean prices paid by black borrowers are moderately higher than—and those paid by Hispanic white borrowers are nearly the same as—those paid by non-Hispanic white borrowers (tables 19.A and 19.B). Asian borrowers with higher-priced loans also paid about the same mean prices, on average, as non-Hispanic whites with such loans. These relationships are little influenced by an accounting for borrower-related factors or the specific lender used by the borrowers.

18. Incidence of higher-priced lending, unmodified and modified for borrower- and lender-related factors, for conventional first liens on owner-occupied, one- to four-family, site-built homes, by half-year in which loan was originated and by race, ethnicity, and sex of borrower, 2006–07

A. Home purchase

Percent except as noted

Race, ethnicity, and sex[1]	Number of loans	Unmodified incidence	Modified incidence, by modification factor		Number of loans	Unmodified incidence	Modified incidence, by modification factor	
			Borrower-related	Borrower-related plus lender			Borrower-related	Borrower-related plus lender
	2006							
	H1				**H2**			
Race other than white only								
American Indian or Alaska Native	11,059	35.4	30.9	25.4	10,557	32.9	30.8	23.4
Asian	96,781	16.8	15.8	17.3	90,424	16.7	14.7	16.5
Black or African American	156,337	56.5	50.1	30.8	162,369	51.1	45.9	30.7
Native Hawaiian or other Pacific Islander	9,427	34.4	30.4	23.4	9,348	33.5	28.1	21.9
Two or more minority races	1,038	29.6	30.5	19.8	1,074	25.7	26.7	20.6
Joint	22,638	17.7	24.4	20.0	22,033	17.3	23.0	19.6
Missing	187,627	28.5	31.2	23.6	190,450	29.9	32.3	23.2
White, by ethnicity								
Hispanic white	235,283	48.1	36.9	24.5	229,008	45.1	34.0	23.9
Non-Hispanic white	1,219,990	18.1	18.1	18.1	1,186,928	17.3	17.3	17.3
Sex								
One male	635,262	33.2	33.2	33.2	620,402	31.4	31.4	31.4
One female	461,907	31.8	30.9	32.0	463,186	30.0	29.3	30.2
Two males	18,871	24.6	24.6	24.6	17,541	23.3	23.3	23.3
Two females	15,819	26.9	23.8	24.4	15,248	25.5	21.5	22.6
	2007							
	H1				**H2**			
Race other than white only								
American Indian or Alaska Native	7,437	22.0	21.1	17.2	6,241	17.5	14.7	15.1
Asian	75,610	9.6	9.9	11.0	70,801	5.6	6.9	7.8
Black or African American	110,747	37.8	34.1	24.5	86,220	29.5	25.2	20.3
Native Hawaiian or other Pacific Islander	6,410	20.8	19.5	15.4	5,347	14.1	14.4	12.8
Two or more minority races	902	15.5	13.6	15.7	974	10.6	11.8	12.7
Joint	18,781	10.4	15.2	13.0	17,769	7.3	11.3	10.5
Missing	146,171	16.7	21.3	16.2	131,177	11.4	15.4	12.3
White, by ethnicity								
Hispanic white	152,901	31.8	23.9	17.6	109,034	24.3	18.6	15.4
Non-Hispanic white	1,031,059	11.8	11.8	11.8	919,507	9.2	9.2	9.2
Sex								
One male	500,468	20.8	20.8	20.8	405,659	15.9	15.9	15.9
One female	362,266	19.3	18.7	19.5	301,836	14.4	13.6	14.3
Two males	14,504	16.4	16.4	16.4	14,145	12.8	12.8	12.8
Two females	12,553	17.7	15.0	16.5	11,886	12.8	11.4	12.6

NOTE: Excludes transition-period loans (those for which the application was submitted before 2004). For definition of higher-priced lending, see text note 7; for explanation of modification factors, see text.

1. See note 4, table 12. Loans taken out jointly by a male and female are not tabulated here because they would not be directly comparable with loans taken out by one borrower or by two borrowers of the same sex.

Pricing Differences by Sex

The 2007 HMDA data, like those in previous years, reveal relatively little difference in pricing outcomes when borrowers are distinguished by sex, although single males experienced a somewhat higher modified incidence of higher-priced lending than single females (tables 18.A and 18.B). The mean APR spreads paid by females are virtually the same as those paid by males after accounting for the presence or absence of a co-borrower (tables 19.A and 19.B).

Denial Rates by Race, Ethnicity, and Sex

Analyses of the HMDA data from earlier years have consistently found that denial rates vary across applicants grouped by race or ethnicity. For each broad loan product category in 2007 (first or second half), American Indians, blacks, and Hispanic whites had higher gross denial rates than non-Hispanic whites; blacks generally had the highest rates, and Hispanic whites had rates between those for blacks and those for non-Hispanic whites (tables 20.A and 20.B). The pattern for Asians was somewhat different, as the gross denial rate for them was either lower than, or very similar to, the rate for non-Hispanic whites, depending on the period and the loan purpose.

Controlling for borrower-related factors in the HMDA data reduces the differences among racial and ethnic groups. Accounting for the specific lender used by the applicant almost always reduces differences

18. Incidence of higher-priced lending, unmodified and modified for borrower- and lender-related factors, for conventional first liens on owner-occupied, one- to four-family, site-built homes, by half-year in which loan was originated and by race, ethnicity, and sex of borrower, 2006–07—*Continued*

B. Refinance

Percent except as noted

Race, ethnicity, and sex[1]	Number of loans	Unmodified incidence	Modified incidence, by modification factor		Number of loans	Unmodified incidence	Modified incidence, by modification factor	
			Borrower-related	Borrower-related plus lender			Borrower-related	Borrower-related plus lender
	2006							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	14,030	31.2	34.9	28.6	13,718	34.4	37.6	29.9
Asian	61,485	17.6	22.2	24.7	66,388	21.5	25.2	25.8
Black or African American	195,050	52.0	49.4	31.9	202,412	53.6	50.8	34.4
Native Hawaiian or other Pacific Islander	12,282	31.1	36.5	28.3	11,796	36.3	38.9	31.4
Two or more minority races	1,474	27.1	29.5	28.6	1,439	28.8	29.3	33.4
Joint	21,091	25.4	32.5	26.4	20,784	27.0	34.1	27.8
Missing	281,183	36.3	42.3	29.6	289,263	40.1	45.1	32.0
White, by ethnicity								
Hispanic white	213,338	35.4	36.4	28.4	223,825	39.9	37.7	31.0
Non-Hispanic white	1,296,597	25.0	25.0	25.0	1,300,339	26.5	26.5	26.5
Sex								
One male	591,436	33.4	33.4	33.4	605,743	35.8	35.8	35.8
One female	506,018	34.1	32.8	33.1	527,701	36.6	35.6	35.8
Two males	13,457	26.3	26.3	26.3	13,879	27.0	27.0	27.0
Two females	15,620	33.2	28.9	27.2	15,559	35.1	30.6	26.0
	2007							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	11,480	28.1	31.0	22.1	8,028	23.9	26.2	18.2
Asian	63,999	15.4	17.5	18.8	44,318	8.4	13.5	14.9
Black or African American	158,416	44.6	41.6	27.1	108,245	36.8	35.4	22.6
Native Hawaiian or other Pacific Islander	9,518	25.7	29.1	24.3	6,283	18.9	24.3	19.0
Two or more minority races	1,434	20.2	23.2	22.2	1,122	14.1	16.1	18.7
Joint	19,892	19.6	24.8	20.4	14,413	17.2	21.6	17.0
Missing	258,895	29.5	35.3	25.2	179,528	20.6	25.7	20.1
White, by ethnicity								
Hispanic white	180,394	30.2	28.3	23.4	121,618	22.3	21.9	19.1
Non-Hispanic white	1,238,650	19.8	19.8	19.8	935,658	16.2	16.2	16.2
Sex								
One male	546,140	26.6	26.6	26.6	381,204	19.9	19.9	19.9
One female	451,279	27.6	26.7	26.5	327,198	21.1	19.8	19.4
Two males	12,931	21.0	21.0	21.0	10,216	17.4	17.4	17.4
Two females	13,992	28.5	24.0	22.7	11,371	24.2	20.2	18.8

NOTE: See notes to table 18.A.

further, although unexplained differences remain between non-Hispanic whites and other racial and ethnic groups.

With regard to the sex of applicants, sole male applicants have marginally higher gross and modified denial rates than single females. Also, dual male borrowers and dual female borrowers generally have very similar denial rates, which are somewhat lower than those for single applicants.

Some Limitations of the Data in Assessing Fair Lending Compliance

Information in the HMDA data, including borrower income, loan amount, location of the property, date of loan origination, and the specific lender used, is insufficient to account fully for racial or ethnic differences in the incidence of higher-priced lending; significant differences remain unexplained. Similar patterns are shown in racial or ethnic differences in denial rates. In contrast, only small differences across groups were found in the mean APR spreads paid by those receiving higher-priced loans. Regarding the sex of borrowers, some very small differences were found in lending outcomes.

Both previous research and experience gained in the fair lending enforcement process show that unexplained differences in the incidence of higher-priced lending and in denial rates among racial or ethnic groups stem in part from credit-related factors not available in the HMDA data, such as measures of

19. Mean APR spreads, unmodified and modified for borrower- and lender-related factors, for higher-priced conventional first liens on owner-occupied, one- to four-family, site-built homes, by half-year in which loan was originated and by race, ethnicity, and sex of borrower, 2006–07

A. Home purchase

Percentage points except as noted

Race, ethnicity, and sex[1]	Number of higher-priced loans	Unmodified mean spread	Modified mean spread, by modification factor		Number of higher-priced loans	Unmodified mean spread	Modified mean spread, by modification factor	
			Borrower-related	Borrower-related plus lender			Borrower-related	Borrower-related plus lender
	2006							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	3,911	5.25	5.23	5.17	3,478	5.12	5.13	5.11
Asian	16,307	5.11	5.13	5.15	15,089	4.97	5.07	5.11
Black or African American	88,335	5.69	5.64	5.34	82,903	5.66	5.59	5.31
Native Hawaiian or other Pacific Islander	3,247	5.25	5.22	5.14	3,130	5.17	5.15	5.17
Two or more minority races	307	5.42	5.38	5.16	276	5.43	5.45	5.37
Joint	3,999	5.30	5.34	5.19	3,803	5.30	5.29	5.12
Missing	53,557	5.41	5.43	5.28	56,977	5.51	5.55	5.26
White, by ethnicity								
Hispanic white	113,136	5.28	5.20	5.18	103,286	5.24	5.16	5.14
Non-Hispanic white	221,352	5.16	5.16	5.16	204,795	5.13	5.13	5.13
Sex								
One male	210,792	5.33	5.33	5.33	194,624	5.30	5.30	5.30
One female	147,065	5.35	5.34	5.31	138,876	5.31	5.31	5.29
Two males	4,634	5.15	5.15	5.15	4,084	5.23	5.23	5.23
Two females	4,254	5.41	5.33	5.24	3,889	5.45	5.35	5.32
	2007							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	1,634	4.71	4.68	4.73	1,093	4.07	4.17	4.08
Asian	7,295	4.50	4.59	4.67	3,968	3.90	3.94	4.01
Black or African American	41,836	5.24	5.19	4.92	25,395	4.44	4.47	4.32
Native Hawaiian or other Pacific Islander	1,332	4.80	4.81	4.77	754	4.02	4.17	4.10
Two or more minority races	140	5.05	5.17	4.91	103	4.40	4.35	4.34
Joint	1,958	4.96	4.92	4.80	1,306	4.19	4.19	4.08
Missing	24,339	4.96	5.09	4.86	14,928	4.21	4.33	4.23
White, by ethnicity								
Hispanic white	48,619	4.77	4.70	4.71	26,484	4.06	4.13	4.07
Non-Hispanic white	121,526	4.66	4.66	4.66	84,943	4.06	4.06	4.06
Sex								
One male	104,020	4.80	4.80	4.80	64,664	4.14	4.14	4.14
One female	69,928	4.80	4.82	4.81	43,499	4.11	4.10	4.12
Two males	2,377	4.85	4.85	4.85	1,812	4.14	4.14	4.14
Two females	2,219	5.18	4.99	4.88	1,524	4.26	4.10	4.40

NOTE. Spread is the difference between the annual percentage rate (APR) on the loan and the yield on a comparable-maturity Treasury security. Excludes transition-period loans (those for which the application was submitted before 2004). For definition of higher-priced lending, see text note 7; for explanation of modification factors, see text. See also note 1, table 18.A.

credit history (including credit scores), loan-to-value and debt-to-income ratios, and differences in choice of loan products. Differential costs of loan origination and the competitive environment also may bear on the differences in pricing, as may differences across populations in credit-shopping activities.

Differences in pricing and underwriting outcomes may also reflect discriminatory treatment of minorities or other actions by lenders, including marketing practices. The HMDA data are regularly used to facilitate the fair lending examination and enforcement processes. When examiners for the federal banking agencies evaluate an institution's fair lending risk, they analyze HMDA price data in conjunction with other information and risk factors, as directed by the Interagency Fair Lending Examination Procedures.[35] Risk factors for pricing discrimination include, but are not limited to, the relationship between loan pricing and compensation of loan officers or brokers, the presence of broad pricing discretion, and consumer complaints.

It is difficult to draw conclusions from the HMDA data about changes in the fair lending environment from 2006 to 2007. For example, denial rate differences between non-Hispanic whites and minorities

35. The Interagency Fair Lending Examination Procedures are available at www.ffiec.gov/PDF/fairlend.pdf.

19. Mean APR spreads, unmodified and modified for borrower- and lender-related factors, for higher-priced conventional first liens on owner-occupied, one- to four-family, site-built homes, by half-year in which loan was originated and by race, ethnicity, and sex of borrower, 2006–07—*Continued*

B. Refinance

Percentage points except as noted

Race, ethnicity, and sex[1]	Number of higher-priced loans	Unmodified mean spread	Modified mean spread, by modification factor		Number of higher-priced loans	Unmodified mean spread	Modified mean spread, by modification factor	
			Borrower-related	Borrower-related plus lender			Borrower-related	Borrower-related plus lender
	2006							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	4,376	5.14	5.09	5.14	4,720	4.98	5.05	5.09
Asian	10,815	5.11	5.09	5.14	14,281	4.68	4.91	5.00
Black or African American	101,506	5.42	5.37	5.23	108,406	5.30	5.24	5.08
Native Hawaiian or other Pacific Islander	3,819	5.29	5.21	5.21	4,283	5.01	5.07	5.03
Two or more minority races	400	5.27	5.18	5.20	415	5.20	5.31	5.11
Joint	5,354	5.08	5.14	5.16	5,604	4.96	5.07	5.03
Missing	101,960	5.35	5.36	5.16	115,955	5.20	5.25	5.02
White, by ethnicity								
Hispanic white	75,512	5.27	5.22	5.17	89,236	5.00	5.04	5.04
Non-Hispanic white	324,384	5.13	5.13	5.13	343,955	4.98	4.98	4.98
Sex								
One male	197,567	5.29	5.29	5.29	216,821	5.09	5.09	5.09
One female	172,442	5.30	5.28	5.29	192,926	5.12	5.09	5.09
Two males	3,533	5.08	5.08	5.08	3,743	5.02	5.02	5.02
Two females	5,185	5.17	5.11	4.99	5,461	5.11	5.00	5.09
	2007							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	3,227	4.79	4.77	4.88	1,918	4.73	4.79	4.67
Asian	9,848	4.37	4.72	4.80	3,733	4.11	4.44	4.51
Black or African American	70,628	5.12	5.07	4.92	39,836	4.96	5.00	4.75
Native Hawaiian or other Pacific Islander	2,450	4.70	4.79	4.88	1,189	4.49	4.81	4.67
Two or more minority races	289	4.85	4.86	4.89	158	4.82	4.94	4.63
Joint	3,891	4.85	4.92	4.91	2,474	4.69	4.82	4.64
Missing	76,469	5.02	5.09	4.82	37,003	4.60	4.72	4.59
White, by ethnicity								
Hispanic white	54,477	4.79	4.87	4.89	27,151	4.46	4.60	4.62
Non-Hispanic white	245,074	4.79	4.79	4.79	151,120	4.58	4.58	4.58
Sex								
One male	145,314	4.88	4.88	4.88	75,729	4.56	4.56	4.56
One female	124,764	4.88	4.85	4.87	68,930	4.60	4.56	4.54
Two males	2,721	4.90	4.90	4.90	1,781	4.57	4.57	4.57
Two females	3,994	5.04	4.91	4.91	2,756	4.72	4.59	4.61

NOTE. See note to table 19.A.

widened from 2006 to 2007, although this development may have reflected differences in the credit characteristics or other circumstances of the pools of borrowers in the two years and not unfair treatment by lenders. Similarly, differences between non-Hispanic whites and minorities in the incidence of higher-priced lending generally declined, although the fully modified differences narrowed proportionately less than the gross differences. Given the substantial decrease in overall higher-priced lending, it is difficult to know if this narrowing of the differences in the incidence of higher-priced lending was due to any change in the relative treatment of minorities or to changes in the credit profiles of marginal borrowers resulting from declines in applications and increased denial rates.

APPENDIX A: REQUIREMENTS OF REGULATION C

The Federal Reserve Board's Regulation C requires lenders to report the following information on home-purchase and home-improvement loans and on refinancings:

For each application or loan

- application date and the date an action was taken on the application
- action taken on the application
  - — approved and originated
  - — approved but not accepted by the applicant
  - — denied (with the reasons for denial—voluntary for some lenders)

20. Denial rates on applications, unmodified and modified for borrower- and lender-related factors, for conventional first liens on owner-occupied, one- to four-family, site-built homes, by half-year in which application was acted upon by lender and by race, ethnicity, and sex of applicant, 2006–07

A. Home purchase

Percent except as noted

Race, ethnicity, and sex[1]	Number of applications acted upon by lender	Unmodified denial rate	Modified denial rate, by modification factor		Number of applications acted upon by lender	Unmodified denial rate	Modified denial rate, by modification factor	
			Borrower-related	Borrower-related plus lender			Borrower-related	Borrower-related plus lender
	2006							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	17,523	26.7	22.6	19.3	17,123	25.0	21.7	17.1
Asian	135,942	17.3	14.8	14.9	128,455	16.8	14.0	14.8
Black or African American	265,677	30.9	27.2	21.5	287,491	32.3	28.2	21.5
Native Hawaiian or other Pacific Islander	14,401	23.1	21.0	18.3	14,703	23.8	19.3	16.6
Two or more minority races	1,470	20.5	18.8	16.3	1,669	19.9	18.0	16.8
Joint	29,107	13.8	17.0	14.9	28,674	13.4	16.8	14.6
Missing	300,767	24.3	23.4	17.9	310,302	24.1	23.8	17.8
White, by ethnicity								
Hispanic white	357,209	24.7	20.0	17.5	361,957	26.2	20.7	17.6
Non-Hispanic white	1,543,650	13.2	13.2	13.2	1,519,786	13.1	13.1	13.1
Sex								
One male	915,120	21.3	21.3	21.3	918,501	22.1	22.1	22.1
One female	658,209	20.7	20.1	20.6	676,289	21.3	20.8	21.2
Two males	26,074	19.8	19.8	19.8	24,431	18.6	18.6	18.6
Two females	21,860	19.5	18.0	18.6	21,462	19.4	16.9	16.9
	2007							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	12,326	28.6	25.1	21.4	10,301	27.0	23.8	20.0
Asian	106,595	17.1	14.6	15.0	104,233	17.7	15.2	15.1
Black or African American	206,186	36.0	31.6	23.9	158,701	34.2	29.3	22.9
Native Hawaiian or other Pacific Islander	10,540	28.2	23.0	21.1	8,896	26.7	21.4	19.5
Two or more minority races	1,384	25.9	24.7	21.9	1,440	21.3	19.3	19.3
Joint	24,610	14.7	18.5	15.4	23,715	14.4	17.6	15.3
Missing	233,947	25.4	24.4	18.1	207,299	23.6	21.5	16.7
White, by ethnicity								
Hispanic white	257,135	29.9	22.4	19.7	191,838	30.0	22.0	19.7
Non-Hispanic white	1,307,913	13.3	13.3	13.3	1,187,866	13.2	13.2	13.2
Sex								
One male	739,062	22.9	22.9	22.9	610,149	22.4	22.4	22.4
One female	527,172	22.2	21.7	22.1	440,646	20.9	20.6	21.2
Two males	20,708	21.4	21.4	21.4	20,420	20.6	20.6	20.6
Two females	18,053	22.1	20.6	20.2	17,131	20.0	18.1	18.7

NOTE: Includes transition-period applications (those submitted before 2004). For explanation of modification factors, see text. See also note 1, table 18.A.

— withdrawn by the applicant
— file closed for incompleteness

- pre-approval program status (for home-purchase loans only)
  - — pre-approval request denied by financial institution
  - — pre-approval request approved but not accepted by individual
- loan amount
- loan type
  - — conventional
  - — insured by the Federal Housing Administration
  - — guaranteed by the Veterans Administration
  - — backed by the Farm Service Agency or Rural Housing Service
- lien status
  - — first lien
  - — junior lien
  - — unsecured
- loan purpose
  - — home purchase
  - — refinance
  - — home improvement
- type of purchaser (if the lender subsequently sold the loan during the year)
  - — Fannie Mae
  - — Ginnie Mae
  - — Freddie Mac
  - — Farmer Mac
  - — Private securitization
  - — Commercial bank, savings bank, or savings association

20. Denial rates on applications, unmodified and modified for borrower- and lender-related factors, for conventional first liens on owner-occupied, one- to four-family, site-built homes, by half-year in which application was acted upon by lender and by race, ethnicity, and sex of applicant, 2006–07—*Continued*

B. Refinance

Percent except as noted

Race, ethnicity, and sex[1]	Number of applications acted upon by lender	Unmodified denial rate	Modified denial rate, by modification factor		Number of applications acted upon by lender	Unmodified denial rate	Modified denial rate, by modification factor	
			Borrower-related	Borrower-related plus lender			Borrower-related	Borrower-related plus lender
	2006							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	31,582	44.3	44.8	38.7	32,175	45.0	44.2	35.7
Asian	104,007	28.3	33.6	35.3	111,165	27.1	33.0	33.8
Black or African American	431,030	44.8	46.1	39.0	452,812	44.9	46.0	38.1
Native Hawaiian or other Pacific Islander	23,560	35.8	41.7	37.8	23,877	37.0	41.9	37.0
Two or more minority races	2,804	40.0	43.0	36.1	3,074	40.9	43.4	36.8
Joint	37,091	34.0	40.5	35.0	36,939	34.1	39.9	33.7
Missing	736,949	50.2	51.3	39.1	711,665	45.7	47.6	37.2
White, by ethnicity								
Hispanic white	387,469	33.3	36.4	36.7	414,344	33.7	37.1	35.2
Non-Hispanic white	2,180,168	31.3	31.3	31.3	2,163,111	30.0	30.0	30.0
Sex								
One male	1,151,237	38.3	38.3	38.3	1,172,849	36.9	36.9	22.1
One female	950,223	37.0	35.8	36.6	975,866	35.2	34.2	21.2
Two males	25,064	36.5	36.5	36.5	25,806	36.5	36.5	36.5
Two females	29,707	38.8	36.3	36.3	30,478	40.2	37.7	35.7
	2007							
	H1				H2			
Race other than white only								
American Indian or Alaska Native	32,148	54.2	51.0	41.4	27,626	60.2	56.1	43.6
Asian	111,681	30.1	35.5	36.4	90,733	35.6	38.8	39.5
Black or African American	408,342	51.3	51.4	42.2	329,444	55.9	56.4	44.9
Native Hawaiian or other Pacific Islander	21,457	43.6	46.5	41.3	17,394	49.7	51.5	44.6
Two or more minority races	3,276	49.2	50.4	41.8	2,928	53.0	53.9	47.0
Joint	38,339	38.9	44.5	37.1	32,643	44.5	48.8	40.3
Missing	646,545	48.5	49.8	39.4	500,917	50.7	49.7	41.2
White, by ethnicity								
Hispanic white	377,168	40.1	42.0	39.8	318,369	47.3	46.6	43.4
Non-Hispanic white	2,149,801	32.7	32.7	32.7	1,767,691	35.7	35.7	35.7
Sex								
One male	1,125,730	40.6	40.6	40.6	891,020	44.2	44.2	44.2
One female	888,877	39.1	38.1	39.1	717,686	42.3	41.4	42.6
Two males	25,663	40.1	40.1	40.1	22,436	43.1	43.1	43.1
Two females	29,119	43.4	40.8	40.5	26,193	46.2	43.8	41.7

NOTE: See note to table 20.A.

— Life insurance company, credit union, mortgage bank, or finance company
— Affiliate institution
— Other type of purchaser

For each applicant or co-applicant

- race
- ethnicity
- sex
- income relied on in credit decision

For each property

- location, by state, county, metropolitan statistical area, and census tract
- type of structure
  - — one- to four-family dwelling
  - — manufactured home
  - — multifamily property (dwelling with five or more units)
- occupancy status (owner occupied, non-owner occupied, or not applicable)

For loans subject to price reporting

- spread above comparable Treasury security

For loans subject to the Home Ownership and Equity Protection Act

- indicator of whether loan is subject to the Home Ownership and Equity Protection Act

Appendix B: Private Mortgage Insurance Data

Historically, mortgage lenders have required prospective borrowers to make a down payment of at least 20 percent of a home's value before they will extend a loan to buy a home or refinance an existing loan. Such down payments are required because experience has shown that homeowners with little equity are substantially more likely to default on their mortgages. Private mortgage insurance (PMI) emerged as a response to creditors' concerns about the elevated credit risk of lending backed by little equity in a home as well as to the difficulties that some consumers encounter in accumulating sufficient savings to meet the required down payment and closing costs.

PMI protects a lender if a borrower defaults on a loan; it reduces a lender's credit risk by insuring against losses associated with default up to a contractually established percentage of the claim amount. The costs of the insurance are typically paid by the borrower through a somewhat higher interest rate on the loan.

In 1993, the Mortgage Insurance Companies of America (MICA) asked the Federal Financial Institutions Examination Council (FFIEC) to process data from PMI companies on applications for mortgage insurance and to produce disclosure statements for the public based on the data.[36] The PMI data largely mirror the types of information submitted by lenders covered by HMDA. However, because the PMI companies do not receive all the information about a prospective loan from the lenders seeking insurance coverage, some HMDA items are not included in the PMI data. In particular, loan-pricing information, requests for pre-approval, and an indicator of whether a loan is subject to the Home Ownership and Equity Protection Act are unavailable in the PMI data.

The seven PMI companies that issued PMI during 2007 submitted data to the FFIEC through MICA. In total, these companies acted on nearly 2 million applications for insurance: 1.4 million applications to insure mortgages for purchasing homes and about 540,000 applications to insure mortgages for refinancing existing mortgages. PMI companies approved 92 percent of the applications they received. Approval rates for PMI companies are notably higher than they are for mortgage lenders because lenders applying for PMI are familiar with the underwriting standards used by the PMI companies and generally submit applications for insurance coverage only if the applications are likely to be approved. □

36. Founded in 1973, MICA is the trade association for the PMI industry. The FFIEC prepares disclosure statements for each of the PMI companies. The statements are available at the corporate headquarters of each company and at a central depository in each metropolitan statistical area (MSA) in which HMDA data are held. The central depository also holds aggregate data for all the PMI companies active in that MSA. In addition, the PMI data are available from the FFIEC at www.ffiec.gov/reports.htm.

Legal Developments

March 2008

Legal Developments: Fourth Quarter, 2007

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

ORDERS ISSUED UNDER SECTION 3 OF THE BANK HOLDING COMPANY ACT

First Citizens Banc Corp
Sandusky, Ohio

The Citizens Banking Company
Urbana, Ohio

Order Approving Merger of Bank Holding Companies, Merger of Banks, and Establishment of Branches

First Citizens Banc Corp ("First Citizens"), a financial holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to merge with Futura Banc Corporation ("Futura") and acquire its subsidiary bank, Champaign National Bank ("Champaign Bank"), both of Urbana, Ohio.[2] In addition, First Citizens' subsidiary state member bank, The Citizens Banking Company ("Citizens Bank"), also of Sandusky, has requested the Board's approval under section 18(c) of the Federal Deposit Insurance Act[3] ("Bank Merger Act") to merge with Champaign Bank, with Citizens Bank as the surviving entity. Citizens Bank also has applied under section 9 of the Federal Reserve Act ("FRA") to establish and operate branches at the main office and branches of Champaign Bank.[4]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in accordance with the relevant statutes and the Board's Rules of Procedure (72 *Federal Register* 60,019 (2007)).[5] As required by the Bank Merger Act, a report on the competitive effects of the merger was requested from the United States Attorney General and a copy of the request was provided to the Federal Deposit Insurance Corporation. The time for filing comments has expired, and the Board has considered the applications in light of the factors set forth in section 3 of the BHC Act, the Bank Merger Act, and the FRA.

First Citizens has total consolidated assets of approximately $776.5 million and is the 27th largest depository organization in Ohio, controlling deposits of approximately $678.4 million, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the state ("state deposits").[6] First Citizens operates one subsidiary depository institution, Citizens Bank, with branches only in Ohio.

Futura, a small bank holding company with banking assets of approximately $274.2 million, operates one insured depository institution, Champaign Bank, in Ohio. Futura is the 67th largest depository organization in Ohio, controlling deposits of approximately $232.8 million.

On consummation of this proposal, First Citizens would become the 23rd largest depository organization in Ohio, with total consolidated assets of approximately $1.1 billion. First Citizens would control deposits of approximately $911.2 million, which represent less than 1 percent of the total amount of state deposits.

COMPETITIVE CONSIDERATIONS

The BHC Act and the Bank Merger Act prohibit the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. Both acts also prohibit the Board from approving a bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by its probable effect in meeting the convenience and needs of the community to be served.[7]

First Citizens and Futura have subsidiary depository institutions that compete directly in the Logan County,

1. 12 U.S.C. § 1842.
2. First Citizens proposes to acquire the shares of the nonbanking subsidiaries of Futura in accordance with section 4(k) of the BHC Act and the post-transaction notice procedures in section 225.87 of Regulation Y (12 U.S.C. § 1843(k); 12 CFR 225.87).
3. 12 U.S.C. § 1828(c).
4. 12 U.S.C. § 321. These branches are listed in the appendix.
5. 12 CFR 262.3(b).
6. Asset data are as of September 30, 2007. Statewide deposit and ranking data are as of June 30, 2007, and reflect merger activity through November 20, 2007. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.
7. 12 U.S.C. § 1842(c)(1); 12 U.S.C. § 1828(c)(5).

Ohio banking market.[8] The Board has reviewed carefully the competitive effects of the proposal in this banking market in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the market, the relative shares of total deposits in depository institutions ("market deposits") controlled by First Citizens and Futura in the market,[9] the concentration levels of market deposits and the increases in these levels as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[10] and other characteristics of the market.

In the Logan County banking market, Citizens Bank is the second largest depository institution, controlling deposits of approximately $119.6 million, which represent approximately 21.6 percent of market deposits. Champaign Bank is the fifth largest depository institution in the market, controlling deposits of approximately $42 million, which represent approximately 7.6 percent of market deposits. Based on deposit data as of June 30, 2007, Citizens Bank would become the largest depository institution in the market, controlling deposits of approximately $161.6 million, which would represent 29.1 percent of market deposits. The HHI would increase 326 points to 1963.

Several factors indicate that the increase in concentration in this banking market, as measured by the HHI, overstates the potential competitive effects of the proposal. The Board notes that First Citizens did not enter the Logan County banking market until October 4, 2007, when Citizens Bank assumed the insured deposits of a failed bank.[11] The record shows that the offices of the acquired bank incurred a significant run-off of deposits in the market between June 30, 2007, and the October 4 acquisition date, which other competitors in the market did not experience. This decline in the deposits assumed by Citizens Bank indicates that using June 30, 2007, deposit data to calculate the effects of this proposal on market concentration would overstate to some degree the actual market presence of First Citizens. In addition, nine other insured depository institutions would continue to compete in the market after consummation.

Moreover, the Board notes that one community credit union also exerts a competitive influence in the Logan County banking market.[12] This institution offers a wide range of consumer products, operates street-level branches, and has membership open to almost all the residents in the market.

The DOJ also conducted a detailed review of the potential competitive effects of the proposal and advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in the Logan County banking market, where First Citizens and Futura compete directly, or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act and the Bank Merger Act require the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has carefully considered these factors in light of all the facts of record, including confidential supervisory and examination information from the primary federal and state banking supervisors of the organizations involved in the proposal, publicly reported and other financial information, and information provided by First Citizens and Futura.

In evaluating financial resources in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary depository institutions and the organizations' significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings

8. The Logan County banking market is defined as Logan County, Ohio.

9. Deposit and market-share data are based on data reported by insured depository institutions in the summary of deposits data as of June 30, 2007, adjusted to reflect mergers and acquisitions through November 20, 2007, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group,* 75 *Federal Reserve Bulletin* 386 (1989); *National City Corporation,* 70 *Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market-share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.,* 77 *Federal Reserve Bulletin* 52 (1991).

10. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is less than 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI is more than 1800. The Department of Justice has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The Department of Justice has stated that the higher-than-normal HHI thresholds for screening bank mergers for anticompetitive effects implicitly recognize the competitive effects of limited-purpose lenders and other nondepository financial entities.

11. *See* Press Release, Federal Deposit Insurance Corporation, FDIC Approves the Assumption of the Insured Deposits of Miami Valley Bank, Lakeview, Ohio (October 4, 2007).

12. The Board previously has considered the competitiveness of certain active credit unions as a mitigating factor. *See, e.g., Regions Financial Corporation,* 93 *Federal Reserve Bulletin* C16 (2007); *Wachovia Corporation,* 92 *Federal Reserve Bulletin* C183 (2006); *F.N.B. Corporation,* 90 *Federal Reserve Bulletin* 481 (2004); *Gateway Bank & Trust Co.,* 90 *Federal Reserve Bulletin* 547 (2004).

performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has carefully considered the financial factors of the proposal. First Citizens, Futura, and their subsidiary depository institutions are well capitalized and would remain so on consummation of the proposal. Based on its review of the record, the Board also finds that First Citizens has sufficient financial resources to effect the proposal. The proposed acquisition is structured as a partial share exchange and a partial cash purchase of shares. First Citizens will use a combination of existing resources and debt to fund the cash purchase of shares.

The Board also has considered the managerial resources of the organizations involved and the proposed combined organization. The Board has reviewed the examination records of First Citizens, Futura, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant banking supervisory agencies with the organizations and their records of compliance with applicable banking laws and with anti-money-laundering laws. First Citizens, Futura, and their subsidiary depository institutions are considered to be well managed. The Board also has considered First Citizens' plans for implementing the proposal, including the proposed management after consummation.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors the Board must consider under the BHC Act and the Bank Merger Act.

Convenience and Needs and CRA Performance Consideration

In acting on a proposal under section 3 of the BHC Act and the Bank Merger Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[13] Citizens Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the Federal Reserve Bank of Cleveland ("Reserve Bank"), as of September 25, 2006. Champaign Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the Office of the Comptroller of the Currency, as of July 22, 2003. After consummation of the proposal, Citizens Bank plans to implement its CRA policies at Champaign Bank. First Citizens has represented that the proposal would provide greater convenience to customers through a larger network of branches and ATMs and a broader range of financial products and services over an expanded geographic area. Based on all the facts of record, the Board concludes that considerations relating to the convenience and needs of the communities to be served and the CRA performance records of the relevant depository institutions are consistent with approval.

Establishment of Branches

As previously noted, Citizens Bank has also applied under section 9 of the FRA to establish branches at the locations of Champaign Bank's existing main office and branches. The Board has assessed the factors it is required to consider when reviewing an application under section 9 of the FRA and the Board's Regulation H and finds those factors to be consistent with approval.[14]

Conclusion

Based on the foregoing and all the facts of record, the Board has determined that the applications should be, and hereby are, approved. In reaching its decision, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act, the Bank Merger Act, and the FRA. The Board's approval is specifically conditioned on compliance by First Citizens and Citizens Bank with the conditions imposed in this order and the commitments made to the Board in connection with the applications. For purposes of this action, the conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision herein and, as such, may be enforced in proceedings under applicable law.

The proposed transactions may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Reserve Bank, acting pursuant to delegated authority.

By order of the Board of Governors, effective November 30, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

---

13. 12 U.S.C. §2901 et seq.; 12 U.S.C. §1842(c)(2).

14. 12 U.S.C. §322; 12 CFR 208.6(b).

Appendix

BRANCHES IN OHIO TO BE ESTABLISHED BY CITIZENS BANK

Urbana
601 Scioto Street
504 North Main Street

Russells Point
330 South Orchard Island Road

West Liberty
205 South Detroit Street

Troy
115 South Market

Dublin
6400 Perimeter Drive

Hilliard
4501 Cemetery Road

Plain City
320 South Jefferson Avenue

Akron
529 North Cleveland Massillon Road

KeyCorp
Cleveland, Ohio

Order Approving the Merger of Bank Holding Companies

KeyCorp, a financial holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to acquire U.S.B. Holding Co., Inc. ("USB"), Orangeburg, and its subsidiary bank, Union State Bank, Nanuet, both of New York.[2]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (72 *Federal Register* 52,129 (2007)). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in the BHC Act.

KeyCorp, with total consolidated assets of approximately $93.5 billion, is the 24th largest depository organization in the United States.[3] KeyCorp's only insured depository institution, KeyBank National Association ("KeyBank"), also of Cleveland, operates in 14 states.[4] In New York, KeyCorp is the 12th largest depository organization, controlling $11.5 billion in deposits, which represents 1.4 percent of the total amount of deposits of insured depository institutions in the state ("state deposits").[5]

USB, with total consolidated assets of approximately $3 billion, controls one subsidiary bank, Union State Bank, which operates in New York and Connecticut. In New York, USB is the 30th largest depository organization, controlling approximately $1.8 billion in state deposits.

On consummation of the proposal, KeyCorp would remain the 24th largest depository institution in the United States, with total consolidated assets of approximately $96.7 billion. KeyCorp would control deposits of approximately $59.2 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States. In New York, KeyCorp would become the ninth largest depository organization, controlling deposits of approximately $13.3 billion, which represent approximately 2 percent of state deposits.

INTERSTATE ANALYSIS

Section 3(d) of the BHC Act allows the Board to approve an application by a bank holding company to acquire control of a bank located in a state other than the bank holding company's home state if certain conditions are met. For purposes of the BHC Act, the home state of KeyCorp is Ohio,[6] and USB is located in New York and Connecticut.[7]

Based on a review of all the facts of record, including relevant state statutes, the Board finds that the conditions for an interstate acquisition enumerated in section 3(d) of the BHC Act are met in this case.[8] In light of all the facts of

1. 12 U.S.C. § 1842.

2. In connection with this proposal, KYCA, Cleveland, Ohio, a wholly owned subsidiary of KeyCorp, has applied to become a bank holding company by merging with USB. The resulting institution will merge with KeyCorp, with KeyCorp as the surviving institution. KeyCorp also proposes to acquire the nonbanking subsidiaries of USB in accordance with section 4(k) of the BHC Act, 12 U.S.C. § 1843(k).

3. Asset and asset ranking data are as of June 30, 2007; national deposit and ranking data are as of March 31, 2007; statewide deposit and ranking data are as of June 30, 2006.

4. KeyBank operates branches in Alaska, Colorado, Florida, Idaho, Indiana, Kentucky, Maine, Michigan, New York, Ohio, Oregon, Utah, Vermont, and Washington.

5. In the context of this order, insured depository institutions include commercial banks, savings banks, and savings associations.

6. *See* 12 U.S.C. § 1842(d). A bank holding company's home state is the state in which the total deposits of all banking subsidiaries of such company were the largest on July 1, 1966, or the date on which the company became a bank holding company, whichever is later.

7. For purposes of section 3(d) of the BHC Act, the Board considers a bank to be located in the states in which the bank is chartered or headquartered or operates a branch. *See* 12 U.S.C. §§ 1841(o)(4)–(7) and 1842(d)(1)(A) and 1842(d)(2)(B).

8. 12 U.S.C. §§ 1842(d)(1)(A)–(B) and 1842(d)(2)–(3). KeyCorp is adequately capitalized and adequately managed, as defined by applicable law. Union State Bank has been in existence and operated for the minimum period of time required by applicable New York law, and the proposal is not subject to an age requirement under Connecticut law. *See* N.Y. Banking Law § 223-a (2001) (five years). On consummation of the proposal, KeyCorp would control less than 10 percent of the total amount of deposits of insured depository institutions in the United States and less than 30 percent of the total amount of deposits of insured depository institutions in New York (12 U.S.C.

record, the Board is permitted to approve the proposal under section 3(d) of the BHC Act.

Competitive Considerations

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of an attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[9]

KeyCorp and USB have subsidiary depository institutions that compete directly in the Metropolitan New York-New Jersey banking market.[10] The Board has reviewed carefully the competitive effects of the proposal in this banking market in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the market, the relative shares of total deposits in depository institutions controlled by KeyCorp and USB in the markets ("market deposits"),[11] the concentration level of market deposits and the increases in these levels as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[12] and other characteristics of the markets.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in the Metropolitan New York-New Jersey banking market.[13] On consummation of the proposal, the market would remain moderately concentrated as measured by the HHI, and numerous competitors would remain in the market.

The DOJ has conducted a detailed review of the potential competitive effects of the proposal and has advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in the banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in the banking market where KeyCorp and USB compete directly or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination and other supervisory information received from the relevant federal and state supervisors of the organizations involved in the proposal, and publicly reported and other financial information, including information provided by KeyCorp.

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary depository institutions and the organizations' nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has

§ 1842(d)(2)(B)). The proposed transaction is not subject to any deposit cap in Connecticut under the BHC Act because KeyCorp does not operate in Connecticut or subject to any other relevant deposit cap under Connecticut law. *See* 12 U.S.C. § 1842(d)(2)(B)–(C). All other requirements of section 3(d) of the BHC Act would be met on consummation of the proposal.

9. 12 U.S.C. § 1842(c)(1).

10. The Metropolitan New York-New Jersey banking market is defined as Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, and Westchester counties, all in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren counties and the northern portions of Mercer County, all in New Jersey; Monroe and Pike counties in Pennsylvania; Fairfield County and portions of Litchfield and New Haven counties in Connecticut.

11. Deposit and market share data are as of June 30, 2006, adjusted to reflect mergers and acquisitions through August 1, 2007, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386, 387 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743, 744 (1984). Thus, the Board regularly has included thrift deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52, 55 (1991).

12. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is under 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI exceeds 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

13. On consummation, the HHI would remain unchanged at 1226 for the Metropolitan New York-New Jersey banking market. KeyCorp operates the 45th largest depository institution in the market, controlling deposits of approximately $1.6 billion, which represent less than 1 percent of market deposits. USB controls $1.9 billion in deposits, which also represents less than 1 percent of market deposits. KeyBank would become the 29th largest depository institution in the market, controlling deposits of approximately $3.5 billion, which represent approximately 1 percent of market deposits. On consummation of the proposal, 276 depository institutions would remain in the banking market.

considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has considered the proposal carefully under the financial factors. KeyCorp, USB, and their subsidiary depository institutions are well capitalized, and KeyCorp and its subsidiary depository institutions would remain so on consummation of the proposal. Based on its review of the record, the Board finds that KeyCorp has sufficient financial resources to effect the proposal. The proposed transaction is structured as a combination share exchange and cash purchase, and KeyCorp will use existing resources to fund the cash portion of the purchase.

The Board also has considered the managerial resources of the organizations involved and the proposed combined organization. The Board has reviewed the examination records of KeyCorp, USB, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant bank supervisory agencies with the organizations and their records of compliance with applicable banking law, including anti-money-laundering laws. KeyCorp, USB, and their subsidiary depository institutions are considered to be well managed. The Board also has considered KeyCorp's plans for implementing the proposal, including the proposed management after consummation.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board is required to consider the effects of the proposal on the convenience and needs of the communities to be served and to take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[14] The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs of its entire community, including low- and moderate-income ("LMI") neighborhoods, in evaluating bank expansionary proposals.[15]

The Board has considered carefully all the facts of record, including evaluations of the CRA performance records of the subsidiary depository institutions of KeyCorp and USB, data reported by KeyCorp and USB under the Home Mortgage Disclosure Act ("HMDA"),[16] other information provided by KeyCorp, confidential supervisory information, and a public comment received on the proposal. The commenter generally alleged that KeyCorp and USB have failed to meet the credit needs of the communities they serve, particularly the needs of LMI and predominantly minority communities in Westchester County, New York. In addition, the commenter contended that USB had not adequately served LMI communities due to an alleged insufficient number of branches and services in LMI communities. The commenter also alleged that KeyCorp and USB made an insufficient number of home mortgage and small business loans in LMI areas in Westchester County and the City of Newburgh in Orange County, New York. Furthermore, the commenter asserted, based on HMDA data reported in 2003, that Union State Bank had engaged in disparate treatment of minority individuals in home mortgage lending.

A. CRA Performance Evaluations

As provided in the CRA, the Board has reviewed the convenience and needs factor in light of the evaluations by the appropriate federal supervisors of the CRA performance records of the relevant insured depository institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[17]

KeyBank received an "outstanding" rating at its most recent CRA performance evaluation by the Office of the Comptroller of the Currency ("OCC"), as of September 1, 2003 ("KeyBank 2003 Evaluation").[18] Union State Bank received a "satisfactory" CRA performance rating by the Federal Deposit Insurance Corporation ("FDIC"), as of June 27, 2005 ("Union 2005 Evaluation").[19] KeyCorp proposes to merge Union State Bank into KeyBank soon after consummation of the transaction and has represented that it will implement KeyBank's CRA program at the combined institution.[20]

CRA Performance of KeyBank. In addition to the overall "outstanding" rating that KeyBank received in the KeyBank 2003 Evaluation, the bank received an "outstanding" rating on each of the lending, investment, and service tests for its overall CRA performance. The bank also received

14. 12 U.S.C. §2901 et seq.; 12 U.S.C. §1842(c)(2).

15. 12 U.S.C. §2903.

16. 12 U.S.C. §2801 et seq.

17. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 and 36,639 (2001).

18. The evaluation period was January 1, 1999, through December 31, 2002, for the lending test and March 1, 1999, to August 31, 2003, for the service and investment tests.

19. The evaluation period was generally from January 1, 2003, to June 27, 2005.

20. KeyBank has filed an application under the Bank Merger Act with the OCC for approval of the merger (12 U.S.C. §1828(c)).

"outstanding" ratings for its overall CRA performance in New York and in each of the eleven other states reviewed. Examiners reported that KeyBank's overall lending performance with respect to HMDA-reportable loans and small loans to businesses[21] was very good and that the geographic distribution was excellent in assessment areas representing 70 percent of the bank's deposits. They further noted that KeyBank's distribution of HMDA-reportable loans and small loans to businesses among borrowers of different income levels was excellent in the majority of the assessment areas that were rated. Examiners also reported that the bank had a substantial volume of community development lending in every rated area as well as an excellent level of qualified investments in every state it served.

Examiners commented that in New York, the bank's overall distribution of loans to borrowers of different income levels was excellent and that its geographic distribution of loans was good.[22] In the bank's Newburgh and New York MSAs assessment areas, examiners concluded that KeyBank's performance under the lending test was consistent with the bank's overall excellent performance statewide under that test. Examiners commended the bank's record of extending lending small loans to business in the Newburgh and New York MSAs and noted that the bank extended a higher percentage of its business loans in LMI census tracts than the percentage of businesses that were in such tracts. They also noted KeyBank's high volume of community development loan originations in the Newburgh and New York MSAs.

Since the KeyBank 2003 Evaluation, KeyBank has maintained its high level of lending activity. For example, KeyBank's HMDA-reportable loans throughout its assessment areas totaled more than $2.8 billion in 2005 and 2006. In Orange and Westchester counties and the assessment areas in New York, KeyBank's percentage of those loans to LMI individuals exceeded the percentage of loans made by lenders in the aggregate ("aggregate lenders")[23] during this period. KeyBank also made a substantial portion of its small loans to businesses in amounts of less than $100,000 in 2005 and 2006. In addition, KeyBank represented that it made approximately $2.4 billion in total qualified community development loans throughout its assessment areas, which included $475 million in loans in the state of New York, since the KeyBank 2003 Evaluation.

In the KeyBank 2003 Evaluation, examiners noted that KeyBank had an excellent level of qualified investments in every state it served. Examiners concluded that KeyBank's performance under the investment test in the Newburgh and New York MSAs assessment areas was consistent with the bank's overall excellent performance under the investment test in the assessment areas in New York. KeyCorp represented that its qualified investments have totaled $112 million in the bank's New York assessment areas since the KeyBank 2003 Evaluation and noted that the bank had actively participated in the New Market Tax Credit Program.

In the KeyBank 2003 Evaluation, examiners stated that overall, KeyBank had provided excellent accessibility to its branches and ATMs in LMI areas and for people of different income levels in states representing 66 percent of its bank-wide deposits and good accessibility in the remaining states. Examiners rated the bank's performance under the service test in New York as "high satisfactory." They commended KeyBank's level of community development services and the overall accessibility of the bank's depository facilities in the state. Since the KeyBank 2003 Evaluation, KeyBank represented that it has expanded its services by allowing LMI customers to cash payroll and government checks for a special low fee and by offering them free checking accounts with no minimum deposit requirement.

CRA Performance of Union State Bank. As noted, Union State Bank received an overall "satisfactory" rating in the Union 2005 Evaluation.[24] Under the lending test, Union State Bank received a "high satisfactory" rating, and examiners reported that the bank's distribution of loans in its assessment area reflected a good penetration among retail customers of different income levels and business customers of varying sizes. Examiners noted that the high cost of housing and low levels of owner-occupied housing units in those tracts available for originations limited lending opportunities. They reported that USB made ongoing efforts to increase lending in LMI areas, including Union State Bank's continued use of the Federal Home Loan Bank's ("FHLB") First Home Club program for LMI borrowers.[25]

Examiners concluded that Union State Bank's overall lending levels reflected good responsiveness to its assessment area's credit needs. They commended the bank's performance for originating loans of varying amounts to businesses of different sizes. In addition, the examiners

21. "Small loans to businesses" are loans with original amounts of $1 million or less that are either secured by nonfarm, nonresidential properties or classified as commercial and industrial loans.

22. KeyCorp's statewide rating for New York was based on a full-scope evaluation conducted in KeyCorp's Buffalo and Niagara Falls Metropolitan Statistical Area ("MSA") assessment area. Limited-scope evaluations were conducted in KeyCorp's ten other New York assessment areas and in particular, in the New York MSA, which includes Westchester County and the Newburgh MSA, including the city of Newburgh.

23. The lending data of the aggregate lenders represent the cumulative lending for all financial institutions that reported HMDA data in a given market.

24. During the Union 2005 Evaluation, USB's single assessment area included all of the areas in New York and Connecticut where USB operated branches. The FDIC's review of Union State Bank under the lending test in this evaluation included one of USB's nondepository subsidiaries for grants and donations.

25. UBS offered a first-time homebuyer's program to LMI individuals. Under this program, the FHLB provided down-payment and closing-cost assistance by granting up to $3 in matching funds for each $1 saved by the household. USB also offered participants a reduced interest rate and application fees as well as lower closing costs. Applicants were required to attend homeownership counseling with a local community housing organization.

noted that a significant majority of Union State Bank's business loan originations in 2003 were small loans to businesses with revenues of $1 million or less. They also noted that Union State Bank's level of community development lending was outstanding.

Examiners rated Union State Bank's community development investment efforts as "outstanding" under the investment test and reported that Union State Bank had maintained an excellent level of qualified investments (approximately $24 million) within the areas under review. In addition, they also noted that Union State Bank purchased approximately $16.9 million in CRA-qualified investments since its previous evaluation, a substantial amount of investments that evidenced USB's efforts to address qualified investment opportunities and to promote affordable housing within its assessment area. Examiners also noted that USB participated in a consortium of lending institutions operating in New York and New Jersey that provided affordable housing assistance by offering construction and permanent financing for identified community affordable housing projects, such as single-family, apartment, or elderly housing throughout the two states.

In the Union 2005 Evaluation, Union State Bank received a "high satisfactory" rating on the service test. Examiners reported that the bank's delivery systems were reasonably accessible to essentially all portions of the institution's assessment area, including LMI census tracts. They noted that Union State Bank's services, including business hours, were tailored to the convenience and needs of the bank's assessment area, particularly LMI areas, and included Spanish-language services for Latino customers. Examiners also commended USB for providing a relatively high level of community development services. In addition, they noted that Union State Bank personnel provided free technical assistance to small business owners and entrepreneurs in connection with the bank's establishment of a Community Business Lending Team to increase lending in LMI communities.[26]

B. HMDA and Fair Lending Record

The Board has carefully considered the fair lending records and HMDA data of KeyCorp and USB in light of the public comment received on the proposal. The commenter alleged, based on HMDA data, that USB had denied the home mortgage loan applications of African American and Latino borrowers more frequently than those of nonminority applicants. The Board has focused its analysis on the 2005 and 2006 HMDA data reported by KeyCorp and USB.[27]

Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not KeyCorp or USB are excluding any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information, provide only limited information about the covered loans.[28] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Because of the limitations of HMDA data, the Board has considered these data carefully and taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending laws by KeyCorp, USB, and their subsidiaries. The Board also has consulted with the OCC, the primary federal supervisor of KeyCorp's subsidiary bank, and the FDIC, the primary federal supervisor of USB's subsidiary bank.

KeyCorp has stated that its fair lending and consumer compliance policies and procedures will apply to the combined organization after consummation of the proposal. KeyCorp also will continue to use its loan origination, underwriting, processing, and servicing systems. The record, including confidential supervisory information, indicates that KeyCorp has taken steps to ensure compliance with fair lending and other consumer protection laws. KeyCorp has corporate-wide policies and procedures to help ensure compliance with all fair lending and other consumer protection laws and regulations, and its ongoing monitoring is designed to ensure compliance with policies and procedures. In addition, KeyCorp represented that its compliance staff members frequently receive education on best compliance practices and that USB personnel will receive the same training.

The Board also has considered the HMDA data in light of other information, including the programs described above and the overall performance records of the subsidiary banks of KeyCorp and USB under the CRA. These established efforts and records of performance demonstrate

26. The commenter also challenged the location and record of opening Union State Bank's branches. As noted above, Union State Bank will be merged into KeyBank, and the OCC will review KeyBank's record of opening branches in New York in connection with the merger application and during the course of conducting CRA evaluations.

27. The Board analyzed HMDA data for KeyBank's assessment areas nationwide, KeyBank's and Union State Bank's assessment areas in NewYork, and specifically in Westchester and Orange counties, New York. The Board's analysis of HMDA data for Union State Bank's assessment area also included Fairfield County, Connecticut.

28. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

that the institutions are active in helping to meet the credit needs of their entire communities.

C. Conclusion on Convenience and Needs and CRA Performance

The Board has considered carefully all of the facts of record, including reports of examination of the CRA records of the institutions involved, information provided by KeyCorp, comments received on the proposal, and confidential supervisory information. KeyCorp represented that the proposal will result in greater convenience for KeyCorp and USB customers through KeyCorp's exploration of new methods and approaches to enhance the level of service provided to the communities currently served by USB, such as working to encourage residents who depend on alternative financial service providers for banking services to establish a customer relationship with KeyBank. In addition, KeyCorp stated that its customers would benefit from a more extensive network of branch offices, ATMs, telephone call centers, and other facilities. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant insured depository institutions are consistent with approval of the proposal.[29]

CONCLUSION

Based on the foregoing, and in light of all the facts of record, the Board has determined that the applications should be, and hereby are, approved. In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act and other applicable statutes. The Board's approval is specifically conditioned on compliance by KeyCorp with the conditions in this order and all the commitments made to the Board in connection with the proposal. For purposes of this transaction, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The proposal may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Cleveland, acting pursuant to delegated authority.

By order of the Board of Governors, effective November 2, 2007.

29. The commenter also requested that KeyBank demonstrate that the compositions of its employees and board of directors reflect the community which it serves. The Board notes that the racial, ethnic, or gender makeup of a banking organization's staff or management is not a factor that the Board is permitted to consider under the BHC Act. *See Western Bancshares, Inc. v. Board of Governors*, 480 F.2d 749 (10th Cir. 1973).

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

Midwest Regional Bancorp, Inc. Festus, Missouri

Order Approving the Formation of a Bank Holding Company

Midwest Regional Bancorp, Inc. ("Midwest") has requested the Board's approval under section 3 of the Bank Holding Company Act ("BHC Act")[1] to become a bank holding company and to acquire all the voting shares of Federated Bancshares, Inc. ("Federated"), Stilwell, Kansas, and thereby acquire control of its subsidiary bank, The Bank of Otterville ("Bank"), Otterville, Missouri.[2]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (72 *Federal Register* 19,705 (2007)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the factors set forth in section 3 of the BHC Act.

Midwest is a newly organized corporation formed for the purpose of acquiring control of Federated and Bank. Bank, with total assets of approximately $20 million, is the 298th largest insured depository institution in Missouri, controlling deposits of approximately $18.7 million, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the state.[3]

COMPETITIVE CONSIDERATIONS

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or that would be in furtherance of an attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a proposal that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[4]

Midwest does not currently control a depository institution. Based on all the facts of record, the Board has concluded that consummation of the proposal would not have a significantly adverse effect on competition or on the

1. 12 U.S.C. § 1842.
2. Federated owns approximately 93 percent of the voting shares of Bank.
3. Asset data, deposit data, and state rankings are as of June 30, 2007. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.
4. *See* 12 U.S.C. § 1842(c)(1).

concentration of banking resources in any relevant banking market and that competitive considerations are consistent with approval.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination and other confidential supervisory information from the Division of Finance of the State of Missouri and the Federal Deposit Insurance Corporation ("FDIC"), the primary state and federal supervisors of Bank, and information provided by Midwest.

In evaluating financial factors in bank holding company proposals, the Board reviews the financial condition of the applicant and the target subsidiary depository institutions, particularly with respect to capital adequacy, asset quality, and earnings performance. In addition, for proposals involving small bank holding companies, the Board evaluates the institutions' compliance with the Board's Small Bank Holding Company Policy Statement ("Policy Statement"), including compliance with those measures that are used to assess capital adequacy and overall financial strength.[5] In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has considered carefully the financial factors of the proposal. Bank currently is well capitalized and would remain so on consummation of the proposal, and Federated is in compliance with relevant capital standards. Based on its review of the record, the Board also finds that Midwest would have sufficient financial resources to effect the proposal and to comply with the Board's Policy Statement. The proposed transaction is structured as a cash purchase funded from the proceeds of an issuance of new holding company stock.

The Board also has considered the managerial resources of Midwest, Federated, and Bank. The Board has reviewed the examination records of Federated and Bank, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant bank supervisory agencies with the organizations and their records of compliance with applicable banking laws and with anti-money-laundering laws. The Board also has considered Midwest's plans to implement the proposal, including the proposed management after consummation, and has consulted the other relevant supervisory agencies concerning those plans.[6]

Based on all the facts of record, including comments and information received from regulators and interested parties, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the institutions involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act.

Convenience and Needs Considerations

In acting on proposals under section 3 of the BHC Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and to take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[7] Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the FDIC, as of August 1, 2004. After consummation of the proposal, Midwest does not plan to alter Bank's current CRA policies. Midwest has represented that the proposal would provide greater convenience to Bank's customers by offering Internet access for their accounts and electronic balance transfers, automatic bill paying, and other services not currently offered by Bank.

Based on all the facts of record, the Board has concluded that considerations relating to the convenience and needs factor and the CRA performance record of the relevant depository institution are consistent with approval.

Conclusion

Based on the foregoing and all facts of record, the Board has determined that the application should be, and hereby is, approved. In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by Midwest with the conditions in this order and all the commitments made to the Board in connection with the proposal. For purposes of this action, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The proposed transaction may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Federal Reserve Bank of Kansas City, acting pursuant to delegated authority.

5. 12 CFR 225, Appendix C.

6. The Board received a comment regarding a member of Midwest's proposed management from a former employer. The Board has considered carefully the management record in banking of the individual identified by the commenter and has consulted with the primary federal and state supervisors of the banks where that individual was previously employed.

7. 12 U.S.C. § 2901 et seq.

By order of the Board of Governors, effective November 8, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

ORDERS ISSUED UNDER SECTION 4 OF THE BANK HOLDING COMPANY ACT

Allied Irish Banks, p.l.c. Dublin, Ireland

M&T Bank Corporation Buffalo, New York

Order Approving Acquisition of a Savings Association and a Bank, Merger of Depository Institutions, Establishment of Branches, and Notice to Engage in Nonbanking Activities

Allied Irish Banks, p.l.c. ("Allied Irish") and its subsidiary, M&T Bank Corporation ("M&T") (collectively, "Applicants"), bank holding companies within the meaning of the Bank Holding Company Act ("BHC Act"), have requested the Board's approval under sections 4(c)(8) and 4(j) of the BHC Act to merge M&T with Partners Trust Financial Group, Inc. ("Partners") and acquire its subsidiary savings association, Partners Trust Bank ("Partners Bank"), and Partners' other nonbanking subsidiaries, all of Utica, New York.[1] Applicants also have requested the Board's approval under section 3 of the BHC Act to acquire Partners' indirect subsidiary bank, Partners Trust Municipal Bank ("Municipal Bank"),[2] also of Utica.[3]

In addition, M&T's subsidiary state member bank, Manufacturers & Traders Trust Company ("M&T Bank"), also of Buffalo, has requested the Board's approval under section 18(c) of the Federal Deposit Insurance Act[4] ("Bank Merger Act") to merge with Partners Bank and Municipal Bank, with M&T Bank as the surviving entity. M&T Bank also has applied under section 9 of the Federal Reserve Act ("FRA") to establish and operate branches at the main office and branches of Partners Bank.[5]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in accordance with the relevant statutes and the Board's Rules of Procedure (72 *Federal Register* 56,762 (2007)).[6] As required by the Bank Merger Act, a report on the competitive effects of the mergers was requested from the United States Attorney General and a copy of the request was provided to the Federal Deposit Insurance Corporation ("FDIC"). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in the BHC Act, the Bank Merger Act, and the FRA.

Allied Irish, with total consolidated assets equivalent to approximately $252 billion, is the largest depository organization in Ireland and provides a full range of banking, financial, and related services primarily in Ireland, the United Kingdom, and the United States.[7] Allied Irish operates a branch in New York and through M&T controls two subsidiary banks, M&T Bank and M&T Bank, National Association, Oakfield, New York, which operate in eight states. M&T, with total consolidated assets of $57.4 billion, is the 30th largest depository organization in the United States, controlling $33.1 billion in deposits, which represents less than 1 percent of the total amount of deposits of insured depository institutions in the United States. M&T is the seventh largest depository organization in New York, controlling deposits of approximately $20.4 billion in New York, which represent approximately 2.6 percent of the total amount of deposits of insured depository institutions in the state ("state deposits").

Partners has total consolidated assets of approximately $3.7 billion, and its subsidiary insured depository institutions operate only in New York. Partners is the 28th largest depository organization in New York, controlling deposits of approximately $2.3 billion.

On consummation of the proposal, and after accounting for proposed divestitures, Allied Irish would become the 28th largest insured depository organization in the United States, with total consolidated assets of approximately $61.1 billion. Allied Irish would control deposits of approximately $35.3 billion, representing less than 1 percent of the total amount of deposits of insured depository institutions in the United States. In New York, M&T would remain the seventh largest insured depository organization, controlling deposits of approximately $22.8 billion, which represent approximately 2.9 percent of state deposits.

The Board previously has determined by regulation that the operation of a savings association by a bank holding company is closely related to banking for purposes of section 4(c)(8) of the BHC Act.[8] The Board requires that savings associations acquired by bank holding companies

1. 12 U.S.C. §§ 1843(c)(8) and (j); 12 CFR 225.24. The nonbanking subsidiaries of Partners and activities for which Applicants have filed a notice under sections 4(c)(8) and 4(j) of the BHC Act are listed in Appendix A.

2. Municipal Bank, a wholly owned subsidiary of Partners Bank, is a limited-purpose bank that accepts only municipal deposits.

3. 12 U.S.C. § 1842.

4. 12 U.S.C. § 1828(c).

5. 12 U.S.C. § 321.

6. 12 CFR 262.3(b).

7. Asset and nationwide deposit-ranking data are as of June 30, 2007. Statewide deposit and ranking data are as of June 30, 2006, and reflect merger activity through June 30, 2007. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.

8. 12 CFR 225.28(b)(4)(ii).

conform their direct and indirect activities to those permissible for bank holding companies under section 4 of the BHC Act.[9] M&T has acknowledged that it is required to conform all the activities of Partners Bank to those that are permissible under section 4(c)(8) of the BHC Act and Regulation Y. The Board also has determined that the activities conducted by the nonbanking subsidiaries of Partners are closely related to banking, and M&T has acknowledged that it must conduct those activities in accordance with the Board's regulations and orders.[10]

Section 4(j)(2)(A) of the BHC Act requires the Board to determine that the proposed acquisition of Partners Bank and the nonbanking subsidiaries of Partners "can reasonably be expected to produce benefits to the public that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices."[11] As part of its evaluation under these public interest factors, the Board reviews the financial and managerial resources of the companies involved, the effect of the proposal on competition in the relevant markets, and the public benefits of the proposal.[12] In acting on a notice to acquire a savings association, the Board also reviews the records of performance of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[13] The Board has considered the proposal under these factors in light of all the facts of record, including confidential supervisory and examination information, publicly reported financial information, and other information provided by Applicants.

COMPETITIVE CONSIDERATIONS

The Board has considered carefully the competitive effects of Applicants' proposed acquisition of Partners, including the acquisition of Partners Bank, Municipal Bank, and Partners' nonbanking subsidiaries in light of all the facts of record. Section 3 of the BHC Act and the Bank Merger Act prohibit the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. Both acts also prohibit the Board from approving a bank acquisition unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by its probable effect in meeting the convenience and needs of the community to be served.[14] In addition, the Board must consider the competitive effects of a proposal to acquire a savings association and other nonbanking companies under the public benefits factor of section 4 of the BHC Act.

A. Acquisition of Insured Depository Institutions

Applicants and Partners have subsidiary insured depository institutions that compete directly in three banking markets in New York: Binghamton, Syracuse, and Utica-Rome. The Board has reviewed carefully the competitive effects of the proposal in each of these banking markets in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the markets, the relative share of total deposits of Applicants and Partners in the markets ("market deposits"),[15] the concentration level of market deposits and the increase in this level as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Guidelines ("DOJ Guidelines"),[16] other characteristics of the markets, and commitments made by Applicants to divest three branches of M&T Bank in the Binghamton market.

Banking Market with Divestiture. M&T Bank is the largest depository institution in the Binghamton banking market, controlling deposits of approximately $650.1 million, which represent approximately 25.4 percent of market deposits.[17] Partners Bank controls deposits of approximately $680.6 million, which when weighted at 50 percent represent 13.3 percent of market deposits, making Partners Bank the fifth largest depository institution in the market. To reduce the potential adverse effects on competition in the Binghamton banking market, Applicants have committed to divest three branches of M&T Bank that have at least

9. *Id.*

10. 12 CFR 225.28(b)(1), (2)(vi), and (7)(i).

11. 12 U.S.C. § 1843(j)(2)(A).

12. *See* 12 CFR 225.26; *see, e.g., BancOne Corporation*, 83 *Federal Reserve Bulletin* 602 (1997).

13. 12 U.S.C. § 2901 et seq.

14. 12 U.S.C. § 1842(c)(1); 12 U.S.C. § 1828(c)(5).

15. Deposit and market-share data are as of June 30, 2006, and reflect merger activity through June 30, 2007. The deposits of thrift institutions are included at 50 percent, except as noted below. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group,* 75 *Federal Reserve Bulletin* 386 (1989); *National City Corporation,* 70 *Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market-share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.,* 77 *Federal Reserve Bulletin* 52 (1991). In this case, Partners Bank's deposits are weighted at 50 percent pre-merger and at 100 percent post-merger to reflect the resulting ownership by a commercial banking organization.

16. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is under 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI exceeds 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

17. The Binghamton banking market is defined as Broome and Tioga counties and the townships of Afton, Coventry, German, Greene, Lincklaen, McDonough, Otselic, Oxford, Pharsalia, Pitcher, Preston, and Smithville, all in Chenango County, New York; and the townships of Apolacon, Bridgewater, Choconut, Franklin, Forest Lake, Friendsville Borough, Great Bend, Great Bend Borough, Hallstead Borough, Harmony, Jackson, Jessup, Lanesboro Borough, Liberty, Little Meadows Borough, Middletown, Montrose Borough, New Milford, New Milford Borough, Oakland, Oakland Borough, Silver Lake, and Susquehanna Depot Borough, all in Susquehanna County, Pennsylvania.

$94.5 million in total deposits.[18] On consummation of the proposed merger, and after accounting for the proposed divestiture, M&T Bank would remain the largest depository institution in the market, controlling deposits of approximately $1.2 billion, which would represent not more than 42.7 percent of market deposits. The HHI would increase not more than 876 points to 2365.

The Board has considered whether other factors either mitigate the competitive effects of the proposal or indicate that the proposal would have a significantly adverse effect on competition in the Binghamton market.[19] A number of factors indicate that the increase in concentration in this banking market, as measured by the HHI and market share of the combined organization, overstates the potential competitive effects of the proposal in the market. On consummation of the transaction and the proposed divestiture to a competitively suitable insured depository institution, at least nine other insured depository institutions would continue to compete in the market, including two banks with branch networks that are larger than Partners Bank's network.

Moreover, the Board notes that three community credit unions also exert a competitive influence in the Binghamton banking market.[20] Each institution offers a wide range of consumer products, operates street-level branches, and has memberships open to almost all the residents in the market. The Board concludes that their activities in this banking market exert a sufficient competitive influence to mitigate, in part, the potential competitive effects of the proposal.[21]

Moreover, the record of recent entry into the Binghamton banking market evidences its attractiveness for entry. Since 2003, one depository institution has entered the market de novo. Other factors also indicate that the market remains attractive for entry. For example, the market's average annualized income growth from 2001 to 2005 exceeded the average annualized income growth for the same period for all metropolitan areas in New York.

Banking Markets without Divestiture. The concentration levels on consummation of the proposal in the remaining banking markets, Syracuse and Utica-Rome, would be consistent with Board precedent and within the thresholds in the DOJ Guidelines without divestiture.[22] On consummation of the proposal, the Syracuse and Utica-Rome banking markets would remain moderately concentrated and numerous competitors would remain in each market.

B. Other Nonbanking Activities

The Board also has carefully considered the competitive effects of M&T's proposed acquisition of Partners' other nonbanking subsidiaries in light of all the facts of record. M&T and Partners both engage in credit extension, asset management, and securities brokerage activities. The markets for those activities are regional or national in scope and unconcentrated, and there are numerous providers of these services.

C. Agency Views and Conclusion on Competitive Considerations

The DOJ also reviewed the probable competitive effects of the proposal and advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in any relevant banking market where the subsidiary depository institutions of Applicants and Partners compete directly or in any relevant market for the other proposed nonbanking activities. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposed transaction, including the acquisition of Partners Bank, Municipal Bank, and Partners' other nonbanking subsidiaries, would not have a significantly adverse effect on competition or on the concentration of resources in any relevant banking market or in any other relevant market.

FINANCIAL, MANAGERIAL, AND SUPERVISORY CONSIDERATIONS

In reviewing the proposal under sections 3 and 4 of the BHC Act and the Bank Merger Act, the Board is required to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory

18. Applicants have committed that, before consummation of the proposed merger, they will execute an agreement for the proposed divestiture in the Binghamton banking market with a purchaser that the Board determines to be competitively suitable. Applicants also have committed to complete the divestiture within 180 days after consummation of the proposed merger. In addition, Applicants have committed that, if they are unsuccessful in completing the proposed divestiture within such time period, they will transfer any unsold branches to an independent trustee who will be instructed to sell the branches to an alternate purchaser or purchasers in accordance with the terms of this order and without regard to price. Both the trustee and any alternate purchaser must be deemed acceptable by the Board. *See, e.g., BankAmerica Corporation*, 78 *Federal Reserve Bulletin* 338 (1992); *United New Mexico Financial Corporation*, 77 *Federal Reserve Bulletin* 484 (1991).

19. The number and strength of factors necessary to mitigate the competitive effects of a proposal depend on the size of the increase and resulting level of concentration in a banking market. *See NationsBank Corp.*, 84 *Federal Reserve Bulletin* 129 (1998).

20. The Board previously has considered the competitiveness of certain active credit unions as a mitigating factor. *See, e.g., Regions Financial Corporation*, 93 *Federal Reserve Bulletin* C16 (2007); *Wachovia Corporation*, 92 *Federal Reserve Bulletin* C183 (2006); *F.N.B. Corporation*, 90 *Federal Reserve Bulletin* 481 (2004); *Gateway Bank & Trust Co.*, 90 *Federal Reserve Bulletin* 547 (2004).

21. The three community credit unions control approximately $1 billion in deposits in the market, which represents approximately 16 percent of market deposits on a 50 percent weighted basis. Accounting for the revised weightings of these deposits and taking the proposed divestitures into account, Applicants would control approximately 36.3 percent of market deposits on consummation of the proposal, and the HHI would increase not more than 631 points to 1886.

22. The effects of the proposal on the concentration of banking resources in these markets are described in Appendix B.

factors. The Board has carefully considered these factors in light of all the facts of record, including confidential supervisory and examination information from the various U.S. banking supervisors of the institutions involved, publicly reported and other financial information, and information provided by Applicants. The Board also has consulted with the Central Bank of Ireland ("CBI"), the agency with primary responsibility for the supervision and regulation of Irish financial institutions, including Allied Irish.

In evaluating the financial resources in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary insured depository institutions and significant nonbanking operations. In this evaluation, the Board considers a variety of measures, including capital adequacy, asset quality, and earnings performance. In assessing financial resources, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has carefully considered the financial resources of the organizations involved in the proposal. The capital levels of Allied Irish would continue to exceed the minimum levels that would be required under the Basel Capital Accord and are considered to be equivalent to the capital levels that would be required of a U.S. banking organization. In addition, M&T, Partners, and the subsidiary depository institutions involved are well capitalized and would remain so on consummation. Based on its review of the record, the Board finds that Applicants have sufficient financial resources to effect the proposal. The proposed transaction is structured as a partial share exchange and partial cash purchase of shares. Applicants will use existing resources to fund the cash purchase of the shares.

The Board also has considered the managerial resources of the organizations involved. The Board has reviewed the examination records of Applicants, Partners, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of other relevant banking supervisory agencies, including the Office of Thrift Supervision ("OTS") and the FDIC, with the organizations and their records of compliance with applicable banking law and with anti-money-laundering laws. Applicants, Partners, and their subsidiary depository institutions are considered to be well managed. The Board also has considered Applicants' plans for implementing the proposal, including the proposed management after consummation.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors.[23] Section 3 of the BHC Act also provides that the Board may not approve an application involving a foreign bank unless the bank is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in the bank's home country.[24] As noted, the CBI is the primary supervisor of Irish financial institutions, including Allied Irish. The Board previously has determined that Allied Irish is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[25] Based on this finding and all the facts of record, the Board has concluded that Allied Irish continues to be subject to comprehensive supervision on a consolidated basis by its home-country supervisor.

Convenience and Needs and CRA Performance Considerations

In acting on a proposal under section 3 of the BHC Act and the Bank Merger Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and take into account the records of the relevant insured depository institutions under the CRA. As noted, the Board also must review the records of performance under the CRA of the relevant insured depository institutions when acting on a notice under section 4 of the BHC Act to acquire a savings association.[26] M&T Bank received an "outstanding" rating at its most recent CRA

---

23. Section 3 of the BHC Act also requires the Board to determine that an applicant has provided adequate assurances that it will make available to the Board such information on its operations and activities and those of its affiliates that the Board deems appropriate to determine and enforce compliance with the BHC Act (12 U.S.C. § 1842(c)(3)(A)). The Board has reviewed the restrictions on disclosure in the relevant jurisdictions in which Applicants operate and has communicated with relevant government authorities concerning access to information. In addition, Allied Irish previously has committed that, to the extent not prohibited by applicable law, it will make available to the Board such information on the operations of its affiliates that the Board deems necessary to determine and enforce compliance with the BHC Act, the International Banking Act, and other applicable federal laws. Allied Irish also previously has committed to cooperate with the Board to obtain any waivers or exemptions that may be necessary to enable its affiliates to make such information available to the Board. In light of these commitments, the Board has concluded that Allied Irish has provided adequate assurances of access to any appropriate information the Board may request.

24. 12 U.S.C. § 1843(c)(3)(B). As provided in Regulation Y, the Board determines whether a foreign bank is subject to consolidated home-country supervision under the standards set forth in Regulation K. *See* 12 CFR 225.13(a)(4). Regulation K provides that a foreign bank will be considered subject to comprehensive supervision or regulation on a consolidated basis if the Board determines that the bank is supervised or regulated in such a manner that its home-country supervisor receives sufficient information on the worldwide operations of the bank, including its relationship with any affiliates, to assess the bank's overall financial condition and its compliance with laws and regulations. *See* 12 CFR 211.24(c)(1).

25. *See Anglo Irish Bank Corporation, p.l.c.*, 85 *Federal Reserve Bulletin* 587 (1999); *Allied Irish Banks, p.l.c.*, 83 *Federal Reserve Bulletin* 607 (1997).

26. *See, e.g., North Fork Bancorporation, Inc.*, 86 *Federal Reserve Bulletin* 767 (2000).

performance evaluation by the Federal Reserve Bank of New York, as of May 8, 2006.[27] Partners Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the OTS, as of January 15, 2005.[28] After consummation of the proposal, M&T Bank plans to maintain its CRA policies at Partners Bank. Based on all the facts of record, the Board concludes that considerations relating to the convenience and needs of the communities to be served and the CRA performance records of the relevant depository institutions are consistent with approval.

Public Benefit

As part of its evaluation of the public interest factors under section 4 of the BHC Act, the Board also has reviewed carefully the public benefits and possible adverse effects of the proposal. The record indicates that consummation of the proposal would result in benefits to consumers and businesses currently served by Partners. Applicants have represented that the proposed transaction would provide Partners' customers with expanded products and services, including discount broker services, mutual funds, and insurance products, and an expanded branch network.

The Board has determined that the conduct of the proposed nonbanking activities within the framework of Regulation Y and Board precedent is not likely to result in adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices. Based on all the facts of record, the Board has concluded that consummation of the proposal can reasonably be expected to produce public benefits that would outweigh any likely adverse effects. Accordingly, the Board has determined that the balance of the public benefits under section 4(j)(2) of the BHC Act is consistent with approval.

Establishment of Branches

As previously noted, M&T Bank has also applied under section 9 of the FRA to establish branches at the locations of Partners Bank's main office and branches. The Board has assessed the factors it is required to consider when reviewing an application under section 9 of the FRA and the Board's Regulation H and finds those factors to be consistent with approval.[29]

Conclusion

Based on the foregoing and in light of all the facts of record, the Board has determined that the applications and notice should be, and hereby are, approved. In reaching this conclusion, the Board has considered all the facts of record in light of the factors it is required to consider under the BHC Act, the Bank Merger Act, and the FRA. The Board's approval is specifically conditioned on compliance by Applicants with the conditions in this order and with all the commitments made to the Board in connection with this proposal, including the branch divestiture commitments discussed above, and receipt of all other regulatory approvals. The Board's approval of the nonbanking aspects of the proposal also is subject to all the conditions set forth in Regulation Y and to the Board's authority to require such modification or termination of the activities of a bank holding company or any of its subsidiaries as the Board finds necessary to ensure compliance with, and to prevent evasion of, the provisions of the BHC Act and the Board's regulations and orders issued thereunder. For purposes of this action, the commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The banking acquisitions shall not be consummated before the 15th calendar day after the effective date of this order, and no part of the proposal may be consummated later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of New York, acting pursuant to delegated authority.

By order of the Board of Governors, effective November 7, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

Robert deV. Frierson
Deputy Secretary of the Board

Appendix A

Nonbanking Activities of Partners

(1) Extending credit and servicing loans, pursuant to section 225.28(b)(1) of Regulation Y (12 CFR 225.28(b)(1)), through Partners Preferred Capital Corporation, Utica;
(2) Asset management, servicing, and collection activities, pursuant to section 225.28(b)(2)(vi) of Regulation Y (12 CFR 225.28(b)(2)(vi)), through Partners NEWPRO, Inc., Utica;
(3) Operating savings associations, pursuant to section 225.28(b)(4)(ii) of Regulation Y (12 CFR 225.28(b)(4)(ii)), through Partners Bank; and
(4) Securities brokerage activities, pursuant to section 225.28(b)(7)(i) of Regulation Y (12 CFR 225.28(b)(7)(i)), through Partners Trust Investment Services, Inc., Utica.

27. M&T, National Association was rated "satisfactory" by the Office of the Comptroller of the Currency, as of May 26, 2006.

28. Municipal Bank is a special-purpose bank not subject to the CRA. *See* 12 CFR 345.11(c)(3).

29. 12 U.S.C. §322; 12 CFR 208.6(b).

Appendix B

NEW YORK BANKING MARKETS WITHOUT DIVESTITURES

Bank	Rank	Amount of deposits	Market deposit shares (percent)	Resulting HHI	Change in HHI	Remaining number of Competitors
Syracuse—Cayuga, Onondaga, and Oswego counties; the townships of Cortlandville, Cuyler, Homer, Preble, Scott, Solon, Taylor, and Truxton in Cortland County; and the townships of Cazenovia, DeRuyter, Eaton, Fenner, Georgetown, Lebanon, Lenox, Lincoln, Nelson, Smithfield, and Sullivan in Madison County						
Applicants Pre-consummation	1	$1.8 bil.	20.7	1,308	113	27
Partners	10	$311.3 mil.	1.8	1,308	113	27
Applicants Post-Consummation	1	$2.1 bil.	23.9	1,308	113	27
Utica-Rome—Herkimer and Oneida counties; the townships of Greig, Lewis, Leyden, Lyonsdale, Martinsburg, Montague, Osceola, Turin, Watson, and West Turin in Louis County; and the townships of Brookfield, Hamilton, Madison, Oneida, and Stockbridge in Madison County						
Applicants Pre-Consummation	13	$63.7 mil.	1.7	1,590	489	15
Partners	1	$1.3 bil.	18.2	1,590	489	15
Applicants Post-Consummation	1	$1.4 bil.	32.3	1,590	489	15

NOTE: All rankings, market deposit shares, and HHIs are based on thrift institution deposits weighted at 50 percent, except that Partners Bank's thrift institution deposits are weighted at 50 percent pre-merger and 100 percent post-merger.

Citigroup Inc.
New York, New York

Order Determining That Certain Pension Activities are Financial in Nature

Citigroup Inc. ("Citigroup"), a financial holding company ("FHC") within the meaning of the Bank Holding Company Act ("BHC Act"),[1] has proposed to acquire, manage, and operate in the United Kingdom defined benefit pension plans established and maintained by unaffiliated third parties ("third-party U.K. pension plans"). These activities would be conducted by or through a nonbank subsidiary of Citigroup. Citigroup proposes to acquire third-party U.K. pension plans in stand-alone transactions and not as part of the acquisition of all or part of the ongoing business operations of the third parties.

Section 4 of the BHC Act generally prohibits a bank holding company, including an FHC, from directly or indirectly engaging in, or acquiring the shares of a company engaged in, any nonbanking activity unless the activity is otherwise permissible under the act. Section 4(k) of the BHC Act, as amended by the Gramm-Leach-Bliley Act ("GLB Act"), permits a bank holding company that qualifies to be an FHC to engage in, and acquire and retain shares of any company engaged in, a broad range of activities that are defined by statute to be financial in nature.[2] The BHC Act also permits an FHC to engage in, and acquire and retain shares of any company engaged in, any activity that the Board determines, by order or regulation and in consultation with the Secretary of the Treasury,

1. 12 U.S.C. §§ 1841 et seq.

2. *See* 12 U.S.C. § 1843(k)(4).

to be financial in nature or incidental to a financial activity.[3] As the Board previously has noted, the "financial in nature or incidental" standard represents a significant expansion of the "closely related to banking" standard that the Board previously was required to apply in determining the permissibility of nonbanking activities for bank holding companies.[4]

The BHC Act directs the Board to consider a variety of factors in considering whether an activity is financial in nature or incidental to a financial activity, including: (1) the purposes of the BHC and GLB Acts; (2) the changes or reasonably expected changes in the marketplace in which FHCs compete; (3) the changes or reasonably expected changes in technology for delivering financial services; and (4) whether the proposed activity is necessary or appropriate to allow an FHC to compete effectively with companies seeking to provide financial services in the United States, efficiently deliver financial information and services through the use of technological means, and offer customers any available or emerging technological means for using financial services or for the document imaging of data.[5] The Board also may consider other factors and information that it considers relevant to its determination.

As noted above, Citigroup proposes to acquire, manage, and operate third-party defined benefit pension plans in, and subject to the laws of, the United Kingdom. Citigroup initially proposes to acquire, through a nonbank subsidiary, a third-party pension plan in the United Kingdom with approximately $400 million in gross liabilities to the plan's existing beneficiaries.

A defined benefit pension plan generally is a plan established by or on behalf of an employer (the plan "sponsor") that provides for the payment to employees, typically beginning on their retirement or other termination of service, of benefits in an amount that is specified in and determinable under the plan, typically through a formula that takes into account the employee's pay, years of employment, age at retirement, and other factors.[6] The terms of the plan itself also typically specify the circumstances under which benefits will be paid under the plan to an employee, former employee, or related person (such as a spouse) (collectively a "beneficiary"), and the length of time such payments will be made to a beneficiary. The benefits payable under a plan typically take the form of a specified stream of payments that begin on retirement or, at the employee's option, a lump sum payable at retirement, and may include other ancillary benefits provided under plan rules, such as spousal or survivor benefits.[7]

The nonbank subsidiary of Citigroup that directly acquires a third-party U.K. pension plan would assume the responsibilities of the plan's sponsor under applicable U.K. law. In the United Kingdom, defined benefit pension plans are regulated by the U.K. Pensions Regulator under the Pensions Act of 1995, the Pensions Act of 2004, and the general law of trusts. These laws provide that pension plans must be managed and administered by a trustee that is independent of the plan sponsor. Plan sponsors also must provide sufficient assets to a pension plan to pay all benefits under the plan,[8] consult with the trustees for the pension plan concerning the investment strategy of the plan, and agree with the plan trustees on a statement of funding principles that sets out the plan's funding target, methods, and assumptions. In addition, trustees and plan sponsors must agree on amendments to any part of the plan.

Citigroup proposes to acquire a third-party U.K. pension plan only if no additional beneficiaries may be added to the plan and existing beneficiaries may not accrue additional benefits under the plan (a "hard-frozen" plan). In addition, Citigroup proposes that it would acquire a third-party U.K. pension plan only if the plan at the time of acquisition is fully funded by the selling sponsor based on the plan's assets and projected liabilities (using appropriate actuarial assumptions).[9] Citigroup has indicated that, as part of its due diligence process for each transaction, Citigroup will employ qualified actuaries to review and analyze the present value of benefits owed to plan beneficiaries to ensure that all pension plans acquired are fully funded by the selling sponsor.

The activity of acquiring, operating, and managing third-party pension plans has not been determined to be financial in nature or incidental to a financial activity for purposes of the BHC Act. The proposed activity is broader than the pension plan activities that FHCs currently are permitted to conduct for third parties. For example, as discussed above, a nonbank subsidiary of Citigroup would assume the rights and obligations of the sponsor of an acquired third-party U.K. pension plan and would do so in transactions that do not represent the acquisition of a going concern or ongoing business operations by Citigroup. In addition, the assets and liabilities of an acquired third-party U.K. pension plan (unlike assets held by an FHC as trustee for third parties or assets held by the pension plans

3. *Id.* at § 1843(k)(1)(A) and (2). In addition, the BHC Act permits an FHC to engage in any activity that the Board (in its sole discretion) determines, by regulation or order, is "complementary to a financial activity and does not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally." *Id.* at § 1843(k)(1)(B).

4. *See* 66 *Federal Register* 307, 308 (Jan. 3, 2001).

5. 12 U.S.C. § 1843(k)(3).

6. On the other hand, a defined contribution plan is a benefit plan under which an individual account is established for each participant and the benefits payable to each participant are based on the amount contributed to the participant's account, plus or minus income, gains, expenses, and losses allocated to that account.

7. For purposes of this order, the term "defined benefit pension plan" does not include a plan that provides health insurance to employees or that guarantees or indemnifies employees for healthcare costs.

8. On the other hand, the sponsor may recover assets contributed to or held on behalf of a plan after all of the plan's obligations to beneficiaries have been satisfied and the plan is closed out.

9. For purposes of this order, the term "fully funded" means that, at the time of acquisition, the current value of the plan's assets is at least equal to the present value of the plan's projected liabilities. The selling sponsor may issue debt to the plan or Citigroup to fully fund the plan at acquisition. In some situations, the requirement of this order that a plan be fully funded may require funding in excess of the statutory funding requirements of the relevant jurisdiction.

maintained for Citigroup's own employees) would be fully consolidated with the assets and liabilities of Citigroup on its balance sheet.[10]

The Board concludes for the reasons set forth below, however, that there is a reasonable basis for determining that the acquisition, management, and operation by Citigroup of hard-frozen, fully funded third-party U.K. pension plans is an activity that is financial in nature within the meaning of the BHC Act. The activity involves, at its core, the types of investment advisory and investment management skills that are routinely exercised by banking organizations and the types of operational and investment risks that banking organizations routinely incur and manage.

FHCs currently are permitted by the BHC Act to engage in activities that are related or operationally and functionally similar to the proposed activity and that involve similar risks. For example, an FHC already is permitted to provide a wide variety of services to third-party pension plans, including acting as trustee, custodian, or investment adviser (with or without investment discretion) for a third-party benefit plan, as well as designing, assisting in the implementation of, providing administrative services to, and developing employee communication programs for third-party benefit plans.[11] FHCs engaged in these activities have gained substantial expertise with the laws, regulations, and fiduciary obligations associated with providing fiduciary, custodial, and administrative services to pension plans. Moreover, FHCs engaged in these plan-related activities have developed risk-management systems and internal controls to monitor, manage, and address the legal, operational, and reputational risks associated with managing the investments of and administering third-party pension plans.

The proposed activity also bears a strong functional resemblance to issuance of a group annuity contract. The BHC Act, as amended by the GLB Act, expressly states that providing and issuing annuities is an activity that is financial in nature.[12] A company that issues a fixed annuity becomes obligated to make periodic payments to the annuitant during his or her lifetime and to pay any death or survivor benefits in accordance with the terms of the annuity contract. The company that issues a fixed annuity assumes responsibility for investing and managing the funds received from the annuitant and bears the risk that such funds and the returns earned on the funds will not be sufficient to pay out the full amount of benefits promised under the annuity contract. The company also assumes responsibility for administering the annuity contract both before and during its payout period.

In connection with these activities, the issuer of fixed annuities is exposed to certain types of risks, which are part of the activity determined to be financial in the GLB Act. These risks include the risk that (1) the life expectancy of annuitants, on average, will exceed the actuarial estimates used in establishing the terms of and funding for the annuities; (2) the inflation rate and other assumptions used to determine the expected obligations under the annuity contracts underestimate these obligations; and (3) payments from the annuitant and the return obtained through the investment of such payments will fall short of estimates.

Citigroup would perform essentially the same financial functions and assume essentially the same financial obligations and risks through the acquisition of a third-party U.K. pension plan as an insurance company performs and assumes in connection with the issuance of fixed annuities. The functional similarity between a plan sponsor's obligations under a defined benefit pension plan and an insurance company's obligations under an annuity contract is especially close where, as proposed, the pension plan is both fully funded and hard-frozen. In situations where a pension plan's obligations to plan beneficiaries are hard-frozen and the plan is fully funded, one method commonly used by a plan sponsor to close out a plan is to purchase a terminal funding group annuity contract from an insurance company. Through such an annuity contract, the provider of the annuity becomes obligated to satisfy the responsibility to pay the benefits promised under the plan to the plan's beneficiaries. Accordingly, Citigroup's proposed activities would be specifically permitted under the BHC Act if provided through an annuity contract or other form of insurance. By permitting Citigroup to provide these services in an alternative way, the proposed activities should help Citigroup respond to changes or reasonably expected changes in the marketplace for financial products and services.

In evaluating this proposal, the Board considered that, under U.K. law, the nonbank subsidiary established by Citigroup to acquire a third-party U.K. pension plan generally will bear sole responsibility for making additional contributions to the plan if the plan assets are not sufficient to meet the plan's expected or actual liabilities. However, U.K. law also permits the U.K. Pensions Regulator in certain circumstances to commence proceedings to hold an affiliate of a plan sponsor (including a depository institution affiliate) responsible for the sponsor's obligations to the plan.[13]

10. Because Citigroup would acquire each third-party U.K. pension plan in a stand-alone transaction, and not as part of a business combination involving Citigroup and the selling sponsor, Citigroup has stated that it will fully reflect the assets and liabilities of an acquired plan as assets and liabilities of Citigroup on its balance sheet. This treatment differs from the manner in which the assets and liabilities of an internal pension plan of an employer typically are accounted for on the balance sheet of the employer under U.S. generally accepted accounting principles. *See* FAS 158, *Accounting for Defined Benefit Pension and Other Post Retirement Plans*.

11. *See* 12 CFR 225.28(b)(5), (6), and (9)(ii).

12. *See* 12 U.S.C. § 1843(k)(4)(B).

13. *See* U.K. Pensions Act of 2004, § 38 (contribution notices) and § 43 (financial support directives). The U.K. Pensions Regulator may issue a contribution notice or financial support directive to an affiliate of a sponsor only if, among other things, the Pensions Regulator determines that it is reasonable to impose the proposed financial obligations on the affiliate.

The Board generally has taken the position that, when a depository institution is secondarily liable for a financial obligation of an affiliate, even if the depository institution's liability is created by statute or regulatory action, the institution has issued a guarantee on behalf of an affiliate for purposes of section 23A of the Federal Reserve Act and the Board's Regulation W.[14] Section 23A and Regulation W impose quantitative and qualitative limits on covered transactions between a depository institution and its affiliates. Covered transactions include, among other things, an extension of credit by a depository institution to an affiliate and the issuance of a guarantee by a depository institution on behalf of an affiliate.[15] The limitations in section 23A and Regulation W provide important protections against a depository institution suffering losses due to covered transactions with its affiliates, and also limit the ability of a depository institution to transfer to its affiliates the subsidy arising from the institution's access to the federal safety net.

To address the potential section 23A and Regulation W issues presented by its initial proposed transaction, and in accordance with U.K. law,[16] Citigroup has obtained written assurances from the U.K. Pensions Regulator that it will not seek to hold any of Citigroup's depository institution subsidiaries that are subject to section 23A responsible for any shortfalls that may occur in the pension plan proposed to be acquired by Citigroup in this initial transaction. As a condition of this order, Citigroup must obtain similar written assurances from the U.K. Pensions Regulator before acquiring any additional third-party U.K. pension plan.[17]

Based on the foregoing and other facts of record, the Board concludes that the acquisition, management, and operation by Citigroup of hard-frozen, fully funded third-party U.K. pension plans, when conducted in accordance with the conditions and limitations set forth in this order, is an activity that is financial in nature within the meaning of section 4(k) of the BHC Act. Any investment made by a third-party U.K. pension plan acquired by Citigroup must otherwise be permissible for an FHC under the BHC Act and the Board's Regulation Y.[18] The statutory and regulatory framework governing the establishment, operation, and management of pension plans varies considerably across jurisdictions and, accordingly, the nature and scope of risks associated with such activities may differ materially depending on the jurisdiction involved.[19] To provide for the consideration of any special issues that may be associated with the acquisition of third-party pension plans in jurisdictions other than the United Kingdom, the authorization and determination granted by this order are limited to the acquisition, management, and operation by Citigroup of third-party pension plans in the United Kingdom.[20]

Under the BHC Act, the Board may not determine, by regulation or order, that an activity is financial in nature or incidental to a financial activity if the Secretary of the Treasury ("Secretary") notifies the Board in writing that the Secretary believes the activity is not financial in nature, incidental to a financial activity, or otherwise permissible under section 4 of the BHC Act.[21] The Board has provided the Secretary notice of Citigroup's proposal in accordance with the BHC Act, and the Secretary has informed the Board in writing that the Secretary does not intend to prevent the Board from authorizing Citigroup to engage in the proposed U.K. pension activities, subject to the conditions and limitations set forth in this order.

The Board's determination and approval is subject to all the conditions set forth in Regulation Y, including those in section 225.7,[22] and to the Board's authority to require modification or termination of the activities of a bank holding company or any of its subsidiaries as the Board finds necessary to ensure compliance with, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder. The Board's decision is specifically conditioned on compliance with all the commitments made to the Board in connection with the request, including the commitments and conditions discussed in this order. The commitments and conditions relied on in reaching this decision shall be deemed to be conditions imposed in writing by the Board in connec-

14. *See* 12 U.S.C. §371c(b)(7)(E); 12 CFR 223.3(h)(5); Board Letter dated October 25, 2005, to Carl V. Howard, Esq. (Citigroup).

15. *See* 12 U.S.C. §371c(b)(7); 12 CFR 223.3(h).

16. The Pensions Act of 2004 expressly authorizes the U.K. Pensions Regulator, on application by a plan or other person, to issue a "clearance statement" that determines that it would be unreasonable to issue a contribution notice or financial support directive to the plan or person under the circumstances described in the application. *See* Pensions Act of 2004, §§42 and 46. Citigroup has received such a clearance statement with respect to its initial proposed acquisition of a third-party pension plan in the United Kingdom.

17. Citigroup has indicated that the written assurances provided by the U.K. Pensions Regulator are subject to review and renewal by the regulator no later than five years after issuance. Before the expiration of any written assurances provided by the U.K. Pensions Regulator in connection with the acquisition by Citigroup of a third-party U.K. pension plan, Citigroup must either ensure that its activities conform with those permitted under section 23A and Regulation W or obtain an exemption from the Board from the limitations of section 23A and Regulation W with respect to the plan. The Board has not determined that section 23A applies to the contingent liabilities that may arise under applicable pension law from the establishment or operation by an affiliate of a depository institution of employee benefit plans in the ordinary course of its other business to provide benefits to the employees or former employees of the affiliate.

18. *See, e.g.*, 12 U.S.C. § 1843(c)(5), (c)(6), and (k)(4)(H).

19. In the United States, for example, the establishment and operation of defined benefit pension plans are subject to extensive regulation under the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). *See* 29 U.S.C. §§ 1400 et seq. ERISA provides that all entities under common control with the sponsor of a defined benefit plan are jointly and severally liable for the obligations of the plan at termination. For ERISA purposes, companies under common control with a plan sponsor include any company that directly or indirectly owns 80 percent or more of the voting stock of the plan sponsor (the "parent company") and any company in which the parent company directly or indirectly owns 80 percent or more of the voting stock. *See* 29 U.S.C. §§ 1301(a)(14)(A) and (B), (b)(1), and 1362(a); 26 CFR 1.414(c)-2.

20. Other FHCs may seek approval to engage in similar activities by requesting a determination with respect to their own proposed activities under section 4(k)(2)(A) of the BHC Act and section 225.88 of the Board's Regulation Y (12 CFR 225.88).

21. *See* 12 U.S.C. § 1843(k)(2)(A).

22. 12 CFR 225.7.

tion with its findings and decision and, as such, may be enforced in proceedings under applicable law.

By order of the Board of Governors, effective October 12, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

Fortis S.A./N.V.

Fortis, N.V.

Fortis Brussels S.A./N.V.

Fortis Bank S.A./N.V.
All of Brussels, Belgium

Order Approving Notice to Engage in Activities Complementary to a Financial Activity

Fortis S.A./N.V. ("Fortis"), a financial holding company ("FHC") for purposes of the Bank Holding Company Act ("BHC Act"), Fortis, N.V., Fortis Brussels S.A./N.V., and Fortis Bank S.A./N.V. (collectively, "Fortis") have requested the Board's approval under section 4 of the BHC Act[1] and the Board's Regulation Y[2] to provide energy management services ("Energy Management Services") to owners of power generation facilities under energy management agreements ("EMAs") as an activity that is complementary to the financial activities of engaging as principal in commodity derivatives and providing financial and investment advisory services for derivatives transactions.[3]

BACKGROUND

Regulation Y permits bank holding companies ("BHCs") (i) to act as principal in derivative contracts based on financial and nonfinancial assets ("Commodity Derivatives Activities") and (ii) to provide information, statistical forecasting, and advice with respect to any transaction in foreign exchange, swaps, and similar transactions; commodities; and any forward contract, option, future, option on a future, and similar instruments ("Derivatives Advisory Services").[4] Energy Management Services combine many of these permissible financial activities and other activities that the Board has not previously determined to be permissible for a BHC. Energy Management Services generally entail acting as a financial intermediary for a power plant owner to facilitate transactions relating to the acquisition of fuel and the sale of power by the power plant owner and providing advice to assist the owner in developing its risk-management plan.

The BHC Act, as amended by the Gramm-Leach-Bliley Act (the "GLB Act"), permits BHCs that qualify as FHCs to engage in an expanded set of activities that are defined by statute to be financial in nature,[5] as well as any additional activity that the Board determines, in consultation with the Secretary of the Treasury, to be financial in nature or incidental to a financial activity.[6]

The BHC Act also permits FHCs to engage in any activity that the Board determines is complementary to a financial activity and does not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally.[7] The Congress intended that the Board use this complementary authority to allow FHCs to engage, on a limited basis, in activities that, although not necessarily financial in nature, are so meaningfully connected to financial activities that they complement those activities. In this way, FHCs would not be disadvantaged by market developments if commercial activities evolve into financial activities or competitors find innovative ways to combine financial and nonfinancial activities. The BHC Act provides the Board with exclusive authority to determine that an activity is complementary to a financial activity.

The BHC Act further provides that any FHC seeking to engage in a complementary activity must obtain the Board's prior approval. In reviewing such a proposal, the BHC Act requires the Board to consider whether performance of the activity by the FHC can reasonably be expected to produce public benefits that outweigh possible adverse effects.[8] The Board has approved physical commodity trading ("Physical Commodity Trading") for Fortis and other FHCs, on a limited basis, as an activity that is

1. 12 U.S.C. § 1843.
2. 12 CFR Part 225.
3. In connection with its acquisition of Cinergy Marketing & Trading LP ("CMT") from Duke Energy Corp., Fortis received approval to engage in the United States in physical commodity trading activities, on a limited basis, as an activity that is complementary to the financial activity of engaging in commodity derivatives activities. *See* Board Letter to David R. Sahr, Esq., dated September 29, 2006. In addition to its physical commodity trading activities, CMT, now Fortis Energy Marketing & Trading GP ("FEMT"), also serves as an energy manager under EMAs with several power generators. At the time Fortis's request was approved, Fortis was informed that FEMT's activities under the EMAs would continue to be reviewed for permissibility as an FHC activity.
4. 12 CFR 225.28(b)(8) and (b)(6).
5. 12 U.S.C. § 1843(k)(4). This set of financial activities includes any activity that the Board had determined to be closely related to banking, by regulation or order, prior to November 12, 1999. Commodity Derivatives Activities and Derivatives Advisory Services were determined to be closely related to banking before that date and, accordingly, providing those services are financial activities for purposes of the BHC Act (12 U.S.C. § 1843(k)(4)(F)).
6. 12 U.S.C. § 1843(k)(1)(A).
7. 12 U.S.C. § 1843(k)(1)(B).
8. 12 U.S.C. § 1843(j)(2)(A).

complementary to the financial activity of engaging in Commodity Derivatives Activities.[9]

Fortis currently engages in Commodity Derivatives Activities and Derivatives Advisory Services (as noted, both financial activities) in the United States and has requested approval to provide Energy Management Services as an activity that is complementary to those activities.

Fortis's Energy Management Services

Under FEMT's current EMAs, FEMT, as energy manager, assists power plant owners by providing transactional and advisory services. The transactional services consist primarily of FEMT acting as a financial intermediary, substituting its credit and liquidity for those of the owner to facilitate the owner's purchase of fuel and sale of power. FEMT's advisory services include providing market information to assist the owner in developing and refining a risk-management plan for the plant.

FEMT provides services under an EMA within a strategic framework established by the owner. The owner, in consultation with FEMT, establishes an energy-management plan and risk-management policy to govern how the generation facility should be operated. The energy-management plan sets out the amount of power the plant should generate and determines how the plant will meet its reliability obligations to the power transmission grid. The plant owner must approve all commodity contracts, including all contracts for the purchase of fuel or the sale of electricity. In some cases, authority to enter into power or fuel contracts may be delegated to FEMT if the contracts satisfy specific criteria established by the owner; other contracts must be approved by the owner. The owner also maintains the right, subject to FEMT's right of first refusal, to market and sell power directly to third parties. The owner ultimately retains all decisionmaking authority, including decisions relating to the facility's generation output and, in particular, whether the facility should be shut down for any period of time.

An EMA's compensation structure reflects this allocation of responsibilities. When the facility is in operation, FEMT is typically compensated on a monthly basis at the greater of a monthly fixed fee or a stated percentage of the spread between delivered fuel prices and the realized power revenues (adjusted to reflect certain fees and costs). When the facility is not in operation, FEMT is not responsible for the fixed costs of the facility and is not entitled to revenues or other compensation, apart from the monthly fees.

FEMT does not provide day-to-day operational services to the facility. Those tasks are generally performed by the owner or by an operator who is hired directly by the owner and is not affiliated with FEMT. The operator manages and maintains the facility on a daily basis, which typically includes providing labor and support services. The operator provides FEMT with information on the operating status of the facility, maintenance issues that might affect the availability of the facility to generate power, and scheduled outage and maintenance periods.

FEMT may buy fuel for the facility from third parties and enter into a mirror transaction for the fuel with the owner. The owner may then sell the power generated by the facility to FEMT, and FEMT generally resells the power in the market. In these circumstances, FEMT would be acting as the financial intermediary for the owner, providing credit and liquidity support, including posting any required collateral for transactions. Because FEMT substitutes its name and credit rating for the owner's, the terms of the transactions are generally more favorable than the owner could negotiate on its own.

In addition, FEMT assumes responsibility for administrative tasks related to the fuel and power transactions so that the owner does not have to maintain an administrative infrastructure to support its transactions with third parties. These services include arranging for third parties to provide fuel transportation or power transmission services, scheduling those services, and resolving any resulting imbalances; ensuring that fuel deliveries and power sales are properly coordinated; negotiating contracts with and monitoring the credit support and collateral requirements of the owner's counterparties; assisting in complying with power tariffs; and paying fuel suppliers. FEMT also may enter into transactions with third parties as necessary to ensure that the owner meets its power generation obligations to the power grid in accordance with the energy-management plan.

FEMT may also provide risk-management and hedging services to the owner in connection with both the purchase of fuel and the sale of power. These transactions may be entered into with third parties back to back (with FEMT in the middle) or may be direct hedging transactions between the owner and FEMT in which FEMT retains the risk that the owner is hedging. In the first type of transaction, the owner would inform FEMT of its intention to hedge the price of fuel or power for a specified term, and FEMT would then solicit bids or offers. After reviewing the competing bids or offers, the owner would make a selection and direct FEMT to enter into the transaction with that counterparty. FEMT and the owner then would enter into a mirror transaction so that FEMT would not retain any risk exposure on the overall transaction. In the second type of transaction, FEMT would submit the offer for a hedging transaction to the owner, who can accept or reject the offer.

9. Board Letters to Gregory A. Baer, Esq., dated April 24, 2007 (Bank of America Corp.); Paul E. Glotzer, Esq., dated March 27, 2007 (Credit Suisse Group); and Elizabeth T. Davy, Esq., dated April 13, 2006 (Wachovia Corporation); and *Société Générale*, 92 *Federal Reserve Bulletin* C113 (2006); *Deutsche Bank AG*, 92 *Federal Reserve Bulletin* C54 (2006); *JPMorgan Chase & Co.*, 92 *Federal Reserve Bulletin* C57 (2006); *Barclays Bank PLC*, 90 *Federal Reserve Bulletin* 511 (2004); *UBS AG*, 90 *Federal Reserve Bulletin* 215 (2004); and *Citigroup Inc.*, 89 *Federal Reserve Bulletin* 508 (2003).

If the owner accepts the proposal, FEMT may enter into the transaction directly with the owner. All these transactions would be governed by International Swaps and Derivatives Association master agreements between the owner and FEMT. The owner may also enter into hedging transactions directly with a third party without FEMT's involvement.

FEMT generally provides two types of market-information services to the owner. First, FEMT provides market and risk information to assist the owner in developing its risk-management plan and strategy. Because FEMT is a direct market participant, it has access to information that may help the owner refine its risk-management strategies. Second, FEMT provides the owner with day-to-day market information that the owner, in consultation with the operator of the power facility, uses to determine its short-term dispatch guidelines (that is, the amount of power the facility should generate to meet its contractual requirements and reliability obligations).

Energy Management as a Complementary Activity

For the reasons set forth below, the Board believes that Energy Management Services are complementary, within the meaning of the GLB Act, to the financial activities of Commodity Derivatives Activities and Derivatives Advisory Services. Energy Management Services would add to these financial activities a number of agency and administrative services that would facilitate providing Commodity Derivatives Activities and Derivatives Advisory Services on behalf of the plant owner. This combination of services would complement and enhance Fortis's Commodity Derivatives Activities and Derivatives Advisory Services by allowing Fortis to offer power plant owners an integrated approach to managing the commodity-related aspects of their business. Many owners need assistance in devising energy-management strategies and a market participant that can substitute its credit and liquidity for the owner's to facilitate transactions, and they would prefer to receive those services from a single source. Fortis also would gain additional information about energy markets in the course of providing Energy Management Services that would improve Fortis's ability to manage its own commodity risks and to advise its clients on their commodity-related activities.

A number of non-BHC participants in the energy trading markets, including diversified financial services companies, offer Energy Management Services to clients in connection with their commodity derivatives business. These companies can, and regularly do, provide Energy Management Services to owners. Permitting FHCs to provide these services in connection with their commodity derivatives business and commodity trading activities, therefore, would enable FHCs to offer the same integrated services that are provided by a number of their competitors.

Based on the foregoing and all other facts of record, the Board concludes that Fortis's Energy Management Services complement its Commodity Derivatives Activities and Derivatives Advisory Services.

Risks and Public Benefits of Energy Management Services

As noted above, to authorize Fortis to provide Energy Management Services as a complementary activity under the GLB Act, the Board must determine that the activities do not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally. In addition, the Board must determine that the performance of Energy Management Services by Fortis "can reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices."[10] Moreover, the Board previously has stated that complementary activities should be limited in size and scope relative to an FHC's financial activities.[11]

Revenues attributable to FEMT's Energy Management Services have been small relative to Fortis's total revenues on a consolidated basis. To limit the size, scope, and safety and soundness risks of Energy Management Services, Fortis has committed that the revenues attributable to FEMT's Energy Management Services will not exceed 5 percent of Fortis's total consolidated operating revenues.[12]

Fortis's authority to provide Energy Management Services is subject to several conditions that limit the responsibilities and potential liabilities Fortis may assume under an EMA. Specifically, Fortis may only act as energy manager if the relevant EMA provides that:

- owner retains the right to market and sell power directly to third parties, which may be subject to the energy manager's right of first refusal;
- owner retains the right to determine the level at which the facility will operate (i.e., to dictate the power output of the facility at any given time);
- Neither the energy manager nor its affiliates guarantee the financial performance of the facility; and
- Neither the energy manager nor its affiliates bear any risk of loss if the facility is not profitable.

Permitting Fortis to engage in Energy Management Services in the limited amounts and situations described above would not appear to pose a substantial risk to Fortis, depository institutions, or the U.S. financial system generally. As an energy manager, Fortis would enter into the

10. 12 U.S.C. § 1843(j)(2)(A).

11. *See* 68 *Federal Register* 68493, 68497 (Dec. 9, 2003); *see also* 145 Cong. Rec. H11529 (daily ed. Nov. 4, 1999) (Statement of Chairman Leach) ("It is expected that complementary activities would not be significant relative to the overall financial activities of the organization.").

12. Total operating revenues are defined as net interest income and all non-interest revenue, including net securities gains but excluding extraordinary items.

same type of commodity derivatives transactions that it is permitted to enter into currently, only it would enter into these transactions to facilitate the business strategies of a third-party owner. Through its existing authority to engage in Commodity Derivatives Activities, Fortis already may incur the price risk of commodities. Allowing Fortis to expand its activities to enter into back-to-back commodity transactions in connection with advice given as part of its Energy Management Services would not appear to increase its potential exposure to commodity price risk but only to counterparty risk. Granting Fortis the authority to act as an energy manager also would not expand its ability to engage in Physical Commodity Trading beyond what has been authorized by the Board. The potential safety and soundness risks of entering into these transactions are already mitigated by the limits imposed on Fortis's Commodity Derivatives Activities and Physical Commodity Trading by regulation and order.[13]

In addition, Fortis would remain subject to the securities, commodities, and energy laws and to the rules and regulations (including the antifraud and antimanipulation rules and regulations) of the Commodity Futures Trading Commission and the Federal Energy Regulatory Commission generally and specifically to the extent applicable to Fortis's Energy Management Services.

The advisory services Fortis would provide under the EMAs also would not expose it to significant additional risks. The added risk to Fortis from providing these services would principally be legal and reputational risks that are generally present in any contractual relationship. Because Fortis would assume specific responsibilities under an EMA, it could be subject to claims for breach of contract if it fails to perform its duties under the contract or does so in a negligent fashion (for example, by providing bad advice).

The Board believes that Fortis has the managerial expertise and internal control framework to manage the risks of providing Energy Management Services. Fortis has shown it has the expertise and internal controls necessary to effectively integrate the risk management of Energy Management Services into its overall risk-management framework.

As noted above, to approve this proposal, the Board must find that the public benefits from Fortis's performance of these services outweigh the potential adverse effects, such as undue concentration of resources, decreased or unfair competition, or conflicts of interests. Approval of the proposal would likely benefit Fortis's customers by enhancing its ability to provide efficiently a full range of commodity-related services consistent with existing market practice. Approval would likely enable Fortis to improve its understanding of physical commodity and commodity derivatives markets and its ability to serve as an effective competitor in those markets.

The Board has considered the market for Energy Management Services and the potential adverse effects arising from Fortis's provision of those services. Fortis's Energy Management Services should not result in an undue concentration of resources or other adverse effects on competition because the market for Energy Management Services is regional or national in scope. Any potential conflicts of interests associated with Fortis's Energy Management Services should be mitigated by the anti-tying provisions in section 106 of the Bank Holding Company Act Amendments of 1970.

For these reasons, and based on Fortis's policies and procedures for monitoring and controlling the risks of Energy Management Services, the Board concludes that consummation of the proposal does not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally and can reasonably be expected to produce benefits to the public that outweigh any potential adverse effects.

CONCLUSION

Based on all the facts of record, including the representations and commitments made by Fortis to the Board in connection with the notice, and subject to the terms and conditions set forth in this order, the Board has determined that the notice should be, and hereby is, approved. The Board's determination is subject to all the conditions set forth in Regulation Y and to the Board's authority to require modification or termination of the activities of a BHC or any of its subsidiaries as the Board finds necessary to ensure compliance with, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder. The Board's decision is specifically conditioned on compliance with all the commitments made in connection with the notice, including the commitments and conditions discussed in this order. The commitments and conditions relied on in reaching this decision shall be deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

By order of the Board of Governors, effective December 4, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

13. The scope of Fortis's Commodity Derivatives Activities is limited by the restrictions in 12 CFR 225.28(b)(8)(ii) and its Physical Commodity Trading is limited by its commitment to the Board that the market value of commodities it holds as a result of these activities will not exceed 5 percent of its consolidated tier 1 capital and by several other commitments designed to address potential risks associated with the activities.

ORDERS ISSUED UNDER INTERNATIONAL BANKING ACT

China Merchants Bank Co., Ltd. Shenzhen, People's Republic of China

Order Approving Establishment of a Branch

China Merchants Bank Co., Ltd. ("CMB"), Shenzhen, People's Republic of China, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 7(d) of the IBA[1] to establish a branch in New York, New York. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a branch in the United States.

Notice of the application, affording interested persons an opportunity to comment, has been published in a newspaper of general circulation in New York, New York (*New York Post*, March 7, 2007). The time for filing comments has expired, and the Board has considered all comments received.

CMB, with total assets of approximately $145.6 billion, is the sixth largest bank in China.[2] CMB is indirectly controlled by the Government of China through a number of wholly owned companies. One of these companies, China Merchants Group, Limited, Shenzhen, People's Republic of China, indirectly owns approximately 17.6 percent of CMB's total outstanding shares.[3] Two other government-owned companies, China Ocean Shipping (Group) Company and China Shipping (Group) Company, own 6.4 percent and 5.4 percent, respectively, of the shares of CMB. No other shareholder owns more than 5 percent of the shares of CMB.

CMB engages primarily in corporate and retail banking and treasury operations throughout China and operates a branch and an investment advisor subsidiary in Hong Kong. In the United States, CMB operates a representative office in New York. CMB would be a qualifying foreign banking organization under Regulation K.[4]

The proposed New York branch would engage in wholesale deposit-taking, lending, trade finance, and other banking services. Under the IBA and Regulation K, in acting on an application by a foreign bank to establish a branch, the Board must consider whether (1) the foreign bank engages directly in the business of banking outside the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisors.[5] The Board also considers additional standards as set forth in the IBA and Regulation K.[6]

The IBA includes a limited exception to the general standard relating to comprehensive, consolidated supervision.[7] This exception provides that, if the Board is unable to find that a foreign bank seeking to establish a branch, agency, or commercial lending company is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in its home country, the Board may nevertheless approve the application if: (i) the appropriate authorities in the home country of the foreign bank are actively working to establish arrangements for the consolidated supervision of such bank; and (ii) all other factors are consistent with approval.[8] In deciding whether to exercise its discretion to approve an application under authority of this exception, the Board must also consider whether the foreign bank has adopted and implemented procedures to combat money laundering.[9] The Board also may take into account whether the home country of the foreign bank is developing a legal regime to address money laundering or is participating in multilateral efforts to combat money laundering.[10] This is the standard applied by the Board in this case.

As noted above, CMB engages directly in the business of banking outside the United States. CMB also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

Based on all the facts of record, the Board has determined that CMB's home-country supervisory authority is actively working to establish arrangements for the consolidated supervision of CMB and that considerations relating to the steps taken by CMB and its home jurisdiction to combat money laundering are consistent with approval under this standard. The China Banking Regulatory Commission ("CBRC") is the principal supervisory authority of CMB, including its foreign subsidiaries and affiliates, for

1. 12 U.S.C. § 3105(d).
2. Asset and ranking data are as of June 30, 2007.
3. China Merchants Group Limited has six director interlocks with CMB and is considered to control CMB for purposes of the Bank Holding Company Act (12 U.S.C. § 1841 et seq).
4. 12 CFR 211.23(a). China Merchants Group Limited and CMB would also together meet the standards to be a qualifying foreign banking organization.
5. 12 U.S.C. § 3105(d)(2); 12 CFR 211.24. In assessing this standard, the Board considers, among other indicia of comprehensive, consolidated supervision, the extent to which the home-country supervisors: (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; and (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. No single factor is essential, and other elements may inform the Board's determination.
6. 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2).
7. 12 U.S.C. § 3105(d)(6).
8. 12 U.S.C. § 3105(d)(6)(A).
9. 12 U.S.C. § 3105(d)(6)(B).
10. *Id.*

all matters other than laws with respect to money laundering.[11] The CBRC has the authority to license banks, regulate their activities, and approve expansion, both domestically and abroad. It supervises and regulates CMB, including its subsidiaries and overseas operations, through a combination of targeted on-site examinations and continuous consolidated off-site monitoring. Since its establishment in 2003, the CBRC has enhanced existing supervisory programs and developed new policies and procedures designed to create a framework for the consolidated supervision of banks in China.

On-site examinations by the CBRC cover, among other things, the major areas of banks' operations: corporate governance and senior management responsibilities, capital adequacy, asset structure and asset quality (including structure and quality of loans), off-balance-sheet activities, earnings, liquidity, liability structure and funding sources, expansionary plans, internal controls (including accounting control and administrative systems), legal compliance, accounting supervision and internal auditing (including accounting control and administrative systems), and any other areas deemed necessary by the CBRC.

Off-site monitoring is conducted through the review of required annual, semiannual, quarterly, or monthly reports on, among other things, asset quality, capital adequacy, liquidity, corporate governance, affiliate transactions, and internal controls.

CMB is required to be audited annually by an accounting firm approved by the PBOC, and the results are shared with the CBRC and the PBOC. The scope of the required audit includes a review of CMB's financial statements, asset quality, and internal controls. The CBRC may order a special audit at any time. In addition, in connection with its listing on the Shanghai and Hong Kong stock exchanges, CMB is required to have external audits conducted under both International Financial Reporting Standards and generally accepted accounting practices under Chinese law. CMB is required to publish its financial statements annually. CMB conducts internal audits of its offices and operations, including its overseas operations, generally on an annual schedule. The internal audit results are shared with the CBRC, the PBOC, and CMB's external auditors. The proposed branch would be subject to internal audits.

Chinese laws impose various prudential limitations on banks, including limits on transactions with affiliates and large exposures. The CBRC is authorized to require any bank to provide information and to impose sanctions for failure to comply. The CBRC also has authority to impose administrative penalties, including warnings, fines, and removal from office, for violations of applicable laws and rules. Criminal violations are transferred to the judicial authorities for investigation and prosecution.

In recent years, the Chinese government has enhanced its anti-money-laundering regime. In 2005, the Chinese government took initial steps to adopt an anti-money-laundering law, the PRC Anti-Money Laundering Law ("AML Law"). The AML Law and two related rules, the Rules for Anti-Money Laundering by Financial Institutions ("AML Rules") and the Administrative Rules for the Reporting of Large-Value and Suspicious Transactions by Financial Institutions ("LVT/STR Rules") were enacted in October 2006 and December 2006, respectively. The AML Law and AML Rules became effective on January 1, 2007, and the LVT/STR Rules became effective on March 1, 2007. Together, the law and two related rules establish a regulatory infrastructure to assist China's anti-money-laundering effort.

An Anti-Money Laundering Bureau ("AML Bureau") was established within the PBOC in 2003.[12] The AML Bureau coordinates anti-money-laundering efforts at the PBOC and among other agencies. The AML Bureau also supervised the creation in September 2004 of the China Anti-Money Laundering Monitoring and Analysis Center ("AML Center"). The AML Center collects, monitors, analyzes, and disseminates suspicious transaction reports and large-value transaction reports. The AML Center sends suspicious transaction reports to the AML Bureau for further investigation. The PBOC issued additional rules in June 2007 providing clarification on reporting suspicious transactions to the AML Center and on customer due diligence and recordkeeping.

China participates in international fora that address the prevention of money laundering and terrorist financing. China is a member of the Financial Action Task Force ("FATF")[13] and is a party to the 1988 U.N. Convention Against the Illicit Traffic of Narcotics and Psychotropic Substances, the U.N. Convention Against Transnational Organized Crime, the U.N. Convention Against Corruption, and the U.N. International Convention for the Suppression of the Financing of Terrorism.

As noted, the PBOC is China's primary supervisor for anti-money-laundering matters. Like the CBRC, the PBOC supervises and regulates CMB through a combination of on-site examinations and off-site monitoring. On-site examinations focus on CMB's compliance with anti-money-laundering laws and rules, including the AML Law and the AML and LVT/STR Rules. Off-site monitoring is conducted through the review of periodic reports. In performing its responsibilities, the PBOC may require any bank to provide information and can impose administrative penalties for violations of applicable laws and rules.

11. Before April 2003, the People's Bank of China ("PBOC") acted as both China's central bank and primary banking supervisor, including with respect to anti-money-laundering matters. In April 2003, the CBRC was established as the primary banking supervisor and assumed the majority of the PBOC's regulatory functions. The PBOC maintained its roles as China's central bank and primary supervisor for anti-money-laundering matters.

12. The AML Bureau conducts administrative investigations and handles violations of AML Rules. Money laundering cases are referred to the Ministry of Public Security, China's main law enforcement body, for investigation and prosecution.

13. China became a member of FATF in June 2007.

CMB has policies and procedures to comply with Chinese laws and rules regarding anti-money laundering. CMB has represented that it has taken additional steps on its own initiative to combat money laundering and other illegal activities. CMB states that it has implemented measures consistent with the recommendations of FATF and that it has put in place policies, procedures, and controls to ensure ongoing compliance with all statutory and regulatory requirements, including designating anti-money-laundering officers and conducting employee training at the head office, branch, and sub-branch levels. CMB's compliance with anti-money-laundering requirements is monitored by the PBOC and by CMB's internal and external auditors.

The Board also has taken into account the additional standards set forth in section 7 of the IBA and Regulation K.[14] The CBRC has no objection to CMB's establishment of the proposed branch.

The Board has also considered carefully the financial and managerial factors in this case. China has adopted risk-based capital standards that are consistent with those established by the Basel Capital Accord ("Accord"). CMB's capital is in excess of the minimum levels that would be required by the Accord and is considered equivalent to capital that would be required of a U.S. banking organization. Managerial and other financial resources of CMB are consistent with approval, and CMB appears to have the experience and capacity to support the proposed branch. In addition, CMB has established controls and procedures for the proposed branch to ensure compliance with U.S. law. In particular, CMB has stated that it will apply strict anti-money-laundering policies and procedures at the branch consistent with U.S. law and regulation and will establish an internal control system at the branch consistent with U.S. requirements to ensure compliance with those policies and procedures.

With respect to access to information about CMB's operations, the Board has reviewed the restrictions on disclosure in relevant jurisdictions in which CMB operates and has communicated with relevant government authorities regarding access to information. CMB has committed to make available to the Board such information on the operations of CMB and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, CMB has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In light of these commitments and other facts of record, and subject to the condition described below, the Board has determined that CMB has provided adequate assurances of access to any necessary information that the Board may request.

On the basis of all the facts of record, and subject to the commitments made by CMB, as well as the terms and conditions set forth in this order, CMB's application to establish a branch is hereby approved. Should any restrictions on access to information on the operations or activities of CMB and its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by CMB or its affiliates with applicable federal statutes, the Board may require termination of any of CMB's direct or indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by CMB with the commitments made in connection with this application and with the conditions in this order.[15] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with its decision and may be enforced in proceedings under 12 U.S.C. § 1818 against CMB and its affiliates.

By order of the Board of Governors, effective November 8, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

ICICI Bank Limited Mumbai, India

Order Approving Establishment of a Branch

ICICI Bank Limited ("Bank"), a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 7(d) of the IBA[1] to establish a federal branch in New York, New York. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a branch in the United States.

Notice of the application, affording interested persons an opportunity to comment, has been published in a newspaper of general circulation in New York, New York (*The Daily News*, June 21, 2004). The time for filing comments has expired, and all comments received have been considered.

14. *See* 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2). The additional standards set forth in section 7 of the IBA and Regulation K include the following: whether the bank's home-country supervisor has consented to the establishment of the office; the financial and managerial resources of the bank; whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

15. The Board's authority to approve the establishment of the proposed branch parallels the continuing authority of the state of New York to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the state of New York or its agent, the New York State Banking Department ("Department"), to license the proposed office of CMB in accordance with any terms or conditions that the Department may impose.

1. 12 U.S.C. §3105(d).

Bank, with total assets of approximately $91.5 billion, is the second largest bank in India.[2] The Government of India and the Government of Singapore own approximately 9.6 percent and 8.3 percent of Bank's shares, respectively. [3] No other shareholder owns directly more than 5 percent of Bank's shares.

Bank is a private sector bank and engages primarily in corporate and retail banking and foreign exchange operations. Bank also provides through its subsidiaries insurance, brokerage, investment banking, and asset management services in India. Outside India, Bank operates subsidiary banks in the United Kingdom, Canada, and Russia and branches in Bahrain, the Dubai International Financial Center, Hong Kong S.A.R., Singapore, and Sri Lanka. In the United States, Bank operates a representative office in New York, New York, and engages indirectly in nonbank activities in the United States through a number of subsidiaries.[4] Bank would be a qualifying foreign banking organization under Regulation K.[5]

The proposed New York branch would engage in a wholesale banking business, including providing lending, trade financing, and factoring services to U.S.-based subsidiaries of Indian companies.

Under the IBA and Regulation K, in acting on an application by a foreign bank to establish a branch, the Board must consider whether (1) the foreign bank engages directly in the business of banking outside the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisors.[6] The Board also considers additional standards as set forth in the IBA and Regulation K.[7]

The IBA includes a limited exception to the general requirement relating to comprehensive, consolidated supervision.[8] This exception provides that, if the Board is unable to find that a foreign bank seeking to establish a branch, agency, or commercial lending company is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in its home country, the Board may nevertheless approve the application, provided that (i) the appropriate authorities in the home country of the foreign bank are actively working to establish arrangements for the consolidated supervision of such bank; and (ii) all other factors are consistent with approval.[9] In deciding whether to exercise its discretion to approve an application under authority of this exception, the Board shall also consider whether the foreign bank has adopted and implemented procedures to combat money laundering.[10] The Board also may take into account whether the home country of the foreign bank is developing a legal regime to address money laundering or is participating in multilateral efforts to combat money laundering.[11]

As noted, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

Based on all the facts of record, the Board has determined that Bank's home jurisdiction supervisory authority is actively working to establish arrangements for the consolidated supervision of Bank and that considerations relating to the steps taken by Bank and its home jurisdiction to combat money laundering are consistent with approval under this standard. The Reserve Bank of India ("RBI") is the principal supervisory authority of Bank, including its foreign subsidiaries and affiliates. The RBI has the authority to license banks, regulate their activities, and approve expansions, both domestically and abroad. It supervises and regulates Bank through a combination of regular on-site reviews and off-site monitoring. On-site examinations cover the major areas of operations, capital adequacy, management (including risk-management strategies), asset quality (including detailed loan portfolio analysis), earnings, liquidity, and internal controls and procedures (including anti-money-laundering controls and procedures). The frequency of on-site examinations depends on a bank's risk profile, but generally all Indian banks, including Bank, are examined at least annually.

Off-site monitoring is conducted through the review of required quarterly or monthly reports on, among other things, asset quality, earnings, liquidity, capital adequacy, loans, and on- and off-balance-sheet exposures. The RBI monitors the foreign activities of Indian banks using guidelines designed to ensure that banks identify, control, and minimize risk in the bank and in its joint ventures and subsidiaries. The RBI also periodically audits Indian banks' foreign operations.

Bank is required to be audited annually by a firm of chartered accountants approved by the RBI, and the audit

2. Asset data are as of March 31, 2007. Ranking data are as of March 31, 2006.

3. The Life Insurance Corporation of India and other government-owned companies collectively own approximately 9.6 percent of Bank's shares. The Government of Singapore directly owns approximately 1.8 percent of Bank's shares. Allamanda Investments Pte. Limited, an investment company wholly owned by the Ministry of Finance of Singapore, indirectly owns 6.5 percent of Bank's shares.

4. *See ICICI Bank Limited*, 88 *Federal Reserve Bulletin* 227 (2002).

5. 12 CFR 211.23(a).

6. 12 U.S.C. §3105(d)(2); 12 CFR 211.24. In assessing this standard, the Board considers, among other indicia of comprehensive, consolidated supervision, the extent to which the home-country supervisors: (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; and (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. No single factor is essential, and other elements may inform the Board's determination.

7. 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2)–(3).

8. 12 U.S.C. §3105(d)(6).

9. 12 U.S.C. §3105(d)(6)(A).

10. 12 U.S.C. §3105(d)(6)(B).

11. *Id.*

report is submitted to the RBI. The scope of the required audit includes a review of financial statements, asset quality, internal controls, and anti-money-laundering procedures. The RBI may order a special audit at any time. In connection with its listing of American Depositary Shares on the New York Stock Exchange, Bank files a financial report with the Securities and Exchange Commission that also is subject to annual external audit. In addition, Bank conducts internal audits of its offices and operations generally on an annual schedule. The proposed branch would be subject to internal audits to determine compliance with internal controls and RBI guidelines.

Indian laws impose various prudential limitations on banks, including limits on transactions with affiliates and large exposures. The RBI is authorized to request and receive information from any bank and its domestic and foreign affiliates and to impose penalties for failure to comply with a disclosure request or for providing false or misleading information. The RBI also has the authority to impose conditions on licensees and to impose penalties for failure to comply with the RBI's rules, orders, and directions. Penalties include monetary fines, removal of management, and the revocation of the authority to conduct business.

In recent years, the Indian government has enhanced its anti-money-laundering regime. In January 2003, India took initial steps to adopt an anti-money-laundering law, the Prevention of Money Laundering Act. The law, related amendments, and implementing rules (collectively, the "PMLA") became effective in July 2005 and established a regulatory infrastructure to assist the anti-money-laundering effort. In accordance with the PMLA, India has established the Financial Intelligence Unit, India ("FIU-IND"), which reports directly to the Economic Intelligence Council headed by the Finance Minister of India. The FIU-IND is responsible for receiving, processing, analyzing, and disseminating information related to cash and suspicious transaction reports. The Directorate of Enforcement, a department within the Ministry of Finance, is responsible for investigating and prosecuting money laundering cases. In addition, the RBI issued "Know Your Customer (KYC) Guidelines—Anti-Money Laundering Standards" ("Guidelines") in November 2004 that require financial institutions to establish systems for the prevention of money laundering. Indian banks were required to be fully compliant with the Guidelines by December 31, 2005. The RBI issued further guidelines in February 2006 providing clarification on reporting cash and suspicious transactions to the FIU-IND.

India participates in international fora that address the prevention of money laundering and terrorist financing. India is a member of the Asia/Pacific Group on Money Laundering (Financial Action Task Force for the Asia/Pacific region), an observer organization to the Financial Action Task Force ("FATF"), and is actively seeking to join FATF as a member.[12] India is a party to the 1988 U.N. Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances and the U.N. International Convention for the Suppression of the Financing of Terrorism.

Bank has policies and procedures to comply with Indian laws and regulations and the RBI's Guidelines regarding anti-money laundering. Bank has also taken additional steps on its own initiative to combat money laundering and other illegal activities. Bank states that it has implemented the relevant recommendations of the FATF and that it has put in place enterprise-wide, risk-based anti-money-laundering policies and procedures to ensure ongoing compliance with all statutory and regulatory requirements, including designating compliance officers and conducting training for staff at all levels. Bank's compliance with anti-money-laundering requirements is monitored by the RBI and by Bank's internal and external auditors.

The Board also has taken into account the additional standards set forth in section 7 of the IBA and Regulation K.[13] The RBI has no objection to Bank's establishment of the proposed branch.

The Board has also considered carefully the financial and managerial factors in this case. India's risk-based capital standards are consistent with those established by the Basel Capital Accord. Bank's capital is in excess of the minimum levels that would be required by the Accord and is considered equivalent to capital that would be required of a U.S. banking organization. Managerial and other financial resources of Bank are consistent with approval, and Bank appears to have the experience and capacity to support the proposed branch. In addition, Bank has established controls and procedures for the proposed branch to ensure compliance with U.S. law.

With respect to access to information about Bank's operations, the Board has reviewed the restrictions on disclosure in relevant jurisdictions in which Bank operates and has communicated with relevant government authorities regarding access to information. Bank has committed to make available to the Board such information on the operations of Bank and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act ("BHC Act"), and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In light of these commitments and other facts of record, and subject to the condition described

12. India became an observer to FATF in February 2007.

13. *See* 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2). The additional standards set forth in section 7 of the IBA and Regulation K include the following: whether the bank's home- country supervisor has consented to the establishment of the office; the financial and managerial resources of the bank; whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

below, the Board has determined that Bank has provided adequate assurances of access to any necessary information that it may request.

On the basis of all the facts of record, and subject to the commitments made by Bank, as well as the terms and conditions set forth in this order, Bank's application to establish a branch in New York, New York, is hereby approved. Should any restrictions on access to information on the operations or activities of Bank and its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or its affiliates with applicable federal statutes, the Board may require termination of any of Bank's direct or indirect activities in the United States, or in the case of any such operation licensed by the Office of the Comptroller of the Currency ("OCC"), recommend termination of such operation. Approval of this application also is specifically conditioned on compliance by Bank with the commitments[14] made in connection with this application and with the conditions in this order.[15] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with this decision and may be enforced in proceedings under 12 U.S.C. § 1818 against Bank and its affiliates.

By order of the Board of Governors, effective October 19, 2007.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

JENNIFER J. JOHNSON
Secretary of the Board

14. Bank has committed that it will conform its existing direct and indirect nonbanking activities and investments to the requirements of the BHC Act. Bank owns subsidiaries that engage in activities in the United States that are not permissible for a bank holding company. Indian laws and rules restrict Bank's ability to conform its holdings of these companies within the time period provided for in section 4(a)(2) of the BHC Act. The Board has granted Bank an exemption under section 4(c)(9) of the BHC Act that will permit Bank to hold its shares of these companies for a temporary period.

15. The Board's authority to approve the establishment of the proposed branch parallels the continuing authority of the OCC to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the OCC to license the proposed office of Bank in accordance with any terms or conditions that it may impose.

Legal Developments: First Quarter, 2008

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

ORDERS ISSUED UNDER SECTION 3 OF THE BANK HOLDING COMPANY ACT

First National Bank Group, Inc. Edinburg, Texas

Order Approving the Acquisition of Additional Shares of a Bank Holding Company

First National Bank Group, Inc. ("First National"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to acquire up to 9.9 percent of the voting shares and control of Southside Bancshares, Incorporated ("Southside"), Tyler, and acquire indirect control of Southside's subsidiary banks, Southside Bank, also of Tyler, and Fort Worth National Bank, Fort Worth, all of Texas.[2]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in the *Federal Register* (72 *Federal Register* 70862 (2007)). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in section 3 of the BHC Act.

First National, with total consolidated assets of $4.1 billion, is the 18th largest depository organization in Texas, controlling deposits of $3.3 billion, which represent less than 1 percent of total deposits of insured depository institutions in Texas ("state deposits").[3] Southside, with total consolidated assets of $1.9 billion, is the 29th largest depository organization in Texas, controlling deposits of $1.4 billion.[4] On consummation of the proposal, First National would become the 12th largest depository organization in Texas, controlling deposits of approximately $4.7 billion, which would represent 1.1 percent of state deposits.

First National, together with its related interests and principal shareholders, currently owns 8.62 percent of Southside's voting shares and proposes to acquire the additional voting shares (up to 1.28 percent) through purchases on the open market. First National received approval from the Board to acquire up to 9.9 percent of the voting shares of Southside on September 11, 2006.[5] As part of the approval, First National agreed to abide by certain commitments previously relied on by the Board in determining that an investing bank holding company would not be able to exercise a controlling influence over another bank holding company or bank for purposes of the BHC Act ("Passivity Commitments").

First National is proposing again to acquire up to 9.9 percent of the voting shares of Southside and has also requested approval to control Southside for purposes of the BHC Act.[6] On acquiring control, First National would be required to treat Southside Bank as a subsidiary of First National and would be subject to certain obligations imposed by the BHC Act and other federal statutes, including obligations to serve as a source of financial and managerial strength to Southside.[7]

The Board received a comment from the management of Southside objecting to the proposal and questioning First National's compliance with the Passivity Commitments. Southside also expressed concerns about the management of First National. The Board has considered carefully First National's application and Southside's comments in light of the factors it must consider under section 3 of the BHC Act.

FINANCIAL, MANAGERIAL, AND SUPERVISORY CONSIDERATIONS

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and banks involved in the proposal and certain other supervisory factors. The Board has considered

1. 12 U.S.C. § 1842.

2. Southside has two intermediate bank holding companies in Delaware, Southside Delaware Financial Corporation, Dover, and Fort Worth Bancorporation, Inc., Wilmington. In addition, Southside has an intermediate bank holding company in Texas, Fort Worth Bancshares, Inc., Fort Worth.

3. Asset data are as of September 30, 2007, and statewide deposit and ranking data are as of June 30, 2007.

4. Southside acquired Fort Worth Bancshares, Inc. (a small bank holding company) in October 2007. Fort Worth Bancshares' subsidiary bank, Fort Worth National Bank, Fort Worth, has assets of $125 million. These assets were not included in Southside's September 30, 2007, asset figures.

5. 91 *Federal Reserve Bulletin* C164 (2006) ("2006 Order").

6. As part of the proposal, First National requests relief from the Passivity Commitments.

7. *See* 12 CFR 225.4; 12 U.S.C. § 1815(e)(1).

carefully these factors in light of all the facts of record, including, among other things, confidential reports of examination and other supervisory information received from the primary federal supervisors of the organizations and institutions involved in the proposal, publicly reported and other financial information, information provided by First National, and public comment received on the proposal.

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary banks and significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the effect of the transaction on the financial condition of the applicant, including its capital position, asset quality, earnings prospects, and the impact of the proposed funding of the transaction.

Based on its review of the financial factors, the Board finds that First National has sufficient resources to effect the proposal. First National, Southside, and their subsidiary banks are well capitalized and would remain so on consummation of this proposal.[8] The proposed transaction is structured as a share purchase, and the consideration to be received by Southside's shareholders would be funded from First National's existing liquid assets.

The Board also has considered the managerial resources of the organizations involved in the proposed transaction. The Board has reviewed the examination records of First National, Southside, and their subsidiary banks, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant banking supervisory agencies with the organizations and their records of compliance with applicable banking law, including anti-money-laundering laws. First National, Southside, and their subsidiary banks are considered to be well managed.

As noted, Southside has alleged that certain actions taken by the management of First National violated the Passivity Commitments.[9] Specifically, Southside alleged that requests made by First National for employment and compensation information on employees who are related to the president of Southside violated these commitments. Southside also asserted that a filing made by First National with the Securities and Exchange Commission ("SEC") evidenced First National's intent to change or influence control of Southside and was a *prima facie* violation of the Passivity Commitments. In addition, Southside alleged that the filing contained statements intended to force Southside to change its business and operations.[10] The Board has reviewed the information provided by Southside and First National as well as public and confidential supervisory information. Based on all the facts of record, the Board finds that neither First National's request for information nor its mandatory filing with the SEC violated the Passivity Commitments.

Based on all the facts of record, the Board has concluded that the financial and managerial resources and the future prospects of First National, Southside, and their subsidiaries are consistent with approval of this application, as are the other supervisory factors the Board must consider under section 3 of the BHC Act.

COMPETITIVE CONSIDERATIONS

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. Section 3 also prohibits the Board from approving a proposal that would substantially lessen competition in any relevant banking market, unless the Board finds that the anticompetitive effects of the proposal clearly are outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[11]

First National's subsidiary bank, First National Bank, Edinburg, and Southside Bank compete directly in the Dallas banking market. In addition, First National Bank and Fort Worth National Bank compete directly in the Fort Worth banking market. The Board has reviewed carefully the competitive effects of the proposal in both banking markets in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the markets, the relative shares of total deposits

8. As previously noted, the proposal provides that First National would acquire only up to 9.9 percent of Southside. Under these circumstances, the financial statements of Southside and First National would not be consolidated. Moreover, because First National will not acquire a majority of the voting shares of Southside in this transaction, First National must obtain the Board's approval before acquiring more than 9.9 percent of Southside's voting shares.

9. Southside also criticized the management of First National, as trustee of First National's employee stock ownership plan ("ESOP"), for causing the ESOP to purchase shares of Southside. The amount of shares acquired by the ESOP did not exceed the percentage of shares authorized by the Board in the 2006 Order.

10. The SEC requires the owners of more than 5 percent of a class of equity securities of a registered company to file certain forms. *See* 15 U.S.C. §78m(d); Rule 13d-1, 17 CFR 240.13d-1 (2007). First National filed a Schedule 13D report with the SEC, which is required for a 5 percent shareholder who "holds the securities with a purpose or effect of changing or influencing control of the issuer, or in connection with or as a participant in any transaction having that purpose or effect . . .". (17 CFR 240.13d–1(e)(1)(i) (2007)). In its Schedule 13D report, First National stated that, after making its 2006 investment in Southside, it wanted to change its investment goals with respect to Southside and, accordingly, filed this application with the Board requesting approval to increase its investment in Southside and to be relieved of the Passivity Commitments. First National also stated that it did not intend to take any action inconsistent with the Passivity Commitments until after the Board approved this application and the applicable statutory waiting period expired.

11. 12 U.S.C. § 1842(c)(1).

of depository institutions in the markets ("market deposits") controlled by First National and Southside,[12] the concentration level of market deposits and the increase in this level as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[13] and other characteristics of the markets.

Consummation of the proposal would be consistent with Board precedent and the DOJ Guidelines in both the Dallas and Fort Worth banking markets.[14] On consummation of the proposal, the Dallas banking market would remain moderately concentrated and the Fort Worth banking market would remain unconcentrated, as measured by the HHI. There would be no change in the HHI's measure of concentration in either market, and numerous competitors would remain in both banking markets.

The Department of Justice also has reviewed the anticipated competitive effects of the proposal and advised the Board that consummation would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in either the Dallas or Fort Worth banking market or in any other relevant banking market and that competitive considerations are consistent with approval.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[15] The Board has considered carefully all the facts of record, including evaluations of the CRA performance records of First National's and Southside's subsidiary banks, other information provided by First National, and confidential supervisory information. First National Bank received an "outstanding" rating at its most recent CRA evaluation by the Office of the Comptroller of the Currency ("OCC"), as of September 9, 2006. Southside Bank also received an "outstanding" rating at its most recent CRA performance evaluation by the Federal Deposit Insurance Corporation, as of March 12, 2007.[16] Based on all the facts of record, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant depository institutions are consistent with approval.

Conclusion

Based on the foregoing and all the facts of record, the Board has determined that the application should be, and hereby is, approved.[17] In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act and other applicable statutes. The Board's approval is specifically conditioned on compliance by First National with the conditions imposed in this order and the commitments made to the Board in connection with the application. The conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision herein and, as such, may be enforced in proceedings under applicable law.

The acquisition of additional Southside voting shares may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Federal Reserve Bank of Dallas, acting pursuant to delegated authority.

By order of the Board of Governors, effective February 4, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

Robert deV. Frierson
Deputy Secretary of the Board

12. Deposit and market share data are as of June 30, 2007, are adjusted to reflect subsequent mergers and acquisitions as of January 28, 2008, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52 (1991).

13. Under the DOJ Guidelines, a market is considered moderately concentrated if the post-merger HHI is between 1000 and 1800 and highly concentrated if the post-merger HHI exceeds 1800. The Department of Justice has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The Department of Justice has stated that the higher-than-normal HHI thresholds for screening bank mergers for anticompetitive effects implicitly recognize the competitive effects of limited-purpose lenders and other nondepository financial institutions.

14. Those banking markets and the effects of the proposal on the concentrations of banking resources are described in the appendix.

15. 12 U.S.C. §2901 et seq.

16. Fort Worth National Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the OCC, as of February 21, 2006.

17. In granting this approval, the Board hereby relieves First National of the Passivity Commitments it provided in connection with the 2006 Order.

Appendix

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Change in HHI	Remaining number of competitors
TEXAS BANKING MARKETS						
Dallas—Dallas County, the southeastern quadrant of Denton County (including Denton and Lewisville), the southwestern quadrant of Collin County (including McKinney and Plano), Rockwall County, the communities of Forney and Terrell in Kaufman County, and Midlothian, Waxahachie, and Ferris in Ellis County						
First National Pre-Consummation ...	52	$118 mil.	.14	1,604	0	129
Southside ...	119	687 th.	0	1,604	0	129
First National Post-Consummation ..	52	$118.8 mil.	.14	1,604	0	129
Fort Worth—The Fort Worth–Arlington Metropolitan division, which consists of Tarrant, Johnson, Parker, and Wise counties and excludes Mineral Wells in Parker County						
First National Pre-Consummation ...	76	Minimal	Minimal	886	0	79
Southside ...	29	$100.1 mil.	.45	886	0	79
First National Post-Consummation ..	29	$110.1 mil.	.45	886	0	79

NOTE: Deposit data are as of June 30, 2007, and include mergers as of January 28, 2008. Deposit amounts are unweighted. Rankings, market deposit shares, and HHIs are based on thrift institution deposits weighted at 50 percent.

Frandsen Financial Corporation Arden Hills, Minnesota

Order Approving the Acquisition of a Bank

Frandsen Financial Corporation ("Frandsen"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to acquire First National Bank of Montgomery ("Bank"), Montgomery, Minnesota.

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (73 *Federal Register* 492 (2008)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the factors set forth in section 3 of the BHC Act.

Frandsen, with total consolidated assets of $1.2 billion, operates seven subsidiary insured depository institutions in Minnesota, Wisconsin, and North Dakota. In Minnesota, Frandsen is the 12th largest depository organization, controlling deposits of $758.6 million, which represent less than 1 percent of total deposits of insured depository institutions in the state ("state deposits").[2]

Bank is the 221st largest insured depository institution in Minnesota, controlling deposits of approximately $55 million. On consummation of this proposal, Frandsen would become the 11th largest depository organization in Minne-

1. 12 U.S.C. § 1842.

2. Asset data are as of December 31, 2007, and statewide deposit and ranking data are as of June 30, 2007. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.

sota, controlling deposits of approximately $813.6 million, which represent less than 1 percent of state deposits.

COMPETITIVE CONSIDERATIONS

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of an attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a proposal that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[3] In evaluating the competitive factors in this case, the Board has considered the assertion by several commenters that the proposal would create a monopoly or substantially lessen competition for banking services by eliminating Frandsen's only competitor in Montgomery.

Frandsen and Bank compete directly in the Minneapolis-St. Paul banking market, as delineated by the Federal Reserve Bank of Minneapolis ("Reserve Bank").[4] Frandsen Bank and Trust ("Frandsen Bank"), Lonsdale, Minnesota, a subsidiary bank of Frandsen, operates a branch in Montgomery. Frandsen Bank and Bank are the only two insured depository institutions operating in Montgomery.

In defining the relevant geographic market, the Board and the courts have consistently found that the relevant geographic market for analyzing the competitive effects of a proposal must reflect commercial and banking realities and should consist of the local area where customers can practicably turn for alternatives.[5] In reviewing this proposal and the comments received, the Board has considered the geographic proximity of the Minneapolis-St. Paul banking market's population centers and the worker commuting data from the 2000 census. The data indicate that more than 40 percent of the labor force residing in Montgomery (and Montgomery Township) commute to work in the Minneapolis-St. Paul banking market. Montgomery is approximately 55 miles from the city center of Minneapolis.[6] Residents of the area also have highway access to the Minneapolis-St. Paul banking market for shopping and other purposes. These and other factors indicate that the Minneapolis-St. Paul banking market, which includes Montgomery, is the appropriate local geographic banking market for purposes of analyzing the competitive effects on this proposal.[7]

The Board has reviewed carefully the competitive effects of the proposal in the Minneapolis-St. Paul banking market where Frandsen and Bank compete directly in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the banking market, the relative shares of total deposits in depository institutions in the market ("market deposits") controlled by Frandsen and Bank,[8] the concentration level of market deposits and the increase in that level as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[9] and other characteristics of the market.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines as applied in the Minneapolis-St. Paul banking market. On consummation, the HHI of the Minneapolis-St. Paul banking market would remain highly concentrated, and the HHI would increase less than 1 point as a result of this transaction.[10] In addition, numerous competitors would remain in the market.

---

3. 12 U.S.C. § 1842(c)(1).

4. The Minneapolis-St. Paul banking market is defined as Anoka, Hennepin, Ramsey, Washington, Carver, Scott, and Dakota counties; the townships of Lent, Chisago Lake, Shafer, Wyoming, and Franconia in Chisago County; the townships of Blue Hill, Baldwin, Orrock, Livonia, and Big Lake and the city of Elk River in Sherburne County; the townships of Monticello, Buffalo, Rockford, and Franklin and the cities of Otsego, Albertville, and St. Michael in Wright County; and the townships of Lanesburgh, Derrynane, and Montgomery and the city of Montgomery in Le Sueur County, all in Minnesota; and the township of Hudson in St. Croix County, Wisconsin.

5. *See United States v. Phillipsburg National Bank*, 399 U.S. 350 (1970); *United States v. Philadelphia National Bank*, 374 U.S. 321, 357 (1963). *See also First York Ban Corp*, 88 *Federal Reserve Bulletin* 251, (2002); *First Union Corporation*, 84 *Federal Reserve Bulletin* 489, 491–92 (1998); *First Union Corporation*, 83 *Federal Reserve Bulletin* 1012, 1013–14 (1997); *Chemical Banking Corporation*, 82 *Federal Reserve Bulletin* 239, 241 (1996); and *Wyoming Bancorporation*, 68 *Federal Reserve Bulletin* 313, 314 (1982).

6. Montgomery Township is the unincorporated area that surrounds Montgomery.

7. The Board also considered the significantly lower percentage of residents in Montgomery and Montgomery Township commuting to other population centers in the surrounding counties outside the Minneapolis-St. Paul banking market and the availability and variety of shopping alternatives in the surrounding area.

8. Deposit and market share data are based on data reported by insured depository institutions in the summary of deposits data as of June 30, 2007, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52 (1991).

9. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is under 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI exceeds 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

10. Frandsen operates the 77th largest depository institution in the Minneapolis-St. Paul banking market, controlling deposits of approximately $72 million, which represent less than 1 percent of market deposits. Bank is the 87th largest depository institution in the market, controlling deposits of approximately $55 million. After the proposed acquisition, Frandsen would operate the 50th largest depository institution in the market, controlling deposits of approximately $127 mil-

The DOJ has conducted a detailed review of the potential competitive effects of the proposal and has advised the Board that consummation of the proposal would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in the Minneapolis-St. Paul banking market, where Frandsen and Bank compete directly, or in any other relevant banking market.[11] Accordingly, the Board has determined that competitive considerations are consistent with approval.[12]

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination, other supervisory information from the primary supervisors of the organizations involved in the proposal, publicly reported and other financial information, and information provided by the applicant.

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary banks and significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board expects banking organizations contemplating expansion to maintain strong capital levels substantially in excess of the minimum levels specified by the Board's Capital Adequacy Guidelines. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has considered carefully the proposal under the financial factors. Frandsen, its subsidiary depository institutions, and Bank are well capitalized and would remain so on consummation. Based on its review of the record, the Board also finds that Frandsen has sufficient financial resources to effect the proposal. The proposed transaction is structured as a cash purchase that will be funded through dividends from its subsidiary insured depository institutions.

The Board also has considered the managerial resources of Frandsen, its subsidiary depository institutions, and Bank. The Board has reviewed the examination records of these institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant banking supervisory agencies with the organizations and their records of compliance with applicable banking law, including anti-money-laundering laws. Frandsen and its subsidiary depository institutions are considered to be well managed. The Board also has considered Frandsen's plans for implementing the proposal, including the proposed management at Bank after consummation.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and take into account the records of the relevant insured depository institutions under the CRA. All of Frandsen's insured depository institutions received "outstanding" or "satisfactory" ratings at their most recent CRA performance evaluations by the institutions' primary federal supervisors. Frandsen's lead bank, Frandsen Bank, received an "outstanding" rating at its most recent CRA performance evaluation by the Federal Deposit Insurance Corporation ("FDIC"), as of September 15, 2003.[13] The examiners noted that Frandsen Bank had an excellent distribution of residential lending to borrowers of different incomes and

lion, which represent less than 1 percent of market deposits. One hundred and forty-seven insured depository institutions would remain in the banking market. The HHI is 1858 and would increase less than 1 point as a result of this proposal.

11. Until recently, the Reserve Bank included Montgomery and Montgomery Township in the definition of the Mankato banking market. After a review of the facts and for the reasons discussed above, the Board reaffirms the Reserve Bank's inclusion of Montgomery and Montgomery Township in its revised definition of the Minneapolis- St. Paul banking market. If Montgomery and Montgomery Township were included in the Mankato banking market, the competitive effects of the proposal also would be consistent with approval. Frandsen's market share in the Mankato banking market would increase to 8.3 percent, and the HHI would increase 29 points to 650.

12. A commenter contended that the elimination of banking options in Montgomery would adversely affect a customer's ability to ensure the confidentiality of personal and business banking information. As noted above, Montgomery is in the Minneapolis-St. Paul banking market and numerous banking options would remain for customers in the market. Moreover, Frandsen has an established privacy policy and customer information security policy and has represented that it will implement these policies at Bank.

13. Frandsen Bank is the result of a merger involving affiliate banks in 2004. The FDIC conducted the last CRA performance evaluation of Frandsen Bank while the bank was doing business as Valley Bank and Trust. The most recent CRA performance evaluation ratings of Frandsen's other subsidiary insured depository institutions are listed in the appendix.

commended the bank's involvement in special home loan programs to meet the needs of low- and moderate-income families. They also reported that the bank had a good distribution of lending to businesses of different sizes. Bank received an "outstanding" rating at its most recent CRA performance evaluation by the Office of the Comptroller of the Currency, as of March 4, 2003. Frandsen represented that the proposal would expand the availability of credit and the products and services available to Bank's customers.[14] Based on all the facts of record, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant depository institutions are consistent with approval.

CONCLUSION

Based on the foregoing and all the facts of record, the Board has determined that the application should be, and hereby is, approved.[15] In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by Frandsen with the conditions imposed in this order and the commitments made to the Board in connection with the application. For purposes of this action, the conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision herein and, as such, may be enforced in proceedings under applicable law.

The proposed transaction may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Reserve Bank, acting pursuant to delegated authority.

By order of the Board of Governors, effective February 25, 2008.

Voting for this action: Chairman Bernanke and Governors Warsh, Kroszner, and Mishkin. Absent and not voting: Vice Chairman Kohn.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

14. Some commenters expressed concern that the proposed acquisition would result in a loss of jobs and businesses in Montgomery. A proposed transaction's effect on those matters for a community is not among the factors that the Board is authorized to consider under the BHC Act, and the federal banking agencies, courts, and the Congress consistently have interpreted the convenience and needs factor to relate to the effect of a proposal on the availability and quality of banking services in the community. *See, e.g., Wells Fargo & Company*, 82 *Federal Reserve Bulletin* 445, 447 (1996).

15. The commenters requested that the Board hold a public meeting or hearing on the proposal. Section 3 of the BHC Act does not require the Board to hold a public hearing on an application unless the appropriate supervisory authority for the bank to be acquired makes a written recommendation of denial of the application. The Board has not received such a recommendation from the appropriate supervisory authorities. Under its rules, the Board also may, in its discretion, hold a public meeting or hearing on an application to acquire a bank if necessary or appropriate to clarify factual issues related to the application and to provide an opportunity for testimony (12 CFR 225.16(e), 262.25(d)). The Board has considered carefully the commenters' requests in light of all the facts of record. In the Board's view, the commenters had ample opportunity to submit their views and, in fact, submitted written comments that the Board has considered carefully in acting on the proposal. The commenters' requests fail to demonstrate why written comments do not present their views adequately or why a meeting or hearing otherwise would be necessary or appropriate. For these reasons, and based on all the facts of record, the Board has determined that a public meeting or hearing is not required or warranted in this case. Accordingly, the requests for a public meeting or hearing on the proposal are denied.

Appendix

CRA PERFORMANCE EVALUATIONS

Subsidiary Bank	CRA Rating	Date	Supervisor
Queen City Federal Savings Bank, Virginia, Minnesota	Outstanding	3/29/2004	Office of Thrift Supervision
Rural American Bank, Braham, Minnesota	Satisfactory	3/12/2003	FDIC
Valley Bank, Waterville, Minnesota	Satisfactory	10/31/2007	FDIC
Community Bank of the Red River Valley, East Grand Forks, Minnesota	Satisfactory	12/15/2003	FDIC
Rural American Bank–Luck, Luck, Wisconsin	Satisfactory	9/23/2002	FDIC
Valley Bank Minnesota, Jordan, Minnesota	Satisfactory	1/21/2003	FDIC

The PNC Financial Services Group, Inc. *Pittsburgh, Pennsylvania*

PNC Bank Delaware *Wilmington, Delaware*

Order Approving the Mergers of Bank Holding Companies and Banks and the Establishment of a Branch

The PNC Financial Services Group, Inc. ("PNC"), a financial holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act to merge with Sterling Financial Corporation ("Sterling"),[1] Lancaster, Pennsylvania, and acquire Sterling's two subsidiary banks, BLC Bank, National Association ("BLC NA"), Strasburg, Pennsylvania; and Delaware Sterling Bank & Trust Company ("DE Sterling Bank"), Christiana, Delaware.

In addition, PNC Bank Delaware ("PNC Bank DE"), Wilmington, Delaware, a state member bank, has requested the Board's approval under section 18(c) of the Federal Deposit Insurance Act[2] ("Bank Merger Act") to merge with DE Sterling Bank, with PNC Bank DE as the surviving entity. PNC Bank DE also has applied under section 9 of the Federal Reserve Act ("FRA") to retain and operate a branch at the main office of DE Sterling Bank.[3]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in accordance with relevant statutes and the Board's Rules of Procedure (72 *Federal Register* 45,426 (2007)).[4] As required by the Bank Merger Act, a report on the competitive effects of the bank merger was requested from the United States Attorney General, and a copy of the request was provided to the Federal Deposit Insurance Corporation ("FDIC"). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in the BHC Act, the Bank Merger Act, and the FRA.

PNC, with total consolidated assets of approximately $125.7 billion, is the 20th largest depository organization in the United States, controlling deposits of approximately $74.4 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States.[5] PNC operates three subsidiary insured depository institutions in nine states and the District of Columbia[6] and engages in numerous nonbanking activities that are permissible under the BHC Act. PNC is the largest depository organization in Pennsylvania, controlling deposits of approximately $35.2 billion. In Delaware, PNC is the eighth largest depository organization, controlling deposits of approximately $2.6 billion.

Sterling has total consolidated assets of $3.2 billion, and its subsidiary banks operate in Delaware, Maryland, and Pennsylvania. In Pennsylvania, Sterling is the 22nd largest depository organization, controlling state deposits of approximately $2.3 billion. In Delaware, Sterling is the 27th largest depository organization, controlling deposits of approximately $45.6 million.

On consummation of the proposal, PNC would become the 18th largest depository institution in the United States, with total consolidated assets of approximately $128.9 billion. PNC would control deposits of approximately $77 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States. In Pennsylvania, PNC would remain the largest depository organization, controlling deposits of approximately $37.5 billion, which represent approximately 14.5 percent of the total amount of deposits of insured depository institutions in the state ("state deposits"). In Delaware, PNC would remain the eighth largest depository organization, controlling deposits of approximately $2.6 billion, which represent approximately 1.6 percent of state deposits.

INTERSTATE ANALYSIS

Section 3(d) of the BHC Act allows the Board to approve an application by a bank holding company to acquire control of a bank located in a state other than the home state of such bank holding company if certain conditions are met. For purposes of the BHC Act, the home state of PNC is Pennsylvania,[7] and Sterling is located in Delaware, Maryland, and Pennsylvania.[8]

Based on a review of all the facts of record, including the relevant state statutes, the Board finds that the conditions for an interstate acquisition enumerated in section 3(d) of

1. 12 U.S.C. § 1842. PNC proposes to acquire the nonbanking subsidiaries of Sterling in accordance with section 4(k) of the BHC Act, 12 U.S.C. § 1843(k).

2. 12 U.S.C. § 1828(c).

3. 12 U.S.C. § 321. The office is at 630 Churchmans Road, Suite #204, Christiana.

4. 12 CFR 262.3(b).

5. National asset, deposit, and ranking data are as of June 30, 2007. Statewide deposit and deposit ranking data are as of June 30, 2007, and reflect merger activity through January 9, 2008. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.

6. PNC's largest subsidiary bank, PNC Bank National Association ("PNC Bank"), Pittsburgh, Pennsylvania, operates branches in Delaware, Florida, Indiana, Kentucky, Maryland, New Jersey, Ohio, Pennsylvania, Virginia, and the District of Columbia. PNC Bank DE operates in Delaware and Pennsylvania. On October 26, 2007, PNC acquired Yardville National Bancorp, Hamilton, New Jersey, and its subsidiary bank, Yardville National Bank, which operates in New Jersey and Pennsylvania.

7. A bank holding company's home state is the state in which the total deposits of all subsidiary banks of the company were the largest on July 1, 1966, or the date on which the company became a bank holding company, whichever is later (12 U.S.C. § 1841(o)(4)(C)).

8. For purposes of section 3(d), the Board considers a bank to be located in the states in which the bank is chartered or headquartered or operates a branch (12 U.S.C. §§ 1841(o)(4)–(7) and 1842(d)(1)(A) and (d)(2)(B)).

the BHC Act are met in this case.[9] In light of all the facts of record, the Board is permitted to approve the proposal under section 3(d) of the BHC Act.

COMPETITIVE CONSIDERATIONS

The BHC Act and the Bank Merger Act prohibit the Board from approving a proposal that would result in a monopoly or would be in furtherance of an attempt to monopolize the business of banking in any relevant banking market. Both statutes also prohibit the Board from approving a bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[10]

PNC and Sterling have subsidiary depository institutions that compete directly in six banking markets: Wilmington in Delaware and Maryland; Baltimore, Maryland; Harrisburg, Lancaster, and York, Pennsylvania; and Philadelphia in Pennsylvania and New Jersey. The Board has reviewed carefully the competitive effects of the proposal in each of these banking markets in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the markets, the relative shares of total deposits in depository institutions in the markets ("market deposits") controlled by PNC and Sterling,[11] the concentration level of market deposits and the increase in that level as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[12] and other characteristics of the markets.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in each of the six banking markets.[13] On consummation of the proposal, one market would remain concentrated, four markets would remain moderately concentrated, and one market would remain highly concentrated, as measured by the HHI. The change in the HHI's measure of concentration would be less than 100 points in each market, and numerous competitors would remain in all six banking markets.

The DOJ has conducted a detailed review of the potential competitive effects of the proposal and has advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in any of the banking markets where PNC and Sterling compete directly or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

FINANCIAL, MANAGERIAL, AND SUPERVISORY CONSIDERATIONS

Section 3 of the BHC Act and the Bank Merger Act require the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination and other supervisory information received from the relevant federal and state supervisors of the organizations involved in the proposal, and publicly reported and other financial information, including information provided by PNC.

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary depository institutions and the organizations' nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the com-

9. 12 U.S.C. §§ 1842(d)(1)(A)–(B) and 1842(d)(2)–(3). PNC is adequately capitalized and adequately managed, as defined by applicable law. There are no minimum periods of time for which Sterling's subsidiary banks are required to have been in existence under any relevant state law. On consummation of the proposal, PNC would control less than 10 percent of the total amount of deposits of insured depository institutions in the United States (12 U.S.C. § 1842(d)(2)(A)). In addition, PNC would control less than 30 percent, or the applicable percentage established under state law, of the total amount of deposits of insured depository institutions in Maryland and Delaware. *See* 12 U.S.C. § 1842(d)(2)(B)–(C); Md. Fin. Inst. § 5-905. All other requirements of section 3(d) of the BHC Act would be met on consummation of the proposal.

10. 12 U.S.C. § 1842(c)(1).

11. Deposit and market share data are as of June 30, 2007, adjusted to reflect mergers and acquisitions through January 14, 2008, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386, 387 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743, 744 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52, 55 (1991).

12. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is under 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI exceeds 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

13. Those banking markets and the effects of the proposal on their concentrations of banking resources are described in Appendix A.

bined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has considered the proposal carefully under the financial factors. PNC and its subsidiary depository institutions are well capitalized. PNC has represented that it will merge BLC NA into PNC Bank after consummation of this acquisition. On consummation of the proposed mergers of the parent companies and banks, PNC and its subsidiary banks would remain well capitalized. Based on its review of the record, the Board finds that PNC has sufficient financial resources to effect the proposal. The proposed transaction is structured as a combination share exchange and cash purchase, and PNC will use existing resources to fund the cash portion of the purchase.

The Board also has considered the managerial resources of the organizations involved and the proposed combined organization. The Board has reviewed the examination records of PNC, Sterling, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant bank supervisory agencies with the organizations and their records of compliance with applicable banking law, including anti-money-laundering laws. PNC and its subsidiary depository institutions are considered to be well managed. The Board also has considered PNC's plans for implementing the proposal, including the proposed management after consummation.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act and the Bank Merger Act.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act and the Bank Merger Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[14] The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs of its entire community, including low- and moderate-income ("LMI") neighborhoods, in evaluating bank expansionary proposals.[15]

The Board has considered carefully all the facts of record, including reports of examination of the CRA performance records of the subsidiary banks of PNC and Sterling, data reported by PNC and Sterling under the Home Mortgage Disclosure Act ("HMDA"),[16] as well as small business lending data reported under the CRA, other information provided by PNC, confidential supervisory information, and public comments received on the proposal. A commenter criticized the CRA-related activities of PNC and Sterling and alleged that their banks' mortgage lending to LMI minority families in the New York-New Jersey-Pennsylvania regional area ("Tri-State Region") was insufficient. In addition, the commenter criticized PNC's and Sterling's general records of home mortgage lending to minorities in the Tri-State Region.[17]

A. CRA Performance Evaluations

As provided in the CRA, the Board has evaluated the convenience and needs factor in light of the evaluations by the appropriate federal supervisors of the CRA performance records of the insured depository institutions of PNC and Sterling. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[18]

PNC Bank received an "outstanding" rating at its most recent CRA performance evaluation by the Office of the Comptroller of the Currency ("OCC"), as of May 16, 2006 ("PNC 2006 Evaluation"). PNC Bank DE also received an "outstanding" rating at its most recent CRA evaluation.[19]

BLC NA, Sterling's largest bank based on both assets and deposits, was formed in 2007 by the consolidation of four Sterling subsidiary banks, including its largest bank at that time, Bank of Lancaster County, National Association ("Lancaster Bank").[20] The CRA performance of BLC NA has not yet been evaluated. The Board's analysis takes into consideration the CRA performance record of all of Ster-

14. 12 U.S.C. §2901 et seq.; 12 U.S.C. §1842(c)(2).

15. 12 U.S.C. §2903.

16. 12 U.S.C. §2801 et seq.

17. The commenter also urged the Board to require PNC to provide specific CRA pledges or plans or to require it to take certain actions in the future. The Board consistently has stated that neither the CRA nor the federal banking agencies' CRA regulations require depository institutions to make pledges or enter into commitments or agreements with any organization and that the enforceability of any such third-party pledges, initiatives, or agreements are matters outside the CRA. *See, e.g., Wachovia Corporation*, 91 *Federal Reserve Bulletin* 77 (2005). Instead, the Board focuses on the existing CRA performance record of an applicant and the programs that an applicant has in place to serve the credit needs of its assessment areas at the time the Board reviews a proposal under the convenience and needs factor.

18. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 at 36,640 (2001).

19. PNC Bank DE's most recent evaluation was as of January 21, 2003, by the FDIC. In 2006, PNC Bank DE became a member of the Federal Reserve System and has not been examined since its membership. Yardville National Bank received a "satisfactory" rating at its most recent performance evaluation by the OCC, as of January 3, 2006.

20. On May 25, 2007, the OCC approved the consolidation of the four depository institutions into BLC NA. In addition to Lancaster Bank, Sterling's other subsidiary banks in the consolidation were Bank of Hanover and Trust Company, Pennsylvania State Bank, and

ling's unconsolidated CRA-reporting depository institutions and focuses on Lancaster Bank's record of performance as the largest of the four banks. Lancaster Bank received an "outstanding" rating at its most recent performance evaluation by the OCC, as of June 13, 2005 ("Sterling 2005 Evaluation"). DE Sterling Bank also received a "satisfactory" rating at its most recent performance evaluation by the FDIC, as of November 6, 2006. PNC has represented that it will implement its program for managing community reinvestment activities at Sterling's subsidiary banks on consummation of the proposal.

CRA Performance of PNC Bank. In addition to PNC Bank's overall "outstanding" rating in the PNC 2006 Evaluation,[21] the bank received an overall "outstanding" in the Pennsylvania and Multi-State MA assessment areas and "high satisfactory" ratings in each of the lending, service, and investment tests in its New Jersey assessment area. Examiners reported that PNC Bank's overall lending performance was good, as reflected by the bank's loan volume and loan distribution by geography and borrower income. They further noted that PNC Bank's overall community development lending was strong and had a significant positive impact on the bank's overall lending test.

Examiners reported that the bank's overall distribution of loans in the Multi-State MA to borrowers of different income levels and businesses of different sizes and the geographic distribution of those loans was excellent. They noted that the bank's percentage of small loans to businesses represented a significant percentage of the bank's lending to businesses in each year of the evaluation period. Examiners noted that in the Multi-State MA, PNC Bank focused such lending on affordable housing and that the bank also made a significant volume of community development loans for revitalization and stabilization of LMI areas.

In the PNC 2006 Evaluation, examiners also commended PNC Bank's overall level of qualified investments and concluded that the bank's performance under the investment test in the Multi-State MA assessment area was outstanding. They noted that the bank's level of qualifying investments represented excellent responsiveness to the needs of the Multi-State MA community, particularly for affordable housing.

Examiners also concluded that the bank's delivery systems overall were accessible to all customers. In the Multi-State MA assessment area, examiners rated PNC Bank's performance under the service test as "high satisfactory" and reported that the bank offered an excellent level of community development services that benefited LMI individuals. They noted that PNC employees provided community development services to approximately 200 different organizations and groups and in educational settings, including financial-literacy assistance to LMI individuals.

CRA Performance of Lancaster Bank. As noted, Lancaster Bank received an overall "outstanding" rating in the Sterling 2005 Evaluation.[22] Under the lending test, Lancaster Bank also received an "outstanding" rating, and examiners reported that the bank's distribution of loans in its assessment areas reflected a good penetration among retail customers and an excellent distribution among retail customers of different income levels and business customers of varying sizes. They stated that the bank's lending levels reflected excellent responsiveness to community credit needs.

Examiners reported that Lancaster Bank's community development lending was responsive to the Lancaster AA's need for affordable housing in LMI geographies, to the credit needs of LMI individuals in the assessment area, and to the revitalization needs of distressed communities. They also commended the bank's performance for originating small loans to businesses, despite strong competition from five large lenders in the Lancaster AA.

Examiners rated Lancaster Bank's community development investment activities as "high satisfactory" under the investment test and reported that Lancaster Bank's qualified investments reflected a good responsiveness to community revitalization needs. During the exam's evaluation period, Lancaster Bank made investments and donations totaling $1.4 million in the Lancaster AA. They also noted that Lancaster Bank had good investment performance despite limited investment opportunities in the Lancaster AA. For instance, the bank took the initiative to form Sterling Community Development Corporation LLC to help meet the affordable housing needs of LMI individuals.

In the Sterling 2005 Evaluation, Lancaster Bank received a "high satisfactory" rating on the service test. Examiners found that the bank's services were accessible to all portions of the Lancaster AA, including LMI geographies, and they noted that Lancaster Bank provided Spanish

---

Bay First Bank, National Association. The most recent CRA performance ratings of those four banks before consolidation are in Appendix B.

21. Examiners considered the performance of certain relevant PNC subsidiaries in the PNC 2006 Evaluation. References to PNC Bank in the Board's convenience and needs analysis incorporate these entities. The PNC 2006 Evaluation focused on PNC Bank's performance in assessment areas in Pennsylvania and New Jersey and the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Area ("Multi-State MA"), which together represented approximately 83 percent of the bank's deposits. Examiners considered PNC's HMDA-reportable loans and small loans to businesses for the period of January 1, 2002, through December 31, 2005. "Small loans to businesses" are loans with original amounts of $1 million or less that are either secured by nonfarm, nonresidential properties or classified as commercial and industrial loans. PNC Bank's community development loans, investments, and services were evaluated for the period beginning April 1, 2002, through April 30, 2006.

22. Of Lancaster Bank's three assessment areas, examiners focused on the Lancaster assessment area ("Lancaster AA") in the Sterling 2005 Evaluation. Lancaster Bank obtained the majority of its deposits from, and originated most of its loans in, the Lancaster AA. The evaluation period was from January 1, 2002, to June 13, 2005, for the lending, investment, and service tests.

language services, including services for Latino LMI customers. They reported that the bank's employees provided a high level of community services in the bank's assessment areas. Examiners also commended Lancaster Bank for providing technical and financial expertise to qualified community organizations involved in activities that included assisting with support services and skill training targeted to LMI individuals; addressing redevelopment issues, urban revitalization, and property rehabilitation; assisting start-up businesses; and helping families gain access to affordable housing.

B. HMDA and Fair Lending Record

The Board has carefully considered the fair lending records and HMDA data of PNC and Sterling in light of public comments received on the proposal. A commenter alleged that in the Tri-State region, PNC and Sterling provided an insufficient number of home mortgage loans to African American and Hispanic borrowers or otherwise engaged in disparate treatment of those minority individuals in home mortgage lending. The Board has focused its analysis on the 2005 and 2006 HMDA data reported by PNC Bank and Sterling's predecessor banks.[23]

Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not PNC or Sterling is excluding or imposing higher costs on any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information, provide only limited information about the covered loans.[24] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Because of the limitations of HMDA data, the Board has considered these data carefully and taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending laws by PNC, Sterling, and their subsidiaries. The Board also has consulted with the OCC about the fair-lending compliance record of PNC Bank.

The record of this proposal, including confidential supervisory information, indicates that PNC and Sterling have taken steps to ensure compliance with fair lending and other consumer protection laws. PNC has a fair-lending compliance program that includes a second review process to identify any discriminatory practices with respect to the company's home mortgage lending. In addition, PNC has a process for resolving fair lending complaints and conducts periodic internal audits of its fair lending program. PNC requires its employees to complete fair-lending training sessions.

Sterling's compliance program is handled by a consulting firm that provides services regarding regulatory changes and that is responsible for overseeing the implementation of regulatory changes. The firm monitors bank initiatives and products, including a review of all marketing and advertising. In addition, the firm performs compliance monitoring, prepares risk assessments, and oversees compliance training.

PNC has represented that after the conversion of relevant Sterling financial systems to PNC systems, PNC's policies, procedures, processing systems, and personnel will be used to ensure regulatory compliance, and PNC plans to employ its lending system and processes across its expanded network of branches. In addition, Sterling employees will receive PNC's fair lending and compliance training.

The Board also has considered the HMDA data in light of other information, including the CRA-related small business lending, and the overall performance records of the subsidiary banks of PNC and Sterling under the CRA. These established efforts and records demonstrate that the institutions are active in helping to meet the credit needs of their entire communities.

C. Conclusion on Convenience and Needs and CRA Performance

The Board has considered carefully all of the facts of record, including reports of examination of the CRA records of the institutions involved, information provided by PNC, the comment received on the proposal, and confidential supervisory information. PNC represented that the proposal will result in greater convenience for PNC and Sterling customers by enabling PNC to provide additional products and services more efficiently through an enhanced distribution system. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant insured depository institutions are consistent with approval.

---

23. The Board reviewed the HMDA data reported by PNC in its assessment areas in New Jersey and Pennsylvania, the Pittsburgh Metropolitan Statistical Area ("MSA"), and the Philadelphia-Camden Metropolitan District ("MD"), as well as the New Jersey portion of the New York-White Plains-Wayne MD. In addition, the Board reviewed the 2005 and 2006 HMDA data reported by Sterling's institutions in their assessment areas in Pennsylvania and the Lancaster MSA.

24. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

ESTABLISHMENT OF A BRANCH

As noted, PNC Bank DE also has applied under section 9 of the FRA to establish a branch at DE Sterling Bank's main office. The Board has assessed the factors it is required to consider when reviewing an application under section 9 of the FRA and the Board's Regulation H and finds those factors to be consistent with approval.[25]

CONCLUSION

Based on the foregoing and all facts of record, the Board has determined that the applications should be, and hereby are, approved. In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act, the Bank Merger Act, and the FRA. The Board's approval is specifically conditioned on compliance by PNC and PNC Bank DE with the conditions imposed in this order, the commitments made to the Board in connection with the applications, and receipt of all other regulatory approvals. For purposes of this action, the conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision herein and, as such, may be enforced in proceedings under applicable law.

The proposal may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Federal Reserve Bank of Cleveland, acting pursuant to delegated authority.

By order of the Board of Governors, effective January 25, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

25. 12 U.S.C. § 322; 12 CFR 208.6(b).

Appendix A

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Change in HHI	Remaining number of competitors
DELAWARE AND MARYLAND BANKING MARKETS						
Wilmington—New Castle County, Delaware and Cecil County, Maryland						
PNC Pre-Consummation	3	2.0 bil.	6.5	3,580	7	21
Sterling	13	169.1 mil.	.6	3,580	7	21
PNC Post-Consummation	3	2.1 bil.	7.1	3,580	7	21
Baltimore—The Baltimore Ranally Metro Area (RMA) and the non-RMA portions of Harford and Carroll counties in Maryland (except that part in the Washington, DC RMA)						
PNC Pre-Consummation	2	4.8 bil.	12.1	1,214	7	74
Sterling	34	110.3 mil.	.3	1,214	7	74
PNC Post-Consummation	2	4.9 bil.	12.4	1,214	7	74
PENNSYLVANIA BANKING MARKETS						
Harrisburg—Cumberland, Dauphin, Juniata, Lebanon, and Perry counties						
PNC Pre-Consummation	4	968.2 mil.	9.8	765	55	31
Sterling	11	274.1 mil.	2.8	765	55	31
PNC Post-Consummation	2	1.2 bil.	12.6	765	55	31

Appendix A—*Continued*

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES—Continued

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Change in HHI	Remaining number of competitors
Lancaster—Lancaster County						
PNC Pre-Consummation	14	55.3 mil.	.7	1,422	23	18
Sterling	3	1.3 bil.	16.5	1,422	23	18
PNC Post-Consummation	3	1.4 bil.	17.2	1,422	23	18
York—Includes Adams and York counties, excluding the Baltimore RMA						
PNC Pre-Consummation	10	273.4 mil.	4.3	1,170	94	13
Sterling	3	675.9 mil.	10.8	1,170	94	13
PNC Post-Consummation	2	949.3 mil.	15.1	1,170	94	13
Philadelphia and South Jersey—Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania; Burlington, Camden, Gloucester, and Salem counties in New Jersey; and the city of Trenton and Ewing, Hamilton, and Lawrence townships in Mercer County, New Jersey						
PNC Pre-Consummation	4	9.8 bil.	9	1,075	1	121
Sterling	91	45.6 mil.	.1	1,075	1	121
PNC Post-Consummation	4	9.8 bil.	9.1	1,075	1	121

NOTE: Deposit data are as of June 30, 2007, and include mergers as of January 14, 2008. Deposit amounts are unweighted. Rankings, market deposit shares, and HHIs are based on thrift institution deposits weighted at 50 percent.

Appendix B

CRA PERFORMANCE EVALUATIONS OF THE STERLING BANKS CONSOLIDATED TO FORM BLC BANK, NATIONAL ASSOCIATION

Subsidiary Bank	CRA Rating	Date	Supervisor
Bank of Hanover and Trust Company, Hanover, Pennsylvania	Satisfactory	11/6/2006	FDIC
Pennsylvania State Bank, Camp Hill, Pennsylvania	Satisfactory	6/6/2005	FRB
Bay First Bank, National Association, North East, Maryland	Satisfactory	2/22/2002	OCC
Bank of Lancaster County, National Association, Strasburg, Pennsylvania	Outstanding	6/13/2005	OCC

Royal Bank of Canada
Montreal, Canada

Order Approving the Acquisition of a Bank Holding Company

Royal Bank of Canada ("RBC") and its subsidiary bank holding companies (collectively, "Applicants"), including RBC Centura Banks, Inc. ("RBC Centura"),[1] Raleigh, North Carolina, all financial holding companies within the meaning of the Bank Holding Company Act ("BHC Act"), have requested the Board's approval under section 3 of the BHC Act[2] to acquire Alabama National BanCorporation ("ANB"), Birmingham, Alabama, and its ten subsidiary banks.[3]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (72 *Federal Register* 68,163 (2007)). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in the BHC Act.

RBC, with total consolidated assets equivalent to $569.8 billion, is the largest depository organization in Canada.[4] RBC operates branches in New York City and Miami and through RBC Centura controls RBC Centura Bank ("Centura Bank"), Raleigh, which operates in six states.[5] RBC Centura, with total consolidated assets of $25.5 billion, is the 53rd largest depository organization in the United States, controlling $13.6 billion in deposits.[6] RBC Centura is the sixth largest depository organization in Alabama, controlling deposits of approximately $1.7 billion. In Florida, RBC Centura is the 35th largest depository organization, controlling deposits of approximately $1.1 billion, and in Georgia, RBC Centura is the 9th largest depository organization, controlling deposits of approximately $2.2 billion.

ANB has total consolidated assets of approximately $7.8 billion, and its subsidiary banks operate in Alabama, Florida, and Georgia. In Alabama, ANB is the sixth largest depository organization, controlling deposits of $2.8 billion. ANB is the 23rd largest depository organization in Florida, controlling deposits of $2.1 billion, and is the 18th largest depository organization in Georgia, controlling deposits of $866.9 million.

On consummation of the proposal, RBC Centura would become the 47th largest depository organization in the United States, with total consolidated assets of approximately $33.3 billion. RBC Centura would control deposits of approximately $19.3 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States. In Alabama, RBC Centura would become the fifth largest depository organization, controlling deposits of approximately $4.5 billion, which represent approximately 6 percent of the total amount of deposits of insured depository institutions in the state ("state deposits"). In Florida, RBC Centura would become the 21st largest depository organization, controlling deposits of approximately $3.3 billion, which represent less than 1 percent of state deposits. In Georgia, RBC Centura would become the eighth largest depository organization, controlling deposits of approximately $3.1 billion, which represent approximately 1.7 percent of state deposits.

INTERSTATE ANALYSIS

Section 3(d) of the BHC Act allows the Board to approve an application by a bank holding company to acquire control of a bank located in a state other than the bank holding company's home state if certain conditions are met. For purposes of the BHC Act, the home state of Applicants is North Carolina,[7] and ANB is located in Alabama, Florida, and Georgia.[8]

Based on a review of all the facts of record, including relevant state statutes, the Board finds that the conditions for an interstate acquisition enumerated in section 3(d) of the BHC Act are met in this case.[9] In light of all the facts of

1. Applicants also include the following companies: Royal Bank Holding, Inc., Toronto, Canada; RBC Holdings (USA), Inc. and RBC USA Holdco Corporation, both of New York, New York; and Prism Financial Corporation, Wilmington, Delaware.

2. 12 U.S.C. § 1842.

3. ANB's largest subsidiary bank, as measured by both assets and deposits, is First American Bank ("ANB Lead Bank"), Birmingham. ANB's other subsidiary bank in Alabama is Alabama Exchange Bank, Tuskegee. ANB's subsidiary banks in Florida are Community Bank of Naples, National Association, Naples; CypressCoquina Bank, Ormond Beach; First Gulf Bank, National Association, Pensacola; Florida Choice Bank, Mount Dora; Indian River National Bank, Vero Beach; and Millennium Bank, Gainesville. ANB's subsidiary banks in Georgia are Georgia State Bank, Mableton, and The Peachtree Bank, Duluth.

4. Canadian asset and ranking data are as of October 31, 2007, and are based on the exchange rate as of that date.

5. Centura Bank operates branches in Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia.

6. Asset data and nationwide deposit ranking data are as of September 30, 2007. Statewide deposit and ranking data are as of June 30, 2007, and reflect merger activity as of that date.

7. *See* 12 U.S.C. § 1842(d). A bank holding company's home state is the state in which the total deposits of all banking subsidiaries of such company were the largest on July 1, 1966, or the date on which the company became a bank holding company, whichever is later.

8. For purposes of section 3(d), the Board considers a bank to be located in the states in which the bank is chartered or headquartered or operates a branch (12 U.S.C. §§ 1841(o)(4)–(7) and 1842(d)(1)(A) and (d)(2)(B)).

9. 12 U.S.C. §§ 1842(d). Applicants are adequately capitalized and adequately managed, as defined by applicable law. All of ANB's subsidiary banks have been in existence and operated for the minimum period of time required by applicable state laws. *See* Ala. Code § 5-13B-6(d) (five years); Fla. Stat. § 658.295(8)(a) (three years); Ga. Code § 7-1-622(b)(1) (three years). On consummation of the proposal, Applicants would control less than 10 percent of the total amount of deposits of insured depository institutions in the United States and less than 30 percent of the total amount of deposits of insured depository institutions in each of Alabama, Florida, and Georgia (12 U.S.C. § 1842(d)(2)(A)–(B). On consummation, Applicants also would be in compliance with the deposit caps under relevant state law in Alabama, Florida, and Georgia, each of which is 30 percent. *See* 12 U.S.C. § 1842(d)(2)(C); Ala. Code § 5-13B-6(b); Fla. Stat. § 658.295(8)(b); Ga. Code § 7-1-622(b)(2). All other requirements of section 3(d) of the BHC Act would be met on consummation of the proposal.

record, the Board is permitted to approve the proposal under section 3(d) of the BHC Act.

COMPETITIVE CONSIDERATIONS

The BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by its probable effect in meeting the convenience and needs of the community to be served.[10]

Applicants and ANB have subsidiary depository institutions that compete directly in eight banking markets: Decatur area, Gulf Shores area, Huntsville area, and Mobile area in Alabama; Brevard County, Orlando area, and Sarasota area in Florida; and Atlanta area in Georgia. The Board has reviewed carefully the competitive effects of the proposal in each of these banking markets in light of all the facts of record and public comment received on the proposal. In particular, the Board has considered the number of competitors that would remain in the banking markets, the relative shares of total deposits in depository institutions ("market deposits") controlled by Applicants and ANB in the markets,[11] the concentration levels of market deposits and the increases in those levels as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[12] and other characteristics of the markets.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in all eight banking markets.[13] On consummation of the proposal, six of the banking markets would remain moderately concentrated. The Mobile area banking market would remain highly concentrated, and the Decatur area would become highly concentrated, as measured by the HHI, but the changes in the HHIs in each market would be less than 200 points. Moreover, numerous competitors would remain in each of the eight banking markets.

The DOJ has conducted a detailed review of the potential competitive effects of the proposal and has advised the Board that consummation of the transaction would not likely have a significant adverse effect on competition in any relevant baking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in any of the eight banking markets where Applicants and ANB compete directly or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

FINANCIAL, MANAGERIAL, AND SUPERVISORY CONSIDERATIONS

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has carefully considered these factors in light of all the facts of record, including confidential supervisory and examination information from the various U.S. banking supervisors of the institutions involved, publicly reported and other financial information, information provided by Applicants, and public comment received on the proposal.[14] The Board also has consulted with the Office of the Superintendent of Financial Institutions ("OSFI"), the agency with primary responsibility for the supervision and regulation of Canadian banks, including RBC.

In evaluating the financial resources in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary insured depository institutions

10. 12 U.S.C. § 1842(c)(1).

11. Deposit and market share data are based on data reported by insured depository institutions in the summary of deposits data as of June 30, 2007, adjusted to reflect mergers and acquisitions through January 11, 2008, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group, 75 Federal Reserve Bulletin* 386 (1989); *National City Corporation, 70 Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc., 77 Federal Reserve Bulletin* 52 (1991).

12. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is less than 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI is more than 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers for anticompetitive effects implicitly recognize the competitive effects of limited-purpose lenders and other nondepository financial entities.

13. Those banking markets and the effects of the proposal on the concentration of banking resources therein are described in Appendix A.

14. A commenter expressed concern about RBC Centura's relationships with unaffiliated pawn shops and other nontraditional providers of financial services. As a general matter, the activities of the consumer finance businesses identified by the commenter are permissible, and the businesses are licensed by the states where they operate. RBC Centura has stated that it conducts substantial due diligence reviews of its customers who provide alternative financial services, including reviews of anti-money-laundering and Bank Secrecy Act compliance, and that it does not play any role in the lending practices, credit review processes, or other business practices of those firms.

and significant nonbanking operations. In this evaluation, the Board considers a variety of measures, including capital adequacy, asset quality, and earnings performance. In assessing financial resources, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has carefully considered the financial resources of the organizations involved in the proposal. The capital levels of RBC would continue to exceed the minimum levels that would be required under the Basel Capital Accord and are considered to be equivalent to the capital levels that would be required of a U.S. banking organization. In addition, RBC Centura, ANB, and the subsidiary depository institutions involved in the proposal are well capitalized and would remain so on consummation. Based on its review of the record, the Board finds that Applicants have sufficient financial resources to effect the proposal. The proposed transaction is structured as a partial share exchange and partial cash purchase of shares. Applicants will use existing resources to fund the cash purchase of shares.

The Board also has considered the managerial resources of the organizations involved.[15] The Board has reviewed the examination records of Applicants, ANB, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of other relevant banking supervisory agencies, including the Office of Comptroller of the Currency and the Federal Deposit Insurance Corporation, with the organizations and their records of compliance with applicable banking law and with anti-money-laundering laws. Applicants, ANB, and their subsidiary depository institutions are considered to be well managed. The Board also has considered Applicants' plans for implementing the proposal, including the proposed management after consummation.[16]

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors.[17]

Section 3 of the BHC Act also provides that the Board may not approve an application involving a foreign bank unless the bank is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in the bank's home country.[18] As noted, the OSFI is the primary supervisor of Canadian banks, including RBC. The Board previously has determined that RBC is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[19] Based on this finding and all the facts of record, the Board has concluded that RBC continues to be subject to comprehensive supervision on a consolidated basis by its home-country supervisor.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board is required to consider the effects of the proposal on the convenience and needs of the communities to be served and to take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[20] The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods, in evaluating bank expansionary proposals.[21]

15. The commenter expressed concern about pending litigation in Canada involving RBC and a Canadian asset management firm that is in receivership. The Board notes that the litigation will be resolved by a Canadian court with jurisdiction to adjudicate such matters.

16. The commenter expressed concern that Applicants have exercised control over ANB before the Board's consideration of this application. Commenter cited ANB's notice to some employees that their jobs would be eliminated as a result of the proposed transaction. Applicants have stated that they have taken no action with respect to ANB employees, and the record does not support a finding that Applicants have prematurely attempted to control ANB for purposes of the BHC Act.

17. Section 3 of the BHC Act also requires the Board to determine that an applicant has provided adequate assurances that it will make available to the Board such information on its operations and activities and those of its affiliates that the Board deems appropriate to determine and enforce compliance with the BHC Act (12 U.S.C. § 1842(c)(3)(A)). The Board has reviewed the restrictions on disclosure in the relevant jurisdictions in which RBC operates and has communicated with relevant government authorities concerning access to information. In addition, RBC previously has committed that, to the extent not prohibited by applicable law, it will make available to the Board such information on the operations of its affiliates that the Board deems necessary to determine and enforce compliance with the BHC Act, the International Banking Act, and other applicable federal laws. RBC also previously has committed to cooperate with the Board to obtain any waivers or exemptions that may be necessary to enable its affiliates to make such information available to the Board. In light of these commitments, the Board has concluded that RBC has provided adequate assurances of access to any appropriate information the Board may request.

18. 12 U.S.C. § 1843(c)(3)(B). As provided in Regulation Y, the Board determines whether a foreign bank is subject to consolidated home-country supervision under the standards set forth in Regulation K. *See* 12 CFR 225.13(a)(4). Regulation K provides that a foreign bank will be considered subject to comprehensive supervision or regulation on a consolidated basis if the Board determines that the bank is supervised or regulated in such a manner that its home-country supervisor receives sufficient information on the worldwide operations of the bank, including its relationship with any affiliates, to assess the bank's overall financial condition and its compliance with laws and regulations. *See* 12 CFR 211.24(c)(1).

19. *See Royal Bank of Canada*, 89 *Federal Reserve Bulletin* 139 (2003); *Royal Bank of Canada*, 83 *Federal Reserve Bulletin* 443 (1997).

20. 12 U.S.C. § 2901 et seq.; 12 U.S.C. § 1842(c)(2).

21. 12 U.S.C. § 2903.

The Board has considered carefully all the facts of record, including evaluations of the CRA performance records of the subsidiary banks of Applicants and ANB, data reported by RBC Centura and ANB under the Home Mortgage Disclosure Act ("HMDA"),[22] other information provided by Applicants, confidential supervisory information, and a public comment received on the proposal. The commenter alleged, based on HMDA data reported in 2006, that RBC Centura had engaged in disparate treatment of minority individuals in home mortgage lending.

A. CRA Performance Evaluations

As provided in the CRA, the Board has reviewed the convenience and needs factor in light of the evaluations by the appropriate federal supervisors of the CRA performance records of the relevant insured depository institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[23]

Centura Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the Federal Reserve Bank of Richmond, as of April 17, 2006.[24] ANB Lead Bank received a "satisfactory" CRA performance rating by the Federal Reserve Bank of Atlanta, as of May 1, 2006.[25] ANB's other subsidiary banks received ratings of "satisfactory" or "outstanding" at their most recent CRA performance evaluations.[26] Applicants have represented that RBC Centura will implement its current CRA program at ANB's subsidiary banks.

B. HMDA and Fair Lending Record

The Board has carefully considered the fair lending records and HMDA data of RBC Centura in light of the public comment received on the proposal. The commenter alleged, based on HMDA data, that RBC Centura had denied the home mortgage loan applications of African American and Latino borrowers more frequently than those of nonminority applicants. The Board has focused its analysis on the 2006 HMDA data reported by Centura Bank.[27]

Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not RBC Centura is excluding or imposing higher costs on any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information, provide only limited information about the covered loans.[28] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Because of the limitations of HMDA data, the Board has considered these data carefully and taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending laws by RBC Centura and its subsidiaries. The Board also has consulted with the Federal Reserve Bank of Richmond about the fair-lending compliance record of Centura Bank.

The record of this application, including confidential supervisory information, indicates that RBC Centura has taken steps to ensure compliance with fair lending and other consumer protection laws. RBC Centura's compliance program includes statistical data analysis and file reviews to ensure that mortgage lending and pricing decisions are not made on a prohibited basis. In addition, RBC Centura provides annual online fair lending training to all its employees, supplemented by ongoing in-person fair lending training for mortgage-lending employees. Applicants have stated that RBC Centura will review the fair lending programs of ANB's subsidiary banks and the combined organization after consummation of the proposal, and they will adopt any of ANB's fair lending programs determined to be more effective than RBC Centura's programs.

The Board also has considered the HMDA data in light of other information, including the overall performance records of the subsidiary banks of Applicants and ANB under the CRA. These established efforts and records of performance demonstrate that the institutions are active in helping to meet the credit needs of their entire communities.

22. 12 U.S.C. § 2801 et seq.

23. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 and 36,639 (2001).

24. The evaluation period was January 1, 2004, through December 31, 2005, for the lending test and March 24, 2004, through December 31, 2005, for the service and investment tests.

25. The evaluation period was January 1, 2004, through December 31, 2005, for the lending test and January 1, 2004, through May 1, 2006, for the service and investment tests.

26. Appendix B lists the most recent CRA performance ratings of these banks.

27. The Board reviewed HMDA data for Centura Bank's assessment areas nationwide and in the Charlotte-Gastonia-Concord and the Atlanta-Sandy Springs-Marietta Metropolitan Statistical Areas.

28. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

C. Conclusion on Convenience and Needs and CRA Performance

The Board has considered carefully all the facts of record, including reports of examination of the CRA records of the institutions involved, information provided by Applicants, comment received on the proposal, and confidential supervisory information. Applicants state that the proposal will result in increased credit availability and access to a broader range of financial services for customers of RBC Centura and ANB. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant insured depository institutions are consistent with approval of the proposal.

CONCLUSION

Based on the foregoing, and in light of all the facts of record, the Board has determined that the application should be, and hereby is, approved.[29] In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act and other applicable statutes. The Board's approval is specifically conditioned on compliance by Applicants with the conditions in this order and all the commitments made to the Board in connection with the proposal. For purposes of this transaction, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The proposal may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Richmond, acting pursuant to delegated authority.

By order of the Board of Governors, effective February 5, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

29. The commenter requested that the Board hold a public meeting or hearing on the proposal. Section 3 of the BHC Act does not require the Board to hold a public hearing on an application unless the appropriate supervisory authority for the bank to be acquired makes a written recommendation of denial of the application. The Board has not received such a recommendation from the appropriate supervisory authorities. Under its rules, the Board also may, in its discretion, hold a public meeting or hearing on an application to acquire a bank if necessary or appropriate to clarify factual issues related to the application and to provide an opportunity for testimony (12 CFR 225.16(e), 262.25(d)). The Board has considered carefully the commenter's request in light of all the facts of record. In the Board's view, the commenter had ample opportunity to submit its views and, in fact, submitted written comments that the Board has considered carefully in acting on the proposal. The commenter's request fails to demonstrate why written comments do not present its views adequately or why a meeting or hearing otherwise would be necessary or appropriate. For these reasons, and based on all the facts of record, the Board has determined that a public meeting or hearing is not required or warranted in this case. Accordingly, the request for a public meeting or hearing on the proposal is denied.

Appendix A

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Increase in HHI	Remaining number of competitors
ALABAMA BANKING MARKETS						
Decatur area—Morgan County and the portion of the city of Decatur in Limestone County						
RBC Centura Pre-Consummation ...	6	52.1 mil.	3.5	1,913	137	11
ANB	2	288.8 mil.	19.5	1,913	137	11
RBC Centura Post-Consummation ..	2	340.9 mil.	23	1,913	137	11
Gulf Shores area—the towns of Elberta, Foley, Gulf Shores, Lillian, Magnolia Springs, and Orange Beach in Baldwin County						
RBC Centura Pre-Consummation ...	14	0[1]	0	1,704	0	12
ANB	3	273.4 mil.	19.3	1,704	0	12
RBC Centura Post-Consummation ..	3	273.4 mil.	19.3	1,704	0	12

Appendix A—*Continued*

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES—Continued

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Increase in HHI	Remaining number of competitors
ALABAMA BANKING MARKETS—CONTINUED						
Huntsville area—Madison County and Limestone County, excluding the town of Ardmore and the city of Decatur						
RBC Centura Pre-Consummation ...	7	186.5 mil.	3.4	1,738	56	21
ANB	5	464.9 mil.	8.4	1,738	56	21
RBC Centura Post-Consummation ..	3	651.4 mil.	11.8	1,738	56	21
Mobile area—Mobile County and the towns of Bay Minette, Daphne, Fairhope, Loxley, Point Clear, Robertsdale, Silverhill, Spanish Fort, and Summerdale in Baldwin County						
RBC Centura Pre-Consummation ...	3	953.1 mil.	13.1	2,040	68	19
ANB	8	186.7 mil.	2.6	2,040	68	19
RBC Centura Post-Consummation ..	2	1.1 bil.	15.7	2,040	68	19
FLORIDA BANKING MARKETS						
Brevard—Brevard County						
RBC Centura Pre-Consummation ...	14	72 mil.	1	1,461	4	18
ANB	12	148.0 mil.	2.1	1,461	4	18
RBC Centura Post-Consummation ..	10	220.0 mil.	3.2	1,461	4	18
Orlando area—Orange, Osceola, and Seminole counties; the western half of Volusia County; and the towns of Clermont and Groveland in Lake County						
RBC Centura Pre-Consummation ...	23	156.4 mil.	.5	1,159	2	48
ANB	12	476.0 mil.	1.7	1,159	2	48
RBC Centura Post-Consummation ..	11	632.4 mil.	2.2	1,159	2	48
Sarasota—Manatee and Sarasota counties, excluding that portion of Sarasota County that is both east of the Myakka River and south of Interstate 75 (currently the towns of Northport and Port Charlotte); the peninsular portion of Charlotte County west of the Myakka River (currently the towns of Englewood, Englewood Beach, New Point Comfort, Grove City, Cape Haze, Rotonda, Rotonda West, and Placida); and Gasparilla Island (the town of Boca Grande) in Lee County						
RBC Centura Pre-Consummation ...	10	392.1 mil.	2.4	1,141	1	49
ANB	44	12.2 mil.	.1	1,141	1	49
RBC Centura Post-Consummation ..	9	404.3 mil.	2.5	1,141	1	49

Appendix A—*Continued*

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES—Continued

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Increase in HHI	Remaining number of competitors
GEORGIA BANKING MARKET						
Atlanta—Bartow, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Rockdale, and Walton counties; Hall County, excluding the town of Clermont; the towns of Auburn and Winder in Barrow County; and the town of Luthersville in Meriwether County						
RBC Centura Pre-Consummation ...	8	1.9 bil.	1.7	1,460	3	135
ANB	13	857.9 mil.	.8	1,460	3	135
RBC Centura Post-Consummation ..	7	2.7 bil.	2.5	1,460	3	135

NOTE: Deposit data are as of June 30, 2007, and include mergers as of January 11, 2008. Deposit amounts are unweighted. Rankings, market deposit shares, and HHIs are based on thrift deposits weighted at 50 percent.

1. Centura Bank opened a de novo branch in the Gulf Shores area market on September 9, 2007.

Appendix B

CRA PERFORMANCE EVALUATIONS OF ANB'S SUBSIDIARY BANKS

Subsidiary Bank	CRA Rating	Date	Supervisor
Alabama Exchange Bank, Tuskegee, Alabama	Outstanding	November 2006	Federal Reserve
Community Bank of Naples, National Association, Naples, Florida	Satisfactory	August 2007	FDIC
CypressCoquina Bank, Ormond Beach, Florida	Satisfactory	May 2006	FDIC
First Gulf Bank, National Association, Pensacola, Florida	Satisfactory	January 2004	OCC
Florida Choice Bank, Mount Dora, Florida	Satisfactory	March 2007	FDIC
Georgia State Bank, Mableton, Georgia	Satisfactory	March 2004	FDIC
Indian River National Bank, Vero Beach, Florida	Satisfactory	December 2003	OCC
Millennium Bank, Gainesville, Florida	Satisfactory	May 2007	FDIC
The Peachtree Bank, Duluth, Georgia	Satisfactory	October 2004	Federal Reserve

The Toronto-Dominion Bank Toronto, Canada

Order Approving the Acquisition of a Bank Holding Company

The Toronto-Dominion Bank ("TD") and its subsidiary bank holding companies, including TD US P&C Holdings ULC ("TD ULC"), Calgary, Canada, and TD BankNorth, Inc. ("TD Banknorth"), Portland, Maine (collectively, "Applicants"), have requested the Board's approval under section 3 of the Bank Holding Company Act ("BHC Act")[1] to acquire Commerce Bancorp, Inc. ("Commerce"), Cherry Hill, New Jersey, and its two subsidiary banks, Commerce

1. 12 U.S.C. § 1842.

Bank/North ("CB North"), Ramsey, New Jersey, and Commerce Bank, National Association ("CB NA"), Philadelphia, Pennsylvania.[2] In addition, Applicants have applied to acquire Commerce's minority interest in Pennsylvania Commerce Bancorp, Inc. ("PCB"), Harrisburg, a bank holding company that controls Commerce Bank/ Harrisburg National Association ("PCB Bank"), Lemoyne, both of Pennsylvania.[3]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (73 *Federal Register* 2,255 (2008)). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in the BHC Act.

TD, with total consolidated assets equivalent to $434.3 billion, is the second largest depository organization in Canada.[4] TD operates a branch in New York City and an agency in Houston and through TD Banknorth, controls TD Bank NA and TD Bank USA, National Association ("TD Bank USA"), New York, New York. TD Banknorth, with total consolidated assets of $63.5 billion, is the 25th largest depository organization in the United States, controlling $43.9 billion in deposits.[5] TD Banknorth's subsidiary banks operate in eight states.[6] TD Banknorth is the eighth largest depository organization in New York, controlling deposits of approximately $18.2 billion, and in Connecticut TD Banknorth is the sixth largest depository organization, controlling deposits of approximately $3.9 billion. In New Jersey, TD Banknorth is the 11th largest depository organization, controlling deposits of approximately $3.9 billion, and in Pennsylvania, TD Banknorth is the 45th largest depository organization, controlling deposits of approximately $575 million.

Commerce has total consolidated assets of approximately $49.4 billion, and its subsidiary banks operate in eight states, including New York, Connecticut, New Jersey, and Pennsylvania; and the District of Columbia. In New York, Commerce is the 13th largest depository organization, controlling deposits of $12.0 billion, and in Connecticut, Commerce is the 43rd largest depository organization, controlling deposits of approximately $125.6 million. Commerce is the third largest depository organization in New Jersey, controlling deposits of $22.3 billion, and in Pennsylvania, Commerce is the fifth largest depository organization, controlling deposits of $8.4 billion.

On consummation of the proposal, TD Banknorth would become the 19th largest depository organization in the United States, with total consolidated assets of approximately $115 billion. TD Banknorth would control deposits of approximately $90.1 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States. In New York, TD Banknorth would become the sixth largest depository organization, controlling deposits of approximately $30.2 billion, which represent approximately 4.4 percent of the total amount of deposits of insured depository institutions in the state ("state deposits"). In Connecticut, TD Banknorth would remain the sixth largest depository organization, controlling deposits of approximately $4.1 billion, which represent approximately 5.9 percent of state deposits. In New Jersey, TD Banknorth would become the third largest depository organization, controlling deposits of approximately $26.2 billion, which represent approximately 13.5 percent of state deposits. In Pennsylvania, TD Banknorth would become the fifth largest depository organization, controlling deposits of approximately $9 billion, which represent approximately 3.8 percent of state deposits.

PCB has consolidated assets of approximately $2 billion, and PCB Bank operates only in Pennsylvania. PCB is the 23rd largest insured depository institution in Pennsylvania, controlling deposits of approximately $1.5 billion, which represent less than 1 percent of state deposits. If TD Banknorth were deemed to control PCB on consummation of the proposal, TD Banknorth would become the fifth largest banking organization in Pennsylvania, controlling approximately $11.1 billion in deposits, which would represent less than 5 percent of state deposits.

TD has stated that it does not propose to control or exercise a controlling influence over PCB or PCB Bank and has made certain commitments to the Board designed to limit the influence TD may exercise.[7]

2. Applicants also include the following intermediate holding companies formed by TD to facilitate the Commerce acquisition: Cardinal Top Co., Cardinal Intermediate Co., and Cardinal Merger Co., all of New York, New York (collectively, "HCs"). HCs have requested the Board's approval under Section 3 of the BHC Act to become bank holding companies and to acquire or merge with Commerce. TD, TD ULC, and TD Banknorth are all financial holding companies within the meaning of the BHC Act. TD filed applications with the Office of the Comptroller of the Currency ("OCC") on January 25, 2008, for approval, under the Bank Merger Act (12 U.S.C. § 1828(c)), to merge CB NA and CB North into TD's indirect subsidiary bank, TD BankNorth, National Association, ("TD Bank NA"), Portland.

3. Commerce holds voting securities and warrants that collectively represent 14.6 percent of PCB's voting shares.

4. Canadian asset and ranking data are as of January 31, 2008, and are based on the exchange rate as of that date.

5. Asset data and nationwide deposit ranking data are as of December 31, 2007. Statewide deposit and ranking data are as of June 30, 2007, and reflect merger activity as of February 26, 2008.

6. TD Bank NA operates in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, and Vermont. TD Bank USA operates only in New York.

7. *See, e.g., Emigrant Bancorp, Inc.*, 82 *Federal Reserve Bulletin* 555 (1996); *First Community Bancshares, Inc.*, 77 *Federal Reserve Bulletin* 50 (1991). Although the acquisition of less than a controlling interest in a bank or bank holding company is not a normal acquisition for a bank holding company, the requirement in section 3(a)(3) of the BHC Act that the Board's approval be obtained before a bank holding company acquires more than 5 percent of the voting shares of a bank suggests that Congress contemplated the acquisition by bank holding companies of between 5 percent and 25 percent of the voting shares of banks. *See* 12 U.S.C. § 1842(a)(3). On this basis, the Board previously has approved the acquisition by a bank holding company of less than a controlling interest in a bank or bank holding company. *See, e.g., Brookline Bancorp, MCH*, 86 *Federal Reserve Bulletin* 52 (2000) (acquisition of up to 9.9 percent of the voting shares of a bank holding company). The BHC Act would require TD to file an application and receive the Board's approval before the company could directly or

INTERSTATE ANALYSIS

Section 3(d) of the BHC Act allows the Board to approve an application by a bank holding company to acquire control of a bank located in a state other than the bank holding company's home state if certain conditions are met. For purposes of the BHC Act, the home state of TD is New York,[8] and Commerce is located in Connecticut, Delaware, the District of Columbia, Florida, Maryland, New Jersey, New York, Pennsylvania, and Virginia.[9]

Based on a review of all the facts of record, including relevant state statutes, the Board finds that the conditions for an interstate acquisition enumerated in section 3(d) of the BHC Act are met in this case.[10] In light of all the facts of record, the Board is permitted to approve the proposal under section 3(d) of the BHC Act.

COMPETITIVE CONSIDERATIONS

The BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by its probable effect in meeting the convenience and needs of the community to be served.[11]

Applicants and Commerce have subsidiary depository institutions that compete directly in four banking markets: Atlantic City, New Jersey; Metropolitan New York-New Jersey-Connecticut-Pennsylvania; New Haven, Connecticut; and Philadelphia and South Jersey, in New Jersey and Pennsylvania.[12] The Board has reviewed carefully the competitive effects of the proposal in each of these banking markets in light of all the facts of record and public comment received on the proposal.[13] In particular, the Board has considered the number of competitors that would remain in the banking markets, the relative shares of total deposits in depository institutions ("market deposits") controlled by Applicants and Commerce in the markets,[14] the concentration levels of market deposits and the increases in those levels as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[15] and other characteristics of the markets.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in all four banking markets.[16] On consummation, each of the banking markets would remain moderately

---

indirectly acquire additional shares of PCB or attempt to exercise a controlling influence over PCB.

8. *See* 12 U.S.C. § 1842(d). A bank holding company's home state is the state in which the total deposits of all banking subsidiaries of such company were the largest on July 1, 1966, or the date on which the company became a bank holding company, whichever is later.

9. For purposes of section 3(d), the Board considers a bank to be located in the states in which the bank is chartered or headquartered or operates a branch (12 U.S.C. §§ 1841(o)(4)–(7) and 1842(d)(1)(A) and (d)(2)(B)).

10. 12 U.S.C. §§ 1842(d)(1)(A)–(B) and 1842(d)(2)–(3). TD is adequately capitalized and adequately managed, as defined by applicable law. Both of Commerce's subsidiary banks have been in existence and operated for the minimum period of time required by applicable state laws and for more than five years. *See* 12 U.S.C. § 1842(d)(1)(B)(i)–(ii). On consummation of the proposal, Applicants would control less than 10 percent of the total amount of deposits of insured depository institutions in the United States (12 U.S.C. § 1842(d)(2)(A)). Applicants would control less than 30 percent, or a greater percentage established under applicable state law, of the state deposits in Connecticut, New Jersey, New York, and Pennsylvania (12 U.S.C. § 1842(d)(2)(B)–(D)). In addition, Applicants would not hold deposits in excess of an applicable deposit cap under the law of any other states where Commerce is located. All other requirements of section 3(d) of the BHC Act would be met on consummation of the proposal.

11. 12 U.S.C. § 1842(c)(1).

12. Applicants and PCB do not have subsidiary depository institutions that compete directly in any banking market.

13. Several commenters asserted that the proposal would result in an undue concentration of resources in Camden, New Jersey, which is part of the Philadelphia and South Jersey banking market, as defined by the Federal Reserve Bank of Philadelphia ("Reserve Bank"). The Reserve Bank's definition of this market is set forth in the appendix. In reviewing this proposal and the comments received, the Board has considered whether to include Camden in this banking market. Camden is directly across the Delaware River from Philadelphia and has been included in the Reserve Bank's definition of the Philadelphia and South Jersey banking market for over a decade. According to data from the 2000 census, more than 65 percent of the labor force residing in Camden commutes to other counties in the Philadelphia and South Jersey banking market. These and other factors indicate that the Philadelphia and South Jersey banking market, including Camden, is the appropriate local geographic market for purposes of analyzing the competitive effects of this proposal.

14. Deposit and market share data are based on data reported by insured depository institutions in the summary of deposits data as of June 30, 2007, adjusted to reflect mergers and acquisitions as of February 26, 2008, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52 (1991).

15. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is less than 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI is more than 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers for anticompetitive effects implicitly recognize the competitive effects of limited-purpose lenders and other nondepository financial entities.

16. Definitions of the other three banking markets and the effects of the proposal on concentrations of banking resources in all the markets are described in the appendix.

concentrated as measured by the HHI, and the HHI changes would increase less than 200 points in each market. In addition, numerous competitors would remain in all the banking markets.

The DOJ has conducted a detailed review of the potential competitive effects of the proposal and has advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in any of the four banking markets where Applicants and Commerce compete directly or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has carefully considered these factors in light of all the facts of record, including confidential supervisory and examination information from the U.S. banking supervisors of the institutions involved, publicly reported and other financial information, information provided by Applicants, and public comment received on the proposal.[17] The Board also has consulted with the Office of the Superintendent of Financial Institutions ("OSFI"), the agency with primary responsibility for the supervision and regulation of Canadian banks, including TD.

In evaluating the financial resources in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary insured depository institutions and significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial resources, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has carefully considered the financial resources of the organizations involved in the proposal. The capital levels of TD exceed the minimum levels that would be required under the Basel Capital Accord and are therefore considered to be equivalent to the capital levels that would be required of a U.S. banking organization. In addition, the subsidiary depository institutions involved in the proposal are well capitalized and would remain so on consummation. Based on its review of the record, the Board finds that Applicants have sufficient financial resources to effect the proposal. The proposed transaction is structured as a partial share exchange and partial cash purchase of shares. Applicants will use existing resources to fund the cash purchase of shares.[18]

The Board also has considered the managerial resources of the organizations involved. The Board has reviewed the examination records of Applicants, Commerce, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations.[19] In addition, the Board has considered its supervisory experiences and those of other relevant banking supervisory agencies, including the OCC and the Federal Deposit Insurance Corporation ("FDIC"), with the organizations and their records of compliance with applicable banking law and with anti-money-laundering laws. Applicants, Commerce, and their subsidiary depository institutions are considered to be well managed. The Board also has considered Applicants' plans for implementing the acquisition, including the proposed management after consummation.[20]

---

17. Several commenters expressed concern about pending and prospective litigation in Canada and the United States involving TD and the effect of such litigation on TD's managerial and financial resources. The Canadian litigation involves a class action lawsuit against TD based on allegations that credit cardholders were overcharged on foreign currency conversions and a lawsuit for allegedly improperly withholding deposited funds. These pending cases will be resolved by a Canadian court with jurisdiction to adjudicate such matters.

The U.S. lawsuits include a discrimination case that has been settled. Another lawsuit involving the amount of consideration TD offered to shareholders in connection with a previous acquisition is currently under review by a court of competent jurisdiction. The Board does not have authority to resolve the shareholders' dispute. *See Western Bancshares, Inc. v. Board of Governors*, 480 F.2d 749 (10th Cir. 1973).

Board action on this proposal would not interfere with Canadian or U.S. courts' ability to resolve the pending lawsuits. Moreover, the Board has taken these comments into account in its assessment of the financial resources and future prospects of the companies and depository institutions involved in the proposal.

18. One commenter claimed that the amount of consideration TD is offering in connection with the proposal is excessive. The amount of consideration offered is a matter decided by the parties involved, and the Board has reviewed this aspect of the proposal in its assessment of the financial resources of the resulting organization.

19. Several commenters expressed concern about TD Banknorth's relationships with unaffiliated pawnshops and other nontraditional providers of financial services. As a general matter, the activities of the consumer finance businesses identified by the commenters are permissible, and the businesses are licensed by the states where they operate. TD noted that it has established a detailed review program for pawnshops and other money-service businesses ("MSBs"), including reviews for compliance with anti-money-laundering, Bank Secrecy Act, fair lending, and consumer protection requirements. Furthermore, TD stated that TD Banknorth does not have any role in the lending practices, credit review, or other business practices of MSBs and does not purchase any loans originated by MSBs.

20. Several commenters expressed concern that the proposal would jeopardize the combined organization's ability to serve as the desig-

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors.[21]

Section 3 of the BHC Act also provides that the Board may not approve an application involving a foreign bank unless the bank is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in the bank's home country.[22] As noted, the OSFI is the primary supervisor of Canadian banks, including TD. The Board previously has determined that TD is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[23] Based on this finding and all the facts of record, the Board has concluded that TD continues to be subject to comprehensive supervision on a consolidated basis by its home-country supervisor.

CONVENIENCE AND NEEDS CONSIDERATIONS

In acting on a proposal under section 3 of the BHC Act, the Board is required to consider the effects of the proposal on the convenience and needs of the communities to be served and to take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[24] The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods, in evaluating bank expansionary proposals.[25]

The Board has considered carefully all the facts of record, including evaluations of the CRA performance records of the subsidiary banks of TD Banknorth and Commerce, data reported by TD Banknorth and Commerce under the Home Mortgage Disclosure Act ("HMDA"),[26] other information provided by Applicants, confidential supervisory information, and public comments received on the proposal. Two commenters alleged, based on HMDA data reported in 2006, that TD Banknorth had engaged in disparate treatment of minority individuals in home mortgage lending.

A. CRA Performance Evaluations

As provided in the CRA, the Board has reviewed the convenience and needs factor in light of the evaluations by the appropriate federal supervisors of the relevant insured depository institutions' CRA performance records. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[27]

---

nated bonding authority ("DBA") for the Department of Education's ("DOE's") Historically Black Colleges and Universities Capital Financing Program ("CFP"). A Commerce subsidiary serves as the DBA and administers the CFP. Several commenters asserted that Commerce had performed poorly as the DBA, had insufficient managerial controls over the CFP, and had mismanaged the program. In addition, several commenters alleged that Commerce, through its insistence on certain loan payment terms, had risked violating fair lending laws and that certain terms and conditions of loans under the CFP were abusive.

TD represented that key elements of the CFP, including pricing and repayment, were established by a division of the Department of the Treasury, and not by the DBA. Final determinations on credit approvals and denials are determined by the DOE. Moreover, TD stated that the DBA has an extremely diligent loan review process and that no loan has defaulted under the CFP while the Commerce subsidiary has served as the DBA. The Board expects all banking organizations to conduct their operations in a safe and sound manner with adequate systems to manage operational, compliance, and reputational risks and will take appropriate supervisory actions to prevent and address abusive lending practices.

21. Section 3 of the BHC Act also requires the Board to determine that an applicant has provided adequate assurances that it will make available to the Board such information on its operations and activities and those of its affiliates that the Board deems appropriate to determine and enforce compliance with the BHC Act. (12 U.S.C. § 1842(c)(3)(A)). The Board has reviewed the restrictions on disclosure in the relevant jurisdictions in which TD operates and has communicated with relevant government authorities concerning access to information. In addition, TD previously has committed that, to the extent not prohibited by applicable law, it will make available to the Board such information on the operations of its affiliates that the Board deems necessary to determine and enforce compliance with the BHC Act, the International Banking Act, and other applicable federal laws. TD also previously has committed to cooperate with the Board to obtain any waivers or exemptions that may be necessary to enable its affiliates to make such information available to the Board. Based on all facts of record, the Board has concluded that TD has provided adequate assurances of access to any appropriate information the Board may request.

22. 12 U.S.C. § 1842(c)(3)(B). As provided in Regulation Y, the Board determines whether a foreign bank is subject to consolidated home-country supervision under the standards set forth in Regulation K. *See* 12 CFR 225.13(a)(4). Regulation K provides that a foreign bank will be considered subject to comprehensive supervision or regulation on a consolidated basis if the Board determines that the bank is supervised or regulated in such a manner that its home-country supervisor receives sufficient information on the worldwide operations of the bank, including its relationship with any affiliates, to assess the bank's overall financial condition and its compliance with laws and regulations. *See* 12 CFR 211.24(c)(1).

23. *See The Toronto-Dominion Bank*, 92 *Federal Reserve Bulletin* C100 (2006); *The Toronto-Dominion Bank*, 91 *Federal Reserve Bulletin* 277 (2005).

24. 12 U.S.C. §2901 et seq.; 12 U.S.C. § 1842(c)(2).

25. 12 U.S.C. §2903.

26. 12 U.S.C. §2801 et seq.

27. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 and 36,639 (2001).

TD Banknorth's subsidiary banks each received a "satisfactory" rating at its most recent CRA performance evaluation by the OCC.[28] Both of Commerce's subsidiary banks received "outstanding" CRA performance ratings at their most recent evaluations by the relevant federal supervisors.[29] PCB's subsidiary bank, PCB Bank, received a "satisfactory" rating at its most recent CRA performance evaluation by the OCC, as of January 3, 2005. Applicants have represented that no significant changes to the CRA programs at any subsidiary bank will take place until CB NA and CB North are merged into TD Bank NA, at which time the banks will adopt the CRA program of TD Bank, as modified to address issues specific to the banks' markets.[30]

B. HMDA and Fair Lending Record

The Board has carefully considered the fair lending records and HMDA data of TD Banknorth in light of the public comments received on the proposal. Two commenters alleged, based on HMDA data, that TD Banknorth denied the home mortgage refinance and home improvement loan applications of African American borrowers more frequently than those of nonminority applicants. The Board has focused its analysis on the 2006 HMDA data reported by TD Banknorth NA.[31]

Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not TD Banknorth is excluding or imposing higher costs on any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information, provide only limited information about the covered loans.[32] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Because of the limitations of HMDA data, the Board has considered these data carefully and taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending laws by TD Banknorth and its subsidiaries. The Board also has consulted with the OCC about the fair-lending compliance record of TD Bank NA, TD Bank USA, and CB NA and with the FDIC about the fair-lending compliance record of CB North.

The record of these applications, including confidential supervisory information, indicates that TD Banknorth has taken steps to ensure compliance with fair lending and other consumer protection laws. TD Banknorth's board of directors annually approves a fair-lending policy statement, which serves as a reference document for all employees. TD Banknorth's compliance program includes risk assessments, annual monitoring, monthly business line self-monitoring, complaint tracking, and reviews by regulatory compliance and fair lending committees. The program includes statistical data analysis quarterly and annually to identify trends and fair lending concerns. In addition, TD Banknorth provides annual training covering compliance-related regulations to all employees based on job function. Applicants stated that they would not change the fair-lending compliance programs of TD Banknorth's and Commerce's subsidiary banks until consummation of the proposed merger of those banks, at which time the banks will adopt the fair-lending compliance programs of TD Banknorth, as modified to address issues specific to each bank's markets.

The Board also has considered the HMDA data in light of other information, including the overall performance records of the subsidiary banks of Applicants and Commerce under the CRA. These established efforts and records of performance demonstrate that the institutions are active in helping to meet the credit needs of their entire communities.

28. The most recent CRA performance evaluations were as of December 30, 2004, for TD Bank NA and as of January 16, 2007, for TD Bank USA.

29. The most recent CRA performance evaluation for CB NA by the OCC was as of October 2, 2006. The most recent CRA performance evaluation for CB North by the FDIC was as of May 15, 2006.

30. Two commenters expressed concern regarding the impact of the acquisition on the types of loans, investments, and services provided by the subsidiary banks of TD Banknorth and Commerce. One commenter also requested that Applicants make specific commitments with regard to the products and services offered in the New York City Metropolitan Statistical Area ("MSA"). The Board has stated that the CRA neither requires a depository institution to provide any specific types of products or services nor prescribes the fees charged for them. *See Bank of America Corporation*, 90 *Federal Reserve Bulletin* 217, 226 footnote 49 (2004). The Board also has consistently found that neither the CRA nor the federal banking agencies' CRA regulations require depository institutions to enter into pledges, commitments, or agreements with any organization and that the enforceability of any such third-party pledges, initiatives, and agreements are matters outside the CRA. *See Bank of America Corporation*, 93 *Federal Reserve Bulletin* C109, C112 footnote 28 (2007); *Citigroup Inc.*, 88 *Federal Reserve Bulletin* 485 (2002). Instead, the Board focuses on the existing CRA performance record of an applicant and the programs that an applicant has in place to serve the credit needs of its assessment areas at the time the Board reviews a proposal under the convenience and needs factor.

31. The Board reviewed HMDA data for TD Bank NA's assessment areas in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Vermont, and the MSAs noted in the comments.

32. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

C. Conclusion on Convenience and Needs and CRA Performance

The Board has considered carefully all the facts of record, including reports of examination of the CRA records of the institutions involved, information provided by Applicants, comment received on the proposal, and confidential supervisory information. Applicants represented that the proposal would result in increased credit availability and access to a broader array of financial products and services for customers of TD Banknorth and Commerce. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant insured depository institutions are consistent with approval of the proposal.

CONCLUSION

Based on the foregoing, and in light of all the facts of record, the Board has determined that the applications should be, and hereby are, approved.[33] In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act and other applicable statutes. The Board's approval is specifically conditioned on compliance by Applicants with the conditions in this order and all the commitments made to the Board in connection with the proposal. For purposes of this transaction, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The proposal may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of New York, acting pursuant to delegated authority.

By order of the Board of Governors, effective March 13, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

33. Several commenters requested that the Board hold a public meeting or hearing on the proposal. Section 3 of the BHC Act does not require the Board to hold a public hearing on an application unless the appropriate supervisory authority for the bank to be acquired makes a written recommendation of denial of the application. The Board has not received such a recommendation from the appropriate supervisory authorities. Under its rules, the Board also may, in its discretion, hold a public meeting or hearing on an application to acquire a bank if necessary or appropriate to clarify factual issues related to the application and to provide an opportunity for testimony (12 CFR 225.16(e), 262.25(d)). The Board has considered carefully the commenters' requests in light of all the facts of record. In the Board's view, the commenters had ample opportunity to submit their views and, in fact, submitted written comments that the Board has considered carefully in acting on the proposal. The commenters' requests fail to demonstrate why written comments do not present their views adequately or why a meeting or hearing otherwise would be necessary or appropriate. For these reasons, and based on all the facts of record, the Board has determined that a public meeting or hearing is not required or warranted in this case. Accordingly, the requests for a public meeting or hearing on the proposal are denied.

Appendix

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Increase in HHI	Remaining number of competitors
Atlantic City—Atlantic and Cape May counties in New Jersey						
TD Banknorth Pre-Consummation ..	17	48 mil.	.8	1,325	33	21
Commerce	2	1.3 bil.	20.5	1,325	33	21
TD Banknorth Post-Consummation ..	2	1.3 bil.	21.3	1,325	33	21

Appendix—*Continued*

Banking Markets Consistent with Board Precedent and DOJ Guidelines—Continued

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Increase in HHI	Remaining number of competitors
Metropolitan New York-New Jersey-Pennsylvania-Connecticut—Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, and Westchester counties in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren counties and the northern portions of Mercer County in New Jersey; Monroe and Pike counties in Pennsylvania; and Fairfield County and portions of Litchfield and New Haven counties in Connecticut						
TD Banknorth Pre-Consummation ..	9	20.8 bil.	2.6	1,118	17	272
Commerce	8	26.1 bil.	3.3	1,118	17	272
TD Banknorth Post-Consummation ..	4	46.9 bil.	5.9	1,118	17	272
New Haven—Clinton, Killingworth, and Westbrook townships in Middlesex County; and Bethany, Branford, Cheshire, East Haven, Guilford, Hamden, Madison, Meriden, New Haven, North Branford, North Haven, Orange, Wallingford, West Haven, and Woodbridge townships in New Haven County, all in Connecticut						
TD Banknorth Pre-Consummation ..	8	772 mil.	.1	1,290	2	20
Commerce	19	14 mil.	7.3	1,290	2	20
TD Banknorth Post-Consummation ..	8	786 mil.	7.5	1,290	2	20
Philadelphia and South Jersey—Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania; Burlington, Camden, Gloucester, and Salem counties in New Jersey; and the city of Trenton and Ewing, Hamilton, and Lawrence townships in Mercer County, New Jersey						
TD Banknorth Pre-Consummation ..	13	1.2 bil.	1.4	1,032	39	118
Commerce	2	13.7 bil.	14	1,032	39	118
TD Banknorth Post-Consummation ..	2	14.9 bil.	15.4	1,032	39	118

Note: Deposit data are as of June 30, 2007, and include mergers as of February 26, 2008. Deposit amounts are unweighted. Rankings, market deposit shares, and HHIs are based on thrift institution deposits weighted at 50 percent.

Orders Issued under Section 4 of the Bank Holding Company Act

Bank of America Corporation Charlotte, North Carolina

Notice of Public Meetings Los Angeles, California Chicago, Illinois

Background and Public Meetings Notice

On February 15, 2008, Bank of America Corporation, Charlotte, North Carolina ("Bank of America"), requested the Board's approval under the Bank Holding Company Act (12 U.S.C. § 1841 et seq.) ("BHC Act") and related statutes to acquire Countrywide Financial Corporation, Calabasas, California ("Countrywide"), and thereby acquire Countrywide's wholly owned savings association subsidiary, Countrywide Bank, FSB, Alexandria, Virginia, and its other nonbanking subsidiaries. The Board hereby orders that public meetings on the Bank of America/Countrywide proposal be held in Los Angeles, California, and Chicago, Illinois.

The public meeting in Los Angeles will be held at the Los Angeles Branch of the Federal Reserve Bank of San Francisco, 950 South Grand Avenue, Los Angeles, California, on Monday, April 28, and Tuesday, April 29, 2008, beginning at 8:30 a.m. Pacific Daylight Time ("PDT").

The public meeting in Chicago will be held at the Federal Reserve Bank of Chicago, 230 South LaSalle Street, Chicago, Illinois, on Tuesday, April 22, 2008, beginning at 8:30 a.m. Central Daylight Time ("CDT").

In addition, the comment period on the application has been extended to close of business on Tuesday, April 29, 2008.

Purpose and Procedures

The public meetings will collect information relating to factors the Board is required to consider under the BHC Act. The factors the BHC Act requires the Board to consider include whether the notificant's performance of the activities can reasonably be expected to produce benefits to the public (such as greater convenience, increased competition, and gains in efficiency) that outweigh possible adverse effects (such as undue concentration of resources, decreased or unfair competition, conflicts of interests, and unsound banking practices). Consideration of the above factors includes an evaluation of the financial and managerial resources of the notificant, including its subsidiaries, and any company to be acquired; the effect of the proposed transaction on those resources; and the management expertise, internal control and risk-management systems, and capital of the entity conducting the activity. In acting on a notice to acquire a savings association, the Board also reviews the records of performance of the insured depository institutions involved in the proposal under the Community Reinvestment Act, which requires the Board to take into account a relevant institution's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods, consistent with the safe and sound operation of the institution (12 U.S.C. § 2903).

Testimony at the public meetings will be presented to a panel consisting of a presiding officer and other panel members appointed by the presiding officer. In conducting the public meetings, the presiding officer will have the authority and discretion to ensure that the meetings proceed in a fair and orderly manner. In contrast to a formal administrative hearing, the rules for taking evidence will not apply to the public meetings. Panel members may question witnesses but no cross-examination of witnesses will be permitted. The public meetings will be transcribed, and the transcripts will be posted on the Board's public website within several days after the meetings. Information regarding the procedures for obtaining a copy of the transcript will be announced at the public meetings.

All persons wishing to testify at the public meeting in Los Angeles must submit a written request to Scott Turner, Community Affairs Officer, Federal Reserve Bank of San Francisco, 101 Market Street, San Francisco, California 94105 (facsimile: 415/393-1920) no later than 5:00 p.m. PDT on April 8, 2008. All persons wishing to testify at the public meeting in Chicago must submit a written request to Alicia Williams, Vice President, Federal Reserve Bank of Chicago, 230 South LaSalle Street, Chicago, Illinois 60604 (facsimile: 312/913-2626) no later than 5:00 p.m. CDT on April 8, 2008.

The request to testify must include the following information: (i) identification of which meeting (and which day for the Los Angeles meeting) the participant wishes to attend; (ii) a brief statement of the nature of the expected testimony (including whether the testimony will support or oppose the proposed transaction or provide other comment on the proposal) and the estimated time required for the presentation; (iii) the address and telephone number (and e-mail address and facsimile number, if available) of the individual testifying; and (iv) identification of any special needs, such as individuals needing translation services, individuals with a physical disability who may need assistance, or individuals requiring visual aids for their presentation. To the extent available, translators will be provided for those wishing to present their views in a language other than English if so requested in the request to testify. Individuals interested only in attending the meeting, but not testifying, need not submit a written request.

On the basis of the requests received, the presiding officer will prepare a schedule for participants who will testify and establish the order of presentation. To ensure an opportunity for all interested commenters to present their views, the presiding officer may limit the time for presentation. Individuals not listed on the schedule may be permitted to speak at the public meeting if time permits at the conclusion of the schedule of witnesses, at the discretion of the presiding officer. Copies of testimony may, but need not, be filed with the presiding officer before a participant's presentation.

By order of the Board of Governors, effective March 27, 2008.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

The Royal Bank of Scotland Group plc Edinburgh, Scotland

Order Approving Notice to Engage in Activities Complementary to a Financial Activity

The Royal Bank of Scotland Group plc ("RBS"), a financial holding company ("FHC") for purposes of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 4 of the BHC Act[1] and the Board's Regulation Y[2] to engage in physical commodity trading, which involves entering into contracts that may require making or taking physical delivery of or storing commodities ("Physical Commodity Trading"), and providing energy management services ("Energy Management Services") for owners of power generation facilities under energy management agreements. The Board has previously found Physical Commodity Trading and Energy Management Services to be activities that are complementary to the financial activity of engaging as principal in commodity derivatives transactions and, in the case of Energy Management Services, also complementary to providing financial and investment advisory services for derivatives transactions.

In addition, RBS has requested approval to engage in physically settled energy tolling by entering into tolling agreements with power plant owners ("Energy Tolling") as an activity that is complementary to the financial activity of engaging as principal in commodity derivatives transactions. The Board has not previously considered whether Energy Tolling is complementary to a financial activity. RBS proposes to engage in such complementary activities through a joint venture company ("JV") formed with Sempra Energy ("Sempra"), San Diego, California, an energy services company.[3]

BACKGROUND

The Board's Regulation Y currently permits bank holding companies ("BHCs") to (i) enter into derivative contracts that are based on nonfinancial commodities ("Commodity Derivatives Activities"), and (ii) provide information, statistical forecasting, and advice with respect to transactions in foreign exchange, swaps, and similar transactions; commodities; and any forward contract, option, future, option on a future, and similar instruments ("Derivatives Advisory Services"), as activities that are closely related to banking.[4]

The BHC Act, as amended by the Gramm-Leach-Bliley Act, permits BHCs that qualify as FHCs to engage in an expanded set of activities that are defined by statute to be financial in nature, as well as any additional activity that the Board determines, in consultation with the Secretary of the Treasury, to be financial in nature or incidental to a financial activity.[5]

The BHC Act also permits FHCs to engage in any activity that the Board determines is complementary to a financial activity and does not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally.[6] This authority is intended to allow the Board to permit FHCs to engage on a limited basis in activities that, although not necessarily financial in nature, are so meaningfully connected to financial activities that they complement those activities. In this way, FHCs would not be disadvantaged by market developments if commercial activities evolve into financial activities or competitors find innovative ways to combine financial and nonfinancial activities. The BHC Act provides the Board with exclusive authority to determine that an activity is complementary to a financial activity.

The BHC Act further provides that any FHC seeking to engage in a complementary activity must obtain the Board's prior approval. When reviewing such a proposal, the BHC Act requires the Board to consider whether performance of the activity by the FHC can reasonably be expected to produce public benefits that outweigh possible adverse effects, such as "undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices."[7] Moreover, the Board previously has stated that complementary activities should be limited in size and scope relative to an FHC's financial activities.[8] The Board has approved Physical Commodity Trading[9] and Energy Management Services[10] as activities that are complementary to financial activities. As noted, the

1. 12 U.S.C. § 1843.
2. 12 CFR Part 225.
3. RBS would own 51 percent of JV, which would be headquartered in the United Kingdom.

4. 12 CFR 225.28(b)(8)(ii). Under Regulation Y, a BHC is permitted to engage in Commodity Derivatives Activities but is generally not allowed to take or make delivery of the nonfinancial commodities underlying commodity derivatives or purchase or sell nonfinancial commodities in the spot market.
5. 12 U.S.C. § 1843(k)(1)(A).
6. 12 U.S.C. § 1843(k)(1)(B).
7. 12 U.S.C. § 1843(j)(2)(A).
8. *See* 68 *Federal Register* 68493, 68497 (Dec. 9, 2003); *see also* 145 Cong. Rec. H11529 (daily ed. Nov. 4, 1999) (Statement of Chairman Leach) ("It is expected that complementary activities would not be significant relative to the overall financial activities of the organization.").
9. Board letters regarding Bank of America Corporation (April 24, 2007), Credit Suisse Group (March 27, 2007), Fortis S.A./N.V. (September 29, 2006), and Wachovia Corporation (April 13, 2006); and Board orders regarding *Société Générale*, 92 *Federal Reserve Bulletin* C113 (2006); *Deutsche Bank AG*, 91 *Federal Reserve Bulletin* C54 (2005); *JPMorgan Chase & Co.*, 91 *Federal Reserve Bulletin* C57 (2005); *Barclays Bank PLC*, 90 *Federal Reserve Bulletin* 511 (2004); *UBS AG*, 90 *Federal Reserve Bulletin* 215 (2004); and *Citigroup Inc.*, 89 *Federal Reserve Bulletin* 508 (2003).
10. *Fortis S.A./N.V.*, 94 *Federal Reserve Bulletin* C20 (2008).

Board has not previously considered a request by an FHC to engage in Energy Tolling.

RBS currently engages in Commodity Derivatives Activities and Derivatives Advisory Services (both are financial activities) in the United States. RBS has requested approval to engage in Physical Commodity Trading and Energy Tolling as activities that are complementary to its Commodity Derivatives Activities and to provide Energy Management Services as an activity that is complementary to both its Commodity Derivatives Activities and Derivatives Advisory Services.

RBS's Proposal

RBS operates in the United States through Citizens Financial Group, Inc., Providence, Rhode Island, a multibank holding company, as well as through branches in New York, New York, and Greenwich, Connecticut, and representative offices in Houston, Texas, and Los Angeles, California.[11] RBS also operates nonbanking companies in the United States, including a broker-dealer subsidiary, RBS Greenwich Capital, Greenwich, Connecticut.

RBS proposes to expand its commodity-related activities by forming JV with Sempra. A subsidiary of Sempra, Sempra Energy Trading Corp. ("SET"), that engages in commodity derivatives transactions and physical commodity trading would be transferred to JV.[12] SET acts as principal in commodity transactions in and outside the United States and takes and makes physical delivery of commodities in connection with those transactions. SET also acts as an energy manager and enters into tolling agreements with power plant owners. RBS proposes to engage in Physical Commodity Trading, Energy Tolling, and Energy Management Services under the complementary activity authority of section 4 of the BHC Act so that the SET Companies transferred to JV may continue to conduct these activities.[13]

Physical Commodity Trading

RBS currently engages in Commodity Derivatives Activities in the United States and proposes to expand those activities and to engage in Physical Commodity Trading through JV. JV's activities would include taking or making delivery of permissible commodities pursuant to physically settled commodity derivatives; taking inventory positions in natural gas, oil, emissions allowances, and other permissible commodities; and engaging in other spot market trading activities. RBS has also indicated that JV might engage in commodity-related financing transactions, including volumetric production payment transactions ("VPPs").[14]

As noted, the Board previously has determined that Physical Commodity Trading is a permissible activity because it complements the financial activity of engaging in Commodity Derivatives Activities. Most of the transactions in which RBS proposes to engage as part of Physical Commodity Trading do not differ from transactions that the Board has approved. RBS proposes to engage, however, in a wider set of transactions under the Physical Commodity Trading authority and requests confirmation that these activities are within the scope of that authority.

Specifically, RBS proposes to enter into long-term power supply contracts with large commercial and industrial end-users; to engage in physical trading in commodities for which derivatives contracts have not been approved by the Commodity Futures Trading Commission ("CFTC") for trading on a U.S. exchange or specifically approved by the Board; and to enter into contracts with third parties to process, refine, or otherwise alter commodities.

A. Long-Term Electricity Supply Contracts

As part of its energy trading business, RBS proposes to enter into long-term electricity supply contracts with large commercial and industrial customers. The current Physical Commodity Trading authority permits an FHC to take a position in a commodity and does not limit the duration of, or counterparties to, an FHC's contracts. Most commodities in which an FHC may trade under the Physical Commodity Trading authority, however, tend by their nature to be limited to the wholesale market. Electricity, on the other hand, has a greater potential to be sold not only to end-users generally but also to small retail customers who are unlikely to be participants in the market for energy-related derivatives products.

---

11. RBS also holds a 38.3 percent interest in RFS, a financial holding company formed by a consortium of banking organizations, including Fortis N.V., Utrecht, Netherlands, and certain of its affiliates and Banco Santander Central Hispano, S.A., Madrid, Spain, that recently acquired ABN AMRO Holding N.V., Amsterdam, Netherlands ("ABN AMRO"). On approval of the consortium's restructuring plan by ABN AMRO's home-country supervisor, RBS will acquire ABN AMRO's direct U.S. branches and representative offices.

12. JV proposes to purchase SET and its related energy trading subsidiaries and affiliates ("SET Companies"), which would become JV's subsidiaries.

13. As set forth in the appendix, RBS has committed that within two years of consummation of the transaction it will conform, including by divestiture if necessary, any activities that are impermissible for an FHC under the BHC Act or that are inconsistent with the activities permitted by this order.

14. RBS may engage in VPPs on oil and gas as permissible credit transactions if it agrees to sell the oil or gas it receives under the VPP to third parties before delivery. VPPs are a means of financing oil and gas exploration and production. Under a VPP, the lender or VPP holder provides an up-front payment in exchange for a royalty interest that entitles the VPP holder to receive hydrocarbons on a regular basis during the life of the VPP transaction in quantities that will allow the VPP holder to recover its up-front payment and a specified return. The Board's General Counsel has determined that VPPs generally are considered extensions of credit permissible for a BHC under section 225.28(b)(1) of Regulation Y, if the BHC agrees to sell the commodities before delivery. *See* letter from Scott G. Alvarez to Elizabeth T. Davy, May 15, 2006, regarding UBS AG ("UBS Letter"). RBS has confirmed that all VPP transactions will conform in all material respects to the description of permissible VPP transactions set forth in the UBS Letter, including a commitment that any commodities that RBS receives under the VPP and does not immediately sell to a third party will count against the 5 percent cap on RBS's total physical commodity holdings, which is discussed below.

To ensure that RBS's activities remain consistent with the general complementary nature of the activities permitted under the Physical Commodity Trading authority, RBS has committed to enter into long-term supply contracts only with large industrial and commercial customers. Market risk relating to these long-term contracts would be handled by the same methodologies used for other electricity trades.

RBS has represented that in all states where the electricity market has been deregulated, state regulations distinguish among types of end-users. To distinguish types of customers, states generally rely on the customer's typical electricity consumption level.[15] To ensure that RBS contracts only with customers who are sufficiently large and sophisticated, RBS has committed that it will enter into long-term electricity supply contracts only with commercial and industrial customers that consume electricity at a rate of at least (i) 800 megawatt-hours/year ("MWHrs/year") or (ii) the minimum consumption level for large commercial and industrial customers under applicable state law, whichever is greater. This restriction should be sufficient to ensure that RBS transacts with financially sophisticated purchasers (and not with retail purchasers) and thus remains essentially a wholesale intermediary.

B. Physical Trading in Certain Commodities Not Approved by the CFTC for Trading on a Futures Exchange

The Board has conditioned its approval of notices to engage in Physical Commodity Trading on a commitment by the FHC to trade only in commodities for which derivative contracts have been approved for trading on a futures exchange by the CFTC (unless specifically excluded by the Board) or that have been specifically approved by the Board ("Approved Commodities Commitment"). This commitment provided a means to ensure that the Physical Commodity Trading remained complementary to the financial activity of Commodity Derivatives Activities because it helped demonstrate that there was a derivatives market for the underlying commodity. This commitment also was intended to prevent FHCs from dealing in finished goods and other items, such as real estate or industrial products that lack the fungibility and liquidity of exchange-traded commodities. The Board believes that, subject to certain requirements, an FHC may take delivery of certain commodities that have not been approved by the CFTC category but are similarly fungible and liquid without being exposed to significant additional risk.

1. *Commodities that are Approved for Trading on Non-U.S. Exchanges.* The test that a commodity derivative be approved by the CFTC is a useful, but not a comprehensive, test of whether a derivative or the underlying commodity is liquid and fungible. For some liquid and fungible commodities, no market-maker has sought CFTC approval because of the presence of an established foreign trading market, which may deter a U.S. exchange from listing a similar product. The absence of CFTC approval in those cases generally would not indicate that taking and making physical delivery of the commodity would entail substantially greater risks than taking and making delivery of a CFTC-approved commodity. As a general matter, the fact that a derivatives contract based on the commodity trades on a non-U.S. exchange that is subject to a regulatory structure comparable to the one administered by the CFTC should be sufficient to demonstrate that there is a market in financially settled contracts on the commodities, the commodity is fungible, and a reasonably liquid market for the commodity exists.

RBS specifically has requested approval to take and make physical delivery of nickel, a metal that is widely and actively traded on the London Metal Exchange ("LME"), one of the largest nonferrous metal markets in the world. The LME offers futures and options contracts for aluminum, copper, nickel, tin, zinc, and certain aluminum alloy contracts. The LME is a highly liquid,[16] global market that derives more than 95 percent of its business from outside the United Kingdom. The CFTC has determined that the LME is subject to a regulatory structure comparable to that administered by the CFTC under the Commodity Exchange Act. As a result, members of the LME may conduct brokerage activities for U.S. customers without having to register with the CFTC as a futures commission merchant or otherwise comply with certain of the CFTC's consumer protection rules.[17] Given the nature of the LME trading market and the CFTC's determination that LME members are subject to comparable regulatory oversight, the Board has determined that FHCs that receive approval to engage in Physical Commodity Trading may take and make delivery of nickel. The Board has determined that other FHCs that have already received approval to engage in Physical Commodity Trading may also make and take delivery of nickel, consistent with the Approved Commodities Commitment, as a commodity that has been specifically approved by the Board.

2. *Commodities that are Not Approved for Trading in the United States or on Certain Non-U.S. Exchanges.* Many commodities for which derivatives contracts have not been approved for trading by the CFTC or that are not traded on a non-U.S. exchange may also be commodities that have

15. For example, the minimum consumption level to be considered a large commercial or industrial customer under state regulations is 175 MWHrs/year in California, 220 MWHrs/year in Pennsylvania, and 876 MWHrs/year in Washington, D.C.

16. In 2006, the LME reported that it recorded volumes of 87 million lots, equivalent to $8.1 trillion annually and $35 billion to $45 billion on an average business day.

17. The CFTC's Rule 30.10 permits a person affected by the requirements contained in Part 30 of the CFTC's rules, which relate to registration as a futures commission merchant, to petition the CFTC for an exemption from the requirements based on the person's substituted compliance with a foreign regulatory structure found comparable to that administered by the CFTC under the Commodities Exchange Act. The inclusion of the LME in the CFTC's so-called "30.10 program" is reflected in an order issued by the CFTC to the U.K.'s Financial Services Authority that consolidates the relief set forth in prior orders issued pursuant to Rule 30.10 regarding sales of futures and options to customers in the United States by certain firms in the United Kingdom, 68 *Federal Register* 58583 (2003).

viable markets with financially settled contracts on the commodities and that satisfy fungibility and liquidity concerns. In many cases, the existence of an established over-the-counter market obviates the need to seek CFTC approval for listing on a futures exchange. In addition, the particular commodity may be so similar to a CFTC-approved commodity, such as a product that is derived from a CFTC-approved commodity, that the separate listing is superfluous because market participants can use derivatives contracts on the CFTC-approved commodity to hedge their positions in the non-CFTC-approved derivative product.

The Board believes that taking and making physical delivery of non-CFTC-approved commodities may be consistent with the Physical Commodity Trading authority if an FHC can demonstrate that (i) there is a market in financially settled contracts on those commodities in addition to the physically settled contracts, (ii) the particular commodity is fungible, and (iii) the market for the commodity is sufficiently liquid. In addition, the FHC must demonstrate that it has trading limits in place that address both concentration risk and overall exposure to the commodity to ensure that the FHC could physically trade in these commodities without incurring significant additional risk.

As noted above, RBS has requested authority to trade in certain natural gas liquids, oil products, and petrochemicals. Specifically, the proposed natural gas liquids are butane, ethane, and natural gasoline; the proposed oil products are asphalt, condensate, boiler cutter, residual fuel oil no. 6, kerosene, straight run, marine diesel, and naphtha; and the proposed petrochemicals are ethylene, paraxylene, styrene, propylene, and toluene ("Proposed Commodities"). Contracts on these commodities are not approved for trading on a U.S. futures exchange by the CFTC or on a major non-U.S. exchange. Nonetheless, a number of considerations support a Board determination that trading in the Proposed Commodities should be permitted as part of the Physical Commodity Trading authority.

Market in financially settled contracts. Many commodities trade on established alternative trading platforms ("ATP") that are used by a wide variety of market participants, rather than on a futures exchange. If derivatives contracts on a commodity trade on a recognized ATP, that activity could serve as sufficient evidence that a market in financially settled contracts on the particular commodity exists. Financially and physically settled contracts for all the Proposed Commodities trade on recognized ATPs. Specifically, the natural gas liquids are traded on the Intercontinental Exchange ("ICE") and on the New York Mercantile Exchange ("NYMEX") electronic trading platforms; the distillate and residual oil products trade on ICE and NYMEX; and the petrochemicals are traded on the Chemconnect electronic trading platform. These ATPs are major platforms that are widely used by a variety of producers, consumers, and traders of the Proposed Commodities.

Fungibility. To ensure that a commodity is fungible, an FHC must demonstrate that no specification of exact product or lot would be included for contracts on the commodity. In other words, the physical asset that may be delivered to satisfy a contract would be, by nature or usage of trade, the equivalent of any other unit of the asset. The Proposed Commodities, which trade on ICE, NYMEX, and Chemconnect, are fungible because market participants contract for specific quantities of the commodity but cannot specify the particular product they will receive.

Liquidity. To ensure that the market for a particular commodity is sufficiently liquid, an FHC must demonstrate that an active trading market in the commodity exists that would allow the institution to limit its position in the commodity relative to the volume that trades in the market generally. The Board believes the following factors indicate that a reasonably liquid market exists: (i) reliable trading volume in the commodity or production statistics exist that demonstrate the size of the market in the commodity; (ii) daily or intraday price data on the commodity are published; and (iii) a number of market makers in the commodity stand ready to buy or sell the commodity each day at published bid and offer quotations. Each of the Proposed Commodities is derived from CFTC-approved commodities (natural gas and oil) and is used, similar to CFTC-approved commodities, as fuel or as inputs for finished products. The Proposed Commodities are traded widely through brokers on the ATPs discussed above and physically traded at various hubs in the United States and abroad.[18] There are numerous participants in the trading markets for the Proposed Commodities, and published production statistics exist for all the Proposed Commodities. Reliable independent price reporting for the Proposed Commodities is widely available from a number of sources, such as Platts, a division of The McGraw-Hill Companies that provides information on the energy and metals markets, and the Argus Media Group, an energy news and price-reporting agency. Prices for both buy and sell offers are posted daily by the ATPs on which the Proposed Commodities trade.

Trading limits. An FHC that proposes to trade in a new commodity must demonstrate that it has established appropriate limits on its trading in the commodity and has a risk-management program in place to monitor compliance with those limits, which must include both concentration limits and overall exposure limits. RBS has represented that as part of its risk-management program relating to the Proposed Commodities, it will impose appropriate concentration and overall exposure limits for each Proposed Commodity.

In light of the characteristics of the Proposed Commodities and based on all the facts of record, the Board has determined that taking physical delivery of the Proposed

18. Specifically, natural gas liquids are physically traded in the United States at hubs in Texas and Kansas; the distillate and residual oil products are physically traded at various points in the United States as well as the Caribbean, Africa, Europe, and Singapore; and the petrochemicals are physically traded at various points in the United States, South Korea, and Thailand.

Commodities is consistent with the complementary nature of Physical Commodity Trading and does not present undue safety and soundness concerns for RBS.[19]

3. *Altering Commodities.* As noted, the Board has previously approved Physical Commodity Trading, on a limited basis, subject to a number of commitments, including that the FHC not process, refine, or otherwise alter a commodity. RBS proposes to engage third parties to refine, blend, or otherwise alter commodities for which it is permitted to take and make physical delivery.

A number of considerations support the Board's determination that engaging a third party to alter a commodity is consistent with the existing Physical Commodity Trading authority. Permitting RBS to engage a third party to alter a commodity would not significantly increase the risks to the institution from Physical Commodity Trading. Under this authority, an FHC may already engage a third party to store commodities, which exposes an FHC to substantially the same types of risks as engaging a third party to alter a commodity. Moreover, an FHC could sell a commodity to a refinery and buy back the refined commodity if both the commodity sold to and bought from the refinery were permissible commodities. Permitting an FHC to engage third parties to alter commodities also would enhance an FHC's ability to meet its customers' needs.

To ensure that the activity remains consistent with the scope of Physical Commodity Trading, RBS has made the following commitments: (i) RBS will not alter commodities itself; (ii) both the commodity input and the resulting altered commodity will be permissible commodities under the Board's decisions; and (iii) RBS will not have exclusive rights to use the alteration facility. Requiring that both the commodity input and the altered commodity be permissible commodities under the Board's decisions helps ensure that RBS would not assume the risk of taking and making physical delivery of commodities that the Board has not yet evaluated. In addition, preventing RBS from having the exclusive right to use an alteration facility should reduce RBS's exposure to the potential risks associated with operating commodity-altering facilities.

4. *Risks of Proposed Physical Commodity Trading Activities.* Permitting RBS to engage in the limited amount and types of Physical Commodity Trading described above does not appear to pose a substantial risk to RBS, depository institutions, or the U.S. financial system generally. RBS has made commitments relating to its Physical Commodity Trading that are designed to address the risks involved in the proposed activities. In addition to the commitments discussed above, RBS provided substantially the same commitments as those provided by other FHCs in connection with the Board's approvals of their proposals to engage in Physical Commodity Trading. In particular, RBS has committed to limit the total market value of all commodities that it will hold at any one time relating to its Physical Commodity Trading activities to 5 percent of its consolidated tier 1 capital (as calculated under its home-country standard).[20] Additionally, RBS will notify the Federal Reserve Bank of Boston if the market value of commodities it holds as a result of its Physical Commodity Trading exceeds 4 percent of its tier 1 capital.

ENERGY TOLLING

As noted, the Board has not previously determined that Energy Tolling is a complementary activity under section 4 of the BHC Act. For the reasons stated below, a number of considerations support the Board's determination that Energy Tolling is complementary to the financial activity of engaging in Commodity Derivatives Activities.

A. RBS's Proposed Energy Tolling Agreements

Under the energy tolling agreements that would be transferred to JV, SET, as toller, pays the plant owner a fixed-periodic payment that compensates the owner for its fixed costs ("capacity payments"), usually monthly, in exchange for the right to all or part of the plant's power output. The plant owner, however, retains control over the day-to-day operations of the plant and physical plant assets at all times.[21] The toller provides (or pays for) the fuel needed to produce the power that it directs the owner to produce. The fuel and energy transactions that the toller enters into in these circumstances are generally physically settled.[22] The agreements also generally provide that the owner will receive a marginal payment for each megawatt hour produced by the plant to cover the owner's variable costs plus a profit margin. The toll is similar to a call option on the power produced by the plant with a strike price linked to fuel and power prices. In general, the toller would direct the operator to run the plant (*i.e.*, the toller would exercise its option) when the price of power exceeds the cost of producing that amount of power. Some tolling agreements may also give the toller the right to a plant's excess

19. Because trading the Proposed Commodities might require that an FHC adapt a particular risk-management program beyond what would be required to trade in the commodities that are currently permissible, this order does not authorize an FHC with Physical Commodity Trading authority to take and make delivery of the Proposed Commodities.

20. RBS would be required to include within this 5 percent limit the market value of any commodities held as a result of a failure of reasonable efforts to avoid taking delivery of derivatives contracts that RBS enters into under the authority for BHCs in section 225.28(b)(8)(ii)(B) of Regulation Y.

21. RBS has indicated that SET's tolling agreements are all medium term (generally two to five years), although some market participants enter into longer-term agreements. SET has not entered into longer-term contracts, however, because it can be difficult to hedge exposure over a longer period of time.

22. Because an FHC would generally take or make physical delivery of fuel and electricity in connection with a tolling agreement, an FHC would need approval to engage in Physical Commodity Trading to engage in Energy Tolling.

capacity, which the toller may sell to the market or use to meet reliability obligations to the power grid.

B. Energy Tolling as a Complementary Activity

Energy Tolling is an outgrowth of the existing financial activity of engaging in Commodity Derivatives Activities. As part of its Commodity Derivatives Activities, an FHC may take a derivatives position in a commodity, including energy. Energy Tolling complements Commodity Derivatives Activities by allowing an FHC to hedge its own, or assist its clients to hedge, positions in energy. Engaging in energy tolling would also provide an FHC with additional information on the energy markets that would help the FHC manage its own commodity risks. The Board also notes that financial institution competitors of RBS that are not FHCs engage in tolling activities as part of their energy trading operations. Based on the foregoing and all other facts of record, the Board concluded that RBS's Energy Tolling complements its Commodity Derivatives Activities.

C. Risks of Energy Tolling

The primary risk to a toller is that the plant proves to be uneconomical to operate, which can occur when the cost of producing power is greater than the power's market price. In those cases, the toller has no ability to recover its capacity payments. To limit the potential safety and soundness risks of Energy Tolling, RBS has committed that it will limit the amount of its Energy Tolling activities. Currently, all Physical Commodity Trading activities are limited to a maximum of 5 percent of the FHC's tier 1 capital. RBS has committed to include the present value of its future committed capacity payments under an energy tolling agreement in calculating the value of commodities held by RBS under its Physical Commodity Trading authority to determine compliance with the cap of 5 percent of tier 1 capital. As a result, allowing RBS to engage in Energy Tolling would not increase the overall position that it may take in physical commodities. This cap would also ensure that Energy Tolling remains limited in size and scope relative to RBS's financial activities.

Energy Management Services

RBS has requested that the Board permit it to expand its Commodity Derivatives Activities and Derivatives Advisory Services in the United States to include providing Energy Management Services pursuant to energy management agreements ("EMA") with plant owners. Under the EMAs to which SET is a party, the energy manager (SET) provides transactional and advisory services to power plant owners. The transactional services consist primarily of SET acting as a financial intermediary, substituting its credit and liquidity for those of the owner to facilitate the owner's purchase of fuel and sale of power. SET's advisory services include providing market information to assist the owner in developing and refining a risk-management plan for the plant. SET also provides a variety of administrative services to support these transactions.

The Board previously has determined that providing Energy Management Services complements the financial activities of Commodity Derivatives Activities and Derivatives Advisory Services.[23] Energy Management Services would complement RBS's current Commodity Derivatives Activities and Derivatives Advisory Service by allowing RBS to offer power plant owners certain agency and administrative services that would provide a power plant owner with an integrated approach to managing the commodity-related aspects of its business. The Energy Management Services that RBS proposes to provide do not differ in any significant way from the services that the Board previously approved. Furthermore, RBS has made all the required commitments that generally limit the scope of the activities that it may perform as energy manager to ensure that RBS is only taking on risks consistent with the agency nature of the Energy Management Services and limits the revenues attributable to RBS's Energy Management Services to 5 percent of RBS's total consolidated operating revenues.[24]

Granting RBS the authority to act as energy manager would not expand its ability to engage in physical commodity trading beyond what it can do as part of its proposed Physical Commodity Trading. The potential risks of providing Energy Management Services are already largely mitigated by the limits imposed on RBS's Commodity Derivatives Activities and Physical Commodity Trading.

Risks and Public Benefits of the Proposed Activities

As noted, to authorize RBS to engage in a complementary activity, the Board must determine that the activity does not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally. Moreover, the Board previously has stated that complementary activities should be limited in size and scope relative to an FHC's financial activities.

Permitting RBS to engage in the proposed complementary activities of Physical Commodity Trading, Energy Tolling, and Energy Management Services in the limited amounts and situations described above would not appear to pose a substantial risk to RBS, depository institutions, or the U.S. financial system generally. The commitments described above and in the appendix should help limit the safety and soundness risks, size, and scope of the proposed activities. RBS may already incur the price risk of commodities under its existing Commodity Derivatives Activities, and none of the proposed activities would appear to increase its potential exposure to that risk. In addition, RBS

23. *Fortis S.A./N.V.*, 94 *Federal Reserve Bulletin* C20 (2008).

24. "Total operating revenues" is defined as net interest income and all non-interest revenue, including net securities gains but excluding extraordinary items.

would remain subject to the securities, commodities, and energy laws and to the applicable rules and regulations (including the anti-fraud and anti-manipulation rules and regulations) of the CFTC and the Federal Energy Regulation Commission.

The Board believes that RBS has the managerial expertise and internal control framework to manage the risks of engaging in Physical Commodity Trading, Energy Tolling, and Energy Management Services. RBS has shown it has the expertise and internal controls necessary to effectively integrate the risk management of those activities into its overall risk-management framework.

The Board must also determine that the performance of these complementary activities by RBS "can reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Approval of the request to engage in Physical Commodity Trading, Energy Tolling, and Energy Management Services likely would benefit RBS's customers by enhancing RBS's ability to provide efficiently a full range of commodity-related services consistent with existing market practice. Approval also would enable RBS to improve its understanding of physical commodity and commodity derivatives markets and its ability to serve as an effective competitor in those markets. In addition, engaging in Energy Tolling would allow RBS to provide risk-intermediation services to clients whose businesses involve significant energy commodity risks. Energy Tolling also would allow RBS to participate more fully in Physical Commodity Trading by securing a source for its physically settled electricity derivatives contracts and to employ tolling agreements as part of its own hedging strategies or those of its clients.

RBS's Physical Commodity Trading, Energy Tolling, and Energy Management Services should not result in an undue concentration of resources or other adverse effects on competition because the market for these services is regional or national in scope. Any potential conflicts of interests associated with RBS's activities should be mitigated by the anti-tying provisions in section 106 of the Bank Holding Company Act Amendments of 1970.

For these reasons, and based on RBS's policies and procedures for monitoring and controlling the risks of the activities, the Board concludes that allowing RBS to engage in Physical Commodity Trading, Energy Tolling, and Energy Management Services on the limited bases described above does not pose a substantial risk to the safety and soundness of depository institutions or the financial system generally and can reasonably be expected to produce benefits to the public that outweigh any potential adverse effects.

CONCLUSION

Based on all the facts of record, including the representations and commitments made by RBS to the Board in connection with the notice, and subject to the terms and conditions set forth in this order, the Board has determined that the notice should be, and hereby is, approved. The Board's determination is subject to all the conditions set forth in Regulation Y and to the Board's authority to require modification or termination of the activities of a BHC or any of its subsidiaries as the Board finds necessary to ensure compliance with, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder. The Board's decision is specifically conditioned on compliance with all the commitments made in connection with the notice, including the commitments and conditions discussed in this order. The commitments and conditions relied on in reaching this decision shall be deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

By order of the Board of Governors, effective March 27, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT deV. FRIERSON
Deputy Secretary of the Board

Appendix

COMMITMENTS BY RBS

RBS, together with its subsidiaries (collectively, "RBS"), commits with respect to the notice ("Notice") it has filed with the Board to engage in Physical Commodity Trading, Energy Tolling, and Energy Management Services in the United States or by an entity located in the United States that

1. RBS will conduct its Physical Commodity Trading, Energy Tolling, and Energy Management Services exclusively pursuant to the authority of section 4 of the BHC Act and in accordance with the limitations that the Board has placed on the conduct of such activities, and will not conduct such activities in the United States in reliance on section 2(h)(2) of the BHC Act or section 211.23(f)(5) of the Board's Regulation K.

PHYSICAL COMMODITY TRADING ACTIVITIES

2. RBS will limit the aggregate market value of physical commodities that it holds at any one time as a result of Physical Commodity Trading to 5 percent of its tier 1

capital. RBS will include in this 5 percent limit the market value of any physical commodities it holds as a result of a failure of reasonable efforts to avoid taking delivery in commodities transactions conducted pursuant to section 225.28(b)(8)(ii)(B) of Regulation Y. In addition, RBS agrees to notify the Federal Reserve Bank of Boston if the aggregate market value of commodities held under this approval exceeds 4 percent of RBS's tier 1 capital.

3. RBS will take and make physical delivery only of physical commodities for which derivative contracts have been authorized for trading on a U.S. futures exchange by the Commodity Futures Trading Commission ("CFTC") or physical commodities of which the Board has specifically authorized RBS to take and make physical delivery (collectively, "Approved Commodities").
4. RBS will enter into long-term electricity supply contracts only with large commercial and industrial end-users that consume electricity at a rate of at least (i) 800 megawatt-hours/year or (ii) the minimum consumption level for large commercial and industrial customers under applicable state law, whichever is greater.
5. RBS will not use this authority to own, invest in, or operate facilities for the extraction, transportation, storage, or distribution of commodities but will only use storage and transportation facilities owned and operated by third parties. RBS will enter into service agreements only with reputable independent third-party facilities.
6. RBS will conform to the requirements of the BHC Act, including by divestiture if necessary, the activities of (i) owning, investing in, or operating storage facilities for commodities that it is not permitted to hold or store under the BHC Act and (ii) making and taking physical delivery of commodities that are not Approved Commodities, including metal concentrates, acquired in connection with the transactions contemplated by the Notice within two years of consummation of the transactions, or such longer period as the Federal Reserve in its discretion may grant.
7. After consummation of the transactions contemplated by the Notice, RBS will not expand its direct or indirect activities or investments in the activities of (i) owning, investing in, or operating storage facilities for commodities that it is not permitted to hold or store under the BHC Act and (ii) making and taking physical delivery of commodities that are not Approved Commodities, including metal concentrates. RBS will not expand these activities or investments beyond those engaged in by the SET Companies immediately prior to the date of the consummation of the proposed transaction by directly or indirectly (i) acquiring direct control of a company engaged in any activity, or acquiring any assets or business lines of another company that engages in impermissible activities, (ii) increasing the types of investments, products, or services to be engaged in or provided by RBS, or (iii) any similar transactions that would result in an expansion of these activities.
8. RBS will act solely as an intermediary in the physical commodities market and will not process, refine, or otherwise alter a physical commodity itself. RBS will contract with a third party for any services it needs in connection with the handling of any commodity. RBS further commits that it will not contract for the exclusive right to use a facility to alter commodities for any period of time. Consistent with the Physical Commodity Trading authority, RBS will contract with third parties (i) to alter only an Approved Commodity and (ii) to alter the commodity only into another Approved Commodity.

ENERGY TOLLING

9. RBS will include the present value of all capacity payments to be made by RBS in connection with energy tolling agreements in calculating its compliance with the limit of 5 percent of tier 1 capital on the aggregate market value of the physical commodities that it and any of its subsidiaries hold at any one time as a result of Physical Commodity Trading.

VOLUMETRIC PRODUCTION PAYMENT TRANSACTIONS

10. RBS will include any commodities that RBS receives under a volumetric production payment transaction and does not immediately sell to a third party in calculating its compliance with the limit of 5 percent of tier 1 capital on the aggregate market value of the physical commodities that it and any of its subsidiaries hold at any one time as a result of Physical Commodity Trading.

ENERGY MANAGEMENT SERVICES

11. Revenues attributable to RBS's Energy Management Services in the United States will not exceed 5 percent of its total consolidated operating revenues.[1]
12. RBS will only act as energy manager in the United States if the energy management agreement under which it performs its Energy Management Services provides that
    a. The owner of the facility retains the right to market and sell power directly to third parties, which may be subject to the energy manager's right of first refusal;
    b. The owner of the facility retains the right to determine the level at which the facility will operate (*i.e.*, to dictate the power output of the facility at any given time);
    c. Neither the energy manager nor its affiliates guarantee the financial performance of the facility; and
    d. Neither the energy manager nor its affiliates bear any risk of loss if the facility is not profitable.

RBS agrees that the foregoing commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision on the notice filed by RBS to engage in Physical Commodity Trading, Energy Tolling, and Energy Management Services under section 225.89 of Regulation Y and, as such, may be enforced in proceedings under applicable law.

1. Total operating revenues are defined as net interest income and all non-interest revenue, including net securities gains but excluding extraordinary items.

ORDERS ISSUED UNDER INTERNATIONAL BANKING ACT

eBANK Corporation Tokyo, Japan

Order Approving Establishment of a Representative Office

eBANK Corporation ("eBANK"), Tokyo, Japan, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 10(a) of the IBA to establish a representative office in San Francisco, California.[1] The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a representative office in the United States.

Notice of the application, affording interested persons an opportunity to submit comments, has been published in a newspaper of general circulation in San Francisco (*San Francisco Chronicle*, March 16, 2006). The time for filing comments has expired, and all comments received have been considered.

eBANK, with total consolidated assets of approximately $6.1 billion,[2] is an internet-only bank providing deposit accounts and services and settlement services exclusively to Japanese residents. eBANK's largest shareholder is the Development Bank of Japan, a government entity that owns 14.91 percent of the outstanding shares of the bank. eBANK's founder and president, Mr. Taiichi Matsuo, owns 6.47 percent of the outstanding shares of the bank, and NTT Finance Corporation, a Japanese company, owns 6.16 percent of the outstanding shares.[3]

The bank, which commenced operations in July 2001, accepts deposits but does not have branches or ATMs and does not engage in lending. The bank engages in financial advisory activities, including asset securitization advice, research services, and investment administration services. eBANK, through a wholly owned subsidiary, also manages mutual funds that are publicly offered over the internet to Japanese investors. eBANK currently conducts no activities in the United States. The bank's only office outside Japan is a representative office in Hong Kong.

eBANK has stated that the establishment of the representative office is part of its strategy to explore business and technology opportunities in the United States. The proposed representative office would research technology related to internet banking, identify business opportunities with banks and companies in the United States that have advanced information technology capabilities potentially relevant to eBANK's internet banking activities, and identify investment opportunities in the United States for the bank's dollar-denominated deposits in Japan. eBANK has committed, *inter alia*, that the representative office will not solicit deposits in the United States.

In acting on a foreign bank's application under the IBA and Regulation K to establish a representative office, the Board must consider whether the foreign bank (1) engages directly in the business of banking outside of the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[4] The Board also considers additional standards set forth in the IBA and Regulation K.[5]

As noted above, eBANK engages directly in the business of banking outside the United States. eBANK also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

With respect to home-country supervision of eBANK, the Board has previously determined, in connection with applications involving other Japanese banks, that those banks were subject to home-country supervision on a consolidated basis.[6] eBANK is supervised by the Japanese Financial Services Agency ("FSA") on substantially the same terms and conditions as those other Japanese banks. Based on all the facts of record, including the above information, it has been determined that eBANK is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.

The additional standards set forth in section 7 of the IBA and Regulation K also have been taken into account.[7] With respect to the financial and managerial resources of eBANK,

1. 12 U.S.C. § 3107(a).
2. Asset data are as of September 30, 2007.
3. Citigroup Inc. indirectly owns 5.33 percent of eBANK. The remaining shares are widely held by individuals and corporations.
4. 12 U.S.C. § 3107(a)(2); 12 CFR 211.24(d)(2). In assessing this standard, the Board considers, among other factors, the extent to which the home-country supervisors (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; and (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. These are indicia of comprehensive, consolidated supervision. No single factor is essential, and other elements may inform the Board's determination.
5. 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2).
6. *See e.g., The Wakashio Bank, Limited*, 89 *Federal Reserve Bulletin* 237 (2003); *The Daiwa Bank, Limited*, 89 *Federal Reserve Bulletin* 185 (2003).
7. *See* 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2)–(3). These standards include: whether the bank's home-country supervisor has consented to the establishment of the office; the financial and managerial resources of the bank; whether the bank has procedures to combat money laundering; whether there is a legal regime in place in the home country to address money laundering, and whether the home country is participating in multilateral efforts to combat money laundering; whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

taking into consideration eBANK's record of operations in its home country, its overall financial resources, and its standing with its home country supervisor, financial and managerial factors are consistent with approval of the proposed representative office. eBANK appears to have the experience and capacity to support the proposed representative office and has established controls and procedures for the proposed representative office to ensure compliance with U.S. law and for its operations in general. The FSA has no objection to the establishment of the proposed representative office.

Japan is a member of the Financial Action Task Force ("FATF") and subscribes to the FATF's recommendations on measures to combat money laundering. In accordance with those recommendations, Japan has enacted laws and developed regulatory standards to deter money laundering. Money laundering is a criminal offense in Japan, and Japanese financial institutions are required to establish internal policies, procedures, and systems for the detection and prevention of money laundering throughout their worldwide operations. The bank has policies and procedures to comply with these laws and regulations that are monitored by governmental entities responsible for anti-money-laundering compliance.

With respect to access to information about eBANK's operations, the Board has reviewed restrictions on disclosure in the relevant jurisdictions in which eBANK operates and has communicated with relevant government authorities regarding access to information. eBANK has committed to make available to the Board such information on its operations and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, eBANK has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In light of these commitments and other facts of record, and subject to the condition described below, it has been determined that eBANK has provided adequate assurances of access to any necessary information that the Board may request.

On the basis of all the facts of record, and subject to the commitments made by eBANK and the terms and conditions set forth in this order, eBANK's application to establish the representative office is hereby approved by the Director of the Division of Banking Supervision and Regulation, with the concurrence of the General Counsel, acting pursuant to authority delegated by the Board.[8] Should any restrictions on access to information on the operations or activities of eBANK or any of its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by eBANK or its affiliates with applicable federal statutes, the Board may require or recommend termination of any of eBANK's direct and indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by eBANK with the commitments made in connection with this application and with the conditions in this order.[9] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with this decision and may be enforced in proceedings under applicable law.

8. *See* 12 CFR 265.7(d)(12).

9. The Board's authority to approve the establishment of the proposed representative office parallels the continuing authority of California to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the California Department of Financial Institutions to license the proposed representative office of eBANK in accordance with any terms or conditions that it may impose.

By order, approved pursuant to authority delegated by the Board, effective January 16, 2008.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

State Bank of India
Mumbai, India

Order Approving Establishment of a Branch

State Bank of India ("Bank"), Mumbai, India, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 7(d) of the IBA[1] to establish a branch in Jackson Heights, New York. The Foreign Bank Supervision Enhancement Act of 1991 ("FBSEA"), which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a branch in the United States.

Notice of the application, affording interested persons an opportunity to comment, has been published in a newspaper of general circulation in Jackson Heights, New York (*The New York Times*, August 5, 2005). The time for filing comments has expired, and the Board has considered all comments received.

Bank, with total assets of approximately $187.5 billion, is the largest bank in India.[2] The government of India owns approximately 63.8 percent of Bank's shares.[3] No other shareholder owns directly more than 5 percent of Bank's shares.

Bank engages primarily in corporate and retail banking and trade finance but also provides through its subsidiaries life insurance, merchant banking, brokerage, credit card processing, and credit information services in India. Outside India, Bank maintains offices in 32 countries. In the

1. 12 U.S.C. § 3105(d).

2. Asset data are as of March 31, 2007. Ranking data are as of June 30, 2006.

3. In June 2007, the government of India purchased 59.7 percent of Bank's shares from the Reserve Bank of India ("RBI") for approximately $8.7 billion. An additional 4.1 percent of Bank's shares are owned by the government of India through the Life Insurance Corporation of India, a government-owned insurance company.

United States, Bank operates insured branches in New York, New York, and Chicago, Illinois; an agency in Los Angeles, California; and a representative office in Washington, D.C. Bank also operates a wholly owned subsidiary, State Bank of India (California), also in Los Angeles.[4] Bank is a qualifying foreign banking organization under Regulation K.[5]

The proposed Jackson Heights branch would offer a range of banking products and services, including permissible deposit accounts and small business loans, as well as remittance, investment advisory, and trade-related services.[6]

Under the IBA and Regulation K, in acting on an application by a foreign bank to establish a branch, the Board must consider whether (1) the foreign bank engages directly in the business of banking outside the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisors.[7] The Board also considers additional standards as set forth in the IBA and Regulation K.[8]

The IBA includes a limited exception to the general standard relating to comprehensive, consolidated supervision.[9] This exception provides that, if the Board is unable to find that a foreign bank seeking to establish a branch, agency, or commercial lending company is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in its home country, the Board may nevertheless approve the application, provided that (i) the appropriate authorities in the home country of the foreign bank are actively working to establish arrangements for the consolidated supervision of such bank; and (ii) all other factors are consistent with approval.[10] In deciding whether to exercise its discretion to approve an application under authority of this exception, the Board must also consider whether the foreign bank has adopted and implemented procedures to combat money laundering.[11] The Board also may take into account whether the home country of the foreign bank is developing a legal regime to address money laundering or is participating in multilateral efforts to combat money laundering.[12] This is the standard applied by the Board in this case.

As noted above, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

Based on all the facts of record, the Board has determined that Bank's home-country supervisory authority is actively working to establish arrangements for the consolidated supervision of Bank and that considerations relating to the steps taken by Bank and its home jurisdiction to combat money laundering are consistent with approval under this standard.[13] The RBI is the principal supervisory authority of Bank, including its foreign subsidiaries and affiliates. The RBI has the authority to license banks, regulate their activities and approve expansion, both domestically and abroad. It supervises and regulates Bank through a combination of regular on-site reviews and off-site monitoring. On-site examinations cover the major areas of operation, capital adequacy, management (including risk-management strategies), asset quality (including detailed loan portfolio analysis), earnings, liquidity, and internal controls and procedures (including anti-money-laundering controls and procedures). The frequency of on-site examinations depends on a bank's risk profile, but generally all Indian banks, including Bank, are examined at least annually.

Off-site monitoring is conducted through the review of required quarterly or monthly reports on, among other things, asset quality, earnings, liquidity, capital adequacy, loans, and on- and off-balance-sheet exposures. The RBI monitors the foreign activities of Indian banks using guidelines designed to ensure that banks identify, control, and minimize risk in the bank and in its joint ventures and subsidiaries. The RBI also periodically audits Indian banks' foreign operations.

Bank is required to be audited annually by a firm of chartered accountants approved by the RBI, and the audit report is submitted to the RBI. The scope of the required audit includes a review of financial statements, asset quality, internal controls, and anti-money-laundering procedures. The RBI may order a special audit at any time. In connection with its listing of Global Depository Receipts on the London Stock Exchange, Bank files reports with the London Stock Exchange that also are subject to annual external audit. In addition, Bank conducts internal audits of its offices and operations on a risk-based schedule. The proposed branch would be subject to internal audits to determine compliance with internal controls and RBI guidelines.

4. Bank's home state under the IBA and Regulation K is New York. All of Bank's operations in the United States were established before enactment of FBSEA.

5. 12 CFR 211.23(a).

6. The proposed branch would not be insured.

7. 12 U.S.C. §3105(d)(2); 12 CFR 211.24. In assessing this standard, the Board considers, among other indicia of comprehensive, consolidated supervision, the extent to which the home-country supervisors (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; and (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. No single factor is essential, and other elements may inform the Board's determination.

8. 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2).

9. 12 U.S.C. § 3105(d)(6).

10. 12 U.S.C. § 3105(d)(6)(A).

11. 12 U.S.C. § 3105(d)(6)(B).

12. *Id.*

13. The Board recently approved an application by another Indian bank under this standard. *See ICICI Bank Limited*, 94 *Federal Reserve Bulletin* C26 (2008).

Indian laws impose various prudential limitations on banks, including limits on transactions with affiliates and large exposures. The RBI is authorized to request and receive information from any bank and its domestic and foreign affiliates and to impose penalties for failure to comply with a disclosure request or for providing false or misleading information. The RBI also has the authority to impose conditions on licensees and to impose penalties for failure to comply with the RBI's rules, orders, and directions. Penalties include monetary fines, removal of management, and the revocation of the authority to conduct business.

In recent years, the Indian government has enhanced its anti-money-laundering regime. In January 2003, India took initial steps to adopt an anti-money-laundering law, the Prevention of Money Laundering Act. The law, related amendments, and implementing rules (collectively, the "PMLA") became effective in July 2005 and established a regulatory infrastructure to assist the anti-money-laundering effort. In accordance with the PMLA, India has established the Financial Intelligence Unit, India ("FIU-IND"), which reports directly to the Economic Intelligence Council headed by the Finance Minister of India. The FIU-IND is responsible for receiving, processing, analyzing, and disseminating information related to cash and suspicious transaction reports. The Directorate of Enforcement, a department within the Ministry of Finance, is responsible for investigating and prosecuting money laundering cases. In addition, the RBI issued "Know Your Customer (KYC) Guidelines — Anti-Money Laundering Standards" ("Guidelines") in November 2004, which require financial institutions to establish systems for the prevention of money laundering. Indian banks were required to be fully compliant with the Guidelines by December 31, 2005. The RBI issued further guidelines in February 2006 providing clarification on reporting cash and suspicious transactions to the FIU-IND.

India participates in international fora that address the prevention of money laundering and terrorist financing. India is a member of the Asia/Pacific Group on Money Laundering (Financial Action Task Force for the Asia/Pacific region), an observer organization to the Financial Action Task Force ("FATF"), and is actively seeking to join FATF as a member.[14] India is a party to the 1988 U.N. Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances and the U.N. International Convention for the Suppression of the Financing of Terrorism.

Bank has policies and procedures to comply with Indian laws and regulations and the RBI's Guidelines regarding anti-money laundering. Bank has also taken additional steps on its own initiative to combat money laundering and other illegal activities. Bank states that it is committed to implementing the relevant recommendations of the FATF and that it has put in place anti-money-laundering policies and procedures to ensure ongoing compliance with statutory and regulatory requirements, including designating branch-level and regional officers who are responsible for implementing Bank's anti-money-laundering policies and procedures. Bank's compliance with anti-money-laundering requirements is monitored by the RBI and by Bank's internal and external auditors.

The Board also has taken into account the additional standards set forth in section 7 of the IBA and Regulation K.[15] The RBI has no objection to Bank's establishment of the proposed branch.

The Board has also considered carefully the financial and managerial factors in this case. India's risk-based capital standards are consistent with those established by the Basel Capital Accord. Bank's capital is in excess of the minimum levels that would be required by the Accord and is considered equivalent to capital that would be required of a U.S. banking organization. Managerial and other financial resources of Bank are consistent with approval, and Bank appears to have the experience and capacity to support the proposed branch. In addition, Bank has established controls and procedures for the proposed branch to ensure compliance with U.S. law.

With respect to access to information about Bank's operations, the Board has reviewed the restrictions on disclosure in relevant jurisdictions in which Bank operates and has communicated with relevant government authorities regarding access to information. Bank has committed to make available to the Board such information on the operations of Bank and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In light of these commitments and other facts of record, and subject to the condition described below, the Board has determined that Bank has provided adequate assurances of access to any necessary information that it may request.

On the basis of all the facts of record, and subject to the commitments made by Bank, as well as the terms and conditions set forth in this order, Bank's application to establish a branch in Jackson Heights, New York, is hereby approved. Should any restrictions on access to information on the operations or activities of Bank and its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or its affiliates with applicable federal statutes, the Board may require termination of any of Bank's direct or indirect

14. India became an observer to FATF in February 2007.

15. *See* 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2). The additional standards set forth in section 7 of the IBA and Regulation K include the following: whether the bank's home-country supervisor has consented to the establishment of the office; the financial and managerial resources of the bank; whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; the bank's record of operation.

activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank with the commitments made in connection with this application and with the conditions in this order.[16] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with this decision and may be enforced in proceedings under 12 U.S.C. § 1818 against Bank and its affiliates.

By order of the Board of Governors, effective January 25, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

16. The Board's authority to approve the establishment of the proposed branch parallels the continuing authority of the state of New York to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the state of New York or its agent, the New York State Banking Department ("Department"), to license the proposed office of Bank in accordance with any terms or conditions that the Department may impose.

Legal Developments: Second Quarter, 2008

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

ORDERS ISSUED UNDER SECTION 3 OF THE BANK HOLDING COMPANY ACT

Fifth Third Bancorp
Cincinnati, Ohio

Fifth Third Financial Corporation
Cincinnati, Ohio

Order Approving the Merger of Bank Holding Companies

Fifth Third Bancorp ("Fifth Third") and its wholly owned subsidiary, Fifth Third Financial Corporation (collectively "Applicants"), both financial holding companies within the meaning of the Bank Holding Company Act ("BHC Act"), have requested the Board's approval under section 3 of the BHC Act[1] to acquire First Charter Corporation ("First Charter") and its subsidiary bank, First Charter Bank ("FC Bank"), both of Charlotte, North Carolina.

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (72 *Federal Register* 54,446 (2007)). The time for filing comments has expired, and the Board has considered the proposal and all comments received in light of the factors set forth in the BHC Act.[2]

Fifth Third, with total consolidated assets of approximately $111 billion, is the 18th largest depository organization in the United States.[3] Fifth Third operates three subsidiary banks in 11 states and controls $70.3 billion in deposits.[4]

First Charter has total consolidated assets of approximately $4.9 billion and controls $3.2 billion in deposits. Its only subsidiary bank, FC Bank, operates in North Carolina and Georgia. First Charter is the seventh largest depository organization in North Carolina, controlling $3.1 billion in deposits, which represent 1.5 percent of the total amount of deposits of insured depository institutions in the state.[5]

On consummation of the proposal, Fifth Third would remain the 18th largest depository organization in the United States, with total consolidated assets of approximately $115.8 billion. Fifth Third would control deposits of approximately $73.6 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States.

INTERSTATE ANALYSIS

Section 3(d) of the BHC Act allows the Board to approve an application by a bank holding company to acquire control of a bank located in a state other than the bank holding company's home state if certain conditions are met. For purposes of the BHC Act, the home state of Fifth Third is Ohio,[6] and First Charter is located in Georgia and North Carolina.[7]

Based on a review of all the facts of record, including relevant state statutes, the Board finds that the conditions for an interstate acquisition enumerated in section 3(d) of the BHC Act are met in this case.[8] In light of all the facts of

1. 12 U.S.C. § 1842.

2. Thirty-five commenters supported the proposal and ninety-eight commenters expressed concerns about various aspects of the proposal.

3. Asset, national ranking, and national deposit data are as of December 31, 2007. Statewide deposit data are as of June 30, 2007, adjusted to reflect mergers through March 26, 2008.

4. Applicants' subsidiary banks are Fifth Third Bank ("Ohio Bank"), Cincinnati, Ohio; Fifth Third Bank ("Michigan Bank"), Grand Rapids, Michigan; and Fifth Third Bank, N.A. ("Tennessee Bank"), Nashville, Tennessee. Through those banks, Applicants operate branches in Florida, Georgia, Illinois, Indiana, Kentucky, Michigan, Missouri, Ohio, Pennsylvania, Tennessee, and West Virginia.

5. In this order, insured depository institutions include commercial banks, savings banks, and savings associations.

6. *See* 12 U.S.C. § 1842(d). A bank holding company's home state is the state in which the total deposits of all banking subsidiaries of such company were the largest on July 1, 1966, or the date on which the company became a bank holding company, whichever is later.

7. For purposes of section 3(d) of the BHC Act, the Board considers a bank to be located in the states in which the bank is chartered or headquartered or operates a branch. *See* 12 U.S.C. §§ 1841(o)(4)–(7) and 1842(d)(1)(A) and 1842(d)(2)(B).

8. 12 U.S.C. §§ 1842(d)(1)(A)–(B) and 1842(d)(2)–(3). Applicants are adequately capitalized and adequately managed, as defined by applicable law. FC Bank has been in existence and operated for the minimum period of time required by applicable state laws and for more than five years. *See* 12 U.S.C. § 1842(d)(1) (B)(i)–(ii). On consummation of the proposal, Applicants would control less than 10 percent of the total amount of deposits of insured depository institutions in the United States (12 U.S.C. § 1842(d)(2)(A)). Applicants would control less than 30 percent of the state deposits in Georgia, and the proposal is not subject to any other deposit caps under state law (12 U.S.C. § 1842(d)(2)(B)–(D)). All other requirements of section 3(d) of the BHC Act would be met on consummation of the proposal.

record, the Board is permitted to approve the proposal under section 3(d) of the BHC Act.

COMPETITIVE CONSIDERATIONS

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a proposed bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by its probable effect in meeting the convenience and needs of the community to be served.[9]

Applicants and First Charter do not compete directly in any relevant banking market. Based on all the facts of record, the Board concludes that consummation of the proposal would have no significantly adverse effect on competition or on the concentration of banking resources in any relevant banking market. Accordingly, the Board has determined that competitive factors are consistent with approval.

FINANCIAL, MANAGERIAL, AND SUPERVISORY CONSIDERATIONS

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and banks involved in the proposal and certain other supervisory factors. The Board has carefully considered these factors in light of all the facts of record, including confidential supervisory and examination information received from the relevant federal and state supervisors of the organizations involved, publicly reported and other financial information, information provided by Applicants, and public comment received on the proposal.[10]

In evaluating the financial resources in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary depository institutions and significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial resources, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, earnings prospects, and the impact of the proposed funding of the transaction.

The Board has carefully considered the financial resources of the organizations involved in the proposal. Applicants, First Charter, and their subsidiary banks are well capitalized and would remain so on consummation of this proposal. Based on its review of the record, the Board finds that Applicants have sufficient resources to effect the proposed transaction, which is structured as a partial share exchange and partial cash purchase of shares. Applicants will use existing resources to fund the cash purchase of shares.

The Board also has considered the managerial resources of the organizations involved in the proposed transaction. The Board has reviewed the examination records of Applicants, First Charter, and their subsidiary banks, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of other relevant banking supervisory agencies, including the Office of the Comptroller of the Currency ("OCC"), with the organizations and their records of compliance with applicable banking law and with anti-money-laundering laws. Applicants, First Charter, and their subsidiary depository institutions are considered to be well managed. The Board also has considered plans for implementing the proposal, including the proposed management after consummation.

Based on all the facts of record, the Board has concluded that the financial and managerial resources and the future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board is required to consider the effects of the proposal on the convenience and needs of the communities to be served and to take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[11] The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs

9. 12 U.S.C. § 1842(c)(1).

10. Many of the commenters expressed concern over Applicants' employment practices, particularly in light of (1) Michigan Bank's settlement agreement in July 2004 in a suit brought by the United States Equal Employment Opportunity Commission ("EEOC") alleging employment discrimination on the basis of gender in violation of Title VII of the Civil Rights Act of 1964 ("Title VII"); and (2) Ohio Bank's March 2000 settlement agreement with the United States Department of Labor ("DOL") to resolve allegations that the bank had engaged in race and gender discrimination at the bank's Cincinnati headquarters in violation of equal employment opportunity requirements for federal contractors. Both settlement agreements involve issues entrusted to other federal agencies as a matter of law and were resolved by those agencies. Under Title VII, the EEOC has primary federal responsibility for investigating and taking legal action against allegations of employment discrimination, and by executive order, DOL is responsible for ensuring that federal contractors comply with equal employment opportunity requirements.

11. 12 U.S.C. § 2901 et seq.; 12 U.S.C. § 1842(c)(2).

of its entire community, including low- and moderate-income ("LMI") neighborhoods, in evaluating bank expansionary proposals.[12]

The Board has considered carefully all the facts of record, including evaluations of the CRA performance records of the subsidiary depository institutions of Applicants and First Charter, data reported by Applicants and First Charter under the Home Mortgage Disclosure Act ("HMDA"),[13] other information provided by Applicants, confidential supervisory information, and public comment received on the proposal.[14] Several commenters criticized the amounts and types of community development investments made by the subsidiary banks of Applicants and First Charter. Some commenters asserted that Applicants and First Charter operate too few branches in LMI or predominantly minority census tracts.[15] In addition, a number of commenters contended, based on HMDA data, that Applicants and First Charter had engaged in disparate treatment of minority individuals in home mortgage lending.

A. CRA Performance Evaluations

As provided in the CRA, the Board has reviewed the convenience and needs factor in light of evaluations by the appropriate federal supervisors of the CRA performance records of the relevant insured depository institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by the institution's appropriate federal supervisor.[16]

Ohio Bank, Applicants' largest subsidiary bank as measured by assets and deposits, received an "outstanding" rating at its most recent CRA performance evaluation by the Federal Reserve Bank of Cleveland, as of July 5, 2005 ("2005 Evaluation").[17] Applicants' two other subsidiary banks received ratings of "outstanding" or "satisfactory" at their most recent CRA performance evaluations.[18]

FC Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the Federal Reserve Bank of Richmond, as of March 6, 2006 ("2006 Evaluation").[19] Fifth Third has represented that it will implement Fifth Third Bank's CRA program at the combined organization on consummation of the proposal.

CRA Performance of Ohio Bank. In addition to the overall "outstanding" rating that Ohio Bank received in the 2005 Evaluation,[20] the bank received separate overall "outstanding" or "satisfactory" ratings in all the states and multistate metropolitan areas reviewed.[21] Examiners reported that Fifth Third Bank's overall level of lending activity was excellent and that the geographic distribution of loans was good.[22] They also stated that the bank's distribution of loans to borrowers reflected a good penetration among customers of different income levels and to businesses of different revenue sizes.

In the 2005 Evaluation, examiners characterized Ohio Bank as a leader in making community development loans in its assessment areas, reporting that the bank made more than 190 community development loans totaling more than $220 million during 2003 and 2004. Examiners noted that this dollar volume represented an increase of more than 46 percent from the volume of its community development lending during the previous evaluation period.

---

12. 12 U.S.C. §2903.

13. 12 U.S.C. §2801 et seq.

14. Several commenters urged the Board to require Applicants to provide specific CRA pledges or plans or to require them to take certain actions in the future. The Board consistently has stated that neither the CRA nor the federal banking agencies' CRA regulations require depository institutions to make pledges or enter into commitments or agreements with any organization and that the enforceability of any such third-party pledges, initiatives, or agreements are matters outside the CRA. *See, e.g., Wachovia Corporation,* 91 *Federal Reserve Bulletin* 77 (2005). Instead, the Board focuses on the existing CRA performance record of an applicant and the programs that an applicant has in place to serve the credit needs of its assessment areas at the time the Board reviews a proposal under the convenience and needs factor.

15. For purposes of this analysis, a predominantly minority census tract is a census tract with a minority population of 80 percent or more.

16. *See Interagency Questions and Answers Regarding Community Reinvestment,* 66 *Federal Register* 36,620 and 36,639 (2001).

17. The evaluation period was January 1, 2003, through December 31, 2004.

18. Michigan Bank received an "outstanding" rating by the Federal Reserve Bank of Chicago, as of July 5, 2005, and Tennessee Bank received a "satisfactory" rating by the OCC, as of May 16, 2005.

19. The evaluation period for HMDA-reportable loans and small loans to businesses was January 1, 2004, through December 31, 2005. "Small loans to businesses" are loans with original amounts of $1 million or less that are either secured by nonfarm, nonresidential properties or classified as commercial and industrial loans. The evaluation period for the bank's community development loans, investments, and services was February 2, 2004, through December 31, 2005.

20. Examiners considered the performance of certain subsidiaries of Applicants in the 2005 Evaluation. References to Ohio Bank in the convenience and needs analysis in this order incorporate these entities. The 2005 Evaluation focused on Ohio Bank's CRA performance in its assessment areas in Ohio, which together accounted for more than 95 percent of the bank's lending activity during the evaluation period. In Ohio, examiners conducted full-scope reviews of the bank's performance in the Cincinnati and Columbus metropolitan statistical areas ("MSAs") and in nonmetropolitan areas in Northwestern Ohio and in the Ohio Valley, which together accounted for approximately 58 percent of the bank's lending activity during the evaluation period. Examiners also conducted limited-scope reviews of the bank's performance in six other MSAs in Ohio. In addition, the 2005 Evaluation reviewed Ohio Bank's CRA performance in Michigan, Pennsylvania, and West Virginia and in the Huntington-Ashland multistate metropolitan area in Kentucky, Ohio, and West Virginia.

21. One commenter expressed concern that Ohio Bank received "low satisfactory" or lower ratings under some of the component tests for Michigan, Pennsylvania, and the Huntington-Ashland multistate metropolitan area. Examiners noted that Ohio Bank entered Pennsylvania by establishing de novo branches in December 2004, which was the end of the evaluation period. The bank received higher ratings under the lending and other tests in other areas, and examiners concluded that the bank's record of CRA performance during the review period, when viewed as a whole, warranted a rating of "outstanding."

22. A commenter criticized the level of higher-cost loans made by Ohio Bank in LMI census tracts in the Cincinnati MSA. The Board notes that during 2005 and 2006 in that MSA, 6.4 percent of Applicants' HMDA-reportable loans in LMI census tracts were higher-cost loans, compared with 37 percent for lenders in the aggregate.

Since the 2005 Evaluation, Ohio Bank has continued to make a substantial volume of loans. For example, the bank's HMDA-reportable loans throughout its assessment areas totaled more than $6.2 billion in 2005 and 2006. In addition, Applicants represented that the bank made approximately $243 million in total qualified community development loans throughout its assessment areas in 2005 and 2006.

In the 2005 Evaluation, examiners rated Ohio Bank's overall performance under the investment test as "outstanding." Qualifying community development investments totaled more than $49 million during the evaluation period. Applicants represented that Ohio Bank has increased its community development investment activity since the 2005 Evaluation and noted that the bank had made qualified investments totaling more than $101 million during 2005 and 2006.

In the 2005 Evaluation, examiners concluded that the bank's performance under the service test was "outstanding." Examiners found that the bank's retail delivery systems were accessible to all segments of the bank's assessment areas. They reported that the geographic distribution of the bank's Ohio branches was reasonable, with 18 percent of its branches in the state in LMI areas, as of year-end 2004. In addition, examiners noted that bank's directors, officers, and employees participated in numerous organizations and activities that promoted or facilitated affordable housing and services for LMI individuals and revitalization of LMI areas. Applicants have represented that since the 2005 Evaluation, Ohio Bank has continued to provide community development services, including financial literacy training for individuals and technical assistance to nonprofits and small businesses.

CRA Performance of FC Bank. As noted, FC Bank received an overall "satisfactory" rating in the 2006 Evaluation. Under the lending test, FC Bank received a "high satisfactory" rating, and examiners reported that the bank's distribution of lending in its assessment areas reflected a good penetration among retail customers of different income levels and business customers of varying sizes. Examiners concluded that the bank's community development lending was adequate, noting that such lending included more than $5 million in loans to a consortium providing long-term permanent financing for LMI multifamily housing developments throughout North Carolina.[23]

The bank received a "low satisfactory" rating under the investment test in the 2006 Evaluation. Examiners reported that the bank's level of qualified community development investments was considered adequate relative to available opportunities. The bank had qualified community development investments totaling approximately $4 million and commitments to fund an additional $2.2 million. These investments facilitated housing for LMI residents of North Carolina and provided for microenterprise development in the state.

In the 2006 Evaluation, FC Bank received a "low satisfactory" rating on the service test. Examiners concluded that FC Bank's branch locations were reasonably accessible to all segments of the bank's assessment areas.[24] Examiners reported that the bank provided a good level of community development services.

B. HMDA and Fair Lending Record

The Board has carefully considered the fair lending records and HMDA data of Applicants and First Charter in light of public comments received on the proposal. Two commenters alleged that Applicants had made a disproportionately small number of prime loans in predominantly minority census tracts in the Cincinnati MSA.[25] Several commenters contended that from 2004 through 2006, First Charter's record of HMDA-reportable loans to minority borrowers and communities indicated disproportionately low loan application rates, high denial rates, and low lending volume.[26] Two commenters also stated that First Charter made a disproportionately small number of prime loans to African Americans in the Charlotte MSA. The Board has focused its analysis on the 2005 and 2006 HMDA data reported by Applicants and First Charter.[27]

Many commenters expressed concern about Applicants' record of compliance with fair lending laws in light of an agreement between Applicants and the United States Department of Justice ("DOJ") in 2004 ("2004 Agreement"). The 2004 Agreement settled allegations by DOJ that a banking corporation acquired by Fifth Third, Old Kent Financial Corporation ("Old Kent"), Grand Rapids, Michigan, had violated federal fair lending laws between 1996 and 2000. The alleged violations included operating more than 50 branches in the Detroit MSA but none in the city of Detroit and making only 335 small business, home improvement, and home refinance loans in predominantly minority census tracts in the MSA. Applicants acquired Old Kent in 2001, and the matters addressed in the 2004 Agreement occurred before that acquisition.

23. Several commenters asserted that the bank should have made more community development loans to, and more investments in, community development corporations. The CRA does not require banks to provide any particular type of qualified community development loans or investments to meet the credit needs of their communities.

24. Three commenters alleged that a disproportionately small number of the bank's branches were in LMI census tracts. As noted above, examiners concluded that FC Bank's branch locations were reasonably accessible. After consummation of the proposal, examiners will continue to evaluate the branch network of the resulting bank's CRA performance under the service test.

25. One commenter asserted that Applicants did not make an adequate number of small business loans in predominantly minority communities or to minority borrowers generally.

26. In addition, one commenter asserted that FC Bank deliberately located a branch in Landis, North Carolina, rather than in a nearby town with a larger population of African Americans. The Board notes that FC Bank acquired this branch in 1987 as part of the bank's merger with Merchants & Farmers Bank, Landis.

27. The Board analyzed HMDA data for Applicants' assessment areas nationwide and in Ohio and Cincinnati and for First Charter's assessment areas in North Carolina and the Asheville, Charlotte, and Raleigh MSAs.

The 2004 Agreement required Applicants to open at least three branches and to spend at least $3 million on interest-rate subsidies, down-payment or closing-cost grants, or other financial assistance to small business and home mortgage borrowers in the city of Detroit during a three-year period. Michigan Bank currently operates four branches in the city of Detroit, and in 2005 and 2006, Fifth Third originated 425 small business, home refinance, and home-improvement loans totaling more than $85 million in predominantly minority census tracts in the Detroit MSA. The 2004 Agreement expired in February 2008.

The Board and other federal banking agencies review fair lending compliance in connection with their regular consumer compliance examinations of banks. Depending on the risk factors presented, those examinations might include transactional analysis, analysis of potential evidence of "steering" and "redlining," and review of marketing practices, among other matters.[28] If during an examination the reviewing agency concludes that a bank has engaged in a pattern or practice of lending discrimination, that agency must refer the evidence to DOJ[29] and must take the evidence into account when rating the bank's CRA performance.[30] In connection with their ongoing supervisory responsibilities, the Board and Reserve Banks will continue to periodically review the compliance of Ohio Bank and Michigan Bank with fair lending laws,[31] and the OCC will perform similar reviews of Tennessee Bank.[32]

As part of its compliance reviews, the Board carefully assesses HMDA data reported by the banking organizations it supervises. As noted, the Board also has carefully reviewed the HMDA data reported by Applicant and First Charter in reviewing this proposal. Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not Applicants or First Charter exclude any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information,[33] provide only limited information about the covered loans.[34] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Because of the limitations of HMDA data, the Board has considered these data carefully and taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending laws by Applicants, First Charter, and their subsidiaries. The Board also has reviewed its experience as the primary federal supervisor of Ohio Bank, Michigan Bank, and FC Bank[35] and has consulted with the OCC, the primary federal supervisor of Tennessee Bank.

The record of this proposal, including confidential supervisory information, indicates that Applicants and First Charter have taken steps to ensure compliance with fair lending and other consumer protection laws. Applicants have stated that they conduct regular internal reviews of compliance with fair lending laws, using regression analysis, matched-pair loan evaluations, and reviews of overages, broker pricing, rate spreads, and other data. In addition, Applicants require all employees involved in the lending process to complete fair lending training annually. Moreover, Applicants have complied with the settlement agreement with DOJ regarding Old Kent and its behavior before being acquired by Applicants, and that agreement has expired.

First Charter's consumer credit loans are centrally underwritten and any overrides or exceptions are reviewed by credit-risk management to ensure compliance with fair lending laws. First Charter requires new employees with lending responsibilities to attend training covering prescreening and other matters that raise fair lending issues. Applicants have stated that Fifth Third's fair lending and

28. *See Interagency Fair Lending Examination Procedures*, an attachment to the Board's Consumer Affairs Letter No. CA 04–8, dated October 24, 2004.

29. 15 U.S.C. § 1691e(g).

30. *See, e.g.*, 12 CFR 25.28(c); 12 CFR 228.28(c).

31. Many commenters also expressed concern about an agreement in June 2006 between Ohio Bank and the United States Department of Housing and Urban Development to settle allegations that the bank had denied an individual a home-purchase loan based on race. As part of the agreement, the bank paid the individual $125,000 and committed to increase its community development lending in the Northern Kentucky and Cincinnati areas, among other measures. In connection with its ongoing supervisory responsibilities for Ohio Bank, the Board has reviewed the allegations and will continue to review the bank's community development activities in the Northern Kentucky and Cincinnati regions and in the bank's other assessment areas.

32. The OCC has approved the proposed merger of FC Bank and Tennessee Bank.

33. Beginning January 1, 2004, the HMDA data required to be reported by lenders were expanded to include pricing information for loans on which the annual percentage rate (APR) exceeds the yield for U.S. Treasury securities of comparable maturity 3 or more percentage points for first-lien mortgages and 5 or more percentage points for second-lien mortgages (12 CFR 203.4).

34. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

35. Several commenters contended that FC Bank does not maintain an appropriate number of branches in predominantly minority census tracts in North Carolina, and other commenters asserted that Applicants do not maintain an appropriate number of branches in predominantly minority census tracts in the Cincinnati area. The Board notes that the correlation between a bank's branch network and the racial demographics of the geographies it serves, if any, can be a factor in determining the level of scrutiny and the matters covered in fair lending examinations of the bank.

consumer compliance policies and procedures will be implemented at the combined organization after consummation of the proposal.

The Board also has considered the HMDA data in light of other information, including the overall performance records of the subsidiary banks of Applicants and First Charter under the CRA. These established efforts and records of performance demonstrate that the institutions are active in helping to meet the credit needs of their entire communities.

C. Conclusion on Convenience and Needs and CRA Performance

The Board has carefully considered all the facts of record, including reports of examination of the CRA records of the institutions involved, information provided by Applicants, comments received on the proposal, and confidential supervisory information. Applicants stated that the proposal would result in the availability of expanded products and services on a more cost-effective basis for customers of Applicants and First Charter. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant insured depository institutions are consistent with approval of the proposal.

CONCLUSION

Based on the foregoing, and in light of all the facts of record, the Board has determined that the application should be, and hereby is, approved.[36] In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act and other applicable statutes. The Board's approval is specifically conditioned on compliance by Applicants with the conditions in this order and all the commitments made to the Board in connection with the proposal. For purposes of this transaction, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The proposal may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Cleveland, acting pursuant to delegated authority.

By order of the Board of Governors, effective April 15, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT deV. FRIERSON
Deputy Secretary of the Board

36. Several commenters requested that the Board hold a public meeting or hearing on the proposal. Section 3 of the BHC Act does not require the Board to hold a public hearing on an application unless the appropriate supervisory authority for the bank to be acquired makes a written recommendation of denial of the application. The Board has not received such a recommendation from the appropriate supervisory authorities. Under its rules, the Board also may, in its discretion, hold a public meeting or hearing on an application to acquire a bank if necessary or appropriate to clarify factual issues related to the application and to provide an opportunity for testimony (12 CFR 225.16(e), 262.25(d)). The Board has considered carefully the commenters' requests in light of all the facts of record. In the Board's view, the commenters had ample opportunity to submit their views and, in fact, submitted written comments that the Board has considered carefully in acting on the proposal. The commenters' requests fail to demonstrate why written comments do not present their views adequately or why a meeting or hearing otherwise would be necessary or appropriate. For these reasons, and based on all the facts of record, the Board has determined that a public meeting or hearing is not required or warranted in this case. Accordingly, the requests for a public meeting or hearing on the proposal are denied.

JPMorgan Chase & Co.
New York, New York

Order Approving the Acquisition of Control of a Bank

JPMorgan Chase & Co. ("JPMC"), a financial holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to acquire indirect control of Bear Stearns Bank & Trust ("BSB&T"), Princeton, New Jersey, a subsidiary of The Bear Stearns Companies Inc. ("Bear Stearns"), New York, New York.[2] JPMC proposes to acquire more than 25 percent of the voting shares of Bear Stearns and then merge Bear Stearns with a newly formed subsidiary of JPMC, with Bear Stearns as the surviving entity.[3] Based on all the facts and circumstances, the Board has determined that an emergency exists requiring expeditious action on the proposal.[4] In making this determination, the Board has considered the market conditions and the financial condition of Bear Stearns, the parent company of BSB&T, as well as all the facts of record. The Board has provided notice to the primary federal and state

1. 12 U.S.C. § 1842.

2. JPMC includes the intermediate holding companies through which it will own the shares of BSB&T. Although BSB&T is a "bank" for purposes of the BHC Act, Bear Stearns is not treated as a bank holding company under the act. Bear Stearns controls BSB&T pursuant to section 4(f) of the BHC Act, which exempts a company from treatment as a bank holding company if the company controlled certain "nonbank banks" prior to March 5, 1987 (12 U.S.C. § 1843(f)). JPMC does not qualify for this exemption, however, and requires approval to acquire direct or indirect control of BSB&T.

3. JPMC is permitted by section 4(k) of the BHC Act to acquire control of Bear Stearns and its nonbanking subsidiaries without obtaining prior approval from the Board (12 U.S.C. § 1843(f)). Because JPMC qualifies as a financial holding company, the BHC Act requires only that JPMC provide the Board notice within 30 days after acquiring control of Bear Stearns and its nonbanking subsidiaries (12 U.S.C. § 1843(k)(6); 12 CFR 225.87).

4. 12 U.S.C. § 1842(b).

supervisors of BSB&T and the Department of Justice ("DOJ"); all have indicated they have no objection to the consummation of the proposal.

JPMC, with total consolidated assets of approximately $1.6 trillion, is the third largest depository organization in the United States, controlling deposits of approximately $511 billion, which represent 7.4 percent of the total amount of deposits of insured depository institutions in the United States.[5] JPMC operates four subsidiary insured depository institutions in 18 states[6] and engages in numerous nonbanking activities that are permissible under the BHC Act. JPMC is the sixth largest depository organization in New Jersey, controlling deposits of approximately $7.1 billion. BSB&T operates in New Jersey and is the 45th largest depository organization in the state, controlling deposits of approximately $398 million. On consummation of the proposal, JPMC would remain the third largest depository institution in the United States, with total consolidated assets of approximately $1.6 trillion. JPMC would control deposits of approximately $511 billion, which represent 7.4 percent of the total amount of deposits of insured depository institutions in the United States. In New Jersey, JPMC would become the fifth largest depository organization, controlling deposits of approximately $7.4 billion, which represent approximately 3.8 percent of the deposits in insured depository institutions in the state ("state deposits").

Interstate Analysis

Section 3(d) of the BHC Act allows the Board to approve an application by a bank holding company to acquire control of a bank located in a state other than the home state of such bank holding company if certain conditions are met. For purposes of the BHC Act, the home state of JPMC is New York,[7] and BSB&T is located in New Jersey.[8]

Based on a review of all the facts of record, including relevant state statutes, the Board finds that the conditions for an interstate acquisition enumerated in section 3(d) of the BHC Act are met in this case.[9] In light of all the facts of record, the Board is permitted to approve the proposal under section 3(d) of the BHC Act.

Competitive Considerations

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of an attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a bank acquisition that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.

JPMC and Bear Stearns have subsidiary depository institutions that compete directly in the Metropolitan New York-New Jersey banking market.[10] The Board has reviewed carefully the competitive effects of the proposal in this banking market in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the market, the relative shares of total deposits in depository institutions controlled by JPMC and Bear Stearns in the market ("market deposits"),[11] the concentration level of market deposits and the increases in

5. National asset, deposit, and ranking data are as of December 31, 2007. Statewide deposit and deposit ranking data are as of June 30, 2007. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.

6. JPMC's largest subsidiary bank, JPMorgan Chase Bank, National Association ("JPMC Bank"), Columbus, Ohio, operates branches in Arizona, Colorado, Connecticut, Florida, Illinois, Indiana, Kentucky, Louisiana, Michigan, New Jersey, New York, Ohio, Oklahoma, Texas, Utah, West Virginia, and Wisconsin. JPMorgan Chase Bank, Dearborn ("Dearborn Bank"), Dearborn, Michigan, operates only in Michigan. Chase Bank USA, National Association ("Chase Bank"), Newark, Delaware, operates as a credit card bank. JPMC also operates J.P. Morgan Trust Company, National Association, Los Angeles, California, which is an insured trust company.

7. A bank holding company's home state is the state in which the total deposits of all subsidiary banks of the company were the largest on July 1, 1966, or the date on which the company became a bank holding company, whichever is later (12 U.S.C. § 1841(o)(4)(C)).

8. For purposes of section 3(d) of the BHC Act, the Board considers a bank to be located in the states in which the bank is chartered or headquartered or operates a branch (12 U.S.C. §§ 1841(o)(4)–(7) and 1842(d)(1)(A) and 1842(d)(2)(B)).

9. 12 U.S.C. §§ 1842(d)(1)(A)–(B) and 1842(d)(2)–(3). JPMC is adequately capitalized and adequately managed, as defined by applicable law. There is no applicable age-requirement law in New Jersey, and BSB&T has been in existence and operated for more than five years. *See* 12 U.S.C. § 1842(d)(1)(B)(i)–(ii). On consummation of the proposal, JPMC would control less than 10 percent of the total amount of deposits of insured depository institutions in the United States and less than 30 percent of the state deposits in New Jersey. JPMC, therefore, would be in compliance with the relevant deposit cap under New Jersey law, which is 30 percent (12 U.S.C. § 1842(d)(2)(B)–(D)). All other requirements of section 3(d) of the BHC Act would be met on consummation of the proposal.

10. The Metropolitan New York-New Jersey banking market is defined as Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, and Westchester counties, all in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren counties and the northern portions of Mercer County, all in New Jersey; Monroe and Pike counties in Pennsylvania; and Fairfield County and portions of Litchfield and New Haven counties in Connecticut.

11. Deposit and market share data are as of June 30, 2007, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386, 387 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743, 744 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52, 55 (1991).

those levels as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines"),[12] and other characteristics of the market.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in the Metropolitan New York-New Jersey banking market.[13] On consummation of the proposal, the market would remain moderately concentrated as measured by the HHI, and numerous competitors would remain in the market.

The DOJ has conducted a review of the potential competitive effects of the proposal and has advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in the banking market where JPMC and Bear Stearns compete directly or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination and other supervisory information received from the relevant federal and state supervisors of the organizations involved in the proposal, and other available financial information, including information provided by JPMC.

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the relevant companies involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary depository institutions and other subsidiaries. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the applicant organization after consummation of the proposed transaction.

The Board has considered the proposal carefully under the relevant financial factors. JPMC, its subsidiary depository institutions, and BSB&T are well capitalized and would remain so on consummation of the proposal.

The Board also has considered the managerial resources of the organizations involved and the proposed combined organization. The Board has reviewed the examination records of JPMC and its subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant bank supervisory agencies with the organizations and their records of compliance with applicable banking law, including anti-money-laundering laws. JPMC and its subsidiary depository institutions, as well as BSB&T, are considered to be well managed.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board is required to consider the effects of the proposal on the convenience and needs of the communities to be served and to take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[14]

As provided in the CRA, the Board has reviewed the convenience and needs factor in light of the evaluations by the appropriate federal supervisors of the CRA performance records of the relevant insured depository institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[15] Each of JPMC's subsidiary depository institutions that is subject to the CRA received an "outstanding" rating

12. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is under 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI exceeds 1800. The DOJ has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

13. JPMC operates the largest depository institution in the Metropolitan New York-New Jersey banking market, controlling deposits of approximately $228 billion, which represent 29 percent of market deposits. BSB&T controls $398 million in deposits, which represents less than 1 percent of market deposits. On consummation, JPMC would remain the largest depository institution in the market, controlling deposits of approximately $228 billion, which represent approximately 29 percent of market deposits. Approximately 271 depository institutions would remain in the banking market. The HHI would remain unchanged at 1118.

14. 12 U.S.C. § 2901 et seq.; 12 U.S.C. § 1842(c)(2).

15. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 and 36,639 (2001).

at its most recent CRA performance evaluation.[16] BSB&T currently does not receive a CRA evaluation due to the bank's designation as a special purpose bank by the Federal Deposit Insurance Corporation.[17]

The Board has considered carefully all of the facts of record, including reports of examination of the CRA records of the institutions involved and confidential supervisory information. JPMC's acquisition of BSB&T will enhance and maintain the level of service provided to the customers currently served by BSB&T. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance records of the relevant insured depository institutions are consistent with approval of the proposal.

CONCLUSION

Based on the foregoing, and in light of all the facts of record, the Board has determined that the application should be, and hereby is, approved. In reaching its decision, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by JPMC with the conditions in this order and all the commitments made to the Board in connection with the proposal. For purposes of this transaction, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

The transaction may not be consummated before the fifth calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of New York, acting pursuant to delegated authority.

By order of the Board of Governors, effective April 1, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

16. JPMC's lead bank, JPMC Bank, received an "outstanding" rating at its most recent CRA performance evaluation by the Federal Reserve Bank of New York, as of September 8, 2003. JPMC Bank converted to a national bank on November 13, 2004. The Board has consulted with the Office of the Comptroller of the Currency ("OCC"), which is now JPMC Bank's primary federal supervisor, about the bank's performance since its evaluation in 2003. J.P. Morgan Trust Company received an "outstanding" rating at its most recent CRA performance evaluation by the OCC, as of November 4, 2006. Chase Bank received an "outstanding" rating at its most recent CRA examination by the OCC, as of January 9, 2006. Dearborn Bank engages in cash management activities for its affiliated banks and is not subject to the CRA.

17. 12 CFR 345.11.

ORDERS ISSUED UNDER SECTION 4 OF THE BANK HOLDING COMPANY ACT

Bank of America Corporation Charlotte, North Carolina

Order Approving the Acquisition of a Savings Association and Other Nonbanking Activities

Bank of America Corporation ("Bank of America"), a financial holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under sections 4(c)(8) and 4(j) of the BHC Act and section 225.24 of the Board's Regulation Y[1] to acquire Countrywide Financial Corporation ("Countrywide"), Calabasas, California, and thereby indirectly acquire Countrywide's subsidiary savings association, Countrywide Bank, FSB ("Countrywide Bank"), Alexandria, Virginia.[2] In addition, Bank of America has requested the Board's approval to acquire indirectly certain other nonbanking subsidiaries of Countrywide and thereby engage in the following activities: credit extension and loan servicing; real estate and personal property appraisal; real estate settlement; credit bureau services; asset management, servicing, and collection; acquiring debt in default; securities brokerage; trust company functions; community development; and tax services in accordance with section 225.28(b) of the Board's Regulation Y.[3]

Bank of America, with total consolidated assets of $1.7 trillion, is the largest depository organization in the United States measured by deposits, controlling deposits of approximately $711.7 billion, which represent approximately 10.04 percent of the total amount of deposits of insured depository institutions in the United States.[4] Bank

1. 12 U.S.C. §§ 1843(c)(8) and (j); 12 CFR 225.24.

2. Bank of America has formed a wholly owned subsidiary, Red Oak Merger Corporation ("Red Oak"), for purposes of acquiring Countrywide. Countrywide will merge with and into Red Oak, and Countrywide will become a subsidiary of Bank of America. In connection with this proposal, Bank of America also has applied to acquire from its subsidiary bank, Bank of America, National Association ("BA Bank"), Charlotte, North Carolina, 20,000 shares of Series B Nonvoting Convertible Preferred Stock of Countrywide, which is convertible at the option of the holder into approximately 15.7 percent of Countrywide's voting common stock.

3. *See* the appendix for a listing of these subsidiaries and their respective activities. Bank of America also proposes to acquire certain other Countrywide subsidiaries in accordance with section 4(k) of the BHC Act, 12 U.S.C. § 1843(k).

4. Asset and nationwide deposit-ranking data are as of December 31, 2007. In this context, insured depository institutions include commercial banks, savings banks, and savings associations. As explained below, the nationwide deposit cap restriction contained in section 3(d) of the BHC Act does not apply to this transaction because the transaction involves the acquisition of a savings association and not a bank.

of America controls eight insured depository institutions[5] that operate in 31 states and the District of Columbia.

Countrywide, with total consolidated assets of approximately $199 billion, is the 17th largest depository organization in the United States, controlling deposits of approximately $61.7 billion, which represent less than 1 percent of the total amount of deposits of insured depository institutions in the United States. Countrywide Bank, Countrywide's only subsidiary insured depository institution, is located in Texas and Virginia.

On consummation of the proposal, Bank of America would remain the largest depository organization in the United States, with total consolidated assets of approximately $1.9 trillion. Bank of America would control deposits of approximately $773.4 billion, representing approximately 10.91 percent of the total amount of deposits of insured depository institutions in the United States.

FACTORS GOVERNING BOARD REVIEW OF THE TRANSACTION

The Board previously has determined by regulation that the operation of a savings association by a bank holding company and the other nonbanking activities for which Bank of America has requested approval are closely related to banking for purposes of section 4(c)(8) of the BHC Act.[6] The Board requires that savings associations acquired by bank holding companies or financial holding companies conform their direct and indirect activities to those permissible for bank holding companies under section 4(c)(8) of the BHC Act.[7] Bank of America has committed that all the activities of Countrywide Bank and the other nonbanking subsidiaries of Countrywide that it proposes to acquire will conform to the requirements for permissible activities under section 4 of the BHC Act and Regulation Y.

Section 4(j)(2)(A) of the BHC Act requires the Board to determine that the proposed acquisition of Countrywide Bank and Countrywide's other nonbanking subsidiaries "can reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices."[8] As part of its evaluation under these public interest factors, the Board reviews the financial and managerial resources of the companies involved, the effect of the proposal on competition in the relevant markets, and the public benefits of the proposal.[9] In acting on a notice to acquire a savings association, the Board also reviews the records of performance of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[10]

PUBLIC COMMENT ON THE PROPOSAL

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in the *Federal Register* (73 *Federal Register* 11,419 (March 3, 2008) and 73 *Federal Register* 18,279 (April 3, 2008)), and the time for filing comments has expired. The Board extended the initial period for public comment to accommodate the broad public interest in this proposal, providing interested persons more than 50 days to submit written comments.

Because of the extensive public interest in the proposal, the Board held public meetings in Chicago, Illinois, and Los Angeles, California, to provide interested persons an opportunity to present oral testimony on the factors that the Board must review under the BHC Act.[11] Approximately 150 people testified at the public meetings, and many of those who testified also submitted written comments.

In total, approximately 770 individuals and organizations submitted comments on the proposal through oral testimony, written comments, or both. Commenters included members of Congress, a state government agency, community groups, nonprofit organizations, customers of Bank of America or Countrywide, and other interested organizations and individuals.

A large number of commenters supported the proposal. Many of the commenters in support of the proposal commended Bank of America for its commitment to local communities and described favorable experiences with the affordable mortgage, small business, and community development programs of the organization. Commenters also praised the willingness of Bank of America to provide CRA-related products and services, such as affordable mortgage products, educational seminars, and loan funds, to support community development activities. In addition, commenters praised Bank of America's charitable contributions and noted that officers and employees of the organizations frequently provided valuable services to community organizations as board members and volunteers.

5. BA Bank is Bank of America's largest subsidiary depository institution, as measured by both assets and deposits. Bank of America's other subsidiary depository institutions are Bank of America Oregon, National Association ("BA Oregon"), Portland, Oregon; Bank of America California, National Association ("BA California"), San Francisco, California; Bank of America Rhode Island, National Association ("BA Rhode Island"), Providence, Rhode Island; Bank of America Georgia, National Association ("BA Georgia"), Atlanta, Georgia; FIA Card Services, N.A., Wilmington, Delaware; LaSalle Bank National Association, Chicago, Illinois; and LaSalle Bank Midwest National Association, Troy, Michigan.

6. 12 CFR 225.28(b)(1), (2), (4)(ii), (5), (6)(vi), (7)(i), and (12).

7. 12 CFR 225.28(b)(4)(ii) and 225.86.

8. 12 U.S.C. § 1843(j)(2)(A).

9. *See* 12 CFR 225.26; *see, e.g., Wachovia Corporation*, 92 *Federal Reserve Bulletin* C138 (2006); *BancOne Corporation*, 83 *Federal Reserve Bulletin* 602 (1997).

10. 12 U.S.C. § 2901 et seq.

11. The Board held the Chicago public meeting on April 22, 2008, and the Los Angeles public meetings on April 28 and 29, 2008. A few commenters requested that the Board hold additional public meetings in New York and in other communities affected by the acquisition, as well as extend the public comment period. The Board believes, however, that holding public meetings in Chicago and Los Angeles, as well as giving all commenters an extended period to submit written comments, provided sufficient opportunity for interested persons to present relevant information to the Board.

A significant number of commenters opposed the proposal, requested that the Board approve the proposal subject to certain conditions or expressed concerns about the proposal.[12] Many commenters were concerned about the impact of the proposal on Bank of America's share of national deposits. Commenters expressed their belief that, if approved by the Board, Bank of America's acquisition of Countrywide would violate the statutory restriction on interstate bank acquisitions contained in section 3(d) of the BHC Act.[13] Many commenters also believed that the acquisition would reduce competition in the mortgage origination and servicing markets and substantially increase concentration in the banking and financial services industry. In addition, commenters expressed concern about Bank of America's plans for integrating Countrywide's operations, business model, and management. Many commenters urged Bank of America to retain Countrywide staff to help adequately address borrowers' needs, and some commenters suggested that Bank of America retain Countrywide's main office and mortgage servicing headquarters.

Several commenters expressed concerns about the safety and soundness of the proposed acquisition, arguing that Countrywide's current condition may unduly strain Bank of America's financial and managerial resources. Commenters also expressed concerns about the effect of Countrywide's legal exposures on Bank of America's resources, in light of lawsuits and investigations involving Countrywide. The majority of commenters urged Bank of America to develop a loss-mitigation plan for dealing appropriately with distressed borrowers or borrowers facing foreclosure.

Many commenters criticized Countrywide's lending and servicing operations and other business practices, focusing primarily on Countrywide's presence in the subprime lending market and its wide use of nontraditional mortgage products. A significant number of commenters criticized the performance of Bank of America and Countrywide under the CRA. Some of these commenters criticized Bank of America's community development and philanthropic initiatives. Other commenters expressed concern about the impact of the acquisition on Bank of America's commitment to CRA-related initiatives and its future performance under the CRA. In addition, some commenters expressed concern about Bank of America's and Countrywide's records of lending to minorities.

In evaluating the statutory factors under the BHC Act, the Board carefully considered the information and views presented by all commenters, including the testimony at the public meetings and the written submissions. The Board also considered all the information presented in the notice and supplemental filings by Bank of America, various reports filed by the relevant companies, publicly available information, and other information and reports. In addition, the Board reviewed confidential supervisory information, including examination reports on the depository institution holding companies and the depository institutions involved and other information provided by the relevant federal financial institution supervisory agencies ("federal supervisory agencies"), the Securities and Exchange Commission ("SEC"), and the Department of Justice ("DOJ"). After a careful review of all the facts of record, and for the reasons discussed in this order, the Board has concluded that the statutory factors it is required to consider under the BHC Act are consistent with approval of the proposal.

COMPETITIVE CONSIDERATIONS

The Board has considered carefully the competitive effects of Bank of America's acquisition of Countrywide, including the acquisition of Countrywide Bank and the other Countrywide nonbanking subsidiaries, in light of all the facts of record.

A. Acquisition of a Savings Association

Bank of America and Countrywide have subsidiary insured depository institutions that compete directly in two banking markets, Washington, D.C., and Fort Worth, Texas.[14] The Board has reviewed carefully the competitive effects of the proposal in both markets in light of all the facts of record, including public comment on the proposal. In particular, the Board has considered the number of competitors that would remain in the markets, the relative shares of total deposits in depository institutions in each market ("market deposits") controlled by Bank of America and Countrywide,[15] the concentration levels of market deposits and the

12. Approximately 440 comments were submitted in the form of one of two substantially identical e-mail messages.

13. A large number of commenters have expressed concern about the impact of the proposal on the deposit cap provision of section 3(d) of the BHC Act. The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 ("Riegle-Neal Act"), Pub. L. 103-328 (1994), codified at 12 U.S.C. § 1842(d), provides that the Board may not approve any application for the interstate acquisition of a *bank* if consummation of the acquisition would result in the applicant controlling more than 10 percent of the total amount of deposits of insured depository institutions in the United States. Countrywide Bank is chartered as a federal savings bank under the Home Owners' Loan Act (12 U.S.C. § 1461 et seq.) Section 2(c)(2)(B) of the BHC Act exempts federally chartered savings associations and savings banks, as defined by section 2(j) of the BHC Act, from the definition of "bank." As a result, Countrywide Bank is not a "bank," for purposes of the BHC Act and the nationwide deposit cap contained in the BHC Act. Therefore, the provisions of the Riegle-Neal Act prohibiting the Board from approving an application to acquire a bank if consummation of the acquisition would result in the applicant exceeding the national deposit cap do not apply to the present notice to acquire Countrywide Bank and the other nonblank subsidiaries of Countrywide. After consummation of the proposal, however, the calculation of Bank of America's total deposits would include Countrywide Bank's deposits for purposes of calculating compliance with the nationwide deposit cap requirement in connection with any subsequent application by Bank of America to acquire a bank pursuant to section 3 of the BHC Act or by one of its subsidiary banks to merge with a bank pursuant to the Bank Merger Act.

14. Countrywide Bank operates only two retail branches, one in Alexandria, Virginia, and one in Fort Worth, Texas. Countrywide Bank primarily delivers its products and services via Internet, call centers, and approximately 700 financial lending centers. It focuses on providing residential mortgage credit.

15. Deposit and market share data are as of June 30, 2007, and are based on calculations in which the deposits of thrift institutions are

increase in those levels as measured by the Herfindahl–Hirschman Index ("HHI") under the DOJ Merger Guidelines ("DOJ Guidelines"),[16] and other characteristics of the markets.

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in the Washington, D.C. banking market.[17] On consummation, this market would remain unconcentrated, as measured by the HHI, and numerous competitors would remain in the market.[18]

The structural effects of the proposal in the Fort Worth, Texas banking market ("Fort Worth banking market"),[19] as measured by the HHI on the basis of deposits, would substantially exceed the DOJ Guidelines. According to the Summary of Deposits ("SOD") as of June 30, 2007, with the deposits of Bank of America and Countrywide fully weighted, Bank of America operates the third largest insured depository institution in the Fort Worth banking market, controlling deposits of approximately $3 billion, which represent approximately 3.7 percent of market deposits.[20] Countrywide operates the largest insured depository institution in the market, controlling deposits of approximately $60.2 billion, which represent approximately 73.2 percent of market deposits.[21] On consummation, Bank of America would operate the largest insured depository institution in the market, controlling deposits of approximately $63.3 billion, which represent approximately 76.9 percent of market deposits. The HHI would increase 539 points to 5962.[22]

In accordance with its precedent when the HHI screening measurement exceeded DOJ Guidelines, the Board has conducted an in-depth review of the competitive effects of an acquisition. As the HHI increases or the change in the HHI resulting from a proposal becomes larger, increasingly stronger mitigating factors are required to support a determination that the competitive effects of the proposal are not significantly adverse.

Bank of America asserts that inclusion of most deposits that were received and booked at Countrywide Bank's only branch in the Fort Worth banking market ("Fort Worth Branch") in calculations of market share indices for this transaction would distort the measures of the competitive effect of the proposal on the Fort Worth banking market. Bank of America has argued that, for purposes of evaluating the proposal's competitive effect in the Fort Worth banking market, the Board should exclude those deposits received by the Fort Worth Branch from various Countrywide affiliates and offices nationwide that are outside the Fort Worth banking market. Approximately $60.2 billion of the deposits in the Fort Worth Branch are escrow deposits, brokered deposits, commercial deposits from title insurance and investment companies throughout the country, and deposits forwarded to the Fort Worth Branch from drop boxes in Countrywide's national network of nonbanking offices. These national business-line deposits were previously maintained at Countrywide Bank's main office in Alexandria until they were transferred to the Fort Worth Branch in March 2005 to take advantage of lower state franchise taxes. Less than $281 million, representing less than 1 percent, of those deposits booked at the Fort Worth Branch were in accounts of customers with addresses in the Fort Worth banking market.

In conducting its competitive analysis in previous cases, the Board generally has not adjusted its market share calculations to exclude out-of-market deposits because all deposits are typically available to support lending and other banking activities at any location. The Board has adjusted the market deposits held by an applicant to exclude specific types of deposits only in rare situations, such as when evidence supported a finding that the excluded deposits

---

included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386, 387 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743, 744 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52, 55 (1991). In the market share calculations in this case, the Board weighted Countrywide's deposits at 50 percent pre-acquisition and at 100 percent post-acquisition to reflect the resulting control of such deposits by a commercial banking organization.

16. Under the DOJ Guidelines, a market is considered unconcentrated if the post-acquisition HHI is under 1000, moderately concentrated if the post-acquisition HHI is between 1000 and 1800, and highly concentrated if the post-acquisition HHI exceeds 1800. The DOJ has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-acquisition HHI is at least 1800 and the acquisition increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

17. The Washington, D.C. market is defined as the District of Columbia; Calvert, Charles, Frederick, Montgomery, and Prince George's counties in Maryland; Arlington, Clarke, Culpeper, Fairfax, Fauquier, King George, Loudoun, Prince William, Spotsylvania, Stafford, and Warren counties in Virginia; the cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, and Manassas Park in Virginia; and Berkeley and Jefferson counties in West Virginia.

18. Bank of America operates the second largest depository institution in the Washington, D.C. banking market, controlling deposits of approximately $21.6 billion, which represent approximately 14.6 percent of market deposits. Countrywide operates the 42nd largest depository institution in the market, controlling deposits of approximately $380 million, which represent less than 1 percent of market deposits. On consummation, Bank of America would remain the second largest depository institution in the market, controlling deposits of approximately $22 billion, which represent approximately 14.8 percent of market deposits. Approximately 118 depository institutions would remain in the Washington, D.C. banking market. The HHI would increase 5 points to 877.

19. The Fort Worth banking market is defined as Tarrant, Johnson, Parker (excluding Mineral Wells), and Wise counties in Texas.

20. When Countrywide Bank's deposits are weighted at 50 percent pre-acquisition, Bank of America controls deposits representing approximately 5.8 percent of market deposits.

21. When Countrywide Bank's deposits are weighted at 50 percent pre-acquisition, Countrywide Bank controls deposits representing approximately 57.4 percent of market deposits.

22. When Countrywide Bank's deposits are weighted at 50 percent pre-acquisition and at 100 percent post-acquisition, the HHI increases 2470 points to 5962.

were not legally available for use in that market, and data were available to make comparable adjustments to the market shares for all other market participants.[23] The Board also has adjusted deposit data in the rare circumstance where there was strong evidence that a depository organization moved its national business-line deposits to a particular branch for business reasons unrelated to its efforts to compete in that market and did not use these deposits to enhance its competitive ability in that market or to manipulate SOD data used in competitive analyses by a federal supervisory agency.[24]

The Board has conducted a more detailed analysis of Countrywide's activities in the Fort Worth banking market to evaluate whether the increase in concentration in the market, as measured by the HHI based on SOD data, overstates the anticompetitive effects of the proposal in the market. The Fort Worth Branch of Countrywide Bank is not a conventional retail branch. It is in a large office park building that is occupied primarily by Countrywide's national mortgage loan processing facilities. Only one teller window capable of handling retail banking transactions operates at that location. The branch accepts cash deposits but dispenses cash only by means of an automated teller machine ("ATM"). As noted, almost all deposits booked at the branch come from brokered deposits, deposits related to its mortgage operations, or other deposits from locations across the United States other than the Fort Worth banking market.

Countrywide placed the national business-line deposits in the Fort Worth Branch for business reasons unrelated to Countrywide's efforts to compete in the Fort Worth banking market. There also is no evidence in the record that Countrywide moved the deposits to Fort Worth from another branch in an attempt to manipulate the SOD data used for competitive analyses by the appropriate federal supervisory agency. Moreover, although Countrywide holds approximately $60.2 billion in deposits in the Fort Worth market based on SOD data, this office holds loans totaling only approximately $30.1 million, which represents a loan-to-deposit ratio of 0.05 percent for Countrywide Bank in the Fort Worth banking market. This unusually low loan-to-deposit ratio is consistent with the conclusion that the SOD deposit data significantly overstate Countrywide's competitive presence in the Fort Worth banking market.[25]

The Board also examined other aspects of the structure of the Fort Worth banking market. After consummation of the proposal, a large number of competitors would remain in the market. Seventy-three depository institutions would continue to compete in the Fort Worth banking market.

23. *See First Security Corp.*, 86 *Federal Reserve Bulletin* 122 (2000).

24. *See J.P. Morgan Chase & Co.*, 90 *Federal Reserve Bulletin* 352, 355 (2004).

25. Although Countrywide Bank's national business-line deposits may be excluded from the Fort Worth banking market, the Board has nevertheless taken into account the fact that these deposits were used to fund Countrywide's nationwide mortgage operations.

Based on a careful review of these and all other facts of record, the Board concludes that the increase in concentration, as measured by the HHI using SOD data without adjustment, overstates the competitive effect of the proposal in the Fort Worth banking market.[26] The Board also concludes that, with appropriate adjustment and after considering the structure of the market, consummation of the proposal would have no significantly adverse effect in the Fort Worth banking market.

B. Other Nonbanking Activities

The Board also has carefully considered the competitive effects of Bank of America's proposed acquisition of Countrywide's other nonbanking subsidiaries and activities in light of all the facts of record. Bank of America and Countrywide both engage in the following activities: mortgage lending and other credit extension originations and servicing; real estate and personal property appraisal; real estate settlement; credit bureau services; asset management, servicing, and collection; acquiring debt in default; securities brokerage; community development; trust company functions; and tax services. Some commenters expressed concern that the proposal would adversely affect competition for mortgage lending in the United States.

Bank of America and Countrywide compete in the mortgage servicing business. Countrywide is the largest mortgage servicer in the United States. The Board previously has found that the geographic market for mortgage servicing is national in scope. Although Bank of America would become the largest mortgage loan servicer in the United States on consummation of the proposal, the mortgage servicing market would remain unconcentrated and numerous competitors would continue to engage in mortgage servicing. The HHI for this market would increase no more than 152 points to no more than 882.[27]

The geographic market for mortgage originations is less settled than for mortgage servicing, but current market trends and evidence suggest that the appropriate geographic market for mortgage originations also is national in scope.[28] This conclusion is confirmed by analysis of the most recent Home Mortgage Disclosure Act ("HMDA") data.[29] When taken as a whole, the HMDA data on mortgage originations

26. If the deposits attributable to customers with addresses outside the Fort Worth banking market were excluded from the calculation of its market concentration, Countrywide Bank would have a market share of less than 1 percent and Bank of America would remain the second largest insured depository institution in the market on consummation of the proposal, controlling deposits of approximately $3.3 billion, which represent approximately 14.8 percent of market deposits. The HHI would increase 24 points to 900.

27. Bank of America is the seventh largest mortgage loan servicer in the United States as of June 30, 2007. *See American Banker*, October 12, 2007.

28. Earlier Board orders focused on the fact that long-distance mortgage origination providers offered loan rates that were substantially higher than rates offered by local sources for mortgage financing. This rate differential has decreased, however, as consumers have access both directly and through mortgage brokers to lenders nationwide.

29. 12 U.S.C. § 2801 et seq.

strongly suggest that the geographic market for mortgage originations is no longer local or statewide but national in scope.

On consummation of this proposal, Bank of America would become the largest mortgage loan originator in the nation. The proposed acquisition would increase the HHI no more than 244 points to no more than 962. The market would remain unconcentrated with numerous mortgage originators.[30]

The Board also has considered the competitive effects of Bank of America's proposed acquisition of the other nonbanking subsidiaries of Countrywide. Most of the markets in which the nonbanking subsidiaries of Bank of America and Countrywide compete are regional or national in scope and unconcentrated with numerous competitors. Although community development, property appraisal, and real estate settlement activities generally are conducted locally, there are numerous providers of these services and neither Bank of America nor Countrywide control significant shares of these markets. As a result, the Board expects that consummation of the proposal would have a de minimis effect on competition for these services.

C. Views of Other Agencies and Conclusion on Competitive Considerations

The DOJ also conducted a detailed review of the probable competitive effects of the proposal, including the acquisition of Countrywide Bank and the other nonbanking subsidiaries of Countrywide. The DOJ has advised the Board that consummation of the transaction would not likely have a significantly adverse effect on competition in any relevant banking market, including the Washington, D.C. and Fort Worth banking markets, or in any relevant market for the other proposed nonbanking activities. The appropriate federal supervisory agencies have also been afforded an opportunity to comment and have not objected to the proposal.

Based on all the facts of record, the Board concludes that consummation of the proposed transaction, including the acquisition of Countrywide Bank and Countrywide's other nonbanking subsidiaries, would not have a significantly adverse effect on competition or on the concentration of resources in the Washington, D.C. and Fort Worth banking markets, or in any other relevant banking or nonbanking activities market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

Financial and Managerial Resources

In reviewing the proposal under section 4 of the BHC Act, the Board has considered carefully the financial and managerial resources of Bank of America, Countrywide, and their subsidiaries, and the effect of the transaction on those resources. This review was conducted in light of all the facts of record, including confidential reports of examination, other supervisory information from the primary federal and state supervisors of the organizations involved in the proposal, and publicly reported and other financial information, including information provided by Bank of America and Countrywide.

The Board has consulted with the Office of the Comptroller of the Currency ("OCC") and the Office of Thrift Supervision ("OTS"), as the primary federal supervisors of Bank of America's and Countrywide's respective subsidiary depository institutions. Additionally, the Board has conferred with the SEC regarding the securities activities of Bank of America and Countrywide.

The Board has also considered the public comments that relate to these factors. Commenters expressed concern about the size of the combined organization and whether it would present special risks to the federal deposit insurance fund or the financial system in general. Several commenters expressed concerns over Countrywide's risk-management systems, as well as concerns about Bank of America's ability to effectively manage Countrywide's operations.[31] Moreover, several commenters expressed concerns about existing and potential future investigations and lawsuits filed against Countrywide and its executives related to Countrywide's operations.[32]

In evaluating financial resources in expansionary proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary insured depository institutions and the organizations' significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction. In addition, the Board considers the ability of the organization to absorb the costs of the proposal and the plans for integrating operations after consummation.

The Board has considered carefully the financial factors of the proposal. Bank of America and its subsidiary depository institutions are well capitalized and would remain so on consummation of the proposal. In addition, Countrywide Bank is well capitalized and would continue to be so after consummation of the proposal. Based on its review of

30. As of June 30, 2007, Bank of America and Countrywide are, respectively, the fifth largest and largest mortgage loan originators in the United States. *See American Banker*, October 12, 2007.

31. Several commenters expressed general and specific concerns over retention of Countrywide management staff and the existence of "golden parachute" payments for certain Countrywide executives. On consummation, Bank of America's overall organization will continue to be governed by its policies, procedures, and senior executive leadership. The Board notes that "golden parachute" or indemnification payments are subject to applicable federal regulations and may require approval by appropriate supervisors. *See* 12 CFR 359.

32. The Board will continue to monitor pending investigations and litigation involving Bank of America or Countrywide.

the record, the Board also finds that Bank of America has sufficient financial resources to effect the proposal. The proposed transaction is structured as a share exchange and would not increase the debt-service requirements of the combined company.

The Board also has considered the managerial resources of the organizations involved and the proposed combined organization. The Board has reviewed the examination records of Bank of America, Countrywide, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant federal supervisory agencies with the organizations and their records of compliance with applicable banking laws and with anti-money-laundering laws.[33] Bank of America and its subsidiary depository institutions are considered to be well managed. In addition, the Board has considered carefully Bank of America's plans for implementing the proposal, including its proposed risk-management systems after consummation. The Board also has considered Bank of America's record of successfully integrating large organizations into its operations and risk-management systems after acquisitions. Bank of America will implement its risk-management policies, procedures, and controls at the combined organization. Bank of America is devoting significant financial and other resources to address all aspects of the post-acquisition integration process.

Based on all the facts of record, including a review of the comments received, the Board has concluded that considerations relating to the financial and managerial resources of the organizations involved in the proposal are consistent with approval under section 4 of the BHC Act.

Records of Performance under the CRA

As noted previously, the Board reviews the records of performance under the CRA of the relevant insured depository institutions when acting on a notice to acquire any insured depository institution, including a savings association. The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs of its entire community, including low- and moderate-income ("LMI") neighborhoods, in evaluating bank expansionary proposals.[34]

The Board has considered carefully all the facts of record, including reports of examination of the CRA performance records of the subsidiary banks of Bank of America and Countrywide, data reported by Bank of America and Countrywide under the CRA and the HMDA, other information provided by Bank of America, confidential supervisory information, and public comments received on the proposal.

Approximately 160 individuals, organizations, and businesses submitted comments or testified in support of the proposal. These commenters commended Bank of America's record of performance under the CRA, particularly its sponsorship of homebuyer education programs in LMI communities and its financial support for community development and small business programs.

Approximately 610 individuals and groups expressed concerns in their comments and testimony that included the mortgage and consumer lending records of Bank of America and Countrywide and Bank of America's ability to fulfill its CRA obligations after consummation of the proposal. Some commenters alleged that Countrywide's mortgage lending and servicing activities and the increasing rates of foreclosures in its portfolio were harming borrowers and communities. Many commenters opposed the proposal or recommended approval only if specific conditions were imposed.[35] Many commenters also alleged that Bank of America had not adequately addressed the community reinvestment needs of California communities or expressed general concern about the CRA performance of Bank of America in the state. One commenter asserted that BA

33. Some commenters expressed concerns about Bank of America's relationship with certain unaffiliated payday lenders. As a general matter, the activities of the consumer finance businesses identified by the commenter are permissible and the businesses are licensed by the states where they operate. Bank of America has stated that it conducts substantial due diligence reviews of its customers who provide alternative financial services, including reviews of anti-money-laundering and Bank Secrecy Act compliance, and that it does not play any role in the lending practices, credit review processes, or other business practices of those firms.

34. 12 U.S.C. §2903.

35. A number of commenters urged the Board to require Bank of America to provide specific pledges or plans or to take certain future actions, including meeting with particular organizations. They also asked the Board to condition its approval on a commitment by Bank of America to institute specific business practices and to take specific actions with regard to assisting Countrywide mortgage borrowers who were in default or at risk of defaulting. Some commenters criticized Bank of America's performance under its previous community reinvestment pledges and urged the Board to require Bank of America to improve the CRA records of its subsidiary institutions. The Board consistently has found that (1) neither the CRA nor the federal supervisory agencies' CRA regulations require depository institutions to make pledges or enter into commitments or agreements concerning future performance under the CRA with any organization or to meet with particular persons or organizations; and (2) the enforceability of any third-party pledges, initiatives, or agreements are matters outside the purview of the CRA. *See Bank of America Corporation*, 90 *Federal Reserve Bulletin* 217, 232–33 (2004) ("*BOA/Fleet Order*"). Instead, the Board focuses on the existing CRA performance record of an applicant and the programs that an applicant has in place to serve the credit needs of its assessment areas at the time the Board reviews a proposal.

Bank had provided an insufficient amount of community development loans and investments in New York City.

A. CRA Performance Evaluations

As provided in the CRA, the Board has evaluated the proposal in light of the evaluations by the appropriate federal supervisors of the CRA performance records of the relevant insured depository institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[36]

Bank of America's lead bank, BA Bank, received an "outstanding" rating at its most recent CRA performance evaluation by the OCC, as of December 31, 2006 ("BOA Evaluation").[37] Two other subsidiary banks of Bank of America subject to the CRA, LaSalle Bank National Association, and FIA Card Services, N.A., also received "outstanding" ratings at their most recent CRA performance evaluations. A fourth subsidiary bank, LaSalle Bank Midwest National Association, received a "satisfactory" rating at its most recent CRA performance evaluation.[38]

Countrywide Bank received a "satisfactory" rating at its most recent CRA performance evaluation by the OCC, as of October 18, 2004 ("Countrywide Evaluation"), before it converted from a commercial bank to a savings bank subject to the supervision of the OTS.[39] The Board also has consulted with the OTS, the current primary federal supervisor of Countrywide Bank. Bank of America has represented that it would institute the community development and community investment policies of BA Bank at Countrywide Bank to strengthen and help meet the banking needs of the communities it serves.

CRA Performance of BA Bank. BA Bank is Bank of America's largest insured depository institution, representing approximately 79 percent of the organization's insured depository institution assets. In the BOA Evaluation, the bank received "outstanding" ratings under the lending, investment, and service tests. Examiners commended BA Bank's overall lending performance, which they described as demonstrating excellent or good lending-test results in almost all of the 38 areas rated. During the evaluation period, BA Bank originated more than 3 million CRA-reportable loans totaling more than $429 billion, including home mortgage loans totaling $380 billion. Examiners reported that the bank's distribution of HMDA-reportable mortgage loans among borrowers of different income levels was good.[40] In addition, examiners reported that BA Bank's distribution of small business and small farm loans[41] among businesses and farms of different revenue sizes was good. In the BOA Evaluation, examiners noted that the bank offered special loan products with flexible underwriting standards that assisted the bank in meeting the credit needs of LMI communities in its areas of operation. Examiners also reported that BA Bank's level of community development lending significantly enhanced its lending test performance.[42]

After the BOA Evaluation, the bank has maintained a substantial level of home mortgage, small business, and community development lending. In 2007, the bank originated HMDA-reportable loans totaling approximately $27 billion to LMI individuals throughout its assessment areas. BA Bank has continued to offer loan products with a variety of flexible down-payment and closing-cost options as well as standard FHA and VA loan products. BA Bank was also recognized in 2007 by the SBA for the tenth consecutive year as the nation's leading small business lender, with small business loan originations totaling more than $25.6 billion. BA Bank represented that its community development lending during 2007 totaled approximately $2 billion.

In the BOA Evaluation, examiners reported that BA Bank consistently demonstrated strong performance under the investment test, noting that its performance was excel-

36. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 and 36,639 (2001).

37. The period for the BOA Evaluation was January 1, 2004, through December 31, 2006.

38. LaSalle Bank National Association was last evaluated by the OCC as of December 31, 2002. FIA Card Services, N.A., formerly known as MBNA America National Bank, National Association, was last evaluated by the OCC as of April 4, 2005. LaSalle Bank Midwest National Association was last evaluated by the OCC as of August 1, 2006. The Board approved Bank of America's application to acquire both LaSalle Bank and LaSalle Bank Midwest in 2007. *See Bank of America Corporation*, 93 *Federal Reserve Bulletin* C109 (2007) ("*BOA/LaSalle Order*"). BA California, BA Georgia, BA Oregon, and BA Rhode Island are special-purpose banks that are not subject to the CRA.

39. Before March 2007, Countrywide Bank was supervised by the OCC. The period for the OCC's Countrywide Evaluation was January 1, 2002, through December 31, 2003.

40. In BA Bank's assessment areas in California, examiners generally found that the bank's lending levels reflected excellent or good responsiveness to the credit needs of its assessment areas within the state. Examiners reported good distribution of loans among communities and borrowers of different income levels throughout BA Bank's California assessment areas. In the New York-White Plains-Wayne Multistate Metropolitan Division ("MMD") in New York and New Jersey ("New York MMD"), examiners found that the bank's lending levels reflected excellent responsiveness to the credit needs of its assessment areas, and they noted that community development lending levels had a significantly positive impact within the New York MMD.

41. In this context, "small business loans" are loans with original amounts of $1 million or less that are secured by nonfarm, nonresidential properties or are commercial and industrial loans to borrowers in the United States. "Small farm loans" are loans with original amounts of $500,000 or less that are either secured by farmland or are used to finance agricultural production and other loans to farmers.

42. Examiners commended BA Bank's community development lending performance under the investment test in California and New York. Examiners reported that the bank originated 222 community development loans during the evaluation period, totaling more than $851 million, in the areas rated that included Los Angeles and San Francisco. Examiners noted that many of those loans were for economic development or affordable housing and helped create more than 1,500 jobs and 700 units of LMI housing. Examiners reported that the bank originated 167 community development loans, totaling more than $562 million, in the New York MMD during the evaluation period and noted that a large number of such loans were for affordable housing and helped create more than 3,200 housing units in LMI areas.

lent or good in 99 percent of its assessment areas. During the evaluation period, BA Bank made more than 10,500 investments, including grants and contributions, that totaled almost $4.8 billion.[43] BA Bank funded the development of approximately 100,000 housing units for LMI families through its qualified investments in its assessment areas.[44] Examiners commended BA Bank for demonstrating significant leadership in its qualified investment activities and commented that the bank ranked among the most significant investors in both Low Income Housing Tax Credit ("LIHTC") and New Market Tax Credit ("NMTC") projects and was the largest financial institution investor in Community Development Financial Institutions ("CDFI") projects.[45] In addition, examiners noted that BA Bank was one of a handful of financial institutions that acted as a direct developer of large scale multifamily housing projects in LMI areas.[46] Examiners also reported that the bank was the second largest corporate donor in the United States in 2005 with cash donations of $130 million, more than half of which qualified for CRA credit.[47]

BA Bank also has maintained a substantial level of community development investments in its assessment areas since the BOA Evaluation. Bank of America represented that BA Bank made more than 6,000 community development investments, totaling more than $2.2 billion, during 2007.[48] In addition, Bank of America represented that the bank's community development subsidiary has developed more than 5,700 housing units through investments totaling $520 million nationwide from 2005 through 2007.

In the BOA Evaluation, examiners commended BA Bank's performance under the service test throughout its assessment areas.[49] Examiners noted that the bank's provision of retail services showed excellent responsiveness to the banking needs of the communities and individuals of different income levels in the bank's assessment areas.[50] They reported that BA Bank's retail delivery systems were excellent, with the percentage of the bank's branches in LMI census tracts within its assessment areas approximating or exceeding the overall percentage of the population residing in such LMI census tracts.[51]

CRA Performance of Countrywide Bank. As noted above, Countrywide Bank received an overall "satisfactory" rating in its 2004 CRA evaluation, with "low satisfactory" ratings on both the lending and service tests and an "outstanding" rating on the investment test. Examiners noted in the Countrywide Evaluation that the bank's distribution of home mortgage loans reflected adequate penetration of LMI areas in its two assessment areas when compared with the distribution of owner-occupied housing units in those areas. In addition, examiners found that Countrywide Bank's lending performance to borrowers of different income levels in both assessment areas was adequate considering the affordability barriers for low-income families in those areas. Examiners noted that the bank's qualified investments and grants to community development organizations in its assessment areas were excellent relative to its financial resources. They commended the institution's responsiveness to the areas most pressing community development needs. In addition, examiners found that Countrywide Bank's branches, products, and services were reasonably accessible to communities and individuals of differing income levels and were deliv-

---

43. Examiners reported that BA Bank made almost 500 qualified investments totaling more than $506 million during the evaluation period in the areas rated that included Los Angeles and San Francisco and helped create approximately 2,900 housing units in LMI areas. Examiners also found that retail banking services were readily accessible to areas and individuals of different income levels throughout California. In the New York MMD, examiners considered the bank's performance under the investment test to be outstanding. The bank made more than 300 investments totaling approximately $280 million in the New York MMD during the evaluation period, helping to create approximately 2,500 housing units in LMI areas.

44. BA Bank's CRA-qualified community development lending during 2007 in its California and New York assessment areas totaled approximately $385.4 million and $160.5 million, respectively.

45. Examiners also highlighted BA Bank's significant investments in LIHTC, NMTC, and CDFI projects in the New York MMD.

46. Examiners also commended BA Bank for creating its Neighborhood Excellence Initiative, a program in 44 of the bank's markets that is designed to develop relationships with nonprofit organizations that focus on community development. Examiners noted that the bank invested almost $50 million in the initiative during the evaluation period.

47. Some commenters criticized the amount of Bank of America's charitable donations and its methodology for making these donations. Bank of America represented that it has a record of providing significant corporate philanthropic donations in all the communities that it serves. The Board notes that neither the CRA nor the federal supervisory agencies' implementing rules require that institutions engage in charitable giving.

48. Bank of America represented that BA Bank's community development investments during 2007 in its California and New York assessment areas totaled approximately $476.6 million and $126.8 million, respectively.

49. One commenter asserted that Bank of America should ensure that certain banking products and services are made available to LMI customers in California. Although the Board has recognized that banks can help to serve the banking needs of communities by making certain products or services available on certain terms or at certain rates, the CRA neither requires an institution to provide any specific types of products or services nor prescribes their costs to the consumer.

50. BA Bank has entered into partnerships with national and local housing counseling agencies to offer pre- and post-purchase home mortgage counseling to LMI borrowers. Such counseling includes reviewing the buyer's credit report, income, and debt; preparing a budget; and conducting an affordability analysis.

51. One commenter alleged that BA Bank's branch network did not adequately serve LMI communities in New York City. Examiners found that BA Bank's retail services were reasonably accessible to areas and individuals of different income levels in the New York MMD. Examiners noted that the bank's recent branch openings and relocations improved accessibility to the bank's retail services, particularly in LMI areas.

ered primarily through alternative delivery systems, such as the Internet call centers and a network of financial lending centers.[52]

B. Conclusion on CRA Performance

The Board has considered carefully all the facts of record, including reports of examination of the CRA performance records of the institutions involved, information provided by Bank of America, comments received on the proposal and responses to those comments, and confidential supervisory information. The Board has also considered that Bank of America proposes to institute its CRA policies and procedures at Countrywide. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that the CRA performance records of the relevant insured depository institutions are consistent with approval of the proposal.[53]

OTHER CONSIDERATIONS

In light of the public comments received on the proposal, the Board has considered carefully the compliance records of Bank of America and Countrywide with fair lending and other consumer protection laws in its evaluation of the public interest factors. Some commenters alleged, based on HMDA data, that Bank of America and Countrywide denied the home mortgage loan applications of African American and Hispanic borrowers more frequently than those of nonminority applicants nationwide and in certain Metropolitan Statistical Areas ("MSAs").[54] Several commenters alleged, based on reviews of HMDA data, that Bank of America and Countrywide made disproportionately higher-cost loans to African American and Hispanic borrowers.[55] Some of these commenters also alleged that Countrywide often made such loans without regard to the borrower's qualifications for lower-cost, conventional mortgage loans. In addition, many commenters alleged that Countrywide had engaged in various abusive practices in mortgage sales, including concealing key loan provisions and terms, refusing to assist at-risk or defaulting customers, prematurely referring mortgages to foreclosure attorneys, and aiding and abetting abusive or discriminatory sales practices conducted by various third parties, such as mortgage brokers or home builders.

The Board's analysis of the lending-related concerns included a review of 2006 and preliminary 2007 HMDA data reported by BA Bank and Countrywide Bank and their lending affiliates.[56] Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not Bank of America or Countrywide Bank has excluded or imposed higher costs on any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information, provide only limited information about the covered loans.[57] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Moreover, the Board believes that all bank holding companies and their affiliates must conduct their mortgage lend-

52. As noted, Countrywide Bank only operates a retail branch in Alexandria and Fort Worth and both branches only permit customers to conduct limited transactions.

53. One commenter has reiterated his comments from previous Bank of America applications that urged the Board not to approve the proposal until Bank of America met certain "commitments" regarding its lending programs in Hawaii and its goal for mortgage lending to Native Hawaiians on Hawaiian Home Lands. *See, e.g., BOA/Fleet Order* at 232–33. In October 2007, the state of Hawaii Department of Hawaiian Homelands informed Bank of America that it had met its commitment to the state. As noted in the *BOA/Fleet Order*, Bank of America's publicly announced plans to engage in certain lending programs in Hawaii were not commitments to the Board, and those plans were not conditions of the Board's approvals in earlier applications by Bank of America or its predecessors. *See id.* As also previously noted, the Board views the enforceability of such third-party pledges, initiatives, and agreements to be matters outside the purview of the CRA.

54. Some commenters also questioned Bank of America's efforts in awarding contracts to minority- and women-owned businesses. Bank of America represented that 16 percent of its expenditures in 2007 were to firms that are majority owned by women, minorities, or disabled individuals. Although the Board fully supports programs designed to promote equal opportunity and economic opportunities for all members of society, the comments about supplier diversity programs are beyond the factors the Board is authorized to consider under the BHC Act. *See, e.g., Deutsche Bank AG,* 86 *Federal Reserve Bulletin* 509, 513 (1999).

55. Beginning January 1, 2004, the HMDA data required to be reported by lenders were expanded to include pricing information for loans on which the annual percentage rate (APR) exceeds the yield for U.S. Treasury securities of comparable maturity 3 or more percentage points for first-lien mortgages and 5 or more percentage points for second-lien mortgages (12 CFR Part 203.4).

56. The Board reviewed HMDA data for Bank of America in BA Bank's combined assessment areas nationwide and in California and North Carolina, in its assessment areas in the Charlotte, North Carolina MSA, and in the MSAs cited by commenters. The Board reviewed HMDA data for Countrywide Bank in its combined assessment areas (consisting of the Washington, D.C. MMD, the Bethesda, Maryland Metropolitan Division, and the Dallas-Fort Worth, Texas MSA), in California and Delaware, and in the MSAs cited by commenters. The Board notes that 2007 HMDA data are preliminary and that final data will not be available for analysis until fall 2008.

57. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

ing operations without any abusive lending practices and in compliance with all consumer protection laws.

In carefully reviewing the concerns about the organizations' lending activities, the Board has taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending and other consumer protection laws and regulations by BA Bank, Countrywide, and their lending affiliates. The Board also has consulted with the OCC, the primary federal supervisor of Bank of America's subsidiary banks, and with the OTS, the primary federal supervisor of Countrywide and Countrywide Bank. In addition, the Board has considered information provided by Bank of America, including its plans for managing the combined mortgage operations of BA Bank and Countrywide after consummation of the proposal.

The Board notes that Bank of America has represented it will operate the combined mortgage operations of BA Bank and Countrywide under BA Bank's policies, procedures, internal controls, and other risk-management systems to ensure compliance with fair lending and other consumer protection laws and regulations. The record, including confidential supervisory information, indicates that Bank of America has implemented many processes to help ensure compliance with all consumer protection laws and regulations.[58] Bank of America's compliance program includes fair lending policy and product guides, compliance file reviews, testing of HMDA data's integrity, and other quality-assurance measures to help ensure compliance with consumer protection laws. Bank of America also stated that it provides annual training to ensure that Bank of America's associates understand their responsibility for complying with the organization's fair lending and consumer protection policies.

Bank of America represented that it would review and make appropriate modifications to the fair lending and consumer protection policies and procedures that would apply to the operations of Countrywide after consummation of the proposal and that it would institute unified policies and procedures for originating affordable mortgages, reducing foreclosure rates, serving traditionally underserved communities, and enhancing customer protections. Those measures would include discontinuing the origination of subprime loans and nontraditional mortgage products that may result in negative amortization; offering customers loan products for which they qualify; providing adequate disclosure of available product options, features, rates, and terms; and strengthening internal training and compliance programs.[59]

In addition, Bank of America represented that it would dedicate substantial financial, staffing, and other resources at the combined mortgage operations to assist customers in default or at risk of default with loan workouts to mitigate foreclosures. Bank of America plans to enhance loss-mitigation training, responsiveness to customers, management oversight, and audits of loan workouts and loss-mitigation activities. Bank of America also stated that it would enhance the combined mortgage operation's risk-management systems for originating and servicing loans received through brokers and correspondents to ensure compliance with fair lending and other consumer protection laws and regulations, as well as with prudent safety and soundness standards. These measures would include establishing qualification criteria for those third-party originators and monitoring their performance; requiring an executed agreement with those third parties to abide by applicable laws, regulations, and Bank of America's comprehensive guidelines; subjecting all loans received from third parties to automated fraud prevention and underwriting systems for approval; and limiting total broker compensation.[60]

Based on all the facts of record, the Board has concluded that considerations relating to the fair lending and consumer protection law compliance are consistent with approval under section 4 of the BHC Act.

58. Some commenters alleged that the terms and fees associated with the credit card and some checking accounts offered by Bank of America are unfair or deceptive. As noted previously in the *BOA/LaSalle Order*, Bank of America has stated that it does not engage in or condone deceptive practices and that it conducts multiple, ongoing reviews to ensure that the terms, conditions, and marketing of its credit card products are appropriate and comply with applicable laws and regulations, including the Truth in Lending Act and the Board's Regulation Z. *See BOA/LaSalle Order* at C115.

59. Many commenters expressed concern regarding the types of mortgage products to be sold by the combined mortgage operations of Bank of America and Countrywide after consummation of the proposal. Bank of America represented that it would offer a range of products that would continue to respond to market conditions and consumer demands, including conforming loans that are underwritten according to guidelines of government-sponsored entities or other standard guidelines; interest-only, fixed-rate, and adjustable-rate mortgage ("ARM") products, subject to a 10-year minimum interest-only period; and fixed-period ARMs subject to protections against severe step-ups in payment amounts.

60. Some commenters expressed concerns about Bank of America's relationships with unaffiliated third parties engaged in subprime lending. The commenters provided no evidence that Bank of America originated, purchased, or securitized "predatory" loans or otherwise engaged in abusive lending practices. Bank of America has policies and procedures to help ensure that the subprime loans it purchases and securitizes are in compliance with applicable state and federal consumer protection laws. As noted in the *BOA/LaSalle Order*, Bank of America has stated that it conducts extensive due diligence reviews of the third-party loan originators with which it does business, as well as the loans that it purchases and the servicers of each pool, to help ensure that Bank of America is not facilitating "predatory" lending. *See BOA/LaSalle Order* at C112. The Board expects all banking organizations to conduct their operations in a safe and sound manner with adequate systems to manage operational, compliance, and reputational risks and will take appropriate supervisory actions to address and prevent abusive lending practices.

PUBLIC BENEFITS

As part of its evaluation of the public interest factors under section 4 of the BHC Act, the Board has reviewed carefully the public benefits and possible adverse effects of the proposal. The record indicates that consummation of the proposal would result in benefits to consumers currently served by Countrywide. The proposal would also allow Bank of America to offer a wider array of affordable mortgage loans, enhanced loan remediation processes, and other banking products and services to Countrywide customers. Bank of America has represented that it would grant Countrywide Bank customers access to BA Bank's ATM network and branch locations on the same terms and conditions as BA Bank customers. As noted, Bank of America also would implement enhanced risk-management systems at the combined organization.

The Board has determined that the conduct of the proposed nonbanking activities within the framework of Regulation Y and Board precedent is not likely to result in significant adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices. Moreover, based on all the facts of record, the Board has concluded that consummation of the proposal can reasonably be expected to produce public benefits that would outweigh any likely adverse effects. Accordingly, the Board has determined that the balance of the public benefits under the standard of section 4(j)(2) of the BHC Act is consistent with approval.

CONCLUSION

Based on the foregoing and all the facts of record, the Board has determined that the proposal should be, and hereby is, approved. In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by Bank of America with the conditions imposed in this order and the commitments made to the Board in connection with the notice. The Board's approval also is subject to all the conditions set forth in Regulation Y, including those in sections 225.7 and 225.25(c),[61] and to the Board's authority to require such modification or termination of the activities of the bank holding company or any of its subsidiaries as the Board finds necessary to ensure compliance with, and to prevent evasion of, the provisions of the BHC Act and the Board's regulations and orders issued thereunder. For purposes of this action, these conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decisions herein and, as such, may be enforced in proceedings under applicable law.

The acquisition shall not be consummated later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Richmond, acting pursuant to delegated authority.

By order of the Board of Governors, effective June 5, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

Appendix

Other Nonbanking Subsidiaries of Countrywide to be Acquired under Section 4 of the BHC Act

(1) CB Securities Holdings 1, Inc. and CB Securities Holdings 2, Inc., both of Thousand Oaks, California; Countrywide Asset Management Corp., Countrywide Commercial Administration LLC, Countrywide Commercial Real Estate Finance, Inc., Countrywide Home Loans, Inc., Countrywide Mortgage Ventures, LLC, Countrywide Servicing Exchange, and LandSafe Appraisal Services, Inc., all of Calabasas, California; Countrywide Home Loans Servicing LP, Plano, Texas; Countrywide Warehouse Lending, West Hills, California; CTC Real Estate Services, Simi Valley, California; CWB Venture Management Corporation, Countrywide KB Home Loans, LLC, and CWB Mortgage Ventures, LLC, all of Thousand Oaks, California; LandSafe Credit, Inc., LandSafe Flood Determination, Inc., and LandSafe Title of Texas, Inc., all of Richardson, Texas; LandSafe Services of Alabama, Inc., Montgomery, Alabama; LandSafe Title of California, Inc., Rosemead, California; LandSafe Title of Florida, Inc., Fort Lauderdale, Florida; and LandSafe Title of Maryland, Inc., Baltimore, Maryland, and thereby engage in extending credit and activities usual in connection with making, acquiring, brokering, or servicing loans or other extensions of credit, in accordance with sections 225.28(b)(1) and (2) of Regulation Y (12 CFR 225.28(b)(1) and (2));
(2) ReconTrust Company, National Association and ReconTrust Company, both of Thousand Oaks, California, and thereby engage in trust company activities in accordance with section 225.28(b)(5) of Regulation Y (12 CFR 225.28(b)(5));
(3) Countrywide Tax Services Corp., Plano, Texas, and thereby engage in providing tax services for residential mortgage transactions in accordance with section 225.28(b)(6) of Regulation Y (12 CFR 225.28(b)(6));
(4) Countrywide Capital Markets Asia (H.K.) Limited, Hong Kong, Special Administrative Region, People's Republic of China; Countrywide Capital Markets Asia Singapore Pte. Ltd., Republic of Singapore; Countrywide Investment Services, Inc., Chandler, Arizona; and thereby engage in providing securities brokerage services in accordance with section 225.28(b)(7) of Regulation Y (12 CFR 225.28(b)(7)); and
(5) The Countrywide Foundation, Calabasas, California; and CWB Community Assets, Inc., Thousand Oaks, California, and thereby engage in community development activities in accordance with section 225.28(b)(12) of Regulation Y (12 CFR 225.28(b)(12)).

61. 12 CFR 225.7 and 225.25(c).

ORDERS ISSUED UNDER FEDERAL RESERVE ACT

Rolling Hills Bank & Trust Atlantic, Iowa

Order Approving Establishment of a Branch

Rolling Hills Bank & Trust ("Bank"), a state member bank, has requested the Board's approval under section 9 of the Federal Reserve Act ("Act")[1] to establish a branch at 502 Broad Street, Adair, Iowa.

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in accordance with the Board's Rules of Procedure.[2] The time for filing comments has expired, and the Board has considered the notice and all comments received in light of the factors specified in the Act.

Bank is the 108th largest depository institution in Iowa, controlling approximately $113.4 million in deposits, which represents less than 1 percent of the total amount of deposits of insured depository institutions in the state.[3] Bank's main office and five branches are in Cass, Greene, and Pottawattamie counties, and the proposed branch would be in Adair County, all in Iowa.

Section 9(3) of the Act[4] requires a state member bank to obtain the Board's approval before establishing a branch. When acting on a branch application, the Board is required by section 9(4) of the Act to consider the financial condition of the applying bank, the general character of its management, and whether its corporate powers are consistent with the purposes of the Act.[5] Under the Board's regulation implementing section 9(4),[6] the factors that the Board must consider in acting on branch applications include (1) the financial history and condition of the applying bank and the general character of its management; (2) the adequacy of the bank's capital and its future earnings prospects; (3) the convenience and needs of the community to be served by the branch; (4) in the case of branches with deposit-taking capability, the bank's performance under the Community Reinvestment Act ("CRA");[7] and (5) whether the bank's investment in bank premises in establishing the branch satisfies certain limitations.

The Board has carefully considered the application in light of these factors and public comments received from a competing bank in Adair and from residents of the surrounding areas. The commenters asserted that their community's demographic and economic characteristics would not support another branch profitably.

1. 12 U.S.C. §321 et seq.
2. 12 CFR 262.3(b).
3. Statewide ranking and deposit data are as of June 30, 2007, and reflect mergers as of April 11, 2008.
4. 12 U.S.C. §321 and 12 CFR 208.6(b).
5. 12 U.S.C. §322.
6. 12 CFR 208.6(b).
7. 12 U.S.C. §2901 et seq.

In considering the financial history and condition, future earnings prospects, and capital adequacy of Bank, the Board has reviewed reports of examination, other supervisory information, publicly reported and other financial information, and information provided by Bank and the commenters. Bank is well capitalized and would remain so on consummation of the proposal. The Board also has reviewed Bank's business plan and financial projections for the branch, including the projections for deposits, income, and costs. After carefully considering all the facts of record, the Board has concluded that the financial history and condition, capital adequacy, and future earnings prospects of Bank are consistent with approval of the proposal. The Board also has reviewed Bank's proposed investment for a branch in Adair and concluded that its investment is consistent with regulatory limitations on investment in bank premises.[8]

In considering Bank's managerial resources, the Board has reviewed the bank's examination record, including assessments of its management, risk-management systems, and operations. The Board also has considered its supervisory experiences with Bank and the bank's record of compliance with applicable banking law, including anti-money-laundering laws. Bank is considered to be well managed. Based on this review and all the facts of record, the Board has concluded that the character of Bank's management is consistent with approval of the proposal.

The Board also has considered the convenience and needs of the community to be served, taking into account the comments received, and the bank's performance under the CRA. Bank received a "satisfactory" rating by the Federal Reserve Bank of Chicago at its most recent CRA performance evaluation, as of December 6, 2004.[9] The Board notes that the proposed new entry provides an additional source of products and services to consumers and businesses.[10] The bank has represented that it currently receives deposits from and makes loans to customers in Adair and the surrounding areas in Adair County and that the proposed branch would provide residents of these communities with a more convenient source of banking services.[11] In reviewing this proposal, the Board also has considered the commenters' allegations in light of Bank's income and expense projections for the proposed branch, as well as its financial and managerial resources.[12] For these

8. 12 CFR 208.21(a).
9. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor. *See Interagency Questions and Answers Regarding Community Reinvestment,* 66 *Federal Register* 36,620 at 36,640 (2001).
10. Commenters speculated that another branch in Adair would harm the performance of both Bank and an existing institution and negatively affect the community.
11. Bank reported approximately $2.3 million in deposits from and approximately $1.3 million in loans to customers who work or reside in the area that would be served by the proposed branch.
12. The Board also reviewed the deposit and demographic data for the Adair County, Iowa banking market, which is defined as Adair

reasons and based on a review of the entire record, the Board has concluded that the convenience and needs considerations and Bank's record of performance under the CRA are consistent with approval of the proposal.

Based on the foregoing and all the facts of record, the Board has determined that the application should be, and hereby is, approved.[13] The Board's approval is specifically conditioned on Bank's compliance with all commitments made to the Board in connection with the proposal. The commitments and conditions relied on by the Board are deemed to be conditions imposed in writing in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

Approval of this application is also subject to the establishment of the proposed branch within one year of the date of this order, unless such period is extended by the Board or the Federal Reserve Bank of Chicago, acting under authority delegated by the Board.

By order of the Board of Governors, effective May 2, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

ORDERS ISSUED UNDER INTERNATIONAL BANKING ACT

KfW IPEX-Bank GmbH Frankfurt, Germany

Order Approving Establishment of a Representative Office

KfW IPEX-Bank GmbH ("Bank"), a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 10(a) of the IBA[1] to establish a representative office in New York, New York. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a representative office in the United States.

Notice of the application, affording interested persons an opportunity to submit comments, has been published in a newspaper of general circulation in New York (*The Daily News*, New York, New York). The time for filing comments has expired, and all comments received have been considered.

Bank, with total consolidated assets of approximately \$65.6 billion,[2] is a newly created indirect subsidiary that is wholly owned by Kreditanstalt für Wiederaufbau ("KfW"), also of Frankfurt.[3] Bank engages in project and export finance activities. KfW is a government-owned development bank that engages in lending and financing activities in furtherance of public-sector initiatives. In the United States, KfW operates a representative office in New York, New York ("KfW Office"), and KfW International Finance, Inc., Wilmington, Delaware, a finance vehicle established to access U.S. capital markets.

On January 1, 2008, pursuant to an agreement between KfW and the European Commissioner for Competition, KfW established Bank as a separately incorporated subsidiary and transferred its export and project finance activities to Bank.[4] Bank's proposed representative office would act as a liaison with existing and potential customers and conduct market research for Bank.[5]

In acting on a foreign bank's application under the IBA and Regulation K to establish a representative office, the Board shall take into account whether the foreign bank engages directly in the business of banking outside of the United States and has furnished to the Board the information it needs to assess the application adequately.[6] The Board also shall take into account whether the foreign bank is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[7] Under Regulation K, a representative office application may be approved if the Board determines that the applicant bank is subject to a

County. The data indicate a modest decrease in population from 2000 to 2006 and a moderate increase in deposits during the same period.

13. A commenter requested that the Board hold a public meeting or hearing on the proposal. The Act does not require the Board to hold a public hearing on an application to establish a branch. Under its rules, the Board may, in its discretion, hold a public meeting or hearing on an application if necessary or appropriate to clarify factual issues related to the application and to provide an opportunity for testimony (12 CFR 262.3(e), 262.25(d)). The Board has considered carefully the commenter's request in light of all the facts of record. In the Board's view, the commenter had ample opportunity to submit his views and, in fact, submitted written comments that the Board has considered carefully in acting on the proposal. The commenter's request fails to demonstrate why written comments do not present his views adequately or why a meeting or hearing otherwise would be necessary or appropriate. For these reasons, and based on all the facts of record, the Board has determined that a public meeting or hearing is not required or warranted in this case. Accordingly, the request for a public meeting or hearing on the proposal is denied.

1. 12 U.S.C. § 3107(a).
2. Asset data are as of December 31, 2007.
3. The federal government of Germany owns 80 percent of the shares of KfW; the remaining 20 percent is owned by various state governments in Germany.
4. The purpose of the transaction was to ensure that these activities would be conducted in a manner consistent with KfW's status as a government-owned development bank and in compliance with European Union competition policy. To facilitate the transfer, KfW first established a separate division within KfW, KfW IPEX Bank ("IPEX Division"), in January 2004, and transferred the export and project finance activities to IPEX Division. KfW subsequently received Board approval to establish KfW Office. *See Kreditanstalt für Wiederaufbau*, 92 *Federal Reserve Bulletin* C135 (2006). KfW stated that it will close the KfW Office when Bank's proposed representative office is established.
5. KfW also has representative offices in Brazil, China, India, Russia, Thailand, Turkey, and the United Kingdom that have or will become offices of Bank.
6. 12 U.S.C. § 3107(a)(2).
7. *Id.*

supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.[8] This is a lesser standard than the comprehensive, consolidated supervision standard applicable to applications to establish branch or agency offices of a foreign bank. The Board considers the lesser standard sufficient for approval of representative office applications because representative offices may not engage in banking activities.[9] The Board also considers additional standards set forth in the IBA and Regulation K.[10]

As noted above, KfW and Bank engage directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues. In the proposed representative office, Bank may engage only in activities permissible for a representative office under Regulation K, which include the proposed customer liaison and market research activities noted above.[11]

With respect to supervision by home-country authorities, the Board previously determined that KfW is subject to a supervisory framework that is consistent with the activities of KfW Office, taking into account the nature of such activities.[12] There has been no material change in the manner in which KfW is supervised by the Federal Ministry of Finance. With respect to Bank, the Board has considered that Bank is supervised by the Bundesanstalt für Finanzdiestleistungsaufsicht ("BaFin"), the primary regulator of commercial banks in Germany. The Board previously has considered the supervisory regime in Germany for commercial banks in connection with applications involving other German banks.[13] Bank is supervised by BaFin on substantially the same terms and conditions as those other banks.[14] Based on all the facts of record, it has been determined that KfW and Bank are subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.

The additional standards set forth in section 7 of the IBA and Regulation K also have been taken into account.[15] With respect to the financial and managerial resources of Bank, taking into consideration Bank's record of operation as KfW's IPEX Division in its home country, its overall financial resources, and its standing with its home-country supervisor, financial and managerial factors are consistent with approval. Bank appears to have the experience and capacity to support the proposed representative office and has established controls and procedures for the proposed representative office to ensure compliance with U.S. law and for its operations in general. The BaFin has no objection to the establishment of the proposed office.

Germany is a member of the Financial Action Task Force and subscribes to its recommendations regarding measures to combat money laundering and international terrorism. In accordance with these recommendations, Germany has enacted laws and created legislative and regulatory standards to deter money laundering, terrorist financing, and other illicit activities. Money laundering is a criminal offense in Germany, and Bank is subject to laws that require it to establish internal policies, procedures, and systems for the detection and prevention of money laundering throughout its worldwide operations. Bank has policies and procedures to comply with these laws and regulations, which include reporting suspicious transactions promptly to the German Financial Intelligence Unit and other appropriate law enforcement authorities.

With respect to access to information on Bank's operations, the restrictions on disclosure in relevant jurisdictions in which Bank operates have been reviewed and relevant government authorities have been communicated with regarding access to information. Bank has committed to make available to the Board such information on the operations of Bank and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act of 1956 ("BHC Act"), as amended, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In addition, subject to certain conditions, the BaFin may share information on Bank's operations with other supervisors, including the Board. In light of these commitments and other facts of record, and subject to the condition described below, it has

8. 12 CFR 211.24(d)(2).

9. A representative office may engage in representational and administrative functions in connection with the banking activities of the foreign bank, including soliciting new business for the foreign bank; conducting research; acting as a liaison between the foreign bank's head office and customers in the United States; performing preliminary and servicing steps in connection with lending; and performing back-office functions. A representative office may not contract for any deposit or deposit-like liability, lend money, or engage in any other banking activity (12 CFR 211.24(d)(1)).

10. *See* 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2). These standards include (1) whether the bank's home-country supervisor has consented to the establishment of the office; (2) the financial and managerial resources of the bank; (3) whether the bank has procedures to combat money laundering, whether there is a legal regime in place in the home country to address money laundering, and whether the home country is participating in multilateral efforts to combat money laundering; (4) whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; and (5) whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

11. *See supra* note 9.

12. *Kreditanstalt für Wiederaufbau*, *supra* note 4.

13. *See, e.g., Deutsche Genossenschafts-Hypothekenbank AG*, 92 *Federal Reserve Bulletin* C61 (2006).

14. To find that a foreign bank is subject to comprehensive, consolidated supervision, the Board also must find that any foreign bank parent is subject to comprehensive, consolidated supervision. *See* 12 CFR 211.24(c)(1)(A). The order approving KfW's representative office application in 2006 applied the lesser supervision standard to KfW because a determination of comprehensive, consolidated supervision was not required. The same standard has been applied in this case.

15. *See supra* note 10.

been determined that Bank has provided adequate assurances of access to any necessary information that the Board may request.[16]

On the basis of all the facts of record, and subject to the commitments made by Bank and the terms and conditions set forth in this order, Bank's application to establish the representative office is hereby approved by the Director of the Division of Banking Supervision and Regulation, with the concurrence of the General Counsel, acting pursuant to authority delegated by the Board.[17] Should any restrictions on access to information on the operations or activities of Bank or any of its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or any of its affiliates with applicable federal statutes, the Board may require termination of any of Bank's direct and indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank with the commitments made in connection with this application and with the conditions in this order.[18] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with its finding and decision and may be enforced in proceedings under applicable law.

By order, approved pursuant to authority delegated by the Board, effective June 23, 2008.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

16. In addition, KfW previously made the same commitments in connection with its application to establish KfW Office. In light of these commitments, the Board has concluded that KfW also has provided adequate assurances of access to any appropriate information the Board may request.

17. *See* 12 CFR 265.7(d)(12).*

18. The Board's authority to approve the establishment of the proposed representative office parallels the continuing authority of the state of New York to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the New York State Banking Department to license the proposed representative office of Bank in accordance with any terms or conditions that it may impose.

SNS Property Finance B.V. Hoevelaken, The Netherlands

Order Approving Establishment of a Representative Office

SNS Property Finance B.V. ("Bank"), Hoevelaken, the Netherlands, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 10(a) of the IBA[1] to establish a representative office in Arlington, Virginia. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a representative office in the United States.

Notice of the application, affording interested persons an opportunity to submit comments, has been published in a newspaper of general circulation in Arlington, Virginia (*The Washington Post*, February 6, 2008). The time for filing comments has expired, and all comments received have been considered.

Bank, with total consolidated assets of approximately $17 billion,[2] is the tenth largest bank in the Netherlands by asset size.[3] Bank provides project financing, participation financing, and investment financing.[4] Bank and its subsidiaries conduct business in Europe, Canada, and the United States. Bank currently operates a number of nonbanking subsidiaries in the United States that engage in real estate financing and other real estate activities. Bank operates one representative office in Paris, France.

The proposed representative office would act as a liaison between Bank's head office in the Netherlands and existing and prospective customers in the United States. The office would perform market research, conduct preliminary underwriting analysis, make new loan solicitations, and prepare loan proposals for internal review and approval by Bank's head office. In connection with Bank's lending and real estate operations, the proposed office would perform preliminary tasks, including assembling credit information, making property inspections, requesting appraisals, and securing title information.

Under the IBA and Regulation K, in acting on an application by a foreign bank to establish a representative office, the Board must consider whether the foreign bank: (1) engages directly in the business of banking outside of the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[5] The

1. 12 U.S.C. §3107(a).

2. Data are as of December 31, 2007.

3. Bank is the largest project finance company and the third largest investment finance company in the Netherlands by asset size.

4. Bank is wholly owned by SNS Bank N.V., which is in turn wholly owned by SNS REAAL N.V. ("Company"). Stichting Beheer SNS REAAL ("Stichting Beheer"), a Dutch foundation, owns approximately 54.2 percent of Company, and the remaining shares are publicly held. Stichting Beheer's activities are limited to holding shares of Company, representing and safeguarding the interests of Company, and making disbursements of a philanthropic or social nature. Aviva plc, London, United Kingdom, indirectly owns a 5.85 percent interest in Company, and no other shareholder owns as much as 5 percent of the shares of Company.

5. 12 U.S.C. §3107(a)(2); 12 CFR 211.24(d)(2). In assessing this standard, the Board considers, among other indicia of comprehensive, consolidated supervision, the extent to which the home-country supervisors (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. No single factor is essential, and other elements may inform the Board's determination.

Board also considers additional standards set forth in the IBA and Regulation K.[6] The Board considers the supervision standard to have been met when it determines that the applicant bank is subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.[7] This is a lesser standard than the comprehensive, consolidated supervision standard applicable to applications to establish branch or agency offices of a foreign bank. The Board considers the lesser standard sufficient for approval of representative-office applications because representative offices may not engage in banking activities.[8] This application has been considered under the lesser standard.

As noted above, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

With respect to supervision by home-country authorities, the Board has considered the following information. The Board previously has determined, in connection with applications involving other banks in the Netherlands, that those banks were subject to home-country supervision on a consolidated basis.[9] Bank and SNS Bank N.V. are primarily supervised by the De Nederlandsche Bank N.V. ("Central Bank") on substantially the same terms and conditions as those other banks.[10] Based on all the facts of record, including the above information, it has been determined that Bank and SNS Bank N.V. are subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.

The additional standards set forth in section 7 of the IBA and Regulation K have also been taken into account.[11] The Central Bank has no objection to the establishment of the proposed representative office.

With respect to the financial and managerial resources of Bank, taking into consideration its record of operations in its home country, its overall financial resources, and its standing with its home-country supervisor, financial and managerial factors are consistent with approval of the proposed representative office. Bank appears to have the experience and capacity to support the proposed representative office and has established controls and procedures for the proposed representative office to ensure compliance with U.S. law.

The Netherlands is a member of the Financial Action Task Force ("FATF") and subscribes to its recommendations on measures to combat money laundering. In accordance with these recommendations, the Netherlands has enacted laws and created legislative and regulatory standards to deter money laundering, terrorist financing, and other illicit activities. Money laundering is a criminal offense in the Netherlands, and financial institutions are required to establish internal policies, procedures, and systems for the detection and prevention of money laundering throughout their worldwide operations. Bank has policies and procedures to comply with these laws and regulations that are monitored by governmental entities responsible for anti-money-laundering compliance.

With respect to access to information on Bank's operations, the restrictions on disclosure in relevant jurisdictions in which Bank operates have been reviewed and relevant government authorities have been communicated with regarding access to information. Bank and Stichting Beheer have committed to make available to the Board such information on the operations of Bank and any of its affiliates as the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act of 1956, as amended, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank and Stichting Beheer have committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In addition, subject to certain conditions, the Central Bank may share information on Bank's operations with other supervisors, including the Board. In light of these commitments and other facts of record, and subject to the condition described below, it has been determined that Bank and Stichting Beheer have provided adequate assurances of access to any necessary information that the Board may request.

6. 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2)–(3).

7. *See, e.g., Kreditanstalt für Wiederaufbau*, 92 *Federal Reserve Bulletin* C135 (2006); *Macquarie Bank Limited*, 90 *Federal Reserve Bulletin* 105 (2004); *RHEINHYP Rheinische Hypothekenbank AG*, 87 *Federal Reserve Bulletin* 558 (2001).

8. 12 CFR 211.24(d)(2).

9. *See, e.g., ING Bank*, 85 *Federal Reserve Bulletin* 448 (1999); *Cooperatieve Centrale Raiffeisen-Boerenleenbank B.A., Rabobank Nederland*, 80 *Federal Reserve Bulletin* 947 (1994).

10. On January 1, 2007, a new financial institutions law, the Act on Financial Supervision ("AFS"), became effective in the Netherlands. The AFS and subsequent regulations transitioned the Netherlands from sector-based to function-based supervision of financial institutions. The AFS was not intended to revise the material standards for financial supervision in the Netherlands and has not changed the material substantive standards for the supervision of Bank.

11. *See* 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2)–(3). These standards include (1) whether the bank's home-country supervisor has consented to the establishment of the office; (2) the financial and managerial resources of the bank; (3) whether the bank has procedures to combat money laundering, whether there is a legal regime in place in the home country to address money laundering, and whether the home country is participating in multilateral efforts to combat money laundering; (4) whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; and (5) whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

Based on the foregoing and all the facts of record, and subject to the commitments made by Bank and Stichting Beheer and the terms and conditions set forth in this order, Bank's application to establish the representative office is hereby approved by the Director of the Division of Banking Supervision and Regulation, with the concurrence of the General Counsel, pursuant to authority delegated by the Board.[12] Should any restriction on access to information on the operations or activities of Bank or any of its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or its affiliates with applicable federal statutes, the Board may require termination of any of Bank's direct and indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank and Stichting Beheer with the conditions imposed in this order and the commitments made to the Board in connection with this application. For purposes of this action, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and may be enforced in proceedings under applicable law.

By order, approved pursuant to authority delegated by the Board, effective May 23, 2008.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

12. *See* 12 CFR 265.7(d)(12).

November 2008

Legal Developments: Third Quarter, 2008

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

ORDERS ISSUED UNDER SECTION 3 OF THE BANK HOLDING COMPANY ACT

C-B-G, Inc.
West Liberty, Iowa

Order Approving the Acquisition of Additional Shares of a Bank Holding Company

C-B-G, Inc. ("C-B-G"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to acquire additional voting shares sufficient to increase its holdings to more than 50 percent of the voting shares of Washington Bancorp ("Washington") and thereby increase its indirect ownership interest in Washington's subsidiary bank, Federation Bank, both of Washington, Iowa. C-B-G and related persons currently own 28 percent of Washington's voting shares,[2] and C-B-G proposes that it and related persons will acquire additional voting shares through purchases on the open market.[3]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published in the *Federal Register* (73 *Federal Register* 31,668 (2008)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the factors set forth in section 3 of the BHC Act.

As a standalone organization, C-B-G has banking assets of approximately $206 million, and it is the 72nd largest depository organization in Iowa, controlling deposits of approximately $174.2 million.[4] Washington, with total banking assets of approximately $111.7 million, is the 158th largest depository organization in Iowa, controlling deposits of approximately $78.4 million. As a combined organization, C-B-G and Washington would be the 45th largest depository organization in Iowa, controlling deposits of approximately $252.6 million, which represent less than 1 percent of total deposits of insured depository institutions in Iowa.[5]

The Board received comments objecting to the proposal from Washington's management.[6] The Board previously has stated that, in evaluating acquisition proposals, it must apply the criteria in the BHC Act in the same manner to all proposals, regardless of whether they are supported or opposed by the management of the institutions to be acquired.[7] Section 3(c) of the BHC Act requires the Board to review each application in light of certain factors specified in the BHC Act. These factors require consideration of the effects of the proposal on competition, the financial and managerial resources and future prospects of the companies and depository institutions concerned, and the convenience and needs of the communities to be served.[8]

In considering these factors, the Board is mindful of the potential adverse effects that contested acquisitions might have on the financial and managerial resources of the

1. 12 U.S.C. § 1842.

2. In May 2007, the Board approved C-B-G's application to acquire control of Washington and up to 35 percent of Washington's voting shares. *C-B-G, Inc.*, 93 *Federal Reserve Bulletin* C88 (2007) ("2007 Order"). Previously, the Board approved in April 2005 C-B-G's application to acquire up to 24.35 percent of Washington's voting shares as a noncontrolling investment. *C-B-G, Inc.*, 91 *Federal Reserve Bulletin* 421 (2005).

3. In this context, "related persons" include C-B-G's subsidiaries and the directors, executive officers, and principal shareholders of C-B-G and its subsidiaries (excluding Washington and its subsidiaries). The Board attributes acquisitions of Washington shares by related persons to C-B-G for purposes of the BHC Act. C-B-G has represented that under the current proposal, its total direct purchase of additional Washington shares will not exceed $500,000. C-B-G also has represented that related persons will fund any acquisitions of Washington shares from their own resources and that C-B-G's subsidiary banks will not lend to related persons to fund their acquisitions of Washington shares.

4. Asset data are as of June 30, 2008. Statewide deposit and ranking data are as of June 30, 2007, and reflect merger and acquisition activity as of July 21, 2008.

5. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.

6. Washington's management made many of the same comments in connection with the proposal by C-B-G to acquire control and up to 35 percent of the voting shares of Washington. The Board reaffirms and adopts by reference the findings it made in approving that proposal. *See* 2007 Order.

7. *See, e.g., Juniata Valley Financial Corp.*, 92 *Federal Reserve Bulletin* C171 (2006) ("Juniata"); *Central Pacific Financial Corp.*, 90 *Federal Reserve Bulletin* 93, 94 (2004) ("Central Pacific"); *North Fork Bancorporation, Inc.*, 86 *Federal Reserve Bulletin* 767, 768 (2000) ("North Fork"); and *The Bank of New York Company, Inc.*, 74 *Federal Reserve Bulletin* 257, 259 (1988) ("BONY").

8. In addition, the Board is required by section 3(c) of the BHC Act to disapprove a proposal if the Board does not receive adequate assurances that it can obtain information on the activities or operations of the company and its affiliates. *See* 12 U.S.C. § 1842(c).

company to be acquired and the acquiring organization. The Board has long held that, if the statutory criteria are met, withholding approval based on other factors, such as whether the proposal is acceptable to the management of the organization to be acquired, would be outside the limits of the Board's discretion under the BHC Act.[9] As explained below, the Board has carefully considered the statutory criteria in light of all the comments received and information submitted by C-B-G. The Board also has carefully considered all other available information, including information accumulated in the application process, supervisory information of the Board and other agencies, and relevant examination reports. In considering the statutory factors, particularly the effect of the proposal on the financial and managerial resources of C-B-G, the Board has reviewed financial information, including the terms and cost of the proposal and the resources that C-B-G proposes to devote to the transaction.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination and other supervisory information from the primary supervisors of the organizations involved in the proposal, publicly reported and other financial information, information provided by C-B-G, and public comment received on the proposal.[10]

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on a parent-only and a consolidated basis, as well as the financial condition of the subsidiary depository institutions and significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has considered carefully the proposal under the financial factors. C-B-G, Washington, and their subsidiary banks currently are well capitalized and would remain so on consummation. Based on its review of the record, the Board also finds that C-B-G has sufficient financial resources to effect the proposal. C-B-G plans to make its direct acquisitions of additional Washington shares as cash purchases without any debt financing.

The Board also has considered the managerial resources of C-B-G, Washington, and their subsidiary depository institutions.[11] The Board has reviewed the examination records of these institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant banking agencies with the organizations and their records of compliance with applicable banking laws, including anti-money-laundering laws. C-B-G, Washington, and their subsidiary banks are considered to be well managed.

Based on all the facts of record, including public comments, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act.

Competitive and Convenience and Needs Considerations

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of any attempt to monopolize the business of banking in any relevant banking market. Section 3 also prohibits the Board from approving a proposal that would substantially lessen competition in any relevant banking market, unless the Board finds that the anticompetitive effects of the proposal clearly are outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[12]

In connection with its review in 2007 of C-B-G's application to acquire control and up to 35 percent of Washington's shares, the Board considered the competitive effects of C-B-G's acquisition of control of Washington.[13] The Board reaffirms, as noted in the 2007 Order, that C-B-G and Washington do not compete directly in any relevant banking market. In this light, and based on all the

9. *See Juniata; Central Pacific; North Fork; FleetBoston Financial Corporation*, 86 *Federal Reserve Bulletin* 751, 752 (2000); and *BONY*.

10. Washington's management reiterated its assertion that, because the voting rights of Washington shareholders owning more than 10 percent of voting shares are restricted under the articles of incorporation, C-B-G would have only limited influence over the organization. *See* 2007 Order at C89, footnote 7. The Board has considered the effect of the proposal on C-B-G's financial condition more generally and not just from the perspective suggested by the comment.

11. In connection with its review of the managerial resources and future prospects of the organizations, the Board has considered carefully the assertion by Washington's management that the current application has made it difficult for Federation Bank to hire the additional personnel needed to implement a management succession program. The Board has also consulted with the Federal Deposit Insurance Corporation ("FDIC") and the Iowa Division of Banking, Federation Bank's primary supervisors, about the bank's managerial resources, the managerial challenges faced by the bank, and the bank's overall condition.

12. 12 U.S.C. § 1842(c)(1).

13. 2007 Order at C89.

facts of record, the Board has concluded that consummation of the current proposal would have no significantly adverse effect on competition or on the concentration of banking resources in any relevant banking market and that competitive factors are consistent with approval.

In addition, considerations relating to the convenience and needs of the communities to be served, including the records of performance of the institutions involved under the Community Reinvestment Act ("CRA"),[14] are consistent with approval of the application. Community Bank, Muscatine, Iowa, C-B-G's largest subsidiary bank as measured by assets and deposits, received a "satisfactory" rating and Federation Bank received an "outstanding" rating at their most recent evaluations for CRA performance by the FDIC.[15] C-B-G has represented that the proposal will not result in any changes in the services or products offered by Federation Bank.

CONCLUSION

Based on the foregoing and all the facts of record, the Board has determined that the application should be, and hereby is, approved.[16] In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by C-B-G with the conditions imposed in this order and the commitments made to the Board in connection with the application. For purposes of this action, the conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision herein and, as such, may be enforced in proceedings under applicable law.

The proposed transaction may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Federal Reserve Bank of Chicago, acting pursuant to delegated authority.

By order of the Board of Governors, effective August 14, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, Mishkin, and Duke.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

14. 12 U.S.C. § 2901 et seq.

15. The most recent CRA performance evaluations of Community Bank and Federation Bank were as of May 2004 and December 2004 respectively. Wilton Savings Bank, a subsidiary bank of C-B-G that was merged into Community Bank in January 2006, received a "satisfactory" rating at its last CRA evaluation, as of November 2003.

16. As noted, C-B-G has proposed that related persons acquire additional shares of Washington. Because the identity of related persons and the number of shares to be acquired by them are unknown, the Board's approval of the current application does not exempt related persons from any filing requirements that might be triggered under the BHC Act or the Change in Bank Control Act (12 U.S.C. § 1817(j)) by their purchases of Washington shares.

The Goldman Sachs Group, Inc.

Goldman Sachs Bank USA Holdings LLC New York, New York

Order Approving Formation of Bank Holding Companies

The Goldman Sachs Group, Inc. ("Goldman") and Goldman Sachs Bank USA Holdings LLC ("Goldman Holdings") each has requested the Board's approval under section 3 of the Bank Holding Company Act ("BHC Act") (12 U.S.C. § 1842) to become a bank holding company on conversion of Goldman Sachs Bank USA, Salt Lake City, Utah ("Goldman Bank"), to a state-chartered bank.[1] Goldman Bank currently operates as an industrial loan company that is exempt from the definition of "bank" under the BHC Act.[2]

Goldman, with total consolidated assets of approximately $1.1 trillion, engages in investment banking, securities underwriting and dealing, asset management, trading and other activities through a variety of subsidiaries both in the United States and overseas.[3] Its principal subsidiaries include Goldman Sachs & Co., New York, New York, a broker-dealer registered with the Securities and Exchange Commission under the Securities Exchange Act of 1934 (15 U.S.C. § 78a et seq.).

Goldman Bank has total consolidated assets of approximately $25 billion and has deposits of approximately $23 billion. Goldman Bank engages primarily in extending credit, including corporate loans and loan commitments, and taking deposits of the type permissible under the exception in section 2(c)(2)(H) of the BHC Act for an industrial loan company.

FACTORS GOVERNING BOARD REVIEW OF TRANSACTION UNDER THE BHC ACT

The BHC Act sets forth the factors that the Board must consider when reviewing the formation of a bank holding company or the acquisition of banks. These factors are the competitive effects of the proposal in the relevant geographic markets; the financial and managerial resources and future prospects of the companies and banks involved in the proposal; the convenience and needs of the community to be served, including the records of performance under the Community Reinvestment Act (12 U.S.C. § 2901 et seq.) ("CRA") of the insured depository institutions involved in the transaction; and the availability of informa-

1. Goldman Holdings is a wholly owned subsidiary of Goldman through which Goldman owns all of the voting stock of Goldman Bank.

2. *See* 12 U.S.C. § 1841(c)(2)(H).

3. Asset data for Goldman are as of May 30, 2008. Asset and deposit data for Goldman Bank are as of June 30, 2008.

tion needed to determine and enforce compliance with the BHC Act and other applicable federal banking laws.[4]

Section 3(b)(1) of the BHC Act[5] requires that the Board provide notice of an application under section 3 to the appropriate federal or state supervisory authority for the bank to be acquired and provide the supervisor a period of time (normally 30 days) within which to submit views and recommendations on the proposal. Section 3(b)(1) also permits the Board to shorten or waive this notice period in certain circumstances.

The Board has notified the Commissioner of the Utah Department of Financial Institutions ("Commissioner"), the appropriate state supervisory authority for Goldman Bank, of the proposed transaction. The Commissioner has notified the Board that the Commissioner does not object to approval of the proposal.

In light of the unusual and exigent circumstances affecting the financial markets, and all other facts and circumstances, the Board has determined that emergency conditions exist that justify expeditious action on this proposal.[6] For the same reasons, and in light of the fact that this transaction represents the conversion of an existing subsidiary of the applicants from one form of depository institution to another, the Board has waived public notice of this proposal.[7]

Competitive Considerations

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly. The BHC Act also prohibits the Board from approving a proposed bank acquisition proposal that would substantially lessen competition in any relevant banking market unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[8]

The proposal involves the conversion of an existing, wholly owned industrial loan company subsidiary of Goldman into a bank with no resulting change in the ownership of Goldman Bank or Goldman. In addition, Goldman does not propose to acquire an additional bank as part of this proposal. Based on all the facts of record, the Board concludes that consummation of the proposal would not result in any significantly adverse effects on competition or on the concentration of banking resources in any relevant banking market and that the competitive factors under section 3 of the BHC Act are consistent with approval of the proposal.

Financial, Managerial, and Other Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and banks involved in the proposal and certain other supervisory factors.[9] The Board has carefully considered the factors in light of all the facts of record, including supervisory information received from the relevant federal and state supervisors of the organizations involved in the proposal and other available financial information, including information provided by Goldman.

The Board consistently has considered capital adequacy to be an especially important aspect in analyzing financial factors. Goldman is adequately capitalized, and all the Goldman entities that are subject to regulatory capital requirements currently exceed the relevant requirements. In addition, Goldman Bank currently is well capitalized under applicable federal guidelines. Goldman Bank also would be well capitalized on a pro forma basis on consummation of the proposal. Other financial factors are consistent with approval.

The Board also has carefully considered the managerial resources of Goldman in light of all the facts of record, including confidential supervisory information and information provided by Goldman. Based on all the facts of record, the Board concludes that considerations relating to the financial and managerial resources and future prospects of the organizations involved are consistent with approval, as are the other supervisory factors the Board must consider.

Convenience and Needs Factor

The Board also has carefully considered the effect of the proposal on the convenience and needs of the communities to be served in light of all the facts of record. The Board has long held that consideration of the convenience and needs factor includes a review of the records of the relevant depository institutions under the CRA. As provided in the CRA, the Board evaluates the record of performance of an institution in light of examinations by the appropriate federal supervisors of the CRA performance records of the relevant institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[10]

4. In cases involving interstate bank acquisitions by bank holding companies, the Board also must consider the concentration of deposits in the nation and relevant individual states, as well as compliance with the other provisions of section 3(d) of the BHC Act. Because the proposed transaction does not involve an interstate bank acquisition by a bank holding company, the provisions of section 3(d) of the BHC Act do not apply in this case.

5. 12 U.S.C. § 1842(b)(1).

6. *See* 12 CFR 225.14(d)(4).

7. 12 CFR 225.16(b)(3).

8. 12 U.S.C. § 1842(c)(1).

9. 12 U.S.C. § 1842(c)(2) and (3).

10. The Interagency Questions and Answers Regarding Community Reinvestment provide that a CRA examination is an important and often controlling factor in the consideration of an institution's CRA record. *See* 64 *Federal Register* 23,641 (1999).

Goldman Bank, which is the only institution that Goldman controls that is subject to evaluation under the CRA, received a "satisfactory" CRA performance rating from the Federal Deposit Insurance Corporation at its most recent examination, as of May 22, 2006. In addition, Goldman's conversion of Goldman Bank into a bank for purposes of the BHC Act will enhance the ability of Goldman Bank to meet the convenience and needs of its communities by permitting the bank to offer a wider array of deposit products.

Based on a review of the entire record, and for the reasons discussed above, the Board has concluded that considerations relating to the convenience and needs factor and the CRA performance records of Goldman Bank are consistent with approval of the proposal.

Nonbanking Activities and Financial Holding Company Declaration

Goldman engages in a wide range of nonbanking activities that have been determined to be financial in nature, incidental to a financial activity, or complementary to a financial activity pursuant to section 4(k) of the BHC Act.[11] These activities include, among other things, underwriting, dealing, and making a market in securities; providing financial, investment, or economic advisory services; acting as a placement agent in the private placement of securities; engaging in merchant banking activities; acting as principal in foreign exchange and in derivative contracts based on financial and nonfinancial assets; and making, acquiring, or brokering loans or other extensions of credit.[12]

Goldman expects promptly to file an election to become a financial holding company pursuant to sections 4(k) and (*l*) of the BHC Act and section 225.82 of the Board's Regulation Y. Section 4 of the BHC Act by its terms provides any company that becomes a bank holding company two years to conform its nonbanking investments and activities to the requirements of section 4 of the BHC Act, with the possibility of three one-year extensions.[13] Goldman must conform to the BHC Act any impermissible nonfinancial activities it may conduct within the time requirements of the Act.

Goldman has also provided notice of its proposal to retain its foreign bank subsidiaries under section 4(c)(13) of the BHC Act. Based on the record, the Board has no objection to the retention of such subsidiaries.

Conclusion

Based on the foregoing, and in light of all the facts of record, the Board has determined that the applications under section 3 of the BHC Act should be, and hereby are, approved. In reaching its decision, the Board has considered all the facts of record in light of the factors that the Board is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by Goldman and Goldman Bank with all the commitments made in connection with the applications, including the commitments and conditions discussed in this order. The Board's approval also is subject to all the conditions set forth in Regulation Y and to the Board's authority to require such modification or termination of the nonbanking activities of a bank holding company or any of its subsidiaries as the Board finds necessary to ensure compliance with, and to prevent evasion of, the provisions of the BHC Act and the Board's regulations and orders issued thereunder. These commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

Because the proposal does not involve the acquisition, merger, or consolidation of a bank, the post-consummation period in section 11 of the BHC Act does not apply.[14] Accordingly, the transaction may be consummated immediately and may not be consummated later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of New York, acting pursuant to delegated authority.

By order of the Board of Governors, effective September 21, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Duke.

Robert deV. Frierson
Deputy Secretary of the Board

11. *See* 12 U.S.C. § 1843(k).

12. *See* 12 U.S.C. § 1843(k)(4)(C), (E), and (H); 12 CFR 225.28(b)(1) and (b)(8)(ii) and 225.171 et seq.

13. *See* 12 U.S.C. § 1843(a)(2).

14. 12 U.S.C. § 1849(b)(1).

Morgan Stanley

Morgan Stanley Capital Management LLC

Morgan Stanley Domestic Holdings, Inc. All of New York, New York

Order Approving Formation of Bank Holding Companies and Notice to Engage in Certain Nonbanking Activities

Morgan Stanley ("Morgan"), Morgan Stanley Capital Management LLC, and Morgan Stanley Domestic Holdings, Inc. (collectively, "Applicants") each has requested the Board's approval under section 3 of the Bank Holding Company Act ("BHC Act") (12 U.S.C. § 1842) to become a bank holding company on conversion of Morgan Stanley Bank, Salt Lake City, Utah ("MS Bank"), to a bank.[1] MS

1. In addition to controlling MS Bank, Morgan also controls Morgan Stanley Trust National Association, Wilmington, Delaware ("MSTNA"), a limited-purpose national bank that engages solely in

Bank currently operates as an industrial loan company that is exempt from the definition of "bank" under the BHC Act.[2] Morgan also has provided notice of its proposal to retain its foreign bank subsidiaries under section 4(c)(13) of the BHC Act.[3] In addition, as part of its proposal to become a bank holding company, Morgan has requested the Board's approval under sections 4(c)(8) and 4(j) of the BHC Act (12 U.S.C. § 1843(c)(8) and (j)) and section 225.24 of the Board's Regulation Y (12 CFR 225.24) to retain its voting shares of Morgan Stanley Trust National Association ("MSTNA") and Morgan Stanley Trust ("MST").

Morgan, with total consolidated assets of approximately $1.0 trillion, engages in investment banking, securities underwriting and dealing, asset management, trading, and other activities both in the United States and overseas.[4] Its principal subsidiaries include Morgan Stanley & Co., Incorporated, New York, New York, a broker-dealer registered with the Securities and Exchange Commission under the Securities Exchange Act of 1934 (15 U.S.C. § 78a et seq.).

MS Bank, with total consolidated assets of approximately $38.5 billion has deposits of approximately $30 billion. MS Bank engages primarily in financing and lending activities and taking deposits of the type that are permissible for an industrial loan company under the exception in section 2(c)(2)(H) of the BHC Act. MST, with total consolidated assets of approximately $5.4 billion, has deposits of approximately $4.8 billion. MST engages primarily in transfer agency and sub-accounting activities.

Factors Governing Board Review of Transaction

The BHC Act sets forth the factors that the Board must consider when reviewing the formation of a bank holding company or the acquisition of banks. These factors are the competitive effects of the proposal in the relevant geographic markets; the financial and managerial resources and future prospects of the companies and banks involved in the proposal; the convenience and needs of the community to be served, including the records of performance under the Community Reinvestment Act (12 U.S.C. § 2901 et seq.) ("CRA") of the insured depository institutions involved in the transaction; and the availability of information needed to determine and enforce compliance with the BHC Act and other applicable federal banking laws.[5]

Section 3(b)(1) of the BHC Act[6] requires that the Board provide notice of an application under section 3 to the appropriate federal or state supervisory authority for the bank to be acquired and provide the supervisor a period of time (normally 30 days) within which to submit views and recommendations on the proposal. Section 3(b)(1) also permits the Board to shorten or waive this notice period in certain circumstances.

The Board has notified the Commissioner of the Utah Department of Financial Institutions ("Commissioner"), the appropriate state supervisory authority for MS Bank, of the proposed transaction. The Commissioner has notified the Board that the Commissioner does not object to approval of the proposal.

In light of the unusual and exigent circumstances affecting the financial markets, and all other facts and circumstances, the Board has determined that emergency conditions exist that justify expeditious action on this proposal.[7] For the same reasons, and in light of the fact that this transaction represents the conversion of an existing subsidiary of Applicants from one form of depository institution to another, the Board has waived public notice of the proposals involving retention of the depository institutions.[8]

Competitive Considerations

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly. The BHC Act also prohibits the Board from approving a proposed bank acquisition that would substantially lessen competition in any relevant banking market unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[9]

The proposal involves the conversion of an existing, wholly owned industrial loan company subsidiary of Morgan into a bank with no resulting change in the ownership of Morgan, MS Bank, or any other depository institution controlled by Morgan. In addition, Morgan does not propose to acquire any additional bank or depository institution as part of this proposal. Based on all the facts of record, the Board concludes that consummation of the proposal would not result in any significantly adverse effects on competition or on the concentration of banking resources in any relevant banking market and that the competitive factors under section 3 of the BHC Act are consistent with approval of the proposal. The competitive effects of the proposed nonbanking activities are discussed below.

---

trust or fiduciary activities pursuant to section 2(c)(2)(D) of the BHC Act (12 U.S.C. § 1841(c)(2)(D)), and Morgan Stanley Trust, Jersey City, New Jersey ("MST"), a federal savings association. These subsidiaries are described in the appendix.

2. 12 U.S.C. § 1841(c)(2)(H).

3. 12 U.S.C. § 1843(c)(13).

4. Asset data for Morgan are as of May 31, 2008, and asset and deposit data for MS Bank and MST are as of June 30, 2008.

5. In cases involving interstate bank acquisitions by bank holding companies, the Board also must consider the concentration of deposits in the nation and relevant individual states, as well as compliance with the other provisions of section 3(d) of the BHC Act. Because the proposed transaction does not involve an interstate bank acquisition by a bank holding company, the provisions of section 3(d) of the BHC Act do not apply in this case.

6. 12 U.S.C. § 1842(b)(1).

7. *See* 12 CFR 225.14(d)(4).

8. 12 CFR 225.16(b)(3).

9. 12 U.S.C. § 1842(c)(1).

FINANCIAL, MANAGERIAL, AND OTHER SUPERVISORY CONSIDERATIONS

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and banks involved in the proposal and certain other supervisory factors.[10] The Board has carefully considered these factors in light of all facts of record, including supervisory information received from the relevant federal and state supervisors of the organizations involved in the proposal and other available financial information, including information provided by Morgan.

The Board consistently has considered capital adequacy to be an especially important aspect in analyzing financial factors. Morgan is adequately capitalized and all the Morgan entities that are subject to regulatory capital requirements currently exceed the relevant requirements. In addition, MS Bank and MST are currently well capitalized under applicable federal guidelines. MS Bank and MST also would be well capitalized on a pro forma basis on consummation of the proposal. Other financial factors are consistent with approval.

The Board also has carefully considered the managerial resources of Morgan in light of all the facts of record, including confidential supervisory information and information provided by Morgan. Based on all the facts of record, the Board concludes that considerations relating to the financial and managerial resources and future prospects of the organizations involved are consistent with approval, as are the other supervisory factors under the BHC Act.

CONVENIENCE AND NEEDS FACTOR

The Board also has carefully considered the effect of the proposal on the convenience and needs of the communities to be served in light of all the facts of record. The Board has long held that consideration of the convenience and needs factor includes a review of the records of the relevant depository institutions under the CRA. As provided in the CRA, the Board evaluates the record of performance of an institution in light of examinations by the appropriate federal supervisors of the CRA performance records of the relevant institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[11]

MS Bank received an "outstanding" rating under the CRA at its most recent performance evaluation by the Federal Deposit Insurance Corporation, as of January 30, 2006 (the "2006 Examination").[12] Consistent with the CRA regulations adopted by the federal banking agencies, MS Bank was evaluated under the community development test as a wholesale bank.[13] The 2006 Examination indicated that MS Bank originated and funded new community development loans totaling $7.7 million during the examination period (March 11, 2003, through January 30, 2006) and had more than $14 million in unfunded community development loan commitments. The 2006 Examination also determined that MS Bank provided an outstanding level of community development investments. Morgan's conversion of MS Bank to a bank for purposes of the BHC Act purposes also will enhance the ability of the bank to meet the convenience and needs of its communities by permitting the bank to offer a wider array of deposit products.

Based on a review of the entire record, and for the reasons discussed above, the Board has concluded that considerations relating to convenience and needs considerations and the CRA performance record of MS Bank are consistent with approval of the proposal.

NONBANKING ACTIVITIES AND FINANCIAL HOLDING COMPANY DECLARATIONS

Morgan engages in a wide range of nonbanking activities that have been determined to be financial in nature, incidental to a financial activity, or complementary to a financial activity pursuant to section 4(k) of the BHC Act.[14] These activities include, among other things, underwriting, dealing, and making a market in securities; providing financial, investment, or economic advisory services; acting as a placement agent in the private placement of securities; engaging in merchant banking activities; acting as principal in foreign exchange and in derivative contracts based on financial and nonfinancial assets; and making, acquiring, or brokering loans or other extensions of credit.[15]

Morgan has filed an election to become a financial holding company pursuant to sections 4(k) and (*l*) of the BHC Act and section 225.82 of the Board's Regulation Y. Section 4 of the BHC Act by its terms also provides any company that becomes a bank holding company two years to conform its existing nonbanking investments and activities to the requirements of section 4 of the BHC Act, with the possibility of three one-year extensions.[16] Morgan must conform to the BHC Act any impermissible nonfinancial activities it may conduct within the time requirements of the Act.

Morgan also has filed notice under sections 4(c)(8) and 4(j) of the BHC Act to retain its ownership interests in MST and MSTNA and thereby operate a savings association and

10. 12 U.S.C. § 1842(c)(2) and (3).

11. The Interagency Questions and Answers Regarding Community Reinvestment provide that a CRA examination is an important and often controlling factor in the consideration of an institution's CRA record. *See* 64 *Federal Register* 23,641 (1999).

12. MSTNA is not an insured depository institution, and MST is not subject to the CRA pursuant to regulations issued by the Office of Thrift Supervision. *See* 12 CFR 563e.11(c)(2).

13. *See, e.g.*, 12 CFR 228.21(a)(2).

14. *See* 12 U.S.C. § 1843(k).

15. *See* 12 U.S.C. § 1843(k)(4)(C), (E), and (H); 12 CFR 225.28(b)(1) and (8)(ii) and 225.171 et seq.

16. *See* 12 U.S.C. § 1843(a)(2).

engage in trust company activities. The Board determined by regulation before November 12, 1999, that such activities are so closely related to banking as to be a proper incident thereto for purposes of section 4(c)(8) of the BHC Act.[17]

To approve the notice, the Board also must determine that the acquisition of the nonbank subsidiaries and the performance of the proposed nonbanking activities by Morgan can reasonably be expected to produce benefits to the public that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices.[18]

The proposed transaction is expected to create a stronger and more diversified financial services organization and would provide the current and future customers of Morgan, MST, and MSTNA with improved financial products and services. In addition, there are public benefits to be derived from permitting capital markets to operate so that bank holding companies can make potentially profitable investments in nonbanking companies and from permitting banking organizations to allocate their resources in the manner they consider to be most efficient when such investments and actions are consistent, as in this case, with the relevant considerations under the BHC Act.

As part of its evaluation of the statutory factors, the Board considers the financial and managerial resources of the notificant, its subsidiaries, and any company to be acquired; the effect the transaction would have on such resources; and the management expertise, internal control and risk-management systems, and capital of the entity conducting the activity.[19] For the reasons discussed above, and based on all the facts of record, the Board has concluded that financial and managerial considerations are consistent with approval of the notice.

The Board has carefully considered the competitive effects of Morgan's proposed retention of MST and MSTNA under section 4 of the BHC Act. The proposal would result in no loss of competition because it does not result in the acquisition of any entity and instead is tantamount to a corporate reorganization. For these reasons, and based on all the facts of record, the Board concludes that consummation of the proposal would have a de minimis effect on competition.

The Board also believes that the conduct of the proposed nonbanking activities within the framework established in this order, prior orders, and Regulation Y is not likely to result in adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices that would not be outweighed by the public benefits of the proposal, such as increased customer convenience. Accordingly, based on all the facts of record, the Board has determined that the balance of public interest factors that the Board must consider under the standard of section 4(j) of the BHC Act is favorable and consistent with approval.

Morgan also has provided notice of its proposal to retain its foreign bank subsidiaries under section 4(c)(13) of the BHC Act. Based on the record, the Board has no objection to the retention of such subsidiaries.

CONCLUSION

Based on the foregoing, the Board has determined that the applications under section 3 and the notice under section 4(c)(8) of the BHC Act should be, and hereby are, approved. In reaching its conclusion, the Board has considered all the facts of record in light of the factors that the Board is required to consider under the BHC Act. The Board's approval is specifically conditioned on compliance by Morgan with all the commitments made in connection with the applications and notice, including the commitments and conditions discussed in this order. The Board's approval of the nonbanking aspects of the proposal also is subject to all the conditions set forth in Regulation Y and to the Board's authority to require such modification or termination of the activities of a bank holding company or any of its subsidiaries as the Board finds necessary to ensure compliance with, and to prevent evasion of, the provisions of the BHC Act and the Board's regulations and orders issued thereunder. These commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its findings and decision and, as such, may be enforced in proceedings under applicable law.

Because the proposal does not involve the acquisition, merger, or consolidation of a bank, the post-consummation period in section 11 of the BHC Act does not apply.[20] Accordingly, the transaction may be consummated immediately and may not be consummated later than three months after the effective date of this order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of New York, acting pursuant to delegated authority.

By order of the Board of Governors, effective September 21, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Duke.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

Appendix

NONBANKING SUBSIDIARIES OF MORGAN STANLEY

(1) Morgan Stanley Trust, Jersey City, New Jersey, and thereby engage in operating a savings association in accordance with section 225.28(b)(4)(ii) of Regulation Y (12 CFR 225.28(b)(4)(ii)); and

17. *See* 12 CFR 225.28(b)(4)(ii) and (5).
18. *See* 12 U.S.C. § 1843(j)(2)(A).
19. *See* 12 CFR 225.26.
20. 12 U.S.C. § 1849(b)(1).

(2) Morgan Stanley Trust National Association, Wilmington, Delaware, and thereby engage in trust company functions in accordance with section 225.28(b)(5) of Regulation Y (12 CFR 225.28(b)(5)).

Whitney Holding Corporation New Orleans, Louisiana

Order Approving the Merger of Bank Holding Companies

Whitney Holding Corporation ("Whitney"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has requested the Board's approval under section 3 of the BHC Act[1] to acquire Parish National Corporation ("Parish"), Covington, and its subsidiary bank, Parish National Bank ("Parish Bank"), Bogalusa, both of Louisiana.[2]

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (73 *Federal Register* 150 (2008)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the factors set forth in section 3 of the BHC Act.[3]

Whitney, with total consolidated assets of $11 billion, controls one subsidiary bank, WNB, which operates in five states.[4] Whitney is the fourth largest depository organization in Louisiana, controlling deposits of approximately $5.7 billion, which represent approximately 8 percent of total deposits of insured depository institutions in the state ("state deposits").[5]

Parish is the eighth largest insured depository organization in Louisiana, controlling deposits of approximately $690 million. Its only subsidiary bank, Parish Bank, operates in Louisiana and Florida.

On consummation of this proposal, Whitney would remain the fourth largest depository organization in Louisiana, controlling deposits of approximately $6.3 billion, which represent 8.9 percent of state deposits.

Competitive Considerations

Section 3 of the BHC Act prohibits the Board from approving a proposal that would result in a monopoly or would be in furtherance of an attempt to monopolize the business of banking in any relevant banking market. The BHC Act also prohibits the Board from approving a proposal that would substantially lessen competition in any relevant banking market, unless the anticompetitive effects of the proposal are clearly outweighed in the public interest by the probable effect of the proposal in meeting the convenience and needs of the community to be served.[6]

Whitney and Parish have subsidiary depository institutions that compete directly in three banking markets: New Orleans and Tangipahoa, both in Louisiana, and Fort Walton Beach, Florida. The Board has reviewed carefully the competitive effects of the proposal in each of these banking markets in light of all the facts of record. In particular, the Board has considered the number of competitors that would remain in the banking market, the relative shares of total deposits in depository institutions in the market ("market deposits") controlled by Whitney and Parish,[7] and the concentration level of market deposits and the increase in that level as measured by the Herfindahl–Hirschman Index ("HHI") under the Department of Justice Merger Guidelines ("DOJ Guidelines").[8]

Consummation of the proposal would be consistent with Board precedent and within the thresholds in the DOJ Guidelines in all three banking markets.[9] On consummation, one banking market would remain unconcentrated, and the other two markets would remain moderately concentrated. In addition, numerous competitors would remain in each of the three banking markets.

The DOJ has conducted a detailed review of the potential competitive effects of the proposal and has advised the Board that consummation of the proposal would not likely have a significantly adverse effect on competition in any relevant banking market. In addition, the appropriate banking agencies have been afforded an opportunity to comment and have not objected to the proposal.

---

1. 12 U.S.C. § 1842.

2. Under the proposal, Parish would merge with and into Whitney. Immediately thereafter, Whitney would merge Parish Bank with and into Whitney's subsidiary bank, Whitney National Bank ("WNB"), New Orleans, Louisiana, subject to approval of the Office of the Comptroller of the Currency ("OCC").

3. Seven commenters expressed concerns with the proposal.

4. WNB operates branches in Alabama, Florida, Louisiana, Mississippi, and Texas.

5. Asset data are as of June 30, 2008, and statewide deposit and ranking data are as of June 30, 2007, adjusted to reflect mergers and acquisitions through September 11, 2008. In this context, insured depository institutions include commercial banks, savings banks, and savings associations.

6. 12 U.S.C. § 1842(c)(1).

7. Deposit and market share data are based on data reported by insured depository institutions in the summary of deposits data as of June 30, 2007, and are based on calculations in which the deposits of thrift institutions are included at 50 percent. The Board previously has indicated that thrift institutions have become, or have the potential to become, significant competitors of commercial banks. *See, e.g., Midwest Financial Group*, 75 *Federal Reserve Bulletin* 386 (1989); *National City Corporation*, 70 *Federal Reserve Bulletin* 743 (1984). Thus, the Board regularly has included thrift institution deposits in the market share calculation on a 50 percent weighted basis. *See, e.g., First Hawaiian, Inc.*, 77 *Federal Reserve Bulletin* 52 (1991).

8. Under the DOJ Guidelines, a market is considered unconcentrated if the post-merger HHI is under 1000, moderately concentrated if the post-merger HHI is between 1000 and 1800, and highly concentrated if the post-merger HHI exceeds 1800. The Department of Justice ("DOJ") has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI more than 200 points. The DOJ has stated that the higher-than-normal HHI thresholds for screening bank mergers and acquisitions for anticompetitive effects implicitly recognize the competitive effects of limited-purpose and other nondepository financial entities.

9. Those banking markets and the effects of the proposal on the concentration of banking resources therein are described in the appendix.

Based on all the facts of record, the Board concludes that consummation of the proposal would not have a significantly adverse effect on competition or on the concentration of resources in any of the three banking markets where Whitney and Parish compete directly, or in any other relevant banking market. Accordingly, the Board has determined that competitive considerations are consistent with approval.

Financial, Managerial, and Supervisory Considerations

Section 3 of the BHC Act requires the Board to consider the financial and managerial resources and future prospects of the companies and depository institutions involved in the proposal and certain other supervisory factors. The Board has considered these factors in light of all the facts of record, including confidential reports of examination, other supervisory information from the primary federal and state supervisors of the organizations involved in the proposal, and publicly reported and other financial information, including information provided by Whitney.

In evaluating financial factors in expansion proposals by banking organizations, the Board reviews the financial condition of the organizations involved on both a parent-only and consolidated basis, as well as the financial condition of the subsidiary depository institutions and the organizations' significant nonbanking operations. In this evaluation, the Board considers a variety of information, including capital adequacy, asset quality, and earnings performance. In assessing financial factors, the Board consistently has considered capital adequacy to be especially important. The Board also evaluates the financial condition of the combined organization at consummation, including its capital position, asset quality, and earnings prospects, and the impact of the proposed funding of the transaction.

The Board has considered carefully the proposal under the financial factors. Whitney, Parish, and their subsidiary depository institutions are well capitalized and would remain so on consummation of the proposal. Based on its review of the record, the Board also finds that Whitney has sufficient financial resources to effect the proposal. The proposed transaction is structured as a combination share exchange and cash purchase.[10]

The Board also has considered the managerial resources of the organizations involved and the proposed combined organization. The Board has reviewed the examination records of Whitney, Parish, and their subsidiary depository institutions, including assessments of their management, risk-management systems, and operations. In addition, the Board has considered its supervisory experiences and those of the other relevant banking supervisory agencies with the organizations and their records of compliance with applicable banking law, including anti-money-laundering laws. Whitney, Parish, and their subsidiary depository institutions are considered to be well managed. The Board also has considered Whitney's plans for implementing the proposal, including the proposed management after consummation of the proposal.

Based on all the facts of record, the Board has concluded that considerations relating to the financial and managerial resources and future prospects of the organizations involved in the proposal are consistent with approval, as are the other supervisory factors under the BHC Act.

Convenience and Needs Considerations

In acting on a proposal under section 3 of the BHC Act, the Board also must consider the effects of the proposal on the convenience and needs of the communities to be served and take into account the records of the relevant insured depository institutions under the Community Reinvestment Act ("CRA").[11] The CRA requires the federal financial supervisory agencies to encourage insured depository institutions to help meet the credit needs of the local communities in which they operate, consistent with their safe and sound operation, and requires the appropriate federal financial supervisory agency to take into account a relevant depository institution's record of meeting the credit needs of its entire community, including low- and moderate-income ("LMI") neighborhoods, in evaluating bank expansionary proposals.[12]

The Board has considered carefully all the facts of record, including evaluations of the CRA performance records of the subsidiary depository institutions of Whitney and Parish, data reported by Whitney and Parish under the Home Mortgage Disclosure Act ("HMDA"),[13] other information provided by Whitney, confidential supervisory information, and public comments received on the proposal. Seven comment letters were received by the Board.[14] The commenters generally alleged, based on a national organization's study of 2006 HMDA data reported by lenders in the city of New Orleans and the New Orleans Metropolitan Statistical Area ("MSA"), that WNB made an insufficient proportion of its prime home purchase loans to LMI borrowers and women and African American borrowers in the New Orleans MSA. One commenter asserted that WNB needed to increase its small business lending activity in LMI census tracts in the New Orleans MSA. Several commenters urged WNB to improve its CRA and fair lending records by expanding products and services for these borrowers in New Orleans.[15] Various commenters

10. Whitney proposes to use existing resources and cash dividends from WNB to fund the purchase.

11. 12 U.S.C. §2901 et seq.; 12 U.S.C. §1842(c)(2).

12. 12 U.S.C. §2903.

13. 12 U.S.C. §2801 et seq.

14. One comment letter was submitted on behalf of 27 entities.

15. Most of the commenters urged the Board to require Whitney to commit to increase its lending activity, enter into a CRA agreement, or to take other future actions, including meeting with particular organizations. The Board consistently has found that (1) neither the CRA nor the federal supervisory agencies' CRA regulations require depository institutions to make pledges or enter into commitments or agreements concerning future performance under the CRA with any organization

also contended, based on HMDA data, that WNB had engaged in disparate treatment of minority individuals in its home mortgage lending.

A. CRA Performance Evaluations

As provided in the CRA, the Board has reviewed the proposal in light of the evaluations by the appropriate federal supervisors of the CRA performance records of the relevant insured depository institutions. An institution's most recent CRA performance evaluation is a particularly important consideration in the applications process because it represents a detailed, on-site evaluation of the institution's overall record of performance under the CRA by its appropriate federal supervisor.[16]

WNB received an "outstanding" rating at its most recent CRA performance evaluation by the OCC, as of February 7, 2007 ("WNB Evaluation").[17] Parish Bank received a "satisfactory" CRA performance rating by the OCC, as of June 15, 2006. Whitney represented that it would continue its CRA program in the combined organization.

In the WNB Evaluation, the bank received an "outstanding" rating on each of the lending, investment, and service tests for its CRA performance overall and in Louisiana.[18] Examiners noted that WNB was primarily a small business lender but had recently increased its volume of home mortgage-related lending. Examiners reported that WNB's lending volume was excellent given its size and the competition in its primary markets. They also reported that the bank's geographic distribution of loans and its distribution of loans to borrowers of different income levels were good, including in Louisiana and the bank's New Orleans AA. They also reported that WNB's community development lending activity significantly enhanced its overall lending-test performance.[19] Examiners further noted that WNB had an overall excellent level of community development investments given the bank's resources and capacity.

In Louisiana, examiners characterized Whitney's lending responsiveness to the credit needs of its assessment areas as excellent, particularly in the New Orleans AA. They concluded that the bank's distribution of home purchase and home improvement loans by borrower income level was good. Examiners noted that WNB's use of innovative and flexible loan products contributed significantly to the bank's lending performance. Such products included its specialized residential loan programs designed to assist LMI individuals and communities and low-rate bridge loans for small businesses affected by hurricanes Katrina and Rita. Examiners particularly commended Whitney's level of community development lending in Louisiana. During the evaluation period, Whitney CDC and WNB originated approximately 300 community development loans totaling $399.5 million in Louisiana, including $273 million to address affordable housing needs in the New Orleans AA. Examiners reported that Whitney's excellent level of community development lending for affordable housing and revitalization of LMI geographies in the New Orleans AA particularly benefited low-income areas, neglected neighborhoods, and other areas affected by hurricanes Katrina and Rita. Since WNB's last performance evaluation, Whitney represented that WNB and Whitney CDC originated community development loans totaling approximately $27 million to address reconstruction and affordable housing needs in the New Orleans AA.

In the WNB Evaluation, examiners rated WNB's overall performance under the investment test as "outstanding" in Louisiana and found that the bank's performance in the New Orleans AA was excellent. Examiners concluded that despite the disruption of normal business activities as a result of Hurricane Katrina, WNB's investments were responsive to the identified needs in the New Orleans AA and in Louisiana in general. Examiners noted that during the evaluation period, WNB invested $25 million in a state bond program that provided funds for debt-service payments by political subdivisions affected by hurricanes Katrina and Rita while they focused on revitalizing and stabilizing disaster areas. In addition, WNB directly made 184 qualified investments totaling $2.3 million in the New Orleans AA, including approximately $1.8 million in donations to organizations in the New Orleans AA that help provide affordable housing and community services to LMI individuals. Since WNB's last performance evaluation, Whitney represented that WNB directly or indirectly made approximately $96 million in community development investments, including a $6.5 million investment to rebuild a school in New Orleans and various other projects in the New Orleans AA.

Examiners rated WNB's overall performance under the service test in Louisiana as "outstanding" and found that the bank's performance in the New Orleans AA was

---

or to meet with particular persons or organizations, and (2) the enforceability of any third-party pledges, initiatives, or agreements is a matter outside the purview of the CRA. *See Bank of America Corporation*, 90 *Federal Reserve Bulletin* 217, 232–33 (2004). Instead, the Board focuses on the existing CRA performance record of an applicant and the programs that an applicant has in place to serve the credit needs of its assessment areas at the time the Board reviews a proposal.

16. *See Interagency Questions and Answers Regarding Community Reinvestment*, 66 *Federal Register* 36,620 and 36,639 (2001).

17. The evaluation period for the WNB Evaluation was January 1, 2003, through December 31, 2006, for the lending test, and January 7, 2003, through February 7, 2007, for the investment and service tests. Examiners stated that more weight was placed on the 2004–2006 evaluation period, except in the bank's New Orleans assessment area ("AA"), where slightly more weight was placed on WNB's performance in 2004–2005 because the effects of Hurricane Katrina made it difficult to realistically assess performance for 2006. The bank's New Orleans AA included seven parishes in the New Orleans-Metairie-Kenner MSA.

18. WNB's statewide rating for Louisiana was based primarily on a full-scope evaluation conducted in the bank's New Orleans AA, the bank's primary market in Louisiana. The New Orleans AA represented approximately 45 percent of the bank's branch network and 70 percent of its deposit base in Louisiana.

19. Whitney conducts community development lending through WNB and through its own Community Development Corporation ("Whitney CDC"), whose lending efforts were included by examiners in the most recent performance evaluation.

excellent. Examiners reported that WNB's branches and other service-delivery systems were readily accessible to geographies and individuals of different income levels. In addition, examiners noted that WNB had a highly effective program for providing a high level of community development services, particularly in the New Orleans AA.

B. HMDA and Fair Lending Record

The Board has carefully considered the fair lending records and HMDA data of Whitney and Parish in light of public comments received on the proposal. As previously stated, various commenters alleged, based on 2006 HMDA data, that WNB made a disproportionately low number of HMDA-reportable prime home purchase loans to minority applicants in WNB's New Orleans AA. The Board has focused its analysis on the 2007 HMDA data reported by WNB.[20]

Although the HMDA data might reflect certain disparities in the rates of loan applications, originations, and denials among members of different racial or ethnic groups in certain local areas, they provide an insufficient basis by themselves on which to conclude whether or not Whitney is excluding or imposing higher costs on any group on a prohibited basis. The Board recognizes that HMDA data alone, even with the recent addition of pricing information, provide only limited information about the covered loans.[21] HMDA data, therefore, have limitations that make them an inadequate basis, absent other information, for concluding that an institution has engaged in illegal lending discrimination.

The Board is nevertheless concerned when HMDA data for an institution indicate disparities in lending and believes that all lending institutions are obligated to ensure that their lending practices are based on criteria that ensure not only safe and sound lending but also equal access to credit by creditworthy applicants regardless of their race or ethnicity. Because of the limitations of HMDA data, the Board has considered these data carefully and taken into account other information, including examination reports that provide on-site evaluations of compliance with fair lending laws by Whitney and its subsidiary. The Board also has consulted with the OCC about WNB's record of fair lending compliance.

The record of this application, including confidential supervisory information, indicates that Whitney has taken steps to ensure compliance with fair lending and other consumer protection laws and regulations. Whitney represented that it has corporate-wide policies and procedures to help ensure compliance with all fair lending laws applicable to its lending activities. Whitney's compliance program includes annual training and testing of lending personnel, fair lending analyses, and oversight and monitoring of lending functions. Whitney represented that WNB uses a centralized underwriting process for all residential mortgage loans and that the bank performs secondary and in some cases tertiary post-denial reviews on all denied HMDA-reportable loans to ensure that it does not overlook any factors in analyzing a mortgage loan application and to determine whether an applicant qualifies for any other available program. In addition, Whitney represented that it performs a semiannual analysis of denied HMDA-reportable loans, which includes a comparative file review of all such denials, a review of the terms offered to the customers, and further data analysis to verify equivalent treatment of similarly qualified applicants. Whitney represented that its fair lending policies will apply to the combined institution on consummation of the proposal. The Board also has considered the HMDA data in light of other information, including the programs described above and the overall performance record of WNB under the CRA. These established efforts and record of performance demonstrate that the institution is active in helping to meet the credit needs of its entire communities.

C. Conclusion on Convenience and Needs and CRA Performance

The Board has considered carefully all the facts of record, including reports of examination of the CRA records of the institutions involved, information provided by Whitney, comments received on the proposal, and confidential supervisory information. The record indicates that consummation of the proposal would result in benefits to consumers currently served by Parish by allowing Whitney to offer a wider array of banking products and services to Parish customers. Whitney represented that the proposal would result in greater convenience for Parish customers through 24-hour automated account information, toll-free customer service, an expanded ATM network, and online access to information and services through WNB's website. Based on a review of the entire record, and for the reasons discussed above, the Board concludes that considerations relating to the convenience and needs factor and the CRA performance record of the relevant insured depository institutions are consistent with approval of the proposal.

CONCLUSION

Based on the foregoing and all the facts of record, the Board has determined that the application should be, and hereby is, approved. In reaching its conclusion, the Board has considered all the facts of record in light of the factors that it is required to consider under the BHC Act and other applicable statutes. The Board's approval is specifically conditioned on compliance by Whitney with the conditions

20. The Board reviewed HMDA data reported by WNB in its New Orleans AA and its assessment areas in Alabama, Florida, Louisiana, Mississippi, and Texas.

21. The data, for example, do not account for the possibility that an institution's outreach efforts may attract a larger proportion of marginally qualified applicants than other institutions attract and do not provide a basis for an independent assessment of whether an applicant who was denied credit was, in fact, creditworthy. In addition, credit history problems, excessive debt levels relative to income, and high loan amounts relative to the value of the real estate collateral (reasons most frequently cited for a credit denial or higher credit cost) are not available from HMDA data.

imposed in this order and the commitments made to the Board in connection with the application. For purposes of this action, the conditions and commitments are deemed to be conditions imposed in writing by the Board in connection with its findings and decision herein and, as such, may be enforced in proceedings under applicable law.

The proposed transaction may not be consummated before the 15th calendar day after the effective date of this order, or later than three months after the effective date of this order, unless such period is extended for good cause by the Board or the Reserve Bank of Atlanta, acting pursuant to delegated authority.

By order of the Board of Governors, effective September 25, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Duke.

ROBERT deV. FRIERSON
Deputy Secretary of the Board

Appendix

BANKING MARKETS CONSISTENT WITH BOARD PRECEDENT AND DOJ GUIDELINES

Bank	Rank	Amount of deposits (dollars)	Market deposit shares (percent)	Resulting HHI	Change in HHI	Remaining number of competitors
LOUISIANA BANKING MARKET						
New Orleans—Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, and St. Tammany Parishes and St. James Parish, excluding the town of Union						
Whitney Pre-consummation	3	4,233,690	11.29	1,764	56	39
Parish	9	473,620	2.20	1,764	56	39
Whitney Post-consummation	3	4,707,310	13.50	1,764	56	39
Tangipahoa—Tangipahoa Parish, excluding the city of Kentwood						
Whitney Pre-consummation	15	0	.00	1,457	0[1]	14
Parish	5	78,381	6.38	1,457	0[1]	14
Whitney Post-consummation	5	78,381	6.38	1,457	0[1]	14
FLORIDA BANKING MARKET						
Fort Walton Beach—Okaloosa and Walton counties and the town of Ponce de Leon in Holmes County						
Whitney Pre-consummation	7	243,946	6.51	753	5	23
Parish	20	13,133	.35	753	5	23
Whitney Post-consummation	6	257,079	6.85	753	5	23

NOTE: Data are as of June 30, 2007. All deposit amounts are unweighted. All rankings, market deposit shares, and HHIs are based on thrift institution deposits weighted at 50 percent.

1. No deposit data are available for WNB's branch in this market because it is a de novo branch that opened in 2008.

ORDERS ISSUED UNDER INTERNATIONAL BANKING ACT

Andhra Bank Hyderabad, India

Order Approving Establishment of a Representative Office

Andhra Bank, Hyderabad, India ("Bank"), a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 10(a) of the IBA[1] to establish a representative office in Jersey City, New Jersey. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a representative office in the United States.

Notice of the application, affording interested persons an opportunity to submit comments, has been published in a newspaper of general circulation in New Jersey (*The Star-Ledger*, July 24, 2007). The time for filing comments has expired, and all comments received have been considered.

Bank, with total consolidated assets of approximately $14.2 billion,[2] is the 21st largest bank in India. The Government of India owns approximately 52 percent of Bank's shares.[3] The remaining shares are held widely by individuals and institutional investors.[4] Bank currently has operations primarily in India, where it provides commercial and retail banking services and investment banking services throughout the country. Bank also operates a representative office in the United Arab Emirates. The proposed representative office would market products of Bank in the United States, act as a liaison between Bank's head office in India and its prospective U.S.-based customers, and conduct research.

In acting on a foreign bank's application under the IBA and Regulation K to establish a representative office, the Board shall take into account whether the foreign bank engages directly in the business of banking outside of the United States and has furnished to the Board the information it needs to assess the application adequately.[5] The Board shall also take into account whether the foreign bank is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[6] Under Regulation K, a representative-office application may be approved if the Board determines that the applicant bank is subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.[7] This is a lesser standard than the comprehensive, consolidated supervision standard applicable to applications to establish branch or agency offices of a foreign bank. The Board considers the lesser standard sufficient for approval of representative office applications because representative offices may not engage in banking activities.[8] The Board also considers additional standards set forth in the IBA and Regulation K.[9]

As noted above, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues. At the proposed representative office, Bank may engage only in activities permissible for a representative office under Regulation K, which include the proposed customer-liaison, marketing, and research activities noted above.[10]

With respect to supervision by home-country authorities, the Board has considered that Bank is supervised by the Reserve Bank of India ("RBI"), the primary regulator of financial institutions in India. The Board previously has considered, in connection with applications involving other Indian banks, the supervisory regime in India for financial institutions.[11] Bank is supervised by the RBI on substantially the same terms and conditions as those other banks. Based on all the facts of record, it has been determined that Bank is subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.

The additional standards set forth in section 7 of the IBA and Regulation K have also been taken into account.[12] With

1. 12 U.S.C. § 3107(a).

2. Data are as of March 31, 2008.

3. The President of India, acting through the Ministry of Finance, holds these shares on behalf of the government of India.

4. Life Insurance Corporation of India owns 7.5 percent, and Genesis Indian Investment Co. Limited owns 5.7 percent. No shareholder of the bank, other than the government of India, by law is entitled to exercise voting rights in excess of 1 percent of the total voting rights of all the shareholders of the bank.

5. 12 U.S.C. § 3107(a)(2).

6. *Id.*

7. 12 CFR 211.24(d)(2).

8. A representative office may engage in representational and administrative functions in connection with the banking activities of the foreign bank, including soliciting new business for the foreign bank; conducting research; acting as a liaison between the foreign bank's head office and customers in the United States; performing preliminary and servicing steps in connection with lending; and performing back-office functions. A representative office may not contract for any deposit or deposit-like liability, lend money, or engage in any other banking activity (12 CFR 211.24(d)(1)).

9. *See* 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2). These standards include (1) whether the bank's home-country supervisor has consented to the establishment of the office; the financial and managerial resources of the bank; (2) whether the bank has procedures to combat money laundering, whether there is a legal regime in place in the home country to address money laundering, and whether the home country is participating in multilateral efforts to combat money laundering; (3) whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; and (4) whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

10. *See supra* note 7.

11. *See State Bank of India*, 94 *Federal Reserve Bulletin* C69 (2008) and *see ICICI Bank Limited*, 94 *Federal Reserve Bulletin* C26 (2008). In connection with each of these applications, the Board determined that the RBI is actively working to establish arrangements for the consolidated supervision of the particular bank.

12. *See supra* note 8.

respect to the financial and managerial resources of Bank, taking into consideration its record of operation in its home country, its overall financial resources, and its standing with its home-country supervisor, financial and managerial factors are consistent with approval. Bank appears to have the experience and capacity to support the proposal and has established controls and procedures for the proposed representative office to ensure compliance with U.S. law and for its operations in general. The RBI has no objection to the establishment of the proposed representative office.

In recent years, the Indian government has enhanced its anti-money-laundering regime. In January 2003, India took initial steps to adopt an anti-money-laundering law, the Prevention of Money Laundering Act. The law, related amendments, and implementing rules (collectively, the "PMLA") became effective in July 2005 and established a regulatory infrastructure to assist the anti-money-laundering effort. In accordance with the PMLA, India has established the Financial Intelligence Unit, India ("FIU-IND"), which reports directly to the Economic Intelligence Council headed by the Finance Minister of India. The FIU-IND is responsible for receiving, processing, analyzing, and disseminating information related to cash and suspicious transaction reports. The Directorate of Enforcement, a department within the Ministry of Finance, is responsible for investigating and prosecuting money laundering cases. In addition, the RBI issued "Know Your Customer (KYC) Guidelines — Anti-Money Laundering Standards" ("Guidelines") in November 2004, which require financial institutions to establish systems for the prevention of money laundering. Indian banks were required to be fully compliant with the Guidelines by December 31, 2005. The RBI issued further guidelines in February 2006 providing clarification on reporting cash and suspicious transactions to the FIU-IND. India participates in international fora that address the prevention of money laundering and terrorist financing.

India is a member of the Asia/Pacific Group on Money Laundering, an observer organization to the Financial Action Task Force ("FATF"), and is actively seeking to join FATF as a member.[13] India is a party to the 1988 U.N. Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances and the U.N. International Convention for the Suppression of the Financing of Terrorism.

Bank has policies and procedures to comply with Indian laws and regulations and the RBI's Guidelines regarding anti-money laundering. Bank has represented that it will adopt a compliance program for the proposed representative office to establish and maintain procedures to monitor compliance with the Bank Secrecy Act and its implementing regulations.

13. India became an observer to FATF in February 2007.

With respect to access to information about Bank's operations, the Board has reviewed the restrictions on disclosure in relevant jurisdictions in which Bank operates and has communicated with relevant government authorities regarding access to information. Bank has committed to make available to the Board such information on its operations and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In addition, subject to certain conditions, the RBI may share information on Bank's operations with other supervisors, including the Board. In light of these commitments and other facts of record, and subject to the condition described below, it has been determined that Bank has provided adequate assurances of access to any necessary information that the Board may request.

Based on the foregoing and all the facts of record, and subject to the commitments made by Bank and the terms and conditions set forth in this order, Bank's application to establish the representative office is hereby approved.[14] Should any restrictions on access to information on the operations or activities of Bank and its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or its affiliates with applicable federal statutes, the Board may require termination of any of Bank's direct or indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank with the conditions imposed in this order and the commitments made to the Board in connection with this application.[15] For purposes of this action, these commitments and conditions are deemed to be conditions imposed by the Board in writing in connection with these findings and decision and, as such, may be enforced in proceedings under applicable law.

By order, approved pursuant to authority delegated by the Board, effective July 23, 2008.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

14. Approved by the Director of the Division of Banking Supervision and Regulation, with the concurrence of the General Counsel, pursuant to authority delegated by the Board. *See* 12 CFR 265.7(d)(12).

15. The Board's authority to approve the establishment of the proposed representative office parallels the continuing authority of the state of New Jersey to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the state of New Jersey or its agent, the New Jersey Department of Banking and Insurance, to license the proposed office of Bank in accordance with any terms or conditions that it may impose.

Industrial and Commercial Bank of China, Limited Beijing, People's Republic of China

Order Approving Establishment of a Branch

Industrial and Commercial Bank of China Limited ("ICBC"), Beijing, People's Republic of China, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 7(d) of the IBA[1] to establish a branch in New York, New York. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a branch in the United States.

Notice of the application, affording interested persons an opportunity to comment, has been published in a newspaper of general circulation in New York, New York (*The New York Times*, April 11, 2007). The time for filing comments has expired, and the Board has considered all comments received.

ICBC, with total assets of approximately $1.3 trillion, is the largest bank in China.[2] The government of China owns approximately 74.8 percent of ICBC's shares.[3] No other shareholder owns more than 5 percent of ICBC's shares.[4]

ICBC engages primarily in corporate and retail banking and treasury operations throughout China, including Hong Kong and Macau. Outside China, ICBC operates subsidiary banks in Almaty, Jakarta, London, Luxembourg, and Moscow and branches in a number of countries, including Japan, Indonesia, Korea, Germany, and the United Kingdom. In the United States, ICBC operates a representative office in New York. ICBC would meet the requirements for a qualifying foreign banking organization under Regulation K.[5]

The proposed New York branch would engage in wholesale deposit-taking, lending, trade finance, and other banking services.

Under the IBA and Regulation K, in acting on an application by a foreign bank to establish a branch, the Board must consider whether (1) the foreign bank engages directly in the business of banking outside the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisors.[6] The Board also considers additional standards as set forth in the IBA and Regulation K.[7]

The IBA includes a limited exception to the general standard relating to comprehensive, consolidated supervision.[8] This exception provides that, if the Board is unable to find that a foreign bank seeking to establish a branch, agency, or commercial lending company is subject to comprehensive supervision or regulation on a consolidated basis by the appropriate authorities in its home country, the Board may nevertheless approve the application provided that (i) the appropriate authorities in the home country of the foreign bank are actively working to establish arrangements for the consolidated supervision of such bank; and (ii) all other factors are consistent with approval.[9] In deciding whether to exercise its discretion to approve an application under authority of this exception, the Board must also consider whether the foreign bank has adopted and implemented procedures to combat money laundering.[10] The Board also may take into account whether the home country of the foreign bank is developing a legal

1. 12 U.S.C. §3105(d).

2. Asset and ranking data are as of March 31, 2008.

3. The government of China directly owns approximately 35.3 percent of ICBC's shares through its Ministry of Finance. Central SAFE Investments Limited (also known as "Huijin") and the Social Security Fund of the People's Republic of China hold approximately 35.3 and 4.2 percent of ICBC's shares respectively. Huijin is currently owned directly by the government of China and was formed to assist in the restructuring of major Chinese banks. The government transferred shares of several Chinese banks, including ICBC, to Huijin at the time of the recapitalization and restructuring of these banks between 2004 and 2006. In addition to its interest in ICBC, Huijin also owns a majority interest in Bank of China Limited, which operates three branches in the United States. The government of China intends to transfer the ownership of Huijin to China Investment Corporation ("CIC"), a recently created investment fund that is also wholly owned by the government of China.

Under the IBA, any company that owns a foreign bank with a branch in the United States is subject to the Bank Holding Company Act ("BHC Act") as if it were a bank holding company. As a result of its ownership of Bank of China Limited, Huijin is subject to the BHC Act. Upon the transfer of Huijin to CIC, CIC would also become subject to the BHC Act.

Both CIC and Huijin are non-operating companies that hold investments on behalf of the government of China. Neither CIC nor Huijin engages directly in commercial or financial activities. By letter of August 5, 2008, the Board provided certain exemptions to CIC and Huijin under section 4(c)(9) of the BHC Act (12 U.S.C. § 1843(c)(9)). Section 4(c)(9) authorizes the Board to grant exemptions to foreign companies from the nonbanking restrictions of the BHC Act where the exemptions would not be substantially at variance with the purposes of the BHC Act and would be in the public interest. The exemptions provided to CIC and Huijin would not extend to ICBC or any other banking subsidiary of CIC or Huijin that operates a branch or agency in the United States.

4. Goldman Sachs and American Express own 4.9 percent and less than 1 percent of ICBC's shares respectively.

5. 12 CFR 211.23(a).

6. 12 U.S.C. §3105(d)(2); 12 CFR 211.24. In assessing this standard, the Board considers, among other indicia of comprehensive, consolidated supervision, the extent to which the home-country supervisors (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; and (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. No single factor is essential, and other elements may inform the Board's determination.

7. 12 U.S.C. §3105(d)(3)–(4); 12 CFR 211.24(c)(2)–(3).

8. 12 U.S.C. §3105(d)(6).

9. 12 U.S.C. §3105(d)(6)(A).

10. 12 U.S.C. §3105(d)(6)(B).

regime to address money laundering or is participating in multilateral efforts to combat money laundering.[11] This is the standard applied by the Board in this case.

As noted above, ICBC engages directly in the business of banking outside the United States. ICBC also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

Based on all the facts of record, the Board has determined that ICBC's home-country supervisory authority is actively working to establish arrangements for the consolidated supervision of the bank and that considerations relating to the steps taken by ICBC and its home jurisdiction to combat money laundering are consistent with approval under this standard. The China Banking Regulatory Commission ("CBRC") is the principal supervisory authority of ICBC, including its foreign subsidiaries and affiliates, for all matters other than laws with respect to anti-money laundering.[12] The CBRC has the authority to license banks, regulate their activities, and approve expansion, both domestically and abroad. It supervises and regulates ICBC, including its subsidiaries and foreign operations, through a combination of targeted on-site examinations and continuous consolidated off-site monitoring. Since its establishment in 2003, the CBRC has enhanced existing supervisory programs and developed new policies and procedures designed to create a framework for the consolidated supervision of banks in China.

On-site examinations by the CBRC cover, among other things, the major areas of operation: corporate governance and senior management responsibilities; capital adequacy; asset structure and asset quality (including the structure and quality of loans); off-balance-sheet activities; earnings; liquidity; liability structure and funding sources; expansionary plans; internal controls (including accounting control and administrative systems); legal compliance; accounting supervision and internal auditing (including accounting control and administrative systems); and any other areas deemed necessary by the CBRC.

Off-site monitoring is conducted through the review of required annual, semiannual, quarterly, or monthly reports on, among other things, asset quality, capital adequacy, liquidity, risk management, corporate governance, affiliate transactions, and internal controls.

ICBC is required to be audited annually by an accounting firm approved by the PBOC, and the results are shared with the CBRC and the PBOC. The scope of the required audit includes a review of ICBC's financial statements, asset quality, and internal controls. The CBRC may order a special audit at any time. In addition, in connection with its listings on the Shanghai and Hong Kong stock exchanges, ICBC is required to have external audits conducted under both International Financial Reporting Standards and generally accepted accounting practices under Chinese law. ICBC is required to publish its financial statements annually. ICBC conducts internal audits of its offices and operations, including its overseas operations, generally based on an annual schedule. The internal audit results are shared with the CBRC, the PBOC, and the external auditors of ICBC. The proposed branch would be subject to internal audits.

Chinese laws impose various prudential limitations on banks, including limits on transactions with affiliates and large exposures. The CBRC is authorized to require any bank to provide information and to impose sanctions for failure to comply. The CBRC also has the power to apply administrative penalties, including warnings, fines, and removal from office, for violations of applicable laws and rules. Criminal violations are transferred to the judicial authorities for investigation and prosecution.

In recent years, the Chinese government has enhanced its anti-money-laundering regime. In 2005, the Chinese government took initial steps to adopt an anti-money-laundering law, the PRC Anti-Money Laundering Law ("AML Law"). The AML Law and two related rules, the Rules for Anti-Money Laundering by Financial Institutions ("AML Rules") and the Administrative Rules for the Reporting of Large-Value and Suspicious Transactions by Financial Institutions ("LVT/STR Rules") were enacted in October 2006 and December 2006 respectively. The AML Law and AML Rules became effective on January 1, 2007, and the LVT/STR Rules became effective on March 1, 2007. Together, the law and related rules establish a regulatory infrastructure to assist China's anti-money-laundering effort.

An Anti-Money Laundering Bureau ("AML Bureau") was established within the PBOC in 2003.[13] The AML Bureau coordinates anti-money-laundering efforts at the PBOC and among other agencies. The AML Bureau also supervised the creation in September 2004 of the China Anti-Money Laundering Monitoring and Analysis Center ("AML Center"). The AML Center collects, monitors, analyzes, and disseminates suspicious transaction reports and large-value transaction reports. The AML Center sends suspicious transaction reports to the AML Bureau for further investigation. The PBOC issued additional rules in June 2007 providing clarification on reporting suspicious transactions to the AML Center and on customer due diligence and recordkeeping.

China participates in international fora that address the prevention of money laundering and terrorist financing. China is a member of the Financial Action Task Force ("FATF")[14] and is a party to the 1988 U.N. Convention

11. *Id.*

12. Before April 2003, the People's Bank of China ("PBOC") acted as both China's central bank and primary banking supervisor, including with respect to anti-money-laundering matters. In April 2003, the CBRC was established as the primary banking supervisor and assumed the majority of the PBOC's regulatory functions. The PBOC maintained its roles as China's central bank and primary supervisor for anti-money-laundering matters.

13. The AML Bureau conducts administrative investigations and handles violations of AML Rules. Money laundering cases are referred to the Ministry of Public Security, China's main law enforcement body, for investigation and prosecution.

14. China became a member of FATF in June 2007.

Against the Illicit Traffic of Narcotics and Psychotropic Substances, the U.N. Convention Against Transnational Organized Crime, the U.N. Convention Against Corruption, and the U.N. International Convention for the Suppression of the Financing of Terrorism.

As noted, the PBOC is China's primary supervisor for anti-money-laundering matters. Like the CBRC, the PBOC supervises and regulates ICBC through a combination of on-site examinations and off-site monitoring. On-site examinations focus on ICBC's compliance with anti-money-laundering laws and rules, including the AML Law, AML Rules, and LVT/STR Rules. Off-site monitoring is conducted through the review of periodic reports. In performing its responsibilities, the PBOC may require any bank to provide information and can impose administrative penalties for violations of applicable laws and rules.

ICBC has policies and procedures to comply with Chinese laws and rules regarding anti-money laundering. ICBC represents that it has taken additional steps on its own initiative to combat money laundering and other illegal activities. ICBC states that it has implemented measures consistent with the recommendations of the FATF and that it has put in place policies, procedures, and controls to ensure ongoing compliance with all statutory and regulatory requirements, including designating anti-money-laundering compliance personnel and conducting routine employee training at all ICBC branches. ICBC's compliance with anti-money-laundering requirements is monitored by the PBOC and by ICBC's internal and external auditors.

The Board also has taken into account the additional standards set forth in section 7 of the IBA and Regulation K.[15] The CBRC has no objection to ICBC's establishment of the proposed branch.

The Board has also considered carefully the financial and managerial factors in this case. China has adopted risk-based capital standards that are consistent with those established by the Basel Capital Accord ("Accord"). ICBC's capital is in excess of the minimum levels that would be required by the Accord and is considered equivalent to capital that would be required of a U.S. banking organization. Managerial and other financial resources of ICBC are consistent with approval, and ICBC appears to have the experience and capacity to support the proposed branch. In addition, ICBC has established controls and procedures for the proposed branch to ensure compliance with U.S. law. In particular, ICBC has stated that it will apply strict anti-money-laundering policies and procedures at the branch consistent with U.S. law and regulation and will establish an internal control system at the branch consistent with U.S. requirements to ensure compliance with those policies and procedures.

With respect to access to information about ICBC's operations, the Board has reviewed the restrictions on disclosure in relevant jurisdictions in which ICBC operates and has communicated with relevant government authorities regarding access to information. ICBC has committed to make available to the Board such information on the operations of ICBC and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the BHC Act, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, ICBC has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In light of these commitments and other facts of record, and subject to the condition described below, the Board has determined that ICBC has provided adequate assurances of access to any necessary information that the Board may request.

On the basis of all the facts of record, and subject to the commitments made by ICBC, as well as the terms and conditions set forth in this order, ICBC's application to establish a branch is hereby approved. Should any restrictions on access to information on the operations or activities of ICBC and its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by ICBC or its affiliates with applicable federal statutes, the Board may require termination of any of ICBC's direct or indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by ICBC with the commitments made in connection with this application and with the conditions in this order.[16] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with this decision and may be enforced in proceedings under 12 U.S.C. § 1818 against ICBC and its affiliates.

By order of the Board of Governors, effective August 5, 2008.

Voting for this action: Chairman Bernanke, Vice Chairman Kohn, and Governors Warsh, Kroszner, and Mishkin.

Robert deV. Frierson
Deputy Secretary of the Board

15. *See* 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2). The additional standards set forth in section 7 of the IBA and Regulation K include the following (1) whether the bank's home-country supervisor has consented to the establishment of the office; (2) the financial and managerial resources of the bank; (3) whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; and (4) whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

16. The Board's authority to approve the establishment of the proposed branch parallels the continuing authority of the state of New York to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the state of New York or its agent, the New York State Banking Department ("Department"), to license the proposed office of ICBC in accordance with any terms or conditions that the Department may impose.

International Bank of Azerbaijan Baku, Azerbaijan

Order Approving Establishment of a Representative Office

International Bank of Azerbaijan ("Bank"), Baku, Azerbaijan, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 10(a) of the IBA[1] to establish a representative office in New York, New York. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a representative office in the United States.

Notice of the application, affording interested persons an opportunity to submit comments, has been published in a newspaper of general circulation in New York, New York (*New York Daily News*, August 13, 2007). The time for filing comments has expired, and all comments received have been considered.

Bank, with total consolidated assets of approximately $3.2 billion,[2] is the largest commercial bank in Azerbaijan and provides wholesale and retail banking services through a network of domestic branches as well as several foreign offices and subsidiaries.[3]

The proposed representative office is intended to act as a liaison between Bank's head office in Azerbaijan, other U.S. financial institutions, and its existing and prospective customers in Azerbaijan and the United States. The office would engage in representative functions in connection with the activities of Bank, solicit new business, provide information to customers concerning their accounts, promote business investment in and trading opportunities with Azerbaijan, conduct research, and receive applications for extensions of credit and other banking services on behalf of Bank.

In acting on a foreign bank's application under the IBA and Regulation K to establish a representative office, the Board shall take into account whether the foreign bank engages directly in the business of banking outside of the United States and has furnished to the Board the information it needs to assess the application adequately.[4] The Board shall also take into account whether the foreign bank is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[5] Under Regulation K, a representative-office application may be approved if the Board determines that the applicant bank is subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.[6] This is a lesser standard than the comprehensive, consolidated supervision standard applicable to applications to establish branch or agency offices of a foreign bank. The Board considers the lesser standard sufficient for approval of representative office applications because representative offices may not engage in banking activities.[7]

The Board also considers additional standards set forth in the IBA and Regulation K.[8] As noted above, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

In connection with this application, Bank has provided certain commitments that limit the activities of the representative office. It has committed that the representative office will engage only in certain specified activities and will not make credit decisions, solicit or accept deposits, process or initiate transactions on behalf of Bank, or engage in activities related to securities trading, foreign exchange, or money transmission.

As noted above, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

With respect to supervision by home-country authorities, the Board has considered the following information. Bank is supervised by the National Bank of Azerbaijan ("NBA"), which is responsible for the regulation and supervision of financial institutions operating in Azerbaijan and is in the process of enhancing its supervisory framework. The NBA issues rules and implements regulations concerning accounting requirements, asset quality, management, operations, capital adequacy, loan classification, and loan-loss-reserve requirements. In addition, the NBA has authority to order corrective measures, impose sanctions, and assume management of a financial institution or liquidate it.

The NBA supervises and regulates Bank in Azerbaijan through a combination of on-site examinations and off-site

1. 12 U.S.C. § 3107(a).

2. Unless otherwise indicated, data are as of December 31, 2007.

3. Bank is majority owned by the government of Azerbaijan through its Ministry of Finance and operates as a commercial bank in addition to promoting trade by and with Azeri companies. No other shareholder owns more than 5 percent of the shares of Bank.

4. 12 U.S.C. § 3107(a)(2).

5. *Id.*

6. 12 CFR 211.24(d)(2).

7. A representative office may engage in representational and administrative functions in connection with the banking activities of the foreign bank, including soliciting new business for the foreign bank; conducting research; acting as a liaison between the foreign bank's head office and customers in the United States; performing preliminary and servicing steps in connection with lending; and performing back-office functions. A representative office may not contract for any deposit or deposit-like liability, lend money, or engage in any other banking activity (12 CFR 211.24(d)(1)).

8. *See* 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2). These standards include (1) whether the bank's home-country supervisor has consented to the establishment of the office; the financial and managerial resources of the bank; (2) whether the bank has procedures to combat money laundering, whether there is a legal regime in place in the home country to address money laundering, and whether the home country is participating in multilateral efforts to combat money laundering; (3) whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; and (4) whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

monitoring. On-site examinations are conducted annually and cover capital adequacy, asset quality, profitability, liquidity, and compliance with the law. If necessary, the NBA can also conduct special on-site examinations. The NBA conducts off-site monitoring of Bank through the review of required biannual reports. An external audit is also part of the supervisory process and must be conducted at least annually.

Based on all the facts of record, including the commitments provided by Bank limiting the activities of the proposed office, it has been determined that Bank is subject to a supervisory framework that is consistent with the activities of the proposed representative office, taking into account the nature of such activities.

The additional standards set forth in section 7 of the IBA and Regulation K have also been taken into account.[9] The NBA has no objection to the establishment of the proposed representative office.

With respect to the financial and managerial resources of Bank, taking into consideration its record of operations in its home country, its overall financial resources, and its standing with its home-country supervisor, financial and managerial factors are consistent with approval. Bank appears to have the experience and capacity to support the proposed representative office and has established controls and procedures for the proposed representative office to ensure compliance with U.S. law.

Although Azerbaijan is not a member of the Financial Action Task Force, it participates in international fora that address the prevention of money laundering.[10] Money laundering is a criminal offense in Azerbaijan, and banks are required to establish internal policies and procedures for the detection and prevention of money laundering.[11] Legislation and regulations require banks to adopt know-your-customer policies and maintain records.[12] Bank has established anti-money-laundering policies and procedures, which include the implementation of know-your-customer policies, suspicious activity reporting procedures, and related training programs and manuals. Bank's internal and external auditors review compliance with requirements to prevent money laundering.

With respect to access to information on Bank's operations, the restrictions on disclosure in relevant jurisdictions in which Bank operates have been reviewed and relevant government authorities have been communicated with regarding access to information. Bank has committed to make available to the Board such information on the operations of Bank and any of its affiliates as the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act of 1956, as amended, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In addition, subject to certain conditions, the NBA may share information on Bank's operations with other supervisors, including the Board. In light of these commitments and other facts of record, and subject to the condition described below, it has been determined that Bank has provided adequate assurances of access to any necessary information that the Board may request.

Based on the foregoing and all the facts of record, and subject to the commitments made by Bank and to the terms and conditions set forth in this order, Bank's application to establish the representative office is hereby approved by the Director of the Division of Banking Supervision and Regulation, with the concurrence of the General Counsel, pursuant to authority delegated by the Board.[13] Should any restrictions on access to information on the operations or activities of Bank or any of its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or its affiliates with applicable federal statutes, the Board may require or recommend termination of any of Bank's direct and indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank with the conditions imposed in this order and the commitments made to the Board in connection with this application.[14] For purposes of this action, these commitments and conditions are deemed to be conditions imposed in writing by the Board in connection with its finding and decision and may be enforced in proceedings under 12 U.S.C. § 1818 against Bank and its affiliates.

By order, approved pursuant to authority delegated by the Board, effective July 31, 2008.

ROBERT deV. FRIERSON
Deputy Secretary of the Board

9. *See supra* note 8.

10. Azerbaijan is a party to the 1988 UN Convention Against the Illicit Traffic of Narcotics and Psychotropic Substances, the UN International Convention Against Transnational Organized Crime, the UN International Convention for the Suppression of the Financing of Terrorism, the 2004 UN Convention Against Corruption, and the Council of Europe Convention on Laundering, Search, Seizure, and Confiscation of Proceeds from Crime. Azerbaijan is also a member of the Council of Europe's Select Committee of Experts on the Evaluation of Anti-Money Laundering Measures.

11. Azerbaijan has taken steps to strengthen its anti-money-laundering policies and procedures; the Board believes that factors related to anti-money laundering are consistent with approval of the application to establish a representative office.

12. Bank's internal guidelines require that it report suspicious transactions.

13. *See* 12 CFR 265.7(d)(12).

14. The Board's authority to approve the establishment of the proposed representative office parallels the continuing authority of the state of New York to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the state of New York or its agent, the New York State Banking Department, to license the proposed office of Bank in accordance with any terms or conditions that it may impose.

The Shizuoka Bank, Ltd.
Shizuoka, Japan

Order Approving Establishment of a Branch

The Shizuoka Bank, Ltd. ("Bank"), Shizuoka, Japan, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 7(d) of the IBA[1] to upgrade its existing agency in New York, New York, to a branch. The Foreign Bank Supervision Enhancement Act of 1991, which amended the IBA, provides that a foreign bank must obtain the approval of the Board to establish a branch in the United States.

Notice of the application, affording interested persons an opportunity to comment, has been published in a newspaper of general circulation in New York, New York (*The New York Times*, November 29, 2007). The time for filing comments has expired, and the Board has considered all comments received.

Bank, with total assets of approximately $91.6 billion, is the 13th largest bank in Japan.[2] No shareholder owns more than 5 percent of Bank's shares.

Bank is a commercial bank and engages primarily in retail banking and foreign exchange operations. It also engages in other related services through its subsidiaries, including bill collections, issuance of guarantees, acceptances of letters of credit, e-banking services, and securities investments. Outside Japan, Bank operates a subsidiary bank in Belgium, a branch in Hong Kong SAR, People's Republic of China, and representative offices in China and Singapore. In the United States, Bank operates a branch in Los Angeles and an agency in New York. Bank is a qualifying foreign banking organization under Regulation K.[3]

Bank's home state is California. Bank proposes to establish a branch outside its home state by upgrading its New York agency to a branch pursuant to section 5(a)(7)(B) of the IBA.[4] The proposed branch would continue the business of the New York agency, but the upgrade would also enable Bank to accept at its New York office wholesale and other limited deposits from U.S. residents.

To approve a proposal to establish a branch in a state outside a foreign bank's home state by upgrading an agency under section 5(a)(7)(B) of the IBA, the Board is required to determine that the establishment of such branch is permitted by the state where the branch is to be established and that the agency to be upgraded was in operation in that state (i) prior to September 28, 1994; or (ii) for a period of time that meets the state's minimum age requirements permitted under section 44(a)(5) of the Federal Deposit Insurance Act.[5] These requirements have been met in this case.[6]

Under the IBA and Regulation K, in acting on an application by a foreign bank to establish a branch, the Board must consider whether the foreign bank (1) engages directly in the business of banking outside of the United States; (2) has furnished to the Board the information it needs to assess the application adequately; and (3) is subject to comprehensive supervision on a consolidated basis by its home-country supervisor.[7] The Board also considers additional standards as set forth in the IBA and Regulation K.[8]

As noted above, Bank engages directly in the business of banking outside the United States. Bank also has provided the Board with information necessary to assess the application through submissions that address the relevant issues.

With respect to supervision by home-country authorities, the Federal Reserve previously has determined, in connection with applications involving other banks in Japan, that those banks were subject to comprehensive supervision on a consolidated basis by their home-country supervisor, Japan's Financial Services Agency ("FSA").[9] Bank is supervised by the FSA on substantially the same terms and conditions as those other banks. Based on all the facts of record, it has been determined that Bank is subject to

1. 12 U.S.C. § 3105(d).
2. Asset and ranking data are as of March 31, 2008.
3. 12 CFR 211.23(a).
4. 12 U.S.C. § 3103(a)(7)(B).

5. 12 U.S.C. § 1831u(a)(5).
6. New York permits a foreign bank to upgrade an existing agency to a branch. *See* N.Y. Banking Law § 202-g. Bank's existing agency in New York was established in June 1989.
7. 12 U.S.C. § 3105(d)(2); 12 CFR 211.24. In assessing this standard, the Board considers, among other indicia of comprehensive, consolidated supervision, the extent to which the home-country supervisors (i) ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide; (ii) obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise; (iii) obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic; (iv) receive from the bank financial reports that are consolidated on a worldwide basis or comparable information that permits analysis of the bank's financial condition on a worldwide consolidated basis; and (v) evaluate prudential standards, such as capital adequacy and risk asset exposure, on a worldwide basis. No single factor is essential, and other elements may inform the Board's determination.
8. 12 U.S.C. § 3105(d)(3)–(4); 12 CFR 211.24(c)(2)–(3).
9. *See Mizuho Holdings, Inc.*, 89 *Federal Reserve Bulletin* 181 (2003); *Mitsubishi Tokyo Financial Group, Inc.*, 87 *Federal Reserve Bulletin* 349 (2001); *The Fuji Bank, Limited*, 85 *Federal Reserve Bulletin* 338 (1999).
10. The additional standards set forth in section 7 of the IBA and Regulation K include the following (1) whether the bank's home-country supervisor has consented to the establishment of the branch; the financial and managerial resources of the bank; (2) whether the appropriate supervisors in the home country may share information on the bank's operations with the Board; (3) whether the bank and its home country have adopted and implemented policies and procedures to address and combat money laundering; and (4) whether the bank and its U.S. affiliates are in compliance with U.S. law; the needs of the community; and the bank's record of operation.

comprehensive supervision on a consolidated basis by its home-country supervisor.

The additional standards set forth in section 7 of the IBA and Regulation K have also been taken into account.[10] The FSA has no objection to the establishment of the proposed agency.

Japan's risk-based capital standards are consistent with those established by the Basel Capital Accord ("Accord"). Bank's capital is in excess of the minimum levels that would be required by the Accord and is considered equivalent to capital that would be required of a U.S. banking organization. Managerial and other financial resources of Bank are considered consistent with approval, and Bank appears to have the experience and capacity to support the proposed branch. In addition, Bank has established controls and procedures for the proposed branch to ensure compliance with U.S. law and for its operations in general.

Japan is a member of the Financial Action Task Force ("FATF") and subscribes to the FATF's recommendations on measures to combat money laundering and terrorist financing. In accordance with these recommendations, Japan has enacted laws and developed regulatory standards to deter money laundering and terrorist financing. Money laundering is a criminal offense in Japan, and Japanese financial institutions are required to establish internal policies, procedures, and systems for the detection and prevention of money laundering and terrorist financing throughout their worldwide operations. Bank has policies and procedures to comply with these laws and regulations that are monitored by governmental entities responsible for anti-money-laundering compliance.

With respect to access to information on Bank's operations, the restrictions on disclosure in relevant jurisdictions in which Bank operates have been reviewed and relevant government authorities have been contacted regarding access to information. Bank has committed to make available to the Board such information on the operations of Bank and any of its affiliates that the Board deems necessary to determine and enforce compliance with the IBA, the Bank Holding Company Act, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law or otherwise, Bank has committed to cooperate with the Board to obtain any necessary consents or waivers that might be required from third parties for disclosure of such information. In addition, subject to certain conditions, the FSA may share information on Bank's operations with other supervisors, including the Board. In light of these commitments and other facts of record, and subject to the condition described below, it has been determined that Bank has provided adequate assurances of access to any necessary information that the Board may request.

On the basis of all the facts of record, and subject to the commitments made by Bank, as well as the terms and conditions set forth in this order, Bank's application to establish a branch in New York, New York, is hereby approved.[11] Should any restrictions on access to information on the operations or activities of Bank and its affiliates subsequently interfere with the Board's ability to obtain information to determine and enforce compliance by Bank or its affiliates with applicable federal statutes, the Board may require termination of any of Bank's direct or indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank with the commitments made in connection with this application and with the conditions in this order.[12] The commitments and conditions referred to above are conditions imposed in writing by the Board in connection with this decision and may be enforced in proceedings under applicable law.

By order, approved pursuant to authority delegated by the Board, effective September 23, 2008.

ROBERT DEV. FRIERSON
Deputy Secretary of the Board

11. Approved by the Director of the Division of Banking Supervision and Regulation, with the concurrence of the General Counsel, pursuant to authority delegated by the Board.

12. The Board's authority to approve the establishment of the proposed branch parallels the continuing authority of the state of New York to license branches of a foreign bank. The Board's approval of this application does not supplant the authority of the state of New York or its agent, the New York State Banking Department ("Department"), to license the proposed branch of Bank in accordance with any terms or conditions that the Department may impose.

Index

Index

A

ARTICLES
- Economic Development Incentives: Research Approaches A61–73
- Industrial Production and Capacity Utilization: The 2008 Annual Revision A41–60
- Profits and Balance Sheet Developments at U.S. Commercial Banks in 2007 .... A1–39
- Recent Payment Trends in the United States A75–106
- 2007 HMDA Data, The A107–146

Automated clearinghouse payments or returns ... A80–81, A99–101
Avery, Robert B., article A107–146

B

BALANCE sheet developments, commercial banks A4–14
Bank Holding Company Act of 1956, orders issued under
- Allied Irish Banks, p.l.c. C11–16
- Bank of America Corporation C59–60, C81–92
- C-B-G, Inc. C99–101
- Citigroup, Inc. C16–20
- Citizens Banking Company, The C1–4
- Fifth Third Bancorp C73–78
- Fifth Third Financial Corporation C73–78
- First Citizens Bank Corp C1–4
- First National Bank Group, Inc. C31–34
- Fortis Bank S.A./N.V. C20–23
- Fortis Brussels S.A./N.V. C20–23
- Fortis S.A./N.V. C20–23
- Fortis, N.V. C20–23
- Frandsen Financial Corporation C34–37
- Goldman-Sachs Bank USA Holdings, LLC C101–103
- Goldman-Sachs Group, Inc., The C101–103
- JPMorgan Chase & Co. C78–81
- M&T Bank Corporation C11–16
- Midwest Regional Bancorp, Inc. C9–11
- Morgan Stanley C103–107
- Morgan Stanley Capital Management LLC C103–107
- Morgan Stanley Domestic Holdings, Inc. C103–107
- Royal Bank of Canada C45–51
- Royal Bank of Scotland Group plc, The C60–67
- Toronto-Dominion Bank, The C51–59
- Whitney Holding Corporation C107–111

Bank Merger Act of 1960, orders issued under
- KeyCorp C4–9
- PNC Bank Delaware C38–44
- PNC Financial Services Group, Inc., The C38–44

Banking industry, U.S.
- Profits and balance sheet developments A4–26

Bassett, William F., article A1–39
Bayard, Kimberly, article A41–60
Brevoort, Kenneth B., article A107–146

C

CANNER, Glenn B., article A107–46
Capacity utilization (*See* Industrial production and capacity utilization)
Capital, commercial banks A12
Cash payments, U.S. A85–87
Check payments, U.S., ... A78–80
Check use in the United States A78–80, A90–97
Citigroup, Inc., financial holding company C16–20
Commercial and industrial (C&I) loans A19
Commercial banks
- Appendix tables A29–39
- Article A1–39
- Balance sheet developments A4–14
- Capital A12
- Derivatives and off-balance-sheet items A13–14
- Developments in early 2008 .... A27–28
- Fair value accounting, new rules A11
- Interest income and expenses A15–17
- International operations A26–27
- Liabilities A10–12
- Loans held by small banks, delinquency rates by geographic region A20–21
- Loans, types and performance A19–26
- Non-interest income and expenses A17–18
- Profitability A15–26
- Securities, holdings of A10
- Securitized loans A25
- Syndicated loans, leveraged, market for A6–7

Commercial real estate loans A19–22
Community development
- (*See* Economic development incentives: research approaches and current views, article)

Corporate income tax, apportionment formulas A70–71
Credit (*See* Loans)

D

DEPOSITORY institutions, payments and withdrawals A87–97

E

ECONOMIC development incentives: research approaches and current views, article A61–73
- Corporate income tax, apportionment formulas A70–71
- Data sources and types A63–69
- Industrial development projects and sales tax, Texas A66–68

Electronic and paper check processing A90–95
Electronic payments and trends
- Regional variation A97–98

Electronic payments, innovations A82–83

F

FEDERAL Reserve Act, orders issued under
- Rolling Hills Bank & Trust C93–94

FFIEC, HMDA data A107–146
Fortis Bank S.A./N.V., financial holding company C20–23
Fortis Brussels S.A./N.V., financial holding company C20–23
Fortis N.V., financial holding company C20–23
Fortis S.A./N.V., financial holding company C20–23

G

GERDES, Geoffrey R., article A75–106
Gilbert, Charles, article A41–60
Gorin, Dan, article A61–73

H

HOME Mortgage Disclosure Act (HMDA) 2007 data, article A107–146
Home Ownership and Equity Protection Act (HOEPA) A110, A143–146
Households, loans to A8–10, A22

I

INDUSTRIAL development projects, Texas A66–68
Industrial production and capacity utilization
- Appendix tables A53–60
- Article, 2008 annual revision A41–60
- Capacity and capacity utilization A46–47

Industrial production A43–46
Technical aspects of the revision A48–52
Interest income and expense, commercial banks A15–17
International Banking Act, orders issued under
Andhra Bank C112–113
China Merchants Bank Co., Ltd. C24–26
eBank Corporation C68–69
ICICI Bank Limited C26–29
Industrial and Commercial Bank of China, Limited C114–116
International Bank of Azerbaijan C117–118
KfW IPEX-Bank GmbH C94–96
Shizuoka Bank, Ltd., The C119–120
SNS Property Finance B.V. C96–98
State Bank of India C69–72
International operations, commercial banks A26–27

K

KING, Thomas, article A1–39

L

LEGAL Developments
(*See also* Bank Holding Company Act, orders issued under; Federal Reserve Act, orders issued under; International Banking Act, orders issued under)
First quarter, 2008 .... C31–72
Fourth quarter, 2007 .... C1–30
Second quarter, 2008 .... C73–98
Third quarter, 2008 .... C99–120
Liabilities, commercial banks A10–12
Loans
Business A5–8
Commercial and industrial A19
Commercial real estate A19–22
Household A8–10, A22
Loss provisioning A19, A25–26
Securitized A25
Syndicated A6–7

M

MORTGAGE loans
Home Mortgage Disclosure Act (HMDA)
2007 data, article A107–146

N

NON-INTEREST income and expense, commercial banks A17–18
Noncash payments, other countries A79
Noncash payments, United States A77–85

P

PAYMENT trends, United States, article A75–106
Data sources and estimation methods, appendix A101–106
Electronic payments, innovations A82–83
Payments, other countries A79
Regional variation A97–98
Production (*See* Industrial production and capacity utilization)
Profits and balance sheet developments at U.S. commercial banks in 2007, article A1–39

R

REAL estate loans, commercial A19–22
Recent payment trends in the United States, article A75–106
Regulations, Board of Governors
C, Home Mortgage Disclosure Act A107–146

S

SALES tax and industrial development projects, Texas A66–68
Securities, commercial bank holdings of A10–12

T

TAXES
(*See* Economic development incentives: research approaches and current views, article)

U

U.S. commercial banks, article on profits and balance sheet developments in 2007 .... A1–39

INSPECTOR GENERAL HOTLINE

(800) 827-3340

You may use this number to report suspected instances of impropriety, wrongdoing, fraud, waste, and abuse in programs and operations administered or financed by the Federal Reserve Board.