Volume 85 □ Number 12 □ December 1999

Federal Reserve BULLETIN

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

Table of Contents

PUBLICATIONS COMMITTEE

Lynn S. Fox, *Chair* □ Jennifer J. Johnson □ Karen H. Johnson □ Donald L. Kohn □ Stephen R. Malphrus □ J. Virgil Mattingly, Jr. □ Michael J. Prell □ Dolores S. Smith □ Richard Spillenkothen □ Richard C. Stevens

The *Federal Reserve Bulletin* is issued monthly 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 Economic Editing Section headed by S. Ellen Dykes, the Multimedia Technologies Center under the direction of Christine S. Griffith, and Publications Services supervised by Linda C. Kyles.

The Treasury Securities Market: Overview and Recent Developments

Dominique Dupont and Brian Sack, of the Board's Division of Monetary Affairs, prepared this article. Emilie Archambeault provided research assistance.

The market for U.S. Treasury securities is by many measures the largest, most active debt market in the world. At the end of September 1999, the amount of Treasury debt held outside federal government accounts totaled about $3.6 trillion, close to the amount of outstanding debt securities issued by all U.S. corporations combined.[1] Moreover, enormous amounts of Treasury securities are traded every business day. Over the first nine months of 1999, the primary dealers in government securities, which are among the most active participants in the market, together executed an average of $190 billion worth of transactions in the securities each day.[2]

The heavy trading is an indication of the pivotal role of U.S. Treasury securities in world financial markets. Investors of many types—commercial banks, investment banks, money market funds, insurance companies, individual investors, and foreign central banks, among others—use the Treasury market for investing and hedging purposes. Yields on the securities are widely viewed as benchmarks in the pricing of other debt securities and are analyzed for the information they might reveal about market participants' expectations about the future path of the economy and monetary policy.

This article begins with a description of the structure of the Treasury market, including the process by which securities are issued in the primary market and the mechanics of the secondary market. The determinants of investor demand for Treasury securities are then discussed in some detail. The article concludes with a discussion of several recent developments and emergent trends that have affected the market, including the advent of inflation-indexed securities, a reduction in the issuance of Treasury securities, and shifts toward electronic trading and alternative clearing arrangements.

OVERVIEW OF THE MARKET

The market for U.S. Treasury securities has a complex structure and involves numerous participants—the Department of the Treasury, the Federal Reserve System, government securities dealers and brokers, and other holders of Treasury securities.

Scope of the Market

The federal government finances its expenditures in excess of tax receipts through the sale of debt obligations. Over the years, the Congress has delegated to the Department of the Treasury its authority under the Constitution to issue debt securities. The United States, initially as the Continental Congress, first incurred debt in 1776 when it borrowed funds to finance the Revolutionary War.[3] Total Treasury debt remained fairly small in the first half of the nineteenth century but rose sharply with the Civil War and again with World War I (chart 1). After declining slightly, the debt increased nearly threefold during the Great Depression and exploded in the 1940s as the government financed expenditures related to World War II. From its postwar low in 1949, outstanding Treasury debt grew gradually for nearly two decades before accelerating at the time of the Vietnam War and during the subsequent period of high inflation. In the 1980s, the growth of the stock of debt picked up further, spurred by the tax cuts and rapid increases in defense spending of the decade.

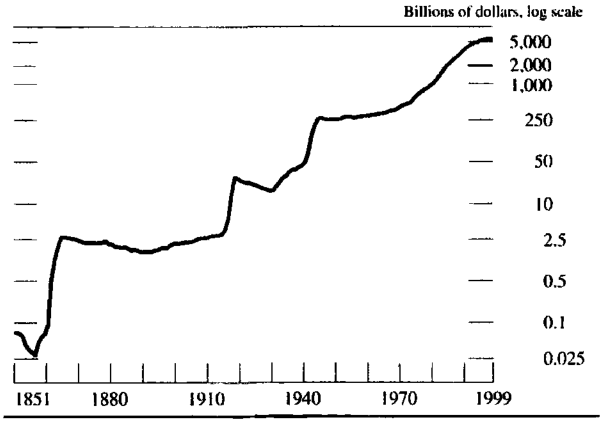
In recent years, budget surpluses have halted the upward climb in the total amount of Treasury debt held outside government accounts. However, the overall magnitude of outstanding debt remains substantial, a legacy of past budget deficits. At the end of

1. Corporate debt securities include corporate bonds and commercial paper outstanding and exclude debt and mortgage-backed securities issued by federal agencies and government-sponsored enterprises.

2. Source: Federal Reserve Bank of New York.

3. Rafael A. Bayley, *The National Loans of the United States of America from July 4, 1776 to June 30, 1880, as Prepared for the Tenth Census of the United States* (Washington, DC: U.S. Government Printing Office, 1883).

1. Total outstanding Treasury debt, 1851–1999



NOTE. Data for 1999 are through the second quarter.
SOURCE. U.S. Department of the Treasury.

September 1999, the total par value of outstanding Treasury debt, including that held in government accounts, stood at about $5.6 trillion, or about 61 percent of the total annual output of the economy. This fraction, though considerable, is well below the peak after World War II (chart 2).

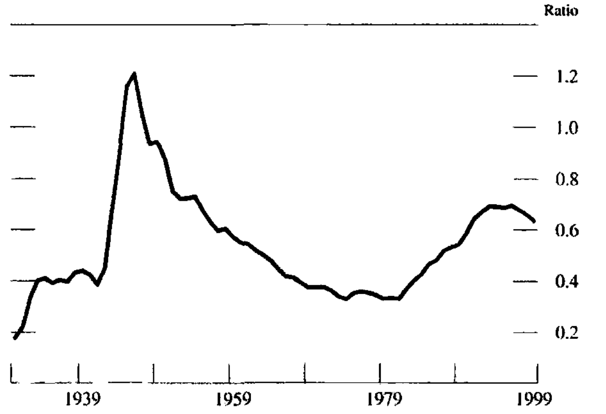
Types of Treasury Securities

Of the $5.6 trillion in outstanding debt at the end of September 1999, about $3.2 trillion was in the form of *marketable* securities—instruments that may be traded after their initial purchase. These securities are the focus of this article. New marketable securities are regularly offered in maturities ranging from thirteen weeks to thirty years. *Bills*—securities having a maturity of one year or less—sell at a discount from their face value (par) and do not pay interest before maturity. Investors realize a return on bills from the increase in their price to face value at maturity. *Notes*—securities having an initial maturity of one to ten years—and *bonds*—securities having an initial maturity of more than ten years—offer investors semiannual interest payments, or coupons.

More than half the marketable Treasury debt outstanding is in the form of notes, while bills and bonds each represent about 20 percent (chart 3). Some of the outstanding bonds are callable securities, which may be redeemed by the Treasury before their maturity; however, only noncallable securities have been issued since 1985. Most of the marketable debt outstanding (about 97 percent) is in the form of nominal securities—securities for which the coupon and principal payments are fixed in dollar terms. Since 1997, the Treasury has also issued securities whose coupon and principal payments are indexed to the rate of inflation. (The indexed-securities program is described later in the section "Availability of a New Instrument.")

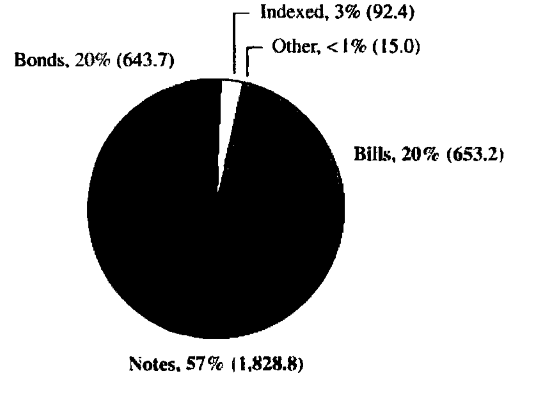
The Treasury also issues a considerable amount of nonmarketable securities, which, in contrast to marketable securities, may not be traded after their initial purchase. Nonmarketable debt is primarily in the form of Government Account Series (83 percent), State and Local Government Series (7 percent), and savings bonds (7 percent). Government Account Series securities are held mainly by off-budget government programs, such as social security, which by law must invest accumulated surpluses in nonmarket-

2. Ratio of total outstanding Treasury debt to gross domestic product, 1930–99



NOTE. Data for 1999 are through the second quarter.
SOURCE. U.S. Department of the Treasury; U.S. Department of Commerce.

3. Distribution of marketable Treasury debt outstanding, by type of security, September 30, 1999



NOTE. Numbers in parentheses are amounts outstanding, in billions of dollars.
SOURCE. *Monthly Statement of the Public Debt of the United States* (U.S. Department of the Treasury), September 1999.

able Treasury securities. State and Local Government Series (SLGS) securities are Treasury securities offered to those governments as a result of 1969 federal legislation restricting them from investing proceeds from tax-exempt bonds in higher-yielding investments; yields on SLGS securities are set on a case-by-case basis to make it possible for the purchaser to comply with that legislation, although the yields must be at least 5 basis points below the yields on marketable Treasury securities having comparable maturities. Savings bonds, which are issued in small denominations, are redeemable at any time after a short initial holding period. In addition to offering small investors an instrument for saving, some savings bond series have special characteristics such as indexation to the rate of inflation and special tax exemptions on interest payments used to pay for qualified higher education expenses.

Issuance of Treasury Securities: The Primary Market

Marketable Treasury securities are issued through regularly scheduled auctions in what is called the primary market. The process importantly involves the Federal Reserve Banks, which serve as conduits for the auctions.[4] Because market activity is concentrated in New York, the Federal Reserve Bank of New York coordinates much of the auction activity.

Primary Dealers

Approximately 2,000 securities brokers and dealers are registered to operate in the government securities market.[5] Although all these firms may bid at Treasury auctions, participation is typically concentrated among a small number of these firms, the primary dealers. Primary dealers are selected by the Federal Reserve Bank of New York as counterparties for open market operations (government securities transactions related to the Federal Reserve's implementation of monetary policy). They are required to participate meaningfully in both open market operations and Treasury auctions and to provide policy-relevant market information to the New York Reserve Bank. Along with the consolidation of the financial industry has come a decline in the number of primary dealers, from a peak of forty-six in 1988 to thirty as of October 1999.

Auctions

To foster liquidity in the market, the Treasury issues securities consistently and predictably through a regular schedule of auctions. The process begins several days before the scheduled auction when the Treasury announces the details of the upcoming issue, including the amount to be auctioned and the maturity date. After the auction is announced but before it takes place, investors begin trading the yet-to-be-issued security in what is called the *when-issued market*. Transactions in this market are agreements to exchange securities and funds on the day the new security is issued (although a considerable portion of when-issued positions are unwound before the issue date). The when-issued market allows new Treasury issues to be efficiently distributed to investors and provides useful information to potential bidders about the prices the Treasury may receive at the upcoming auction.

On the day of the auction, bids may be submitted to a Federal Reserve Bank or Branch or to the Treasury's Bureau of the Public Debt. Although all entities may submit bids for their own accounts, depository institutions and registered government securities brokers and dealers may also bid on behalf of their customers. Many of these bids are entered through TAAPS (Treasury Automated Auction Processing System), an automated system for processing auction bids that was implemented in the early 1990s.

Two types of bids may be submitted at the auction. *Competitive bids* specify both the quantity of the security sought and a yield.[6] If the specified yield is within the range accepted at the auction, the bidder is awarded the entire quantity sought (unless the specified yield is the highest rate accepted, in which case the bidder is awarded a prorated portion of the bid,

4. This is one of several ways in which the Reserve Banks act as fiscal agents of the Treasury, as permitted by the Federal Reserve Act. Other fiscal agency services provided to the Treasury are detailed in Gerald D. Manypenny and Michael L. Bermudez, "The Federal Reserve Banks as Fiscal Agents and Depositories of the United States," *Federal Reserve Bulletin*, vol. 78 (October 1992), pp. 727–37.

5. These firms are registered with the Securities and Exchange Commission, as required by the Government Securities Act of 1986, which establishes a comprehensive legal framework regulating all government securities brokers and dealers so as to ensure the integrity of the government securities market. The legislation focuses on the capitalization of brokers and dealers and grants the Treasury authority to develop and implement rules regarding transactions of government securities. The enforcement of these rules is delegated to existing regulatory agencies and self-regulatory organizations.

6. At bill auctions, the bidder specifies a discount rate, described below, rather than a yield.

as described below). *Noncompetitive bids*, which typically account for a small proportion of auction amounts in part because of restrictions on their size, do not specify a yield; instead, bidders agree to accept the yield determined at the auction and in return are guaranteed the amount of the security sought.

In most auctions, noncompetitive bids must be submitted by noon and competitive bids by 1:00 p.m. (all times are local New York time, unless stated otherwise). To determine the range of yields to be accepted, the quantities specified in all noncompetitive bids are summed and that total is subtracted from the total offered. Competitive bids are then accepted in ascending order in terms of their yields until the quantity of accepted bids reaches the quantity offered. Bids at the highest accepted yield, referred to as the stop-out yield, are prorated so that the total amount of bids accepted equals the total amount offered. The results of the auction are typically announced by 1:30 p.m.

Since November 1998, all Treasury securities have been auctioned according to the uniform-price method.[7] Each successful competitive bidder and each noncompetitive bidder is awarded securities at the price corresponding to the stop-out yield. Previously, most securities had been issued according to the multiple-price method, meaning that securities were awarded at prices corresponding to the yield of each successful competitive bid. In such auctions, bidders must be concerned with the "winner's curse"—the tendency for a successful bidder to pay a price higher than the value assessed by other auction participants.[8] By mitigating the winner's curse, the uniform-price auction may elicit more aggressive bids, possibly increasing the Treasury's revenue.

As of the end of September 1999, nominal Treasury securities were offered under the following schedule: $6.5 billion of thirteen-week bills and $7.5 billion of twenty-six-week bills auctioned weekly; $10 billion of fifty-two-week bills every four weeks; $15 billion of two-year notes monthly; $15 billion of five-year notes and $12 billion of ten-year notes quarterly; and $10 billion of thirty-year bonds semiannually.[9] The auctions of five-, ten-, and thirty-year nominal securities are held around the middle of the quarter and are referred to as "midquarter refundings." Inflation-indexed notes and bonds are also brought to market quarterly. In addition to these regularly scheduled issues, the Treasury occasionally offers cash management bills—securities having very short maturities issued to bridge temporary funding needs. The borrowing cost for cash management bills has tended to be a bit higher than that for regularly issued instruments.[10]

Instead of issuing a new security, the Treasury may add to, or *reopen*, an existing issue, allowing it to increase the outstanding amount of the issue. Securities with larger amounts outstanding tend to be more liquid, making them more attractive to investors. The Treasury systematically reopens Treasury bills: Every fourth twenty-six-week bill is a reopening of a fifty-two-week bill (which is as often as possible given the auction schedule), every thirteen-week bill is a reopening of a twenty-six-week bill, and some cash management bills are reopenings of other bills. In contrast, the Treasury has only infrequently reopened notes and bonds; since 1990, about 20 percent of the auctions of ten-year notes and thirty-year bonds have been reopenings. The infrequency of reopenings of notes and bonds may be due partly to an obstacle presented by the Internal Revenue Service's Original Issue Discount (OID) rule, which prevents the Treasury from reopening an issue trading at a price discount equal to or greater than 0.25 percent of par value per full year of remaining maturity.[11] On November 3, 1999, the Treasury issued a temporary rule allowing it to reopen securities within one year of issuance regardless of the size of the discount.

The Treasury has adjusted the auction schedule over time in keeping with its changing financing needs (table 1). It has stopped issuing securities at those maturities it judged to be less popular with investors, preferring to concentrate issuance in fewer maturities in order to preserve the sizes of those issues. In particular, it canceled the twenty-year bond in 1986, the four-year note in 1990, the seven-year note in 1993, and the three-year note in 1998. It also recently reduced the frequency of issuance of the five-year note from monthly to quarterly and the frequency of issuance of the thirty-year bond from three times to twice a year by eliminating the November auction. The Treasury has discussed possible

7. Before that time, the Treasury conducted uniform-price auctions for some of its issues, including two- and five-year notes. See box "Regulatory Reforms."

8. Vincent Reinhart, "An Analysis of Potential Treasury Auction Techniques," *Federal Reserve Bulletin*, vol. 78 (June 1992), pp. 403–13.

9. These totals do not reflect quantities allocated to the Federal Reserve or to foreign official institutions.

10. David Simon, "Segmentation in the Treasury Market: Evidence from Cash Management Bills," *Journal of Financial and Quantitative Analysis*, vol. 26 (March 1991), pp. 97–108.

11. The OID rule does not apply if the Treasury declares an acute, protracted shortage in a security. See box "Regulatory Reforms."

1. Frequency of auctions of Treasury securities, by maturity, 1985–99

Year	Type of security										
	13-week	26-week	52-week	2-year	3-year	4-year	5-year	7-year	10-year	20-year	30-year
1985	Weekly	Weekly	Every 4th week	Monthly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly
1986										None (1/15/86)	
1987											
1988											
1989											
1990						None (12/31/90)					
1991							Monthly (1/31/91)				
1992											
1993								None (4/15/93)			Semiannually (8/16/93)
1994											
1995											
1996									6x/yr (7/15/96)		3x/yr (8/15/96)
1997									Quarterly (8/15/97)		
1998					None (5/15/98)		Quarterly (8/17/98)				
1999											Semiannually[1]

NOTE. Date indicates when a security was first issued under a new schedule or, if discontinued, when a security was last issued.

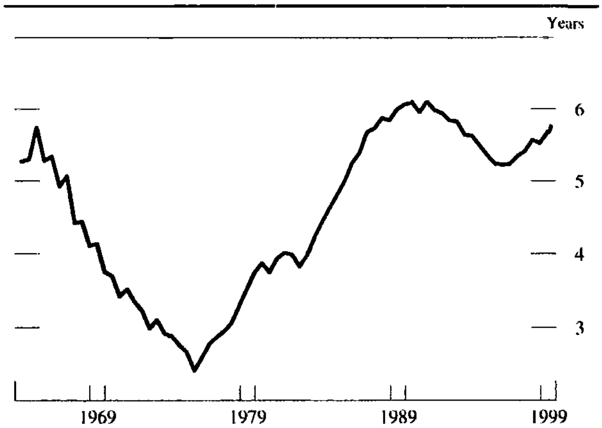
1. In August 1999, the Treasury announced that it would discontinue the November auction and issue 30-year bonds in February and August only.

SOURCE. *Treasury Bulletin.*

future cutbacks in the issuance of one-year bills and two-year notes as well.

Changes in the auction schedule have naturally affected the maturity of outstanding Treasury debt. The average maturity of marketable debt has varied considerably over the past three decades (chart 4). More recently, the maturity peaked at about six years at the beginning of the 1990s, after which the Treasury began to shorten the maturity in an attempt to reduce its borrowing costs. Over the past several years, the maturity has again begun to rise as a result of a reduction in the issuance of securities having shorter maturities (discussed in the section "Reduction in the Supply of Nominal Treasury Debt"). The elimination of the November thirty-year bond auction may help counter this rise.

4. Average maturity of marketable Treasury debt, 1964–99



NOTE. Excludes inflation-indexed securities and holdings of the Federal Reserve. Data for 1999 are through September.

SOURCE. U.S. Department of the Treasury.

Trading in Treasury Securities: The Secondary Market

The market for government securities is an over-the-counter market in which participants trade with one another on a bilateral basis rather than on an organized exchange. (Treasury securities are officially registered at the New York Stock Exchange, but trading in that market is negligible.) Trading activity takes place between primary dealers, non–primary dealers, and customers of these dealers, including financial institutions, nonfinancial institutions, and individuals.

Many dealers, particularly the primary dealers, "make markets" in Treasury securities by standing ready to buy and sell securities at specified prices. In the process of making markets, dealers purchase securities at the bid price and sell the same securities at a slightly higher price, the offer price. Through these sales and purchases, the dealer can facilitate transactions between customers while taking only temporary positions in the security. In doing so, the dealer earns the difference between the bid and offer prices, referred to as the bid–offer spread.

In addition to transacting directly with customers, primary dealers frequently trade with one another. The majority of transactions between primary dealers and other large market participants take place through the six interdealer brokers. These brokers provide the dealers with electronic screens that display the best bid and offer prices among the dealers. Dealers can execute trades through an interdealer broker—either "hitting" a bid price or "taking" an offer price—for a small fee. In this structure, the interdealer brokers provide two important services: They disseminate price and trade information efficiently and provide anonymity to market participants.

2. Daily trading volume in Treasury securities, 1999:Q2

Type of security	Average among all primary dealers (millions of dollars)	Percentage among most active primary dealers
Bills	29,451	44
Coupon securities	162,614	52
Indexed securities	1,282	74
Total	193,347	51

NOTE. The most active primary dealers are the six with the highest volume of transactions in each type of security during the quarter.
SOURCE. Federal Reserve Bank of New York.

The thirty primary dealers are among the most active participants in the secondary market. In the second quarter of 1999, they engaged in an average of $193 billion in transactions in Treasury securities each day (table 2)—about $105 billion with other dealers through interdealer brokers and the other $88 billion either with customers or directly with other dealers.[12] This activity is fairly concentrated: The six primary dealers with the highest volume of transactions in Treasury securities accounted for about 50 percent of the primary dealers' trading activity.

Treasury securities can be traded almost around the clock (about twenty-two hours a day). Trading begins in Tokyo at 7:30 p.m. (New York time) and continues until 3:00 a.m., when it passes to the London market.[13] Trading in London continues until 7:30 a.m., at which time it begins in New York, where it continues until 5:30 p.m. Although market activity is worldwide, about 94 percent of the trading volume transacted through interdealer brokers takes place during New York trading hours, leaving about 4 percent and 2 percent of volume during London and Tokyo hours respectively.[14] Moreover, according to market participants, a significant portion of overseas trading occurs at times when trading operations are being shifted from one market to another.[15] Overseas markets for Treasury securities appear to be less liquid than U.S. markets; dealers reportedly post wider bid–offer spreads and stand ready to buy or sell smaller amounts of securities at the posted prices.[16] The final exchange of securities for cash (settlement) typically occurs in New York, regardless of where the transaction originated.

Quoting Conventions

Treasury coupon securities are quoted in terms of their price, expressed in dollars. The quoted price of a coupon security is the "clean price," which excludes accrued interest. When a transaction takes place, the purchaser must pay the seller the clean price plus the accrued interest, which is determined by the coupon amount multiplied by the fraction of the coupon period that has passed.

The value of a Treasury coupon security is often expressed in terms of its *yield to maturity*, or yield, rather than its price. The yield on a Treasury security is the constant interest rate at which the present discounted value of future coupon and principal payments equals the current price of the security. In effect, the yield represents the rate of return an investor would earn if he or she held the security to maturity, assuming semiannual compounding of interest. By definition, the yield and the price move in opposite directions: An increase in the price implies that an investor must pay more today to receive the same, fixed payments in the future, and therefore the rate of return, or the yield, on the initial investment is lower. Although levels of yields are expressed in percentage points, researchers and market participants often express changes in yields in basis points (hundredths of a percentage point).

In contrast to coupon securities, Treasury bills are quoted in terms of a discount rate, which is the difference between the face value and the market price as a percentage of the face value, scaled to an annual rate assuming a 360-day year (that is, multiplied by 360 and divided by the number of days remaining to maturity). The yield to maturity for a Treasury bill is the difference between the face value and the market price as a percentage of the market price, scaled to an annual rate using the actual number of days in the year.

12. In comparing these figures, note that dealer-to-dealer transactions are counted twice.

13. To be precise, because Japan has not adopted daylight saving time, the market opens in Tokyo at 7:30 p.m. eastern daylight time or 6:30 p.m. eastern standard time.

14. Michael J. Fleming, "The Round-the-Clock Market for U.S. Treasury Securities," Federal Reserve Bank of New York, *Economic Policy Review*, vol. 3 (July 1997), pp. 9–32. This analysis is based on 1994 data; preliminary analysis by the author using 1998 data does not suggest significant changes in the patterns of overseas trading of Treasury securities.

15. Brian Madigan, and Jeff Stehm, "An Overview of the Secondary Market for U.S. Treasury Securities in London and Tokyo," Finance and Economics Discussion Series 94-17 (Board of Governors of the Federal Reserve System, Divisions of Research and Statistics and Monetary Affairs, July 1994).

16. Michael J. Fleming, "The Round-the-Clock Market for U.S. Treasury Securities"; also *Market Liquidity: Research Findings and Selected Policy Implications*, Committee on the Global Financial System, Bank for International Settlements (May 1999).

Safekeeping and Transfer of Securities

Recordkeeping for Treasury securities is done in one of two ways. In one system, ownership and legal interests are recorded electronically, in a series of book-entry records on the books of the Federal Reserve Banks and depository institutions: The Federal Reserve manages the National Book-Entry System (NBES), which maintains records for depository institutions; depository institutions, in turn, maintain records for their customers. Alternatively, an investor can maintain a book-entry securities account directly with the Treasury through the Treasury Direct system. The securities held in Treasury Direct are purchased when originally issued and are typically held to maturity.

Through the NBES, depository institutions can electronically transfer Treasury securities among themselves to settle their trades and the trades of their customers. Most of these trades are settled on a delivery-versus-payment basis whereby the securities are electronically deposited in the receiving institution's account and the corresponding payment is simultaneously electronically deposited in the sending institution's account at the Federal Reserve. The depository institutions, in turn, adjust their customers' records to reflect the transfer.

To facilitate the settlement process, the Federal Reserve grants finality when securities transfers are completed over the NBES—that is, the payments associated with these transactions are final and irrevocable. In addition, the Federal Reserve, for a fee, provides intraday credit, commonly called daylight overdrafts, to financially healthy depository institutions. To limit the credit risk arising from such credit extensions, the Federal Reserve imposes limits, based on several factors, on depository institutions' daylight overdraft capacity. The Federal Reserve requires that depository institutions cover their daylight overdrafts by the end of the day. If a depository institution ends the day with a negative account balance, the institution incurs an overnight overdraft, which carries a much higher fee than a daylight overdraft.

Because only depository institutions have access to the NBES, other buyers and sellers of government securities must use a depository institution as an intermediary.[17] Settlement activity is highly concentrated in a few depository institutions known as clearing banks. Clearing banks tend to be very large organizations because sizable investments in computer hardware and software are necessary to handle the large flow of transactions. These banks also extend intraday credit to their customers, allowing them to overdraw their money accounts to pay for securities. To finance their intraday lending to customers, clearing banks rely on daylight overdraft credit from the Federal Reserve. The charges for daylight credit are then typically passed on by the clearing banks to their customers.

17. Some government-sponsored enterprises also have access to the NBES.

THE DEMAND FOR TREASURY SECURITIES

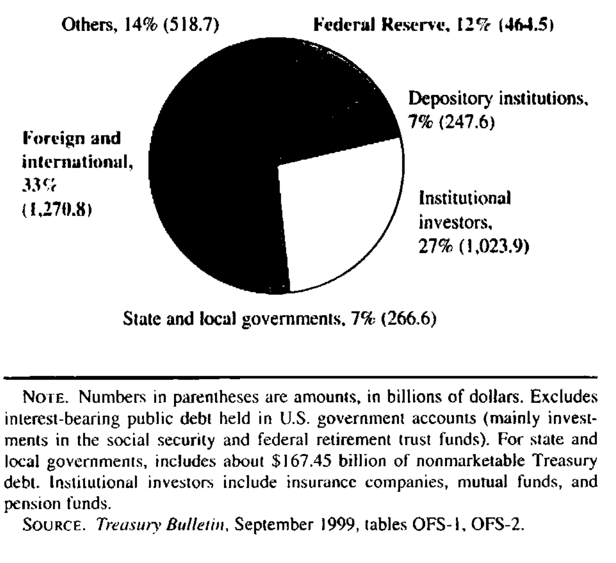
The supply of Treasury securities, as noted earlier, is largely a function of the need to finance the cumulative budget deficits of the U.S. government. The demand for those securities is determined largely by their usefulness for investment and hedging purposes.

Treasury Securities in Investors' Portfolios

Treasury securities are held by various types of investors, including domestic financial intermediaries such as depository institutions; institutional investors; state and local governments; international investors; and the Federal Reserve System, which participates actively in the market as part of its implementation of monetary policy (chart 5).

The widespread holding of Treasury securities is an indication of several appealing characteristics. As with other fixed-income products, the payments on

5. Distribution of Treasury securities, by ownership, March 31, 1999



NOTE. Numbers in parentheses are amounts, in billions of dollars. Excludes interest-bearing public debt held in U.S. government accounts (mainly investments in the social security and federal retirement trust funds). For state and local governments, includes about $167.45 billion of nonmarketable Treasury debt. Institutional investors include insurance companies, mutual funds, and pension funds.

SOURCE. *Treasury Bulletin*, September 1999, tables OFS-1, OFS-2.

The Treasury STRIPS Market

Although regular coupon payments may suit the needs of some investors, others may prefer securities offering a single payment when the security matures. These instruments, called zero-coupon securities, sell at a discount to their face value, allowing investors to realize a return from the increase in the price of the instrument to its maturity date.

In 1985 the Treasury initiated a program that allows investors to split a Treasury note or bond into zero-coupon securities, or STRIPS, corresponding to each coupon payment and the principal payment of the underlying security.[1] For example, stripping a Treasury bond that has twenty years left to maturity generates forty coupon STRIPS, one maturing every six months for twenty years, and one principal STRIP maturing in twenty years. The final coupon STRIP and the principal STRIP are treated as distinct securities despite having identical maturity dates. Since the inception of the program, all newly issued ten-year notes and thirty-year bonds have been eligible for stripping. The program was expanded in September 1997 to include all two-, three-, and five-year notes as well.

The program also allows (as of 1987) the reconstitution of a stripped security from STRIPS matching all the security's coupon and principal payments. The principal payment needed to reconstitute a Treasury security must be generated from the principal STRIP originating from the security being reconstituted. By contrast, the coupon payment stream may be created from coupon STRIPS derived from any security; that is, coupon STRIPS with the same maturity date are fungible.

1. STRIPS is an acronym for Separate Trading of Registered Interest and Principal of Securities.

The considerable interest in zero-coupon securities was evident long before the advent of the STRIPS program. Several investment banks began holding Treasury securities with custodians in special trust accounts and selling the components of those securities to investors. The STRIPS program made this process more efficient and cost-effective, as STRIPS could be registered in the Federal Reserve's book-entry system in the same manner as other Treasury securities.

The total amount of STRIPS outstanding increased rapidly following the introduction of the program, reaching $200 billion by 1993 before leveling out. Stripping activity has been concentrated in longer-term securities, possibly because stripping makes it possible to create Treasury securities having longer duration than available from coupon-bearing Treasury securities, which may be of interest to investors having very long investment horizons. At the end of September 1999, about 32 percent of all outstanding Treasury bonds were held in stripped form. Stripping activity has been more limited for securities having shorter maturities, in part because stripping simply replicates many of the zero-coupon securities that are created by stripping longer-term securities.

The STRIPS market is characterized by heavy flows of gross stripping and reconstitution activity, with an average of about $11 billion of securities stripped and reconstituted each month over the first three quarters of 1999. Stripping and reconstitution transactions can be implemented relatively quickly and at very little cost, facilitating arbitrage between the markets. As a result, there is a relatively tight pricing relationship between a strippable Treasury security and its stripped components.

nominal Treasury securities are specified in advance, providing the investor with a known stream of income. (Investors who prefer a single future payment rather than a stream of coupon payments may instead hold STRIPS, described in the box "The Treasury STRIPS Market.") Fixed-income securities are often an important component of well-balanced portfolios that seek to minimize the variance of returns for a given expected return.

Treasury securities are particularly appealing to investors because they offer greater safety and liquidity than other fixed-income securities. The payments of principal and interest on the securities are backed by the full faith and credit of the U.S. government. In light of the sound financial history of the federal government and its ability to raise substantial tax revenues, Treasury securities are considered to have the lowest risk of default of any major financial investment in the world. Moreover, the interest income derived from Treasury securities is exempt from state and local taxes. In addition, some Treasury securities are extremely liquid, which may be particularly important to investors engaging in hedging and other trading-intensive investment activities. Demand arising from such activities is not spread evenly across all Treasury securities but is concentrated in a limited number of issues with superior liquidity (as discussed in the section "Factors Affecting Individual Treasury Securities").

Liquidity is an important factor influencing the Federal Reserve's holdings of Treasury securities as well. The Federal Reserve tends to hold Treasury securities having maturities shorter than the average maturity of marketable securities held by other investors, partly because securities having shorter maturities tend to be more liquid and because it can fairly rapidly reduce the size of its holdings of such securities, should it need to, by merely not replacing maturing holdings. The advantages of holding a liquid portfolio became evident in 1984 when the Federal Reserve had to sell a significant amount of Treasury securities to offset the massive influx of reserves into the banking system provided through a large volume of discount-window loans at the time.[18] The Federal Reserve reduced the maturity of its portfolio from about four years in 1985 to about three years in 1991. In 1992, the Federal Reserve's policymaking committee decided that the portfolio had reached a sufficient level of liquidity and instructed the trading desk at the Federal Reserve Bank of New York to keep the average maturity from falling further. In the following years, because of the paydown of Treasury bills outstanding, the average maturity crept back up to about four years.

Overall, Treasury securities may appeal to investors seeking the safety and liquidity offered by those securities, and the securities' prices are determined by the value investors ascribe to those characteristics in the context of their investment strategies.

Determinants of the Yield Curve

The values of Treasury securities are often summarized by the yield curve, which plots the yields of all noncallable securities against their maturities. An example is the yield curve on September 23, 1999 (chart 6). This curve has an upward-sloping, concave shape. Securities having maturities of less than five years are highly concentrated because shorter-term securities are auctioned more frequently and because many previously issued longer-term securities fall in that maturity range. The gap between noncallable securities having maturities of ten years and fifteen years arises because the Treasury switched from issuing twenty-year bonds to issuing thirty-year bonds in the mid-1980s.

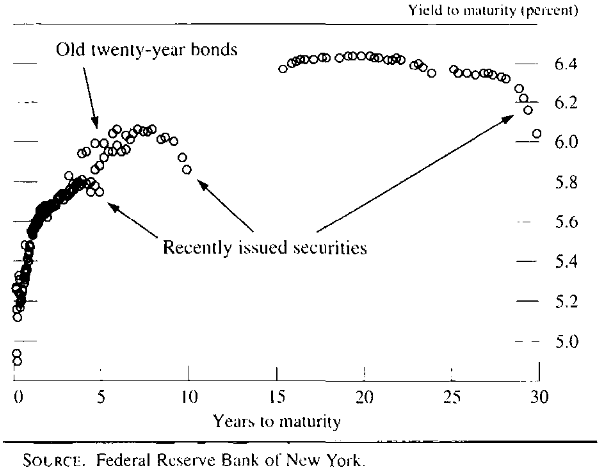
Securities having similar maturities tend to have similar yields because they offer fixed payments over similar periods. Securities having very different maturities are also linked. In particular, longer-term interest rates generally reflect expectations about the future path of short-term interest rates. This relationship, which is often referred to as the expectations hypothesis, arises because an investor can choose among several strategies, including purchasing a Treasury security whose maturity extends over his or her investment horizon or purchasing a short-term security and continuing to reinvest in that security (that is, roll it over) through the investment period.[19] The former strategy offers a return equal to the yield on the longer-term security, whereas the latter offers a return determined, approximately, by the average of the yields on the short-term security over the investment horizon.[20] Substitution between the two strategies tends to keep the expected returns from the two strategies close to one another, although not exactly equal because of differences in risk (discussed below).

Yields on short-term Treasury securities are importantly influenced by monetary policy decisions by the Federal Reserve. Under current operating procedures, the Federal Reserve sets a target level for the federal funds rate—the rate at which depository institutions make uncollateralized overnight loans to one another. Yields on short-term securities do not deviate substantially from that rate because the institutions are able to substitute between making short-term loans in the federal funds market and purchasing Treasury securities having very short maturities.[21]

Longer-term yields, because they reflect expectations of future short-term yields, can be significantly influenced by the outlook for monetary policy. For

18. Cheryl L. Edwards, "Open Market Operations in the 1990s," *Federal Reserve Bulletin*, vol. 83 (November 1997), pp. 859–74.

6. Yield curve for Treasury securities, September 23, 1999



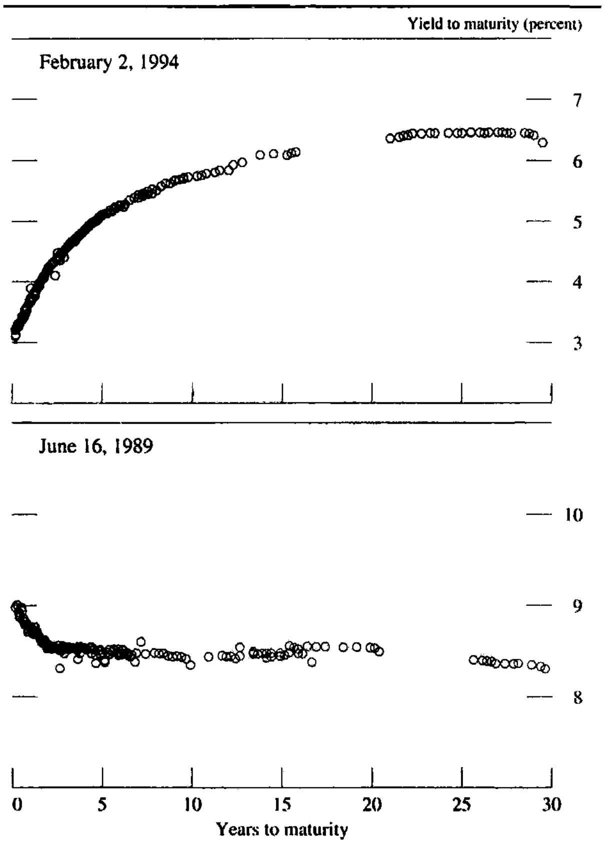
SOURCE. Federal Reserve Bank of New York.

19. The vast literature on the yield curve includes alternative versions of the expectations hypothesis as well as many criticisms. This article merely notes a general relationship between longer-term yields and expectations about future short-term interest rates without taking a stand on any particular variant of the expectations hypothesis.

20. Rates on longer-term Treasury securities are actually related to a weighted average of future short-term rates, where the pattern of the weights is determined by the size of the coupon payment on the longer-term instrument.

21. The relationship between yields on short-term Treasury securities and the federal funds rate is not exact, in part because of differences in tax treatment and credit risk.

7. Yield curve for Treasury securities



SOURCE. Federal Reserve Bank of New York.

example, the yield curve was very steep on February 2, 1994, prior to a sequence of monetary policy tightenings that hiked the federal funds rate target 3 percentage points over the next twelve months (chart 7). In contrast, on June 16, 1989, yields on long-term bonds were below those on short-term securities before a sequence of policy easings that cut the target federal funds rate about 3½ percentage points over the subsequent twenty-four months.

Some differences in yields on Treasury securities are not related to expected future movements in interest rates. These differences for the most part reflect compensation for risk and are often referred to as term premia. Although they are viewed as free of default risk, Treasury securities involve interest rate risk, as movements in their yields generate capital gains or losses for investors.[22] The uncertainty surrounding the return from holding a Treasury security

3. Characteristics of selected Treasury securities, December 1987–September 1999

Security	Average		Standard deviation	
	Duration (years)	Yield (percent)	One-month change in yield (basis points)	One-month holding return[1] (percentage points)
Two-year note	1.81	6.24	30.2	1.93
Five-year note	4.29	6.72	29.9	4.27
Ten-year note	6.91	7.03	26.9	6.43
Thirty-year bond ..	11.95	7.34	23.1	9.39

NOTE. Data are for the most recently issued security in each maturity class.
1. Standard deviation of monthly holding returns expressed at an annual rate, assuming that monthly returns are independent across time.
SOURCE. Federal Reserve Bank of New York; authors' calculations.

depends on the amount of variation in the yield on that security and on the sensitivity of the price of the security to changes in yields. The latter is determined by the duration of the security, which is given by a mathematical formula that summarizes how far into the future, on average, the payments of a security are to be made. The duration of a zero-coupon bond, because it makes only a single payment, equals its maturity. The duration of a coupon-bearing security, because it makes coupon payments before it matures, is less than its maturity.

Longer-term bonds tend to have more interest rate risk because they have longer duration. Intuitively, the price of these securities must change more for a given change in yield because the change in yield must be realized over a longer period. The effects of longer duration are evident in table 3, which presents some summary statistics on yields and one-month holding returns (including coupon payments and capital gains or losses) for securities with different maturities. Yields tend to vary less as the security's maturity increases, indicating (according to the expectations hypothesis) that many of the movements in shorter-term yields are expected to be transitory. However, this pattern is more than offset by differences in the duration of the securities, so that over the period considered, the standard deviation of the holding return for the thirty-year bond was nearly five times greater than that for the two-year note. Because investors typically demand a premium for bearing additional risk, longer-term Treasury securities, on average, offer higher yields than shorter-term instruments.[23] Indeed, for this sample the average

22. Some of the movements in yields may occur in response to expected changes in inflation. Unexpected movements in inflation that are not reflected in Treasury yields also present a risk to investors by eroding the purchasing power of the returns on the security. The risks presented by inflation are discussed in more detail in the section on inflation-indexed securities.

23. The amount of variation in holding returns is not necessarily the measure of risk considered by investors. Most finance models indicate that the covariance of holding returns with the returns on other assets or with changes in consumption determines the risk premium on an asset.

yield on the thirty-year bond was more than a full percentage point higher than that on the two-year note. In general, the greater risk of holding longer-term securities imparts an upward-sloping shape to the yield curve.

The expected return from holding a Treasury security depends not only on the level of its yield but also on the volatility of its yield. The reason is that the increase in the price of the security resulting from a decline in its yield is greater in magnitude than the decrease in the price resulting from a equal-size rise in its yield. If the uncertainty surrounding future yield changes is symmetric, potential capital gains will exceed potential capital losses, increasing the expected return. As a result, the yield on a Treasury security can fall below its expected return by the amount that is gained from the imbalance in potential returns. The magnitude of this effect—often referred to as the convexity premium—increases with the security's maturity. The convexity premium is often thought to add curvature to the shape of the yield curve by pushing down longer-term yields more than shorter-term yields.

Factors Affecting Individual Treasury Securities

Although the factors described in the preceding section largely determine the overall shape of the yield curve, there is also considerable variation among the yields on individual Treasury securities having similar maturities. Some of this variation reflects additional characteristics of the Treasury market that affect the yields of particular securities.

Liquidity

Overall, the Treasury market is extraordinarily liquid. Enormous amounts of securities are traded every day. Even counting only the transactions of the primary dealers, the value of the entire stock of marketable Treasury debt would turn over completely in about three weeks. The considerable trading volume allows market participants to move in and out of large Treasury positions rapidly with little effect on the prices of those securities. Because of the extensive trading and the high degree of competition and transparency among dealers, dealers typically make markets in Treasury securities at narrow bid–offer spreads. Bid–offer spreads for Treasury securities are reported to be 1.6¢ or less per $100 face value. By comparison, bid–offer spreads for investment-grade corporate bonds average about 13.3¢ and for high-yield corporate bonds, 19.1¢.[24]

The liquidity of the Treasury market is not evenly distributed across securities, however. Most of the trading activity takes place in *on-the-run* issues—the most recently issued securities in a particular maturity class. The difference in trading volume between on-the-run securities and previously issued (*off-the-run*) securities is striking. In recent years, more than half of reported interdealer broker trading in nominal Treasury debt, on average, took place in on-the-run securities, even though off-the-run issues outnumbered on-the-run issues more than twenty to one.[25]

Because of the remarkable liquidity of on-the-run Treasury securities, some investors are willing to pay a premium for (that is, accept a lower yield for) those securities compared with similar, off-the-run securities. The preference for liquidity was evident in the number of securities trading at yields that deviated from the rest of the yield curve on September 23, 1999 (chart 6). Yields on recently issued five-, ten-, and thirty-year securities were well below those on off-the-run securities with similar maturities. In contrast, some securities traded at yields notably above the curve, including long-ago-issued twenty-year bonds that are much less liquid.[26] At times, the market's preference for liquidity becomes acute, and spreads between on-the-run and off-the-run issues widen appreciably, as observed during the market turmoil in fall 1998 (see box "The Flight to Quality and Treasury Yields").

Hedging Demand

Treasury securities are also commonly used as hedging instruments, primarily to offset the interest rate risk inherent in positions in other fixed-income securities. Dealers often have positions in other fixed-income products, including corporate debt securities and mortgage-backed securities, arising in part from their role in issuing and making markets in such securities. Dealers may also choose to establish large

24. Figures for corporate debt securities are from G. Hong and A. Warga, "An Empirical Study of Bond Market Transactions," *Financial Analysts Journal* (forthcoming).

25. Volume data are collected by GovPX, a joint venture of primary dealers and some interdealer brokers that reports data on transactions taking place through five of the six interdealer brokers. Reported trading volume primarily captures dealer-to-dealer trades. Retail and institutional investors may trade off-the-run issues in greater proportion than dealers.

26. Market participants may also be reluctant to hold the twenty-year bonds because institutional considerations may make it less appealing to purchase securities that have coupon rates well above current yields.

The Flight to Quality and Treasury Yields

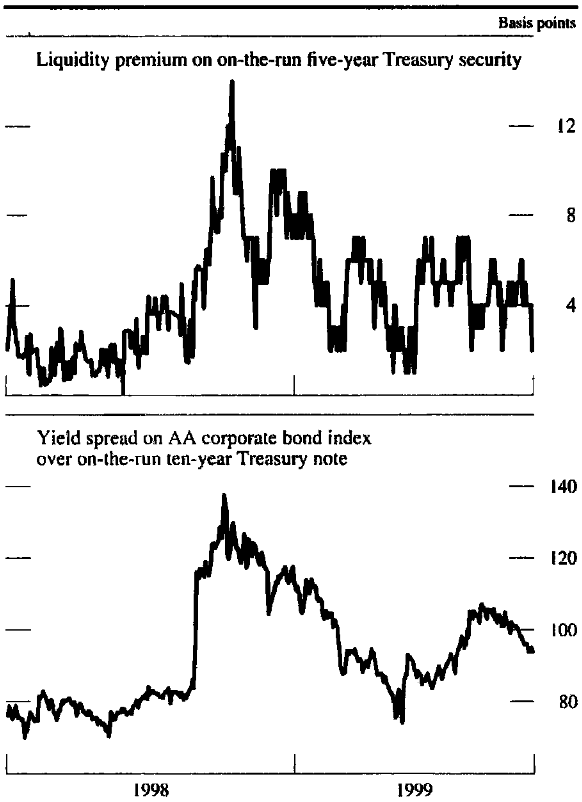
Treasury securities generally have lower yields than other fixed-income products because of their safety and liquidity. At times, the market's concern about risk and liquidity has become pronounced, resulting in a "flight to quality" into Treasury securities despite their lower yields.

Such a flight occurred in the fall of 1998. After the devaluation of the Russian ruble in August of that year and subsequent difficulties in other emerging-market economies, investors' aversion toward risk appeared to intensify. That sentiment was reinforced by the prospect of a default by Long-Term Capital Management, a prominent hedge fund that in August and September had sustained sharp losses from its investment positions. By generating sizable losses for the firm's counterparties and forcing the abrupt unwinding of the firm's extensive positions in the Treasury and other markets, a default could have significantly disrupted markets.[1]

Liquidity in many markets declined sharply over this period, with bid–offer spreads widening and large transactions becoming more difficult to complete. Anecdotal reports suggest that bid–offer spreads on Treasury securities widened from their normal levels of 1.6¢ or less per $100 to as high as 16¢ for on-the-run issues and 25¢ for off-the-run issues. Moreover, investors showed a dramatic preference for the greater liquidity offered by on-the-run issues. Yield spreads between the most recently issued and second most recently issued securities (the liquidity premium on on-the-run securities) widened sharply, as investors were willing to hold the more liquid securities at lower yields (chart).

The increased concern about liquidity and the reduced willingness of investors to bear risk also caused a widening of spreads between other fixed-income securities and Treasury securities. The widening affected even highly rated

Indicators of increased concern about liquidity and risk



NOTE. Data are daily and extend through October 1999.
SOURCE. Bloomberg.

debt. Market strains began to subside following the Federal Reserve intermeeting policy easing on October 15, 1998. Soon thereafter, bid–offer spreads on Treasury securities, premiums for on-the-run issues, and yield spreads between government-sponsored enterprise and Treasury securities began to decline.

1. *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*, Report of the President's Working Group on Financial Markets (April 1999).

positions in non–Treasury fixed-income products as part of their portfolio strategies.

To hedge the interest rate risk associated with those positions, dealers frequently take short positions in Treasury securities. As described in more detail below, the short position is established by selling securities that the dealer does not own but instead borrows, with the intention of purchasing those securities at a later time. By doing so, the dealer profits if yields rise, which could offset some of the losses incurred in long positions in other fixed-income securities.

Several characteristics of Treasury securities make them well suited for hedging positions in other fixed-income products. Probably most important is their remarkable liquidity. Because their balance sheet positions can change rapidly, dealers want to be able to quickly alter their holdings of the hedging instrument in order to maintain the proper hedges. Therefore, a preferred hedging instrument is one that can be traded quickly and at little cost. A second characteristic is that dealers can readily establish short positions in these instruments at reasonable costs because the repo market in Treasury securities is active (discussed in the next section).

Of course, Treasury securities and their derivatives do not offer a perfect hedge against movements in the value of other types of debt instruments. This became apparent in the fall of 1998, when investors became increasingly concerned about the safety and liquidity of their investments.[27] The ensuing "flight to quality" (see box) pushed down yields on Treasury securities sharply relative to yields on corporate and mortgage-backed debt securities (some of which actually rose), generating large losses in short positions in Treasury securities that were not offset by gains in other fixed-income securities. Since that time, market participants have evinced an increasing reliance on non–Treasury securities for their hedging needs, including debt issued by government-sponsored enterprises.

Related Markets

The demand for Treasury securities is also importantly affected by the markets for repurchase agreements and derivatives.

Repurchase Agreements

Dealers and other investors often establish short positions in Treasury securities as part of their hedging activity or, more generally, as part of their portfolio strategies. To establish short positions, they sell securities they do not own and deliver those securities to the purchaser by obtaining them in the market for repurchase agreements, the repo market.

The repo market allows participants to exchange funds and securities on a temporary basis—in effect, borrowing and lending using Treasury and other debt securities as collateral. More specifically, a firm engaging in a repo transaction simultaneously sells a particular security to a counterparty and agrees to repurchase that same security at a specified price at a later date, often the next day. This firm is said to "repo out" the security, by which it borrows money at what is called the repo rate, which is based on the difference between the current price and the agreed-to future price. A reverse repo is simply the other side of the transaction—agreeing to purchase particular securities temporarily and to resell them to the same counterparty at a specified price at a later date. In this case, the firm "reverses in" the security.

Investors can therefore deliver securities that they sold short by reversing in the securities repeatedly until they decide to cover the position by purchasing the securities outright. On the other side, investors frequently rely on the repo market to finance their long positions in Treasury securities by repoing out those securities. Partly as a result of these activities, trading volume in the repo market is heavy: Primary dealers reported about $1.2 trillion of lending and borrowing in the repo market on their balance sheets as of October 20, 1999.

Most repo transactions involving Treasury securities take place at what is called the general-collateral repo rate. This interest rate typically follows the federal funds rate closely, as depository institutions can use either market as a source of overnight financing.[28] However, if the demand for a particular Treasury security in the repo market is sufficiently high, or if the supply of that security is limited, the repo rate for that security can fall below the general-collateral repo rate. In such a case, the security is said to go "on special" in the repo market. The firm reversing in the desired security is willing to pay a cost to obtain that security by letting the holder of the security borrow at an interest rate below the general market rate.

This situation frequently arises in on-the-run Treasury securities, as these issues are heavily used in establishing short positions for hedging and other purposes, resulting in considerable demand for them in the repo market. The repo rate for the on-the-run ten-year note has often fallen several percentage points below the general-collateral repo rate (chart 8). Researchers have found that the "specialness" of an on-the-run issue—the difference between its repo rate and the general-collateral rate—tends to build following an auction as a larger proportion of the issue comes to be held by investors who do not make the security available to the repo market. The specialness typically peaks around the announcement of the next auction, after which it declines as short positions begin to shift to the next on-the-run issue.[29] In addition to this regular pattern, other factors influence the specialness of these securities. For example, increased hedging activity around periods of heavy issuance of corporate debt or mortgage-backed securities can lead to sizable short positions that cause particular securities to go on special in the repo market.

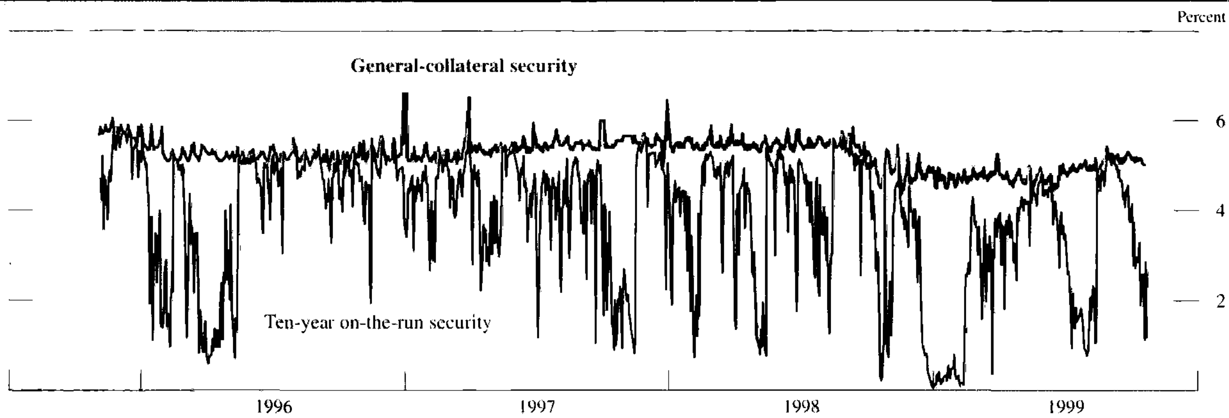
Securities that are on special in the repo market frequently trade at lower yields (higher prices) than

27. *A Review of Financial Market Events in Autumn 1998*, Committee on the Global Financial System, Bank for International Settlements (October 1999).

28. The main difference between the transactions is that a repo transaction is akin to a collateralized loan, whereas a federal funds transaction is an uncollateralized loan.

29. Frank Keane, "Repo Rate Patterns for New Treasury Notes," Federal Reserve Bank of New York, *Current Issues in Economics and Finance*, vol. 2 (September 1996).

8. Overnight repo rates for Treasury securities, 1995–99



NOTE. Data are daily and extend from November 7, 1995, to October 22, 1999.

SOURCE. Federal Reserve Bank of New York.

other securities with comparable maturities, as is often the case for on-the-run Treasury securities.[30] If a security is on special in the repo market, holders can realize a profit by borrowing against the security at below-market rates; because this profit increases the return on the security for a given yield, investors may be willing to hold the security at a lower yield. However, investors that value the greater liquidity of on-the-run securities may be willing to hold them without repoing them out despite their lower yields.

The patterns observed around Treasury auctions, which reflect the activity associated with bringing new issues to market, account for a significant portion of the movements in yields and repo rates for the most recently issued securities. However, extensive specialness in the repo market has at times also signaled severe shortages of particular Treasury securities that have disrupted the effective functioning of the market for those securities. Several such shortages took place around the time that Salomon Brothers admitted in 1991 to repeated violations of Treasury auction rules. In response, several regulatory and policy changes were implemented to prevent violations of auction rules and to alleviate such shortages if they develop (see box "Regulatory Reforms").

To facilitate transactions in the repo market, the Federal Reserve Bank of New York operates a securities lending program that allows primary dealers to borrow individual Treasury securities from the Federal Reserve's portfolio overnight by posting a different Treasury security as collateral. The program uses a competitive auction format. Under the current structure, initiated on April 26, 1999, the Bank conducts a daily auction at which it accepts bids in terms of a "lending fee" for borrowing particular securities. When a bid is accepted, the particular security is delivered to the dealer's account. The dealer, in turn, delivers a different Treasury security to the Federal Reserve as collateral and pays the lending fee. The lending fee is closely related to the spread between the general-collateral repo rate and the repo rate for the borrowed security, because from the dealer's perspective the transaction is similar to repoing out a (general-collateral) security and reversing in the desired security. The minimum bid is 150 basis points, high enough that borrowing activity is limited to those securities that are scarce, and hence deeply on special, in the repo market.

The Federal Reserve's portfolio of Treasury securities as of October 31 of this year totaled $492 billion. By making a portion of these holdings available for borrowing, the securities lending program increases the potential supply of Treasury securities available to the repo market, which should help reduce the scarcity of particular issues. The Federal Reserve originally stood ready to lend up to 25 percent of its holdings of any security but on September 7, 1999, increased the limit to 45 percent. Over the two months following the increase, dealers borrowed an average of about $1.4 billion of Treasury securities, typically distributed across several different securities, every business day.

Derivatives

A large and active market exists for derivative securities whose values are based on the prices of Treasury

30. For a discussion of the repo market and its effects on Treasury yields, see Darrell Duffie, "Special Repo Rates," *Journal of Finance*, vol. 51 (June 1996), pp. 493–526.

Regulatory Reforms Following Violations of Auction Rules by Salomon Brothers

Following the April and May 1991 Treasury auctions, several widely publicized "short squeezes" occurred in the two-year note during which an apparent scarcity of the securities caused their yields and repo rates to fall substantially below those for other Treasury securities. The information available to the Treasury suggested that the May squeeze had resulted from a concentration of auction awards to Salomon Brothers and some of its customers. In addition, there had earlier been inquiries into several Salomon Brothers bids at the February 1991 auction of the five-year note that appeared to violate the rule limiting the amount bid by a single bidder to 35 percent of the publicly offered amount.

These events prompted investigations by the Securities and Exchange Commission (SEC) and the Antitrust Division of the Department of Justice, leading Salomon Brothers to conduct its own investigation. In August 1991, the firm admitted to submitting unauthorized customer bids at several auctions in 1990 and 1991 and to failing to report large net long positions on auction tender forms as required. Subsequently, the Treasury, the SEC, and the Federal Reserve jointly reviewed the government securities market and issued a report describing a number of policy and regulatory changes aimed at improving the functioning of the market and avoiding such violations in the future.[1] Some of the reforms were implemented immediately, and others were recommended for legislative approval.

Many of the reforms were intended to make Treasury auctions accessible to more participants. The set of firms allowed to submit bids for customers was broadened to include all government securities brokers and dealers, not just primary dealers and depository institutions. The requirements for becoming a primary dealer were loosened by eliminating the rule that to qualify the dealer must account for at least 1 percent of the dollar volume of all customer trades in the secondary market. In addition, the maximum for noncompetitive tender awards for notes and bonds was raised from $1 million to $5 million; however, to ensure that noncompetitive awards were reserved for the smaller bidders for whom they were intended, noncompetitive bids were restricted to bidders having no positions in the when-issued, futures, or forward markets at the time of the auction and not submitting competitive bids.

1. *Joint Report on the Government Securities Market* (Washington, DC: Government Printing Office, January 1992).

Other changes were aimed more directly at the enforcement of auction rules. Customer bids are now spot-checked by the Federal Reserve Bank of New York to ensure their authenticity, and all large auction awards are now confirmed directly with the customer. The report also emphasized the need to automate the auction procedure, which has since taken place.

The report also considered the benefits of replacing the then-current multiple-price auction system for notes and bonds with a uniform-price system, under which all successful bidders would be awarded securities at the lowest price. The report suggested that such a change might alleviate some concern among auction participants about bidding above the market consensus. Consequently, more investors might bid on their own rather than through primary dealers, reducing the primary dealers' advantage at the auctions that arises from knowing the bidding intentions of their customers. The Treasury subsequently began an experiment with this auction method for two- and five-year notes. By November 1998, all Treasury securities were being auctioned on a uniform-price basis.

In addition, some changes were implemented to detect and respond to short squeezes in the secondary market. A group made up of representatives of the SEC, the Treasury, the Federal Reserve Bank of New York, and the Board of Governors of the Federal Reserve System was established to improve surveillance efforts. The Treasury stated its intention to reopen any security that was experiencing an "acute, protracted" shortage in order to increase the supply of the security. The reopening could be implemented in several different ways, one of which is to immediately auction an amount sufficiently large to eliminate the possibility that the squeeze would persist.

Finally, the Congress enacted the Government Securities Act Amendments of 1993. Among other provisions, the amendments give the Treasury the authority to require holders of large positions in a particular security to report on their positions if a shortage emerges. The Treasury has conducted two tests of the reporting system, one in June 1998 and the other in July 1999. In both cases, the Treasury required investors with reportable positions in excess of $2½ billion in the specified security to file large-position reports.

securities. Futures and options contracts for two-, five-, and ten-year notes and for bonds are listed by the Chicago Board of Trade (CBOT), and similar futures contracts are offered on the Cantor Financial Futures Exchange. In addition, the Chicago Mercantile Exchange offers options and futures on various Treasury bills and other short-term interest rate products.

As of the end of October 1999, open interest for CBOT long-bond futures (that is, the total number of contracts held by market participants) was about 635,000, with each contract based on $100,000 face value of the Treasury bond. Daily trading volume in these contracts over the month averaged about 300,000 contracts. The CBOT also offers trading in options on Treasury futures (contracts that allow the holder to buy or sell a futures contract at a specified price). For options on long-bond futures, open interest totaled about 950,000 contracts and daily trading volume averaged about 130,000 contracts. Because of the liquidity of this market, combined with the ease with which investors can establish "short" positions by selling futures contracts, these instruments are also commonly used for hedging purposes.

The seller of a CBOT Treasury futures contract agrees to deliver a Treasury security to the purchaser of the contract at a specified price at a future date. Most positions in these futures contracts are closed out prior to delivery by entering into offsetting trades, and delivery does not take place. However, the possibility of delivery links the price of the contract to the deliverable Treasury securities. Typically, several securities are eligible for delivery into the contract.[31] The long-bond futures contract, for example, allows any Treasury bond with more than fifteen years remaining to maturity at the expiration of the contract to be delivered (for the March 2000 contract, thirty-five such securities are eligible).

One of the securities eligible for delivery is the "cheapest to deliver." That is, the cost to the seller of the futures contract of purchasing the security to make delivery will be lower than the cost of delivering any other eligible security. The price of the contract is influenced primarily by the value of the cheapest-to-deliver security. Moreover, the cheapest-to-deliver status has at times significantly affected the yield of that Treasury security. In particular, the cheapest-to-deliver security is often traded more actively as market participants hedge their futures position, which enhances the security's liquidity. Because of this enhanced liquidity and because some investors may need to purchase the security to make delivery into the futures contract, the cheapest-to-deliver security may trade at a premium to Treasury securities having similar maturities.

RECENT DEVELOPMENTS AFFECTING THE MARKET

The structure and behavior of the Treasury market is continually changing. Some of the developments and emergent trends that have recently influenced the market are discussed in this section.

31. Eligible securities trade at a premium or a discount to face value simply because of differences in their coupon rates. To adjust for this effect, the CBOT contract scales the invoice amount—the amount that the investor who is long the futures contract must pay upon receiving an eligible security—by a "conversion factor" for that security.

Availability of a New Instrument: Inflation-Indexed Securities

A significant innovation in the Treasury market in the past several years has been the introduction of a new type of debt instrument: Treasury inflation-indexed securities, or TIIS.[32] Since the program's inception in January 1997, about $92 billion of TIIS have been issued.[33] Unlike previously issued Treasury securities, the coupon and principal payments on TIIS increase with a measure of the general price level—the consumer price index (CPI). Indexation provides protection against the possibility that inflation will erode the amount of goods and services that could be purchased with the interest or principal payments.

The Mechanics of TIIS

Whereas the principal amount of a nominal Treasury security remains fixed in nominal terms, the principal amount on a TIIS adjusts over time by the rate of inflation. The value of the principal on a given day is calculated by multiplying the principal amount at issuance by a daily index ratio determined by a reference CPI for that day divided by the reference CPI on the day of issue. The reference CPI is based on the non–seasonally adjusted CPI lagged about two and one-half months, as published by the Bureau of Labor Statistics (BLS).[34]

If the average rate of inflation is positive, the principal amount of the TIIS generally rises over the life of the security.[35] Coupon payments will also increase in line with the rate of inflation, as coupon

32. Several government-sponsored enterprises, corporations, and local governments followed the Treasury's lead by issuing indexed debt in early 1997. In addition, the Treasury began selling inflation-indexed savings bonds, called I-bonds, in September 1998.

33. When adjusted for the accrual of inflation compensation, the total amount of TIIS outstanding is higher than this amount.

34. Specifically, the CPI refers to the non–seasonally adjusted U.S. City Average All Items Consumer Price Index for All Urban Consumers. The reference CPI for the first day of a given month is the CPI reported for the third preceding calendar month, and the reference CPI for days over the rest of the month is a weighted average of the reference CPI figures on the first days of the current month and the following month. The lag involved in calculating the index ratio is unavoidable because the monthly CPI is released with a lag and the reference CPI for the beginning of the following month must be known.

35. A period of deflation could decrease the principal amount of the TIIS. However, the TIIS program provides that the cumulative adjustment to the principal amount at the maturity of the security may not be negative.

payments on TIIS are determined by the specified coupon rate multiplied by the principal amount. The quoted prices of TIIS do not reflect the accumulated amount of inflation compensation; the value of the security exchanged when a TIIS is traded is the quoted price multiplied by the current index ratio plus the amount of accrued interest.

TIIS do not offer perfect protection against inflation risk, for several reasons. First, TIIS holders face some inflation risk because of the lag involved in calculating the reference index. Second, holders pay taxes on inflation compensation, so the degree of inflation protection is reduced by an investor's tax rate.[36] In addition, TIIS holders face some risk that the method used to calculate the CPI will change.[37] The BLS has implemented several methodological changes in recent years, partly in response to recommendations by the Boskin Commission, an advisory group appointed to study the CPI. Some market participants estimate that these changes have shaved about 0.7 percentage point from the index's annual rate of growth. Such a reduction directly affects the rate at which payments on TIIS increase, and hence the value of TIIS. The risk of additional changes in the method of calculating the CPI may result in a risk premium in TIIS yields; however, many market participants believe that most of the likely changes have already been implemented.

The Potential Appeal of TIIS

The protection against inflation provided by TIIS, previously unavailable in the Treasury market, may be valued by investors, who tend to be concerned about real rates of return (that is, about the amount of goods and services they will be able to purchase with the payments from a security). Because the payments automatically adjust to compensate for inflation, the yield on an inflation-indexed security reflects the real rate of return that would be realized over the maturity of the security. The yield on a nominal security, in contrast, includes not only the anticipated real return on the security, but also compensation for inflation. This inflation compensation includes the expected level of inflation as well as an inflation risk premium, as described below.

By holding an inflation-indexed security to maturity, an investor can lock in a long-term real rate of return, a strategy that may be appealing to investors with long investment horizons. Investors with shorter horizons also can protect themselves against inflation by holding TIIS, although they are subject to real interest rate risk; that is, changes in TIIS yields will generate capital gains or losses that depend on the duration of the security.

However, the risks from holding TIIS are likely to be smaller than those from holding nominal Treasury securities. In addition to real interest rate risk, returns on nominal securities are subject to the risks presented by unpredictable changes in inflation. An increase in expected inflation, for example, typically causes yields on nominal Treasury securities to rise (assuming that investors demand the same real return going forward), generating capital losses for current investors. In contrast, TIIS would maintain the same real return without a change in yields, and thus holders of TIIS would not suffer any capital losses.[38] By eliminating this "inflation risk," TIIS may offer more stable real returns than nominal Treasury securities.

Thus, investors may demand a higher expected real return on nominal Treasury securities than on TIIS to compensate them for the additional risks of holding those securities.[39] By issuing indexed debt, the government, rather than the investor, assumes the risks associated with unpredicted changes in inflation and therefore does not have to pay this "inflation risk premium" to the investor, which may lower the government's cost of borrowing.

An additional benefit of issuing TIIS, it has been argued, is that yields on indexed debt might provide policymakers with a timely and informative measure of market expectations about real interest rates. In that case, the difference between yields on TIIS and yields on nominal Treasury securities—the measure of inflation compensation on nominal securities—may contain valuable information about investors' outlook for inflation. This measure of inflation compensation reflects primarily the expected level of inflation over the maturity of the instruments plus the

36. This effect is inconsequential if TIIS are held in nontaxable accounts. The taxation of the inflation compensation on TIIS is comparable to that for nominal Treasury securities, on which the inflation compensation (embedded in the coupon rate) is also taxed.

37. If the CPI is discontinued or substantially altered in a manner that is deemed "materially adverse to the interests of an investor," the Treasury, in consultation with the BLS, will substitute an appropriate alternative index. However, incremental improvements in the CPI do not receive special treatment.

38. In addition, TIIS protect investors from unexpected changes in inflation that are not reflected in nominal yields. Such changes would not generate capital losses on nominal Treasury securities but would still erode the real returns on those securities.

39. The measure of risk considered here is the variation in real returns. Investors may instead be concerned about the covariance of returns with the returns on other assets or with changes in consumption.

inflation risk premium, but it may also be influenced by differences in the liquidity of the securities.[40]

The possibility that interest costs may be lower, along with potential attendant benefits, may explain why a growing number of countries are issuing indexed debt. Canada and France have launched new programs over the past decade, and a number of other countries, some with high and variable levels of inflation, had established indexed debt programs much earlier. The United Kingdom implemented its program in 1981, and as of September 1999 indexed gilts represented about 22 percent of all outstanding U.K. government debt.[41] By comparison, TIIS represented about 3 percent of all marketable U.S. government debt at that time. However, because of the size of the U.S. Treasury market, the dollar amount of TIIS outstanding is approaching the dollar-equivalent amount of outstanding indexed gilts.

Market Activity in TIIS

To date, the Treasury has issued six inflation-indexed securities—one five-year note, three ten-year notes, and two thirty-year bonds. Each issue has been reopened once, leaving its total size roughly between $14 billion and $16 billion. Currently, the Treasury issues only ten- and thirty-year TIIS, alternating between the two maturities at auctions in the first month of every quarter.

Activity in the secondary market for TIIS has remained moderate relative to comparable nominal issues. According to data for primary dealers collected by the Federal Reserve Bank of New York, daily trading volume in TIIS over the second quarter of 1999 averaged about 1.7 percent of TIIS outstanding, compared with about 5.0 percent for nominal Treasury notes and bonds. The more limited activity in TIIS may reflect the nature of these securities: They provide safe, stable long-run returns and may therefore appeal to investors who are less inclined to trade their holdings actively.

Other measures suggest that TIIS are somewhat less liquid than off-the-run nominal Treasury securities.[42] Discussions with some primary dealers indicate that bid–offer spreads on TIIS, in terms of prices, are typically about 1.6¢ to 6.3¢ per $100 face value. This spread is somewhat wider than bid–offer spreads for nominal Treasury securities, which are reportedly 1.6¢ or less, but it is much narrower than bid–offer spreads for corporate bonds.

According to market participants, liquidity in the TIIS market is gradually improving. Aside from the pickup in volume during the market turmoil in the third quarter of 1998, the volume of TIIS transactions among primary dealers reported to the New York Reserve Bank has been about 26 percent higher in 1999 than in 1998, whereas the volume in nominal Treasury coupon securities has declined 12 percent. TIIS volume is concentrated around the auction cycle: Over the past four auctions, average daily volume during the four weeks after the announcement of an auction has been 92 percent higher than that during other weeks. Although the Chicago Board of Trade offers options and futures contracts on TIIS similar to those on other Treasury securities, market activity has been negligible.

Yields on TIIS

The first TIIS issued, a ten-year note, was auctioned on January 29, 1997, at a yield of 3.45 percent. Since then, the yield on the ten-year TIIS has generally risen to the current level above 4 percent (chart 9). Over that period, the yield on TIIS has been less volatile than that on the nominal ten-year security. On an average day, the ten-year TIIS yield changed less than 1½ basis points, compared with more than 4 basis points for the nominal security. In addition, the yield on the nominal security has moved in a much wider range of about 2½ percentage points, compared with about ¾ percentage point for the TIIS yield.

The spread between these yields—the inflation compensation on the ten-year nominal Treasury note—fell over 1997 and the first half of 1998, along with the actual rate of CPI inflation and a survey measure of long-run inflation expectations among professional forecasters. However, the decline in inflation compensation was more dramatic than that of the survey measure, suggesting that some of the narrowing of the yield spread may have been driven by a decline in the inflation risk premium.

Relative changes in yields may also be explained in part by differences in the liquidity of nominal securities and TIIS. In the fall of 1998, yields on nominal Treasury securities dropped sharply, pushing ten-year inflation compensation as low as 69 basis points. This dramatic narrowing of the yield spread, though it may have partially reflected a change in the

40. Differences in duration and convexity between TIIS and nominal securities may also affect the yield spread.

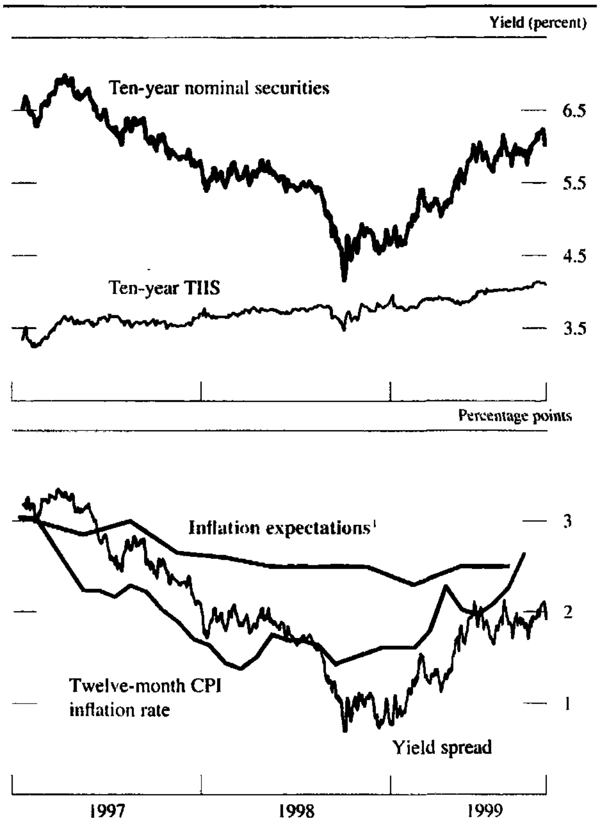
41. *Quarterly Gilts Review: 3rd Quarter 1999*, United Kingdom Debt Management Office (October 1999).

42. No distinction is made between on-the-run and off-the-run TIIS because there are no large differences in liquidity between those securities, as is the case with nominal Treasury securities.

outlook for inflation, was undoubtedly driven by a shift in investors' preferences toward more-liquid assets, particularly on-the-run nominal Treasury securities. Inflation compensation returned to higher levels in 1999 as the demand for liquidity lessened and inflation expectations rose.

TIIS yields also appear to be significantly influenced by supply. In particular, seven of the fourteen largest daily changes in the ten-year TIIS yield over the period shown in chart 9 took place immediately before or after TIIS auctions. The largest movements in the ten-year nominal yields, by contrast, were all in response to either macroeconomic news or the reallocation into safe and liquid assets during the fall of 1998.

9. Yields on nominal and indexed Treasury securities and indicators of inflation, 1997–99



NOTE. Yield data are based on most recently issued securities and extend through October 1999; yield spread is yield on ten-year nominal securities less yield on ten-year TIIS. Expectations data and CPI data extend into the third quarter.

1. Median expectation of CPI inflation over the next ten years among professional forecasters surveyed by the Federal Reserve Bank of Philadelphia.

SOURCE. Board of Governors of the Federal Reserve System, Federal Reserve Bank of New York, Bureau of Labor Statistics.

Reduction in the Supply of Nominal Treasury Debt

In response to the budget surpluses of the past two years, the Treasury has decreased its securities issuance enough to shrink the amount of marketable debt outstanding. This development has several implications for the Treasury securities market.

Developments in the Treasury Bill Market

After decades of increases, marketable Treasury debt outstanding has decreased over the past two years.[43] Because the issuance of Treasury bills has been cut more sharply than that of Treasury coupon securities, the decline has not been evenly spread across the maturity spectrum (table 4). From December 1996 to September 1999, total coupon securities outstanding declined about 7 percent whereas total bills outstanding decreased about 16 percent. In association with the downtrend in supply, the average daily trading volume in bills reported by primary dealers declined about 44 percent over the period (chart 10). In contrast, the average daily trading volume in nominal coupon securities reported by primary dealers in September 1999, though off its peak of fall 1998, was only about 2 percent below its level in December 1996.

The decline in the amount of bills outstanding may have weakened the connection between yields on bills and those on longer-term Treasury securities.[44] The spread between the six-month yield implied by a smoothed yield curve based on coupon securities and the yield on the six-month bill has increased over the past four years (chart 10). Although bills have typically commanded higher prices (lower yields) than coupon securities of similar maturities because of their greater liquidity, the recent increase in the spread is correlated with the decrease in the supply of bills and could suggest a scarcity premium on bills.[45] Two conflicting effects may have been at play in the bill market: The reduction in issuance may have made bills less liquid, reducing their attractiveness relative to coupon securities; at the same time, the reduction in supply in the face of continuing strong

43. However, total Treasury debt, which includes securities held in government accounts, has increased over the period.

44. Similar effects have been documented by Gregory R. Duffee, "Idiosyncratic Variation of Treasury Bill Yields," *Journal of Finance*, vol. 51 (June 1996), pp. 527–51.

45. For insights into the relation between the liquidity of bills and coupon securities and their yields, see Yakov Amihud and Haim Mendelson, "Liquidity, Maturity, and the Yields on U.S. Treasury Securities," *Journal of Finance*, vol. 46 (September 1991), pp. 1411–25.

4. Distribution of marketable Treasury debt outstanding, by maturity, 1994–99
Billions of dollars

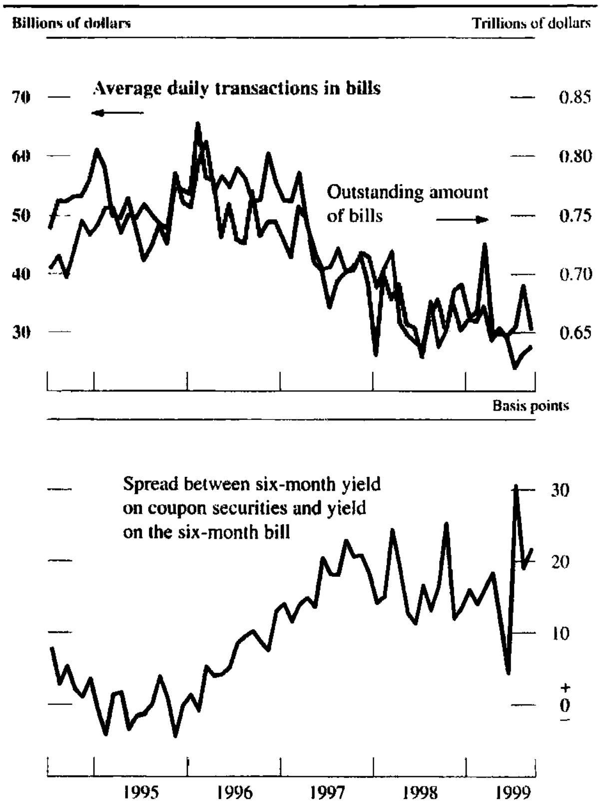
Year	Total outstanding	Maturity class			
		Bills	Notes and bonds (remaining maturity)		
			Less than 5 years	5–10 years	10 years or more
1994	3,111	734	1,606	320	451
1995	3,292	761	1,749	325	457
1996	3,445	777	1,842	338	488
1997	3,409	715	1,823	356	515
1998	3,271	691	1,691	349	540
1999	3,125	653	1,567	346	559

NOTE. Data are for end of period; for 1999, data end on September 30. Excludes Treasury inflation-indexed securities (TIIS) and Federal Financing Bank series.

SOURCE. *Monthly Statement of the Public Debt of the United States*, table III.

investor demand may have enhanced their relative attractiveness, pushing their prices up and their yields down.

10. Effect of the reduction in supply on the Treasury bill market, July 1994–September 1999



NOTE. The data are monthly. The six-month yield on coupon securities is the yield implied by a smoothed yield curve based on Treasury coupon securities with remaining maturities ranging from a few months to several years.

SOURCE. Transactions, amounts reported by primary dealers to the Federal Reserve Bank of New York; outstanding amounts, *Monthly Statement of the Public Debt of the United States*; yield spread, authors' calculations.

Treasury Debt Buybacks

Faced with the prospect of continuing declines in the volume of debt outstanding, the Treasury has proposed a new tool for debt management. In August 1999, it published for comment a proposed rule under which it could repurchase its own securities in the market. The Treasury expects to be able by early 2000 to conduct buybacks should it decide to do so. The Treasury believes that the program would have three benefits. First, buybacks would allow it to maintain the large size of new issues, a feature thought to promote greater liquidity. (As noted earlier, the Treasury has also concentrated issuance in fewer maturities in order to preserve their size.) Second, it could use buybacks as a cash management tool, absorbing excess cash when tax revenues exceed immediate spending needs. And third, by concentrating the buybacks on longer-term securities, it would be able to halt the recent upcreep in the average maturity of the debt.

Under the current proposal, the buybacks would be implemented through "reverse auctions" in which the Treasury would announce the approximate total amount of the securities it wished to redeem and the particular securities that would be eligible. Bids would have to be submitted by or through primary dealers so that the Treasury could make use of the open market facility of the New York Reserve Bank. The total amount of bids accepted would not exceed, and could be less than, the announced amount of redemptions.

Some market observers believe that buybacks could initially reduce yields on the targeted securities relative to those on more liquid issues. They argue that investors, knowing that they will periodically have an opportunity to sell them back to the Treasury, may be less concerned about the lower liquidity of the targeted securities. However, some market participants, in their comments about the proposed rule, have expressed concern that removing a considerable portion of an individual Treasury issue through a buyback could decrease the liquidity of the securities from that issue that remain in the market.

Under current accounting rules for the federal budget, the buyback program could increase the reported level of federal spending in the short term. If the price at which a security is repurchased is above par, the premium would be counted as an interest expense in the year of the repurchase, although reported interest expenses in the future would decline.

Debt Issuance by Government-Sponsored Enterprises

To fill the gap left by a dwindling supply of Treasury securities, two government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, in 1998 introduced new series of debt securities that in some ways mimic Treasury securities: Fannie Mae "benchmark" and Freddie Mac "reference" notes and bonds. GSEs are federally chartered, private institutions; their debt securities are not backed by the full faith and credit of the United States. However, debt securities issued by GSEs are perceived as being quite safe and typically trade at yields only slightly above those on Treasury securities.[46]

By issuing securities regularly and in large volumes, these two GSEs appear to be structuring their issues so as to achieve the greater liquidity and benchmark status of Treasury securities, presumably to lower their financing costs. The two GSEs have also increased the predictability of the offerings by announcing issuance calendars in advance. Moreover, the new securities are designed to appeal to international investors, as they can be electronically transferred through international clearing organizations such as Euroclear and Cedel as well as through the NBES system.

As of early November 1999, outstanding amounts of benchmark and reference securities totaled more than $150 billion, with maturities ranging from two to thirty years.[47] That month, the two GSEs introduced benchmark and reference bills programs arranging for regular auctions of securities with maturities of less than one year.

Market participants characterize the liquidity of the most recently issued benchmark and reference notes as comparable to that of off-the-run Treasury securities. Indicative of their increased liquidity, benchmark and reference notes are actively used as collateral in the overnight repo market, although, reportedly, they are rarely used in term repo transactions. Benchmark and reference notes reportedly have begun to be used as substitutes for Treasury securities as instruments for hedging. Their yields have tracked yields on corporate debt and mortgage-backed securities more closely than have yields on Treasury securities, a characteristic traders have cited as an advantage for hedging purposes. The trading volume in GSE debt by primary dealers, however, amounts to only a fraction of their trading in Treasury securities.

Trends in Market Structure

The structure supporting the trading of Treasury securities has changed in several ways in recent years. Market participants have relied more heavily on private clearing arrangements since the Federal Reserve began assessing a fee on intraday credit. More recently, market participants have also increased their use of electronic trading systems.

Use of Alternative Clearing Arrangements

In April 1994, the Federal Reserve began to charge a fee on daylight overdrafts, initially at an annual rate of 24 basis points and raised to 36 basis points in 1995. Within six months after the fee was imposed, average daylight overdrafts fell 40 percent, from about $70 billion to about $43 billion. The decline was due partly to government securities dealers' decision to arrange repo transactions earlier in the day and to deliver securities used as collateral more quickly to cover overdrafts generated by the repayment of maturing repos. As a consequence, trading activity in the repo market became more concentrated early in the morning, spurring the trading desk at the Federal Reserve Bank of New York to enter the market earlier to conduct open market operations. The desk moved its intervention time from about 11:30 a.m. to 10:30 a.m. in January 1997 and to 9:30 a.m in April 1999. Another change in market practice has been the growing use of tri-party repos, in which both parties to the transaction use the same custodian bank, so that the securities used as collat-

46. Debt securities issued by GSEs are considered government securities for purposes of the Securities and Exchange Act of 1934. For details on legal provisions particular to GSE securities, see "Assessing the Public Costs and Benefits of Fannie Mae and Freddie Mac," Congressional Budget Office (May 1996), p. 10.

47. Excludes callable benchmark and reference notes.

eral are shifted from one account to the other without leaving the custodian bank, thereby reducing daylight overdrafts at the Federal Reserve. Tri-party repos also facilitate the back-office handling of the transactions.

Market participants have also increased their use of netting arrangements, such as those offered by the Government Securities Clearing Corporation (GSCC). This industry service organization, established in 1986 and owned by market participants, provides centralized clearing and settlement services for outright and repo transactions in Treasury securities and some GSE-issued securities. GSCC establishes a single net position for each participant's daily trading activity in a given security by netting all cash and repo transactions and Treasury auction purchases. Netting may reduce the costs associated with securities transfers by reducing the number of transactions and lowering daylight overdraft charges.[48]

GSCC guarantees the settlement of all trades entered in its system by interposing itself between the original trading parties and becoming the legal counterparty for settlement purposes. Were a firm to become insolvent, GSCC would use the participant's clearing fund and margin deposits to liquidate the member's positions. If those deposits were insufficient to cover the liquidation of all positions, the remaining liabilities would be prorated among the participants who traded most recently with the failed firm. GSCC is used by primary dealers and other active market participants, who may value the confidentiality of brokered trades offered by the organization.

Growth of Electronic Trading

Participants in the Treasury market have typically arranged transactions by telephone. In recent years, however, advances in technology have enabled them to transact through electronic communication networks. Electronic trading represents a small, though rapidly increasing, share of the aggregate trading volume of Treasury securities. Analysts estimate that the share of electronic trading in total trading activity in the Treasury market had risen from about half a percent on average in 1998 to about 2 percent to 4 percent by fall 1999, still well below the share of equity trading done on line (reported to be about 14 percent).

In November 1999, the Bond Market Association identified thirty-nine systems offering electronic transaction services in the U.S. market for government and private debt securities, up from twenty-six in 1998 and eleven in 1997.[49] In addition, some interdealer brokers have introduced or plan to introduce electronic systems (primarily) for the Treasury market. These systems offer the same anonymity of the current interdealer broker system but could drive down interdealer broker fees, quicken execution, and streamline the relation between the "front office" and the "back office." The development of electronic interdealer brokerage is poised to boost the market share of electronic trading of Treasury securities.

SUMMARY

The market for Treasury securities is vast and serves important functions for numerous investors. The characteristics and behavior of the market are not static but instead evolve with the changing objectives and needs of both the Treasury and investors. This article has identified several important changes in recent years, including the introduction of indexed debt securities, a decline in budgetary needs, and changes in the way Treasury securities are traded. Although these and additional, unforeseen changes will continue to shape the Treasury market, the crucial role of Treasury securities in world financial markets is likely to remain unchanged. □

48. Heidi Willman Richards, "Daylight Overdraft Fees and the Federal Reserve's Payment System Risk Policy," *Federal Reserve Bulletin*, vol. 81 (December 1995), pp. 1065–77.

49. *eCommerce in the U.S. Fixed Income Markets: The 1999 Review of Electronic Transaction Systems*, Bond Market Association (November 1999).

Treasury and Federal Reserve Foreign Exchange Operations

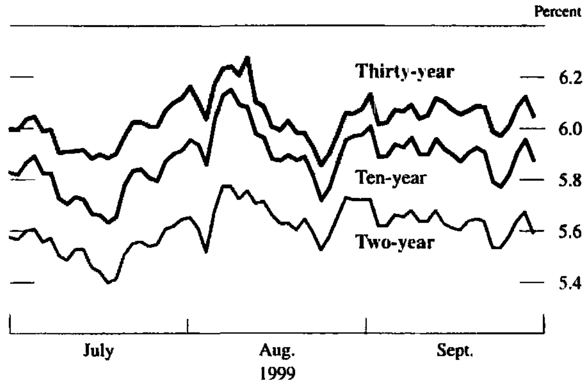
This quarterly report describes U.S. Treasury and System foreign exchange operations for the period from July through September 1999. It was presented by Peter R. Fisher, Executive Vice President, Federal Reserve Bank of New York, and Manager, System Open Market Account. Deborah L. Leonard was primarily responsible for preparation of the report.

During the third quarter of 1999, the dollar depreciated 12.1 percent against the yen and 3.2 percent against the euro. Dollar movements mainly reflected prospects for more balanced global growth, particularly among the major economies. The yen's substantial appreciation during the quarter against both the dollar and the euro was accompanied by sizable portfolio flows as international investors reassessed views of expected risk-adjusted returns in global capital markets. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

IMPROVEMENT IN THE OUTLOOK FOR GLOBAL ECONOMIC GROWTH

The U.S. economy continued to show buoyant activity in the third quarter, although its pace of growth appeared to slow. Expectations for aggressive monetary policy tightening in the United States waned in the initial weeks of the quarter after the Federal Open Market Committee (FOMC) raised the federal funds target rate from 4.75 to 5.00 percent and adopted a neutral policy stance on June 30. Many market participants posited that benign price data and forecasts of slower growth made further near-term policy changes less likely. Nevertheless, yields on U.S. Treasury securities rose to fifteen-month highs after Chairman Greenspan warned in his July 22 Humphrey–Hawkins testimony that the FOMC would act "promptly and forcefully" should inflationary pressures emerge. Rising commodity prices, particularly for oil, also raised some concerns about the outlook for inflation. The subsequent release of lower-than-expected second-quarter GDP growth of 2.3 percent on July 29 and subdued consumer and

1. Yields on U.S. Treasury securities, 1999:Q3

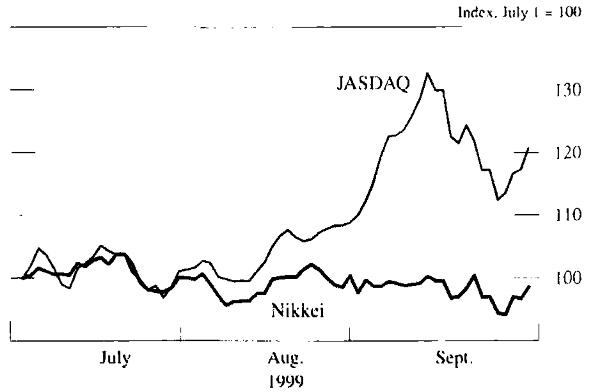


NOTE. The data are daily.
SOURCE. Bloomberg L.P.

producer price reports shortly after that date supported the view that further tightening might not be imminent, even though labor markets remained taut and the manufacturing sector remained strong. The FOMC raised the federal funds target rate 25 basis points, to 5.25 percent on August 24, with an accompanying statement that the two recent rate increases should "markedly diminish the risk of rising inflation going forward." A weaker-than-expected report on nonfarm payrolls on September 3 and moderate consumer price data on September 15 bolstered this sentiment.

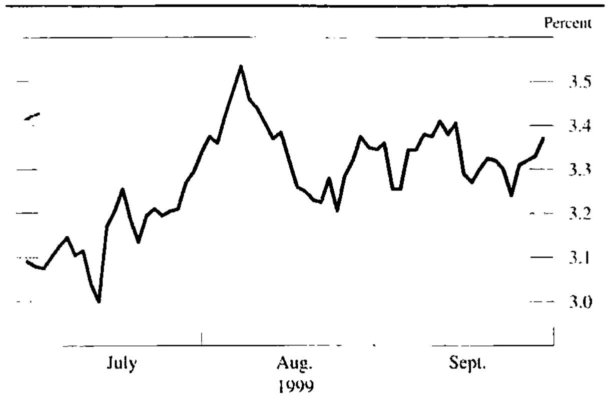
Signs of ongoing economic stabilization in Japan were reflected in data releases throughout the third quarter. Strong industrial production figures released on July 29 showing a 3.0 percent rise in output for June were followed on August 13 by a slight upward revision to the already surprisingly strong reading for first-quarter GDP growth, from 1.9 percent to 2.0 percent over the fourth quarter of 1998. Second-quarter GDP data released on September 9, also surprisingly strong, showed growth of 0.2 percent compared with market expectations for a contraction of 0.3 percent. Several market participants cited gains in Japanese equities as a reflection of growing confidence in Japan's recovery, as the small-capitalization JASDAQ index soared 26 percent during the quarter; however, the Nikkei index traded in a narrower range

2. Japanese equity prices, 1999:Q3



NOTE. The data are daily.
SOURCE. Bloomberg L.P.

3. Implied yield on March 2000 euribor futures contract, 1999:Q3



NOTE. The data are daily. The euribor rate is the European interbank offered rate for euro deposits.
SOURCE. Bloomberg L.P.

amid the uncertain effect of a stronger yen on shares of large-capitalization exporters.

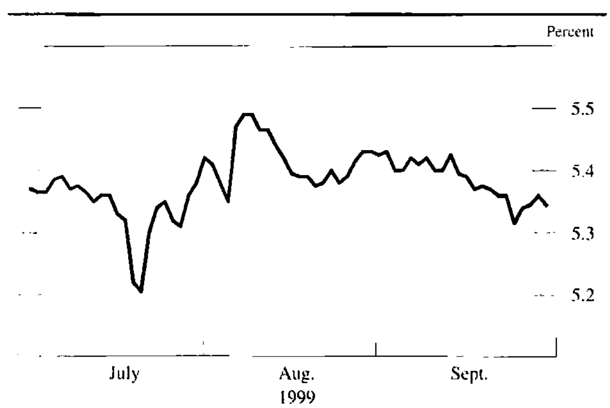
Improving economic indicators across Europe provided mounting evidence of a cyclical recovery in the euro area. Throughout the quarter, many private and multilateral institutions revised upward their forecasts of economic growth. Data releases early in the quarter were inconclusive, but a marked improvement in surveys of German and French business sentiment and manufacturing orders later in the period led to growing expectations for an upswing in industrial activity across Europe. On July 15, European Central Bank (ECB) President Duisenberg suggested that a "[tightening] bias was gradually creeping" into the ECB's policy considerations. Toward the end of the quarter, expectations for a near-term tightening solidified as producer prices rose across Europe, surveys of purchasing managers indicated higher prices paid for inputs, and senior ECB officials highlighted the risks of inflation in their public comments.

EXPECTATIONS FOR MONETARY POLICY ACTIONS SHIFT

Fundamental economic developments and comments from public officials in the United States, Japan, and Europe contributed to changing expectations for monetary policy actions throughout the quarter. In the United States, the FOMC's choice of a symmetric policy outlook after monetary policy tightenings on June 30 and again on August 24 encouraged market participants to carefully evaluate new information for potential signs of near-term policy direction. Early in the quarter, the implied yield on the December federal funds futures contract fell 16 basis points, as market participants responded to the neutral bias, and then rose 28 basis points after Chairman Greenspan's Humphrey–Hawkins testimony. However, the implied yield then fell 14 basis points from its period high of 5.49 percent, to end the quarter relatively unchanged. In Europe, forecasts of stronger growth, rising inflation, and comments from ECB officials contributed to the view that the balance of risks implied a tightening of European monetary policy sooner rather than later.

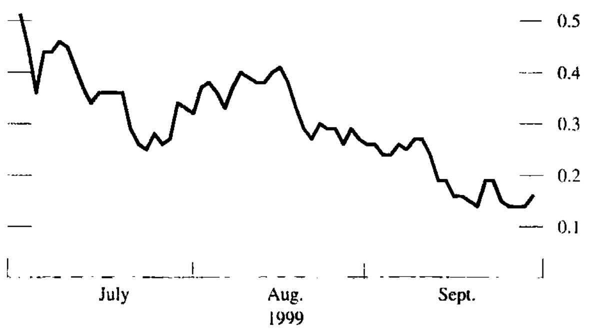
In Japan, the yield on Japan's ten-year benchmark government bond rose as high as 2.00 percent. Stronger economic data and Bank of Japan Governor Hayami's June 30 testimony that Japan's zero interest rate policy was "extraordinary," led some market participants to expect that the Bank of Japan might

4. Implied yield on December 1999 federal funds futures contract, 1999:Q3



NOTE. The data are daily.
SOURCE. Bloomberg L.P.

5. Implied yield on March 2000 Euroyen futures contract, 1999:Q3



NOTE. The data are daily.
SOURCE. Bloomberg L.P.

abandon its loose monetary policy sooner than previously expected. Ongoing discussion about additional fiscal stimulus measures further weighed on bond prices. However, the implied yield on the December euroyen futures contract fell steadily, from 0.54 percent to 0.18 percent, amid subsequent reassurances that the current zero interest rate policy would remain intact until signs of deflation had dissipated. In addition, the yen's persistent strength and domestic and international political pressures directed attention to the possibility that the Bank of Japan would provide further monetary stimulus to the economy.

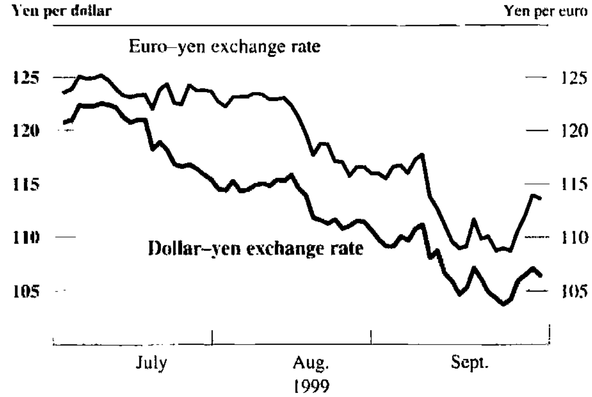
Throughout September, market discussion focused on calls by some observers in Japan and in the markets for the Bank of Japan to adopt "quantitative easing" measures, including unsterilized intervention, to invigorate Japan's economy. At its September 21 meeting, the decision by the Bank of Japan's Policy Board to maintain its zero interest rate policy was accompanied by a statement emphasizing the central bank's belief that it was already supplying ample liquidity to the money market. The Bank of Japan further stated that the "foreign exchange rate in itself is not a direct objective of monetary policy," but also that the Bank "considers it is important to carefully monitor the development of the foreign exchange rate from the viewpoint of how it affects the economy and prices." Market participants perceived a greater willingness by the Bank of Japan to consider additional stimulus measures after the September 25 meeting of the Group of Seven finance ministers and central bank heads, who expressed shared concern with Japan about the potential effect of the yen's appreciation. After the meeting, Bank of Japan Governor Hayami issued a statement that the Bank shared the Japanese government's concern about yen appreciation; that it was prepared to respond to developments in the economy as well as in the financial markets, including the foreign exchange market; and that it was exploring ways to ensure that liquidity further permeated the money markets in Japan.

DOMINATION OF CURRENCY MOVEMENTS BY PORTFOLIO FLOWS

A reassessment of economic fundamentals and changing policy expectations among the Group of Three was also reflected in portfolio flows during the quarter, particularly with respect to the yen. The yen steadily appreciated to a three-and-a-half-year low of ¥103.72 against the dollar and an all-time low of ¥108.70 against the euro on September 23 and 24 respectively. Shifts in portfolio flows in favor of Japanese assets took place as Japanese and foreign investors re-evaluated their perceived risk-adjusted returns on capital in global markets.

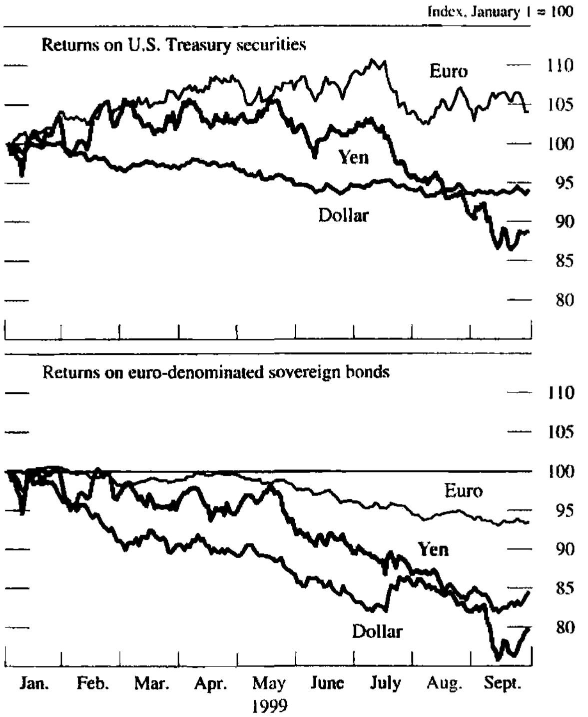
For Japanese investors, the yen's rise substantially reduced the value of unhedged foreign assets. In yen terms, the price return on an index of euro-denominated sovereign bonds, which already had fallen 11 percent from the beginning of 1999 to July 1, fell as much as 24 percent toward the end of September. Year-to-date, yen-adjusted price returns on an index of U.S. Treasury notes and bonds had gained 3 percent as the third quarter began but fell 12 percent by September 30. Although the U.S. S&P 500 equity index declined 6.6 percent in the third quarter, it fell approximately 18 percent in yen terms. Such losses reportedly encouraged Japanese investors to hedge or liquidate overseas positions

6. The dollar and the euro against the Japanese yen, 1999:Q3



NOTE. The data are daily.
SOURCE. Reuters.

7. Currency-adjusted price returns on U.S. and European government bond indexes, January 1999–September 1999



NOTE. The data are daily.
SOURCE. Merrill Lynch.

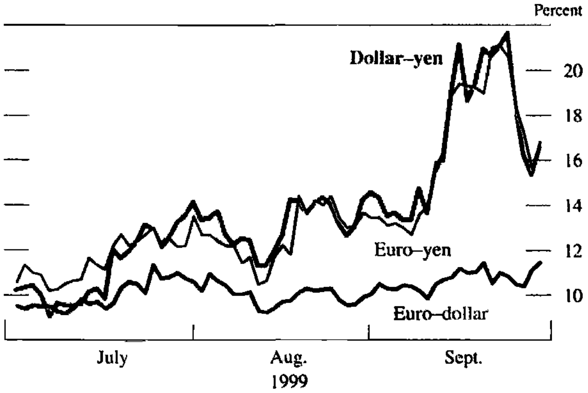
ahead of Japan's September 30 fiscal half-year-end book closings, thereby accelerating the yen's rise. Improved Japanese growth prospects also encouraged international investors to increase the share of Japanese equities in their portfolios. Such portfolio shifts were further encouraged by concerns about growing external imbalances, persistent questions about valuation levels for U.S. stocks, and prospects for higher interest rates in the United States and Europe.

On several occasions during the quarter, officials from the Japanese Ministry of Finance publicly stated that the Bank of Japan had intervened in the foreign exchange markets, buying dollars and selling yen. Although Japanese officials repeatedly expressed concern about a "premature" strengthening of the yen before economic recovery had been firmly established, some market participants noted that the interventions appeared to attempt to smooth the rate of the yen's appreciation rather than to roll it back. Nevertheless, uncertainty regarding Japan's foreign exchange policy objectives contributed to a sharp rise in market volatility. In the options market, one-month implied volatility for the dollar–yen exchange rate soared from around 10 percent to as high as 22 percent toward the end of the quarter, reflecting greater uncertainty among market participants about the yen's trading range.

Movements in the euro's value against the yen were also largely influenced by portfolio flows, as Japanese investors hedged or reduced their exposure to euro-denominated assets. In contrast to the dollar's steady decline against the yen, movements in the dollar–euro exchange rate reflected changing expectations regarding relative economic growth and interest rate prospects in the United States and Europe. After trading to a low of $1.0136 early in the quarter, the euro rebounded sharply in July in response to the rising momentum of European growth, President Duisenberg's intimation that a tightening bias was "creeping" into ECB policy considerations, and increased expectations of higher interest rates in Europe.

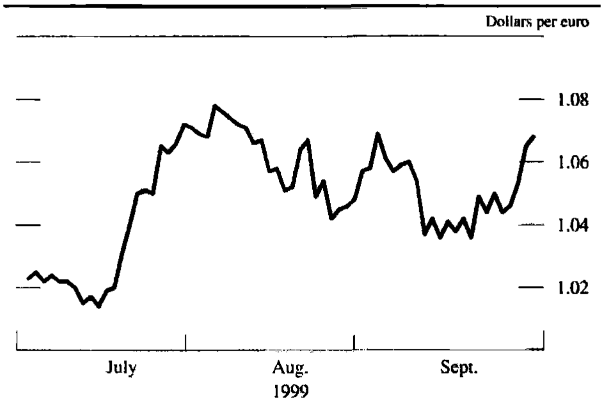
The euro reversed some of its gains after benign U.S. price data supported a short-lived rally in U.S.

8. Volatility implied by one-month option prices, 1999:Q3



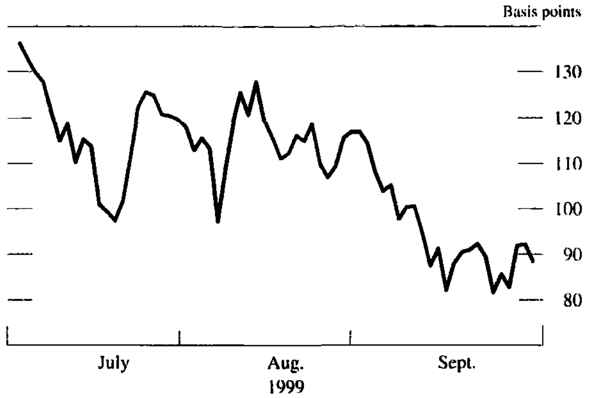
NOTE. The data are daily.
SOURCE. Reuters.

9. The euro against the dollar, 1999:Q3



NOTE. The data are daily.
SOURCE. Bloomberg L.P.

10. Spread between ten-year U.S. Treasury and German government bond yields, 1999:Q3



NOTE. The data are daily.
SOURCE. Bloomberg L.P.

asset markets in August but subsequently rose in response to European price and manufacturing data that was interpreted as increasing the possibility of near-term interest rate hikes. The euro again pared its gains at the beginning of September, when U.S. producer price and employment data made additional interest rate increases in the United States appear less imminent, and after Germany's ruling Social Democratic Party suffered widespread losses in regional elections. However, the European currency again rose at the end of the quarter, after strong U.S. retail sales and trade data showing a rising deficit weighed heavily on U.S. equity markets. More generally, the euro's appreciation against the dollar this quarter reflected the broader trend of narrowing U.S. and European yield spreads. Euro-area sovereign bonds underperformed U.S. Treasury securities, with the spread between ten-year U.S. and German government bond yields narrowing 46 basis points over the quarter and reaching a low of 82 basis points on September 23, its lowest level since January.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

The U.S. monetary authorities did not undertake any intervention operations during the quarter. At the end of the quarter, the current values of reserve holdings of euros and Japanese yen totaled $16.1 billion for the Federal Reserve System and $16.1 billion for the Exchange Stabilization Fund.[1] The U.S. monetary authorities invest all of their foreign currency balances in a variety of instruments that yield market-related rates of return and have a high degree of liquidity and credit quality. To the greatest extent practicable, these investments are split evenly between the Federal Reserve System and the Exchange Stabilization Fund.

A portion of the balances is invested in German and Japanese government securities held directly or under repurchase agreement. Government securities held under repurchase agreement are arranged either through transactions executed directly in the market or through agreements with official institutions. Foreign currency reserves are also invested in deposits at the Bank for International Settlements and in facilities at other official institutions. As of September 30, direct holdings of foreign government securities totaled $9.1 billion—split evenly between the two authorities. Foreign government securities held under repurchase agreement totaled $13.2 billion at the end of the quarter and were also split evenly between the two authorities. □

1. Amounts are based on carrying value and September 30 exchange rates.

1. Foreign currency holdings of U.S. monetary authorities based on current exchange rates, 1999:Q3

Millions of dollars

Item	Balance, June 30, 1999	Quarterly changes in balances, by source					Balance, Sept. 30, 1999
		Net purchases and sales[1]	Effect of sales[2]	Investment income	Currency valuation adjustments[3]	Interest accrual (net) and other	
FEDERAL RESERVE SYSTEM OPEN MARKET ACCOUNT (SOMA)							
EMU euro	6,943.7	0.0	0.0	53.0	225.1	0.0	7,221.8
Japanese yen	7,786.9	0.0	0.0	2.0	1,043.0	0.0	8,831.9
Total	14,730.6	0.0	0.0	55.0	1,268.1	0.0	16,053.7
Interest receivables[4]	68.4	...	...	...	...	−17.3	51.1
Other cash flow from investments[5]	...	...	...	...	...	13.4	13.4
Total	**14,799.0**	**0.0**	**0.0**	**55.0**	**1,268.1**	**−3.9**	**16,118.2**
U.S. TREASURY EXCHANGE STABILIZATION FUND (ESF)							
EMU euro	6,944.6	0.0	0.0	49.3	225.2	0.0	7,219.1
Japanese yen	7,787.0	0.0	0.0	2.0	1,042.8	0.0	8,831.8
Total	14,731.6	0.0	0.0	51.3	1,268.0	0.0	16,050.9
Interest receivables[4]	45.5	...	...	...	...	20.7	66.2
Other cash flow from investments[5]	...	...	...	...	...	13.3	13.3
Total	**14,777.1**	**0.0**	**0.0**	**51.3**	**1,268.0**	**34.0**	**16,130.4**

NOTE. In this and subsequent tables, components may not sum to totals because of rounding.

1. Purchases and sales for the purpose of this table include foreign currency sales and purchases related to official activity, swap drawings and repayments, and warehousing.

2. This figure is calculated using marked-to-market exchange rates; it represents the difference between the sale exchange rate and the most recent revaluation exchange rate. Realized profits and losses on sales of foreign currencies, computed as the difference between the historic cost-of-acquisition exchange rate and the sale exchange rate, are reflected in table 2.

3. Foreign currency balances are marked-to-market monthly at month-end exchange rates.

4. Interest receivables for the ESF are revalued at month-end exchange rates. Interest receivables for the Federal Reserve System are carried at average cost of acquisition and are not marked to market until interest is paid. Interest receivables for the Federal Reserve System are net of unearned interest collected.

5. Values for cash flow differences from payment and collection of funds between quarters.

... Not applicable.

2. Net profits or losses (−) on U.S. Treasury and Federal Reserve foreign exchange operations, based on historical cost-of-acquisition exchange rates, 1999:Q3

Millions of dollars

Period and item	Federal Reserve System Open Market Account	U.S. Treasury Exchange Stabilization Fund
Valuation profits and losses on outstanding assets and liabilities, June 30, 1999		
EMU euro	−345.0	−562.0
Japanese yen	746.3	958.5
Total	**401.3**	**396.5**
Realized profits and losses from foreign currency sales, June 30, 1999–Sept. 30, 1999		
EMU euro	0.0	0.0
Japanese yen	0.0	0.0
Total	**0.0**	**0.0**
Valuation profits and losses on outstanding assets and liabilities, Sept. 30, 1999		
EMU euro	−119.9	−336.9
Japanese yen	1,775.8	1,988.0
Total	**1,655.9**	**1,651.1**

3. Currency arrangements, September 30, 1999

Millions of dollars

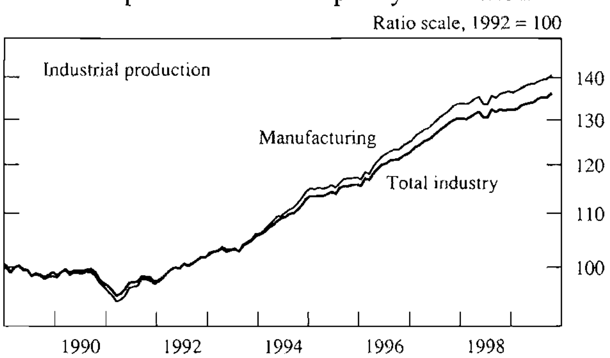
Institution	Amount of facility	Outstanding, Sept. 30, 1999
	Federal Reserve reciprocal currency arrangements	
Bank of Canada	2,000	0.0
Bank of Mexico	3,000	0.0
Total	**5,000**	**0.0**
	U.S. Treasury Exchange Stabilization Fund currency arrangements	
Bank of Mexico	3,000	0.0
Total	**3,000**	**0.0**

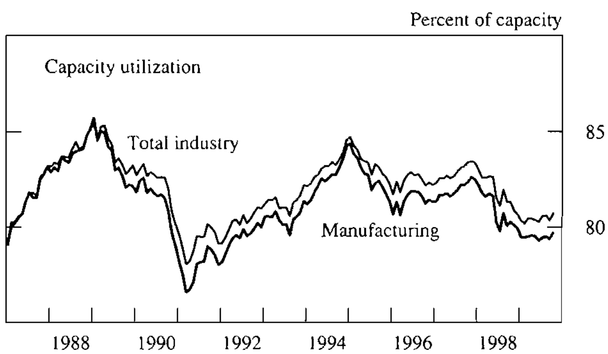
Industrial Production and Capacity Utilization for October 1999

Released for publication November 15

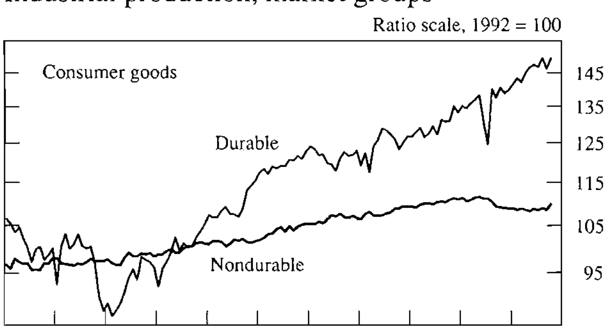
Industrial production, which had edged down in September when Hurricane Floyd slowed activity along the eastern seaboard, increased 0.7 percent in October. In the recovery after the storm, output rebounded at electric utilities and in a number of manufacturing industries. At 136.1 percent of its 1992 average, industrial production in October was 2.8 percent higher than in October 1998. The rate of capacity utilization for total industry rose 0.3 percentage point, to 80.7 percent, a level 1.4 percentage points below its 1967–98 average.

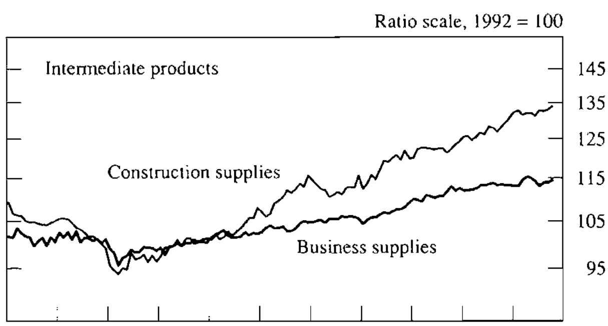
Industrial production and capacity utilization

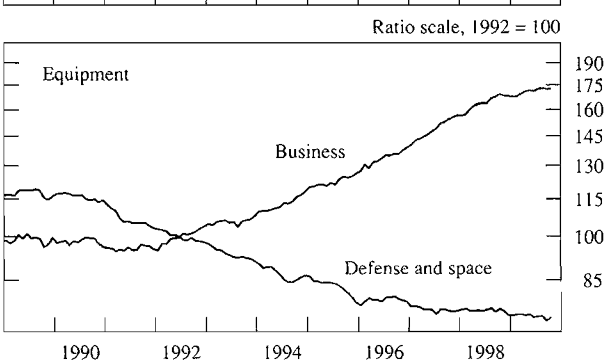


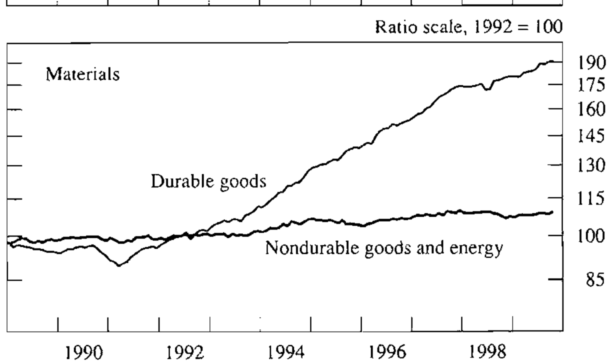


Industrial production, market groups









All series are seasonally adjusted. Latest series, October. Capacity is an index of potential industrial production.

Industrial production and capacity utilization, September 1999

Category	Industrial production, index, 1992=100								
	1999				Percentage change				
					1999[1]				Oct. 1998 to Oct. 1999
	July r	Aug. r	Sept. r	Oct. p	July r	Aug. r	Sept. r	Oct. p	
Total	**135.0**	**135.3**	**135.2**	**136.1**	**.6**	**.3**	**−.1**	**.7**	**2.8**
Previous estimate	135.0	135.5	135.0	...	.6	.4	−.3	.	...
Major market groups									
Products, total[2]	125.7	126.4	126.0	127.0	.0	.6	−.4	.8	1.7
Consumer goods	115.8	116.7	115.8	117.4	−.3	.7	−.8	1.4	1.9
Business equipment	172.2	172.8	172.4	172.4	.7	.4	−.2	.0	2.0
Construction supplies	132.8	132.6	133.0	134.0	1.1	−.2	.3	.7	4.3
Materials	150.3	150.0	150.5	151.3	1.4	−.2	.4	.5	4.7
Major industry groups									
Manufacturing	139.0	139.4	139.6	140.4	.4	.3	.1	.6	3.2
Durable	167.5	167.9	167.9	168.9	1.2	.3	0	.6	4.8
Nondurable	110.7	111.1	111.4	112.1	−.5	.4	.3	.6	1.1
Mining	98.4	99.5	99.2	99.4	.7	1.1	−.2	.1	−2.6
Utilities	121.5	120.2	117.2	119.5	2.8	−1.1	−2.5	2.0	2.5

Category	Capacity utilization, percent								Memo Capacity, percentage change, Oct. 1998 to Oct. 1999
	Average, 1967–98	Low, 1982	High, 1988–89	1998	1999				
				Oct.	July r	Aug. r	Sept. r	Oct. p	
Total	**82.1**	**71.1**	**85.4**	**81.3**	**80.6**	**80.6**	**80.4**	**80.7**	**3.6**
Previous estimate	. .	. .	. .	. .	80.6	80.7	80.3	.	.
Manufacturing	81.1	69.0	85.7	80.3	79.5	79.5	79.4	79.7	3.9
Advanced processing	80.5	70.4	84.2	79.6	78.4	78.4	78.3	78.5	4.7
Primary processing	82.4	66.2	88.9	82.4	82.7	82.9	82.8	83.1	2.1
Mining	87.5	80.3	88.0	84.7	81.1	81.9	81.7	81.7	1.0
Utilities	87.4	75.9	92.6	92.0	95.5	94.5	92.1	93.9	.5

NOTE. Data seasonally adjusted or calculated from seasonally adjusted monthly data.
1. Change from preceding month.
2. Contains components in addition to those shown.
r Revised.
p Preliminary.

MARKET GROUPS

The output of consumer goods rose 1.4 percent in October after having dropped 0.8 percent in September. The output of durable consumer goods increased 2.1 percent as the production of both automotive products and other durable goods, particularly goods for the home such as appliances, increased sharply. After having declined 0.3 percent in September, the production of nondurable consumer goods advanced 1.1 percent. The output of energy products rebounded 2.1 percent from declines that totaled 3 percent over August and September, and the output of non-energy consumer nondurables rose 1.0 percent, led by gains in foods and consumer chemicals.

The production of business equipment, which had eased 0.2 percent in September, was flat in October. Sharp declines in the output of transit equipment, particularly commercial aircraft, and other equipment offset gains in the production of information processing equipment and industrial equipment. Within the information processing group, the output of computers has risen more slowly in recent months than earlier in the year. The output of defense equipment in October recouped about half of its 1.6 percent decline in September.

The production of construction supplies rose 0.7 percent in October, after a smaller increase in the previous month, to a level 4.3 percent higher than in October 1998. The output of materials increased 0.5 percent, a bit more than in September. The increases in the output of durable goods materials, which were strong over the past year, slowed to 0.3 percent in October, while growth in the output of nondurable goods materials accelerated to 0.7 percent. The production of energy materials reversed most of the 1 percent drop in September.

INDUSTRY GROUPS

Manufacturing output advanced 0.6 percent in October after a gain of only 0.1 percent in September. The increase in the output of durables was led by gains at makers of iron and steel, light trucks, computers, semiconductors, and miscellaneous manufactures; however, gains in hi-tech industries, such as computers and related parts, while still rapid, have on balance been smaller in recent months. While most other durable industries recorded fractional increases, the output indexes for commercial aircraft and parts and for farm machinery declined noticeably. The ongoing contraction in the output of commercial aircraft and parts brought its index in October to a level about 20 percent below the level of October 1998. The output of farm machinery, which had dropped sharply to a low in August, remained more than 40 percent below its high in the summer of 1998. Production in nondurable manufacturing increased for a third month after earlier weakness. Among nondurables, gains in October were widespread, except for rubber and plastics products and leather and products. The tobacco, textile, and apparel products industries, which had suffered setbacks in the preceding two or three months, reversed a portion of those losses in October. The output of printing and publishing, chemicals and products, petroleum products, and foods advanced again.

The factory operating rate rose 0.3 percentage point, to 79.7 percent, with increases in both durable and nondurable industries. While the utilization rate for durable manufacturing was a bit above its 1967–98 average, the rates for nondurable manufacturing industries other than petroleum products were below their averages.

The output at utilities, which had fallen back more than 3½ percent in August and September, increased 2.0 percent; utilization at utilities recovered and moved up, to 93.9 percent. Mine production edged up after having eased a bit in September; utilization at mines remained at 81.7 percent.

Revision of Industrial Production and Capacity Utilization

On November 30, 1999, the Federal Reserve Board will publish a revision to the index of industrial production (IP) and the related measures of capacity and capacity utilization for the period January 1992 to October 1999. The updated measures will reflect both the incorporation of newly available, more comprehensive source data typical of annual revisions and, for some series, the introduction of improved methods for compiling the series. The new source data are for recent years, primarily 1997 and 1998, and the modified methods affect data from 1992 onward. In addition, the supplementary series on the gross value of products leaving the industrial sector will be expressed in 1996 dollars; these series begin in 1977.

The updated IP measures will include some annual data from the Bureau of the Census's *1997 Census of Manufactures* and from selected editions of its *1998 Current Industrial Reports*. Annual data from the U.S. Geological Survey on metallic and nonmetallic minerals (except fuels) for 1997 and 1998 will also be introduced. The updating will also include revisions to the monthly indicator for each industry (either physical product data, production worker hours, or electric power usage) and revised seasonal factors.

The revision will introduce improved measures of production for computers and office equipment (SIC 357) and for motor vehicles (SIC 3711, 3). The new monthly production measure for computers is derived from detailed information on the major products produced by the industry. For example, from 1994 to 1998, quarterly data on the physical quantity and average unit value of about 1,100 distinct models of personal computers, notebooks, servers, and workstations are used to construct the new IP index for computers; previously, monthly electric power use by the industry was used as the within-year indicator of production. The new measures of motor vehicle production incorporate price weights for the different models of light vehicles; previously, all autos and light trucks were weighted equally in compiling an aggregate figure. In addition, the monthly production indicators for bolts and fasteners (SIC 345) and for metalworking machinery (SIC 354) will be changed from electric power use to production worker hours.

Capacity and capacity utilization rates will be revised to incorporate preliminary data from the *1998 Survey of Plant Capacity* of the Bureau of the Census, which covers manufacturing, along with other new data on capacity from the U.S. Geological Survey, the Department of Energy, and other organizations.

Once the revision is published, it will also be made available on the Board's web site, at http://www.federalreserve.gov/releases/g17, and on diskettes from Publications Services (telephone 202-452-3245). The revised data will also be available through the STAT-USA web site of the Department of Commerce (http://www.stat-usa.gov). Further information on these revisions is available from the Board's Industrial Output Section (telephone 202-452-3197). □

Announcements

Federal Open Market Committee Directive

The Federal Open Market Committee decided on October 5, 1999, to leave its target for the federal funds rate unchanged.

Strengthening productivity growth has been fostering favorable trends in unit costs and prices, and much recent information suggests that these trends have been sustained.

Nonetheless, the growth of demand has continued to outpace that of supply, as evidenced by a decreasing pool of available workers willing to take jobs. In these circumstances, the Federal Open Market Committee will need to be especially alert in the months ahead to the potential for costs to increase significantly in excess of productivity in a manner that could contribute to inflation pressures and undermine the impressive performance of the economy.

Against this background, the Committee adopted a directive that was biased toward a possible firming of policy going forward. Committee members emphasized that such a directive did not signify a commitment to near-term action. The Committee will need to evaluate additional information on the balance of aggregate supply and demand and conditions in financial markets.

Regulation CC: Final Rule

The Federal Reserve Board on October 28, 1999, announced adoption of a final rule amending Regulation CC (Availability of Funds and Collection of Checks), to clarify the extent to which depository institutions and others may vary the terms of the regulation by agreement for the purpose of instituting electronic return systems. The rule is effective December 15, 1999.

The Board requested comments on this rule in February 1999. Rather than adopting any of the options it proposed, the Board has revised the Commentary to Regulation CC to add examples of interbank agreements on electronic presentment and return of checks. This revision will not affect the rights of any parties to the checks under Regulation CC.

Examination Frequency Cycle for Branches and Agencies of Foreign Banks: Final Rule

The Federal Reserve Board, along with the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation, on October 21, 1999, issued a final rule on a proposal to expand the examination frequency cycle for certain U.S. branches and agencies of foreign banks. The rule was effective October 22, 1999.

This rule finalizes an interim rule, effective August 28, 1998, that made U.S. branches and agencies of foreign banks with total assets of $250 million or less eligible for an eighteen-month examination cycle if they met the qualifying criteria set out in the rule. The ruling will implement provisions of section 2214 of the Economic Growth and Regulatory Paperwork Reduction Act of 1996.

Proposed Action

The Federal Reserve Board on October 18, 1999, announced an extension of the comment period on proposals to allow electronic delivery of federally mandated disclosures. On September 14, 1999, the Board published revised proposals for public comment under five consumer protection regulations: B (Equal Credit Opportunity), E (Electronic Fund Transfers), M (Consumer Leasing), Z (Truth in Lending), and DD (Truth in Savings). The original deadline for public comment was October 29, 1999. The Board extended the comment period until November 15, 1999.

Low Reserve Tranche Adjustment

The Federal Reserve Board on October 6, 1999, announced a decrease from $46.5 million to $44.3 million in the net transaction accounts to which a 3 percent reserve requirement will apply in 2000. This procedure is known as the low reserve tranche adjustment.

The Board also changed from $4.9 million to $5.0 million the amount of reservable liabilities of each depository institution that is subject to a reserve requirement of 0 percent.

Additionally, the Board increased the deposit cutoff levels that are used in conjunction with the exemption level to determine the frequency and detail of deposit reporting required for each institution from $81.9 million to $84.5 million for nonexempt depository institutions and from $52.6 million to $54.3 million for exempt depository institutions.

For depository institutions that report weekly, the low reserve tranche adjustment and reservable liabilities exemption adjustment will apply to the reserve computation period that begins Tuesday, November 30, 1999, and the corresponding reserve maintenance period that begins Thursday, December 30, 1999.

For institutions that report quarterly, the low reserve tranche adjustment and the reservable liabilities exemption adjustment will apply to the reserve computation period that begins Tuesday, December 21, 1999, and the corresponding reserve maintenance period that begins Thursday, January 20, 2000.

In addition, normal shift procedures will resume in September 2000 for nonexempt institutions that would otherwise have shifted from quarterly to weekly reporting, and for exempt institutions that would otherwise have shifted from annual to quarterly reporting in September 1999 but for Y2K adjustments to the category shift procedures.

Availability of a New Community Development Web Site

The Federal Reserve Board on October 13, 1999, announced the availability of a new Internet site, 1stSource Community Development Resource Guide, designed to help people find resources for affordable housing, business development, community infrastructure, and agribusiness. The new site, developed by the Federal Reserve Bank of Kansas City, can be accessed at www.1stsource.kc.frb.org/

"The strength of 1stSource is its simplicity," said Thomas M. Hoenig, President of the Federal Reserve Bank of Kansas City.

> With dozens of federal programs available, it can be difficult to pinpoint what is needed for a project. This is the first time people have had one source for community and economic development information. People interested in financing projects that benefit economically-disadvantaged individuals, small businesses, small farms, and local communities will find 1stSource especially useful.

1stSource users can describe their projects by clicking on specific characteristics, such as type of project, the kind of financial or technical assistance needed, and project location. 1stSource will then locate grant and loan programs and other resources that fit those characteristics and provide a brief one-page summary. If a program looks promising, users can contact the agency through the Internet link, telephone number, or address provided.

The Community Affairs staff at the Federal Reserve Bank of Kansas City collaborated with federal agencies to make this service available. Agencies involved include the following: the Small Business Administration, the Economic Development Administration, the Department of Housing and Urban Development, the Bureau of Indian Affairs, the Department of Agriculture, the Federal Home Loan Banks, the Federal Agricultural Mortgage Corporation (Farmer Mac), the Department of Health and Human Services' Office of Community Services, and the Department of Veterans Affairs. 1stSource has also invited states to include information about their programs.

For more information on 1stSource, contact John A. Wood, Assistant Vice President and Community Affairs Officer, Community Affairs Department, Federal Reserve Bank of Kansas City (telephone 1-800-333-1010, extension 2203).

Issuance of Joint Guidance by Federal Regulators on Risks in High Loan-to-Value Residential Real Estate Lending

Federal financial institution regulators (the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision) on October 12, 1999, advised banks and thrift institutions about the risks associated with high loan-to-value (LTV) residential real estate loans. The guidance reminded insured institutions that the Interagency Guidelines for Real Estate Lending Policies adopted in 1992 apply to these transactions.

The 1992 guidelines advised institutions that they would come under increased supervisory scrutiny as the total of all high LTV loans approached 100 percent of total capital. The guidance just issued describes steps regulators may take if an institution's high LTV loan portfolio exceeds 100 percent of total capital. Supervisory action might include a request to sell high LTV loans, raise additional capital, or submit a plan to achieve compliance with the capital limitation.

High LTV residential loans carry higher risks than more traditional residential real estate loans. However, the regulators advised banks and thrift institutions that high LTV residential loans—which represent 90 percent or more of the value of the residence held as collateral—can be profitable when risks are effectively managed and loans are priced based on that risk.

The regulators also recognize that high LTV residential loans can serve a useful purpose in helping financially burdened borrowers consolidate and manage their debts. The regulators said that the guidance just issued is not intended to—and should not—restrict access to mortgage credit for affordable housing for low- and moderate-income borrowers. For example, high LTV home loans may be used to help first-time homebuyers by financing closing costs or rehabilitation costs into their mortgage. There is also no intent in the guidance to restrict financing of well-managed community development or rehabilitation programs.

The guidance listed four primary credit risks associated with this type of loan: increased risk of default and losses; inadequate collateral; longer terms, creating longer periods of exposure; and limited default remedies.

This guidance is intended to remind financial institutions of their obligations to effectively manage the risks in their high LTV loan portfolios and to comply with fair lending and consumer protection laws and regulations. □

Minutes of the Meeting of the Federal Open Market Committee Held on August 24, 1999

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, August 24, 1999, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Boehne
Mr. Ferguson
Mr. Gramlich
Mr. Kelley
Mr. McTeer
Mr. Meyer
Mr. Moskow
Mr. Stern

Messrs. Broaddus, Guynn, Jordan, and Parry, Alternate Members of the Federal Open Market Committee

Mr. Hoenig, Ms. Minehan, and Mr. Poole, Presidents of the Federal Reserve Banks of Kansas City, Boston, and St. Louis respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Ms. Fox, Assistant Secretary
Mr. Gillum, Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Mr. Prell, Economist
Ms. Johnson, Economist

Messrs. Howard, Hunter, Lang, Lindsey, Slifman, and Stockton, Associate Economists

Mr. Fisher, Manager, System Open Market Account

Mr. Ettin, Deputy Director, Division of Research and Statistics, Board of Governors

Messrs. Madigan and Simpson, Associate Directors, Divisions of Monetary Affairs and Research and Statistics respectively, Board of Governors

Mr. Whitesell, Assistant Director, Division of Monetary Affairs, Board of Governors

Ms. Edwards,[1] Senior Economist, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary Affairs, Board of Governors

Mr. Stewart and Ms. Strand, First Vice Presidents, Federal Reserve Banks of New York and Minneapolis respectively

Mr. Beebe, Ms. Browne, Messrs. Eisenbeis, Hakkio, Ms. Krieger, Messrs. Lacker, Rasche, and Steindel, Senior Vice Presidents, Federal Reserve Banks of San Francisco, Boston, Atlanta, Kansas City, New York, Richmond, St. Louis, and New York respectively

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

Mr. Bryan, Assistant Vice President, Federal Reserve Bank of Cleveland

Mr. Viard, Senior Economist, Federal Reserve Bank of Dallas

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on June 29–30, 1999, were approved.

By unanimous vote, Christine Cumming and David Howard were elected to serve as associate economists until the first meeting of the Committee after December 31, 1999, with the understanding that in the event of the discontinuance of their official connection with a Federal Reserve Bank or with the Board of Governors, they would cease to have any official connection with the Committee.

The Manager of the System Open Market Account reported on recent developments in foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting, and thus no vote was required of the Committee.

1. Attended portion of meeting relating to issues pertaining to year-end operations.

The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and federal agency obligations during the period June 30, 1999, through August 23, 1999. By unanimous vote, the Committee ratified these transactions.

At this meeting, the Committee considered a number of proposals whose purpose was to enhance the Manager's ability to counter potential liquidity strains in money and financing markets in the period surrounding the century date change and in the process help to ensure the effective implementation of the Committee's monetary policy objectives. The members believed that the prospects for major liquidity problems associated with the century date change were remote, but some strains were already in evidence, and they agreed that it would be prudent to provide the Manager with added leeway and flexibility for a limited period. Because the plans of market participants were likely to be influenced by the Federal Reserve's contemplated action and because detailed preparations with market participants needed to begin promptly, the Committee decided to put the new authorizations in place at this meeting.

The new authority encompassed three policy instruments that, unless renewed, would expire during the early part of 2000 and one permanent change. The temporary authorizations included (1) the expansion of collateral that could be accepted in System open market transactions, (2) authority to use reverse repurchase agreements in addition to the currently available matched sale-purchase transactions to absorb reserves on a temporary basis, and (3) a standby financing facility involving the auction of options on repurchase agreements, reverse repurchase agreements, and matched sale-purchase transactions that could be exercised in the period surrounding the year-end. The permanent change, which also might prove useful during the year-end period, involved the extension of the maximum maturity on regular repurchase and matched sale-purchase transactions from sixty days to ninety days.

The broader range of collateral approved by the Committee for repurchase transactions included mainly pass-through mortgage securities of GNMA, FHLMC, and FNMA, U.S. Treasury STRIPS, and "stripped" securities of other federal government agencies. The expanded pool would facilitate the Manager's task of addressing what potentially could be very large needs to supply reserves in the months ahead, especially in the weeks surrounding the year-end. Such transactions would have to be undertaken at a time of likely heightened demand for U.S. government securities that would diminish the available pool of currently authorized securities for System open market operations. The Federal Reserve Bank of New York would need to establish custody arrangements with commercial banks to manage the clearing of the newly authorized securities on a triparty basis. Some time would be needed to make these arrangements and inform other market participants, and it was anticipated that the new arrangements would not be in place before early October. To implement this decision, the Committee voted unanimously to suspend until April 30, 2000, several provisions of the "Guidelines for the Conduct of System Operations in Federal Agency Issues," which impose limits on transactions in federal agency transactions. The "Guidelines" as temporarily amended now read as follows:

1. System open market operations in Federal agency issues are an integral part of total System open market operations designed to influence bank reserves, money market conditions, and monetary aggregates.
2. System open market operations in Federal agency issues are not designed to support individual sectors of the market or to channel funds into issues of particular agencies.

The Committee's decision to authorize the use of reverse repurchase agreements until April 30 was intended to facilitate temporary reserve draining operations. These agreements are fundamentally equivalent to matched sale-purchase transactions, which the Manager already has the authority to employ. However, the latter are not a common instrument in financial markets. Partly as a consequence, they lack the flexibility for use to drain reserves late during the business day, a flexibility that might be particularly desirable to have in place during the upcoming year-end period. Accordingly, the Committee voted unanimously to add reverse repurchase agreements to its "Authorization for Domestic Open Market Operations," as shown in new paragraph 1(c) below.

The Committee also approved a temporary financing facility authorizing the Federal Reserve Bank of New York to sell options on repurchase agreements, reverse repurchase agreements, and matched sale-purchase transactions. The members hoped that the availability of such a System facility would reduce concerns about year-end financial conditions and thus help avert the emergence of the illiquid markets that were feared by an apparently growing number of market participants and that would complicate the conduct of open market operations. The sales would be made on a competitive basis to the primary government securities dealers who are regular counterparties in the System's open market operations. The details of these transactions would be worked out during the weeks ahead.

Members agreed that there was some risk of unintended consequences in implementing these untried transactions. Nonetheless, the costs stemming from a dysfunctional financing market at year-end, in the unlikely event that it materializes, were immeasurably greater. The members did not question the desirability of addressing the latter risks and providing greater assurance that financing markets would retain sufficient depth and liquidity to permit market participants including the Federal Reserve to make necessary portfolio adjustments at year-end. Accordingly, the Committee voted unanimously to authorize the sale of options on temporary transactions for exercise though January 2000. This authority is indicated in the temporary addition of paragraph 4, shown below, to the Authorization for Domestic Open Market Operations.

The decision to extend the maximum maturity on repurchase and sale-purchase transactions was intended to bring the terms of such transactions into conformance with market practice and the pattern of market demand, thereby enhancing the Manager's ability to use these instruments. This maturity extension, which the Committee decided to make permanent, was likely to prove particularly useful in the period of unusually large reserve operations over the months ahead. The new authority is incorporated in paragraphs 1(b), 1(c), and 3 below.

The paragraphs of the Authorization for Domestic Open Market Operations that were amended or added by the Committee, all by unanimous vote, read as follows:

AUTHORIZATION FOR DOMESTIC OPEN MARKET OPERATIONS

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the most recent domestic policy directive adopted at a meeting of the Committee:

(b) To buy U.S. Government securities, obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States, from dealers for the account of the Federal Reserve Bank of New York under agreements for repurchase of such securities or obligations in 90 calendar days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers; provided that in the event Government securities or agency issues covered by any such agreement are not repurchased by the dealer pursuant to the agreement or a renewal thereof, they shall be sold in the market or transferred to the System Open Market Account.

(c) To sell U.S. Government securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States to dealers for System Open Market Account under agreements for the resale by dealers of such securities or obligations in 90 calendar days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers.

3. In order to ensure the effective conduct of open market operations, while assisting in the provision of short-term investments for foreign and international accounts maintained at the Federal Reserve Bank of New York, the Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York (a) for System Open Market Account, to sell U.S. Government securities to such foreign and international accounts on the bases set forth in paragraph 1(a) under agreements providing for the resale by such accounts of those securities within 90 calendar days on terms comparable to those available on such transactions in the market; and (b) for New York Bank account, when appropriate, to undertake with dealers, subject to the conditions imposed on purchases and sales of securities in paragraph 1(b), repurchase agreements in U.S. Government and agency securities, and to arrange corresponding sale and repurchase agreements between its own account and foreign and international accounts maintained at the Bank. Transactions undertaken with such accounts under the provisions of this paragraph may provide for a service fee when appropriate.

4. In order to help ensure the effective conduct of open market operations during the transition period surrounding the century date change, the Committee authorizes the Federal Reserve Bank of New York to sell options on repurchase agreements, reverse repurchase agreements, and matched sale purchase transactions for exercise no later than January 2000.

The Committee then turned to a discussion of the economic and financial outlook, and the implementation of monetary policy over the intermeeting period ahead.

The information reviewed at this meeting suggested that expansion of economic activity remained solid. The growth of consumer spending and business outlays for durable equipment had moderated somewhat after having increased rapidly earlier in the year. Residential construction activity had weakened a little from the level of last winter but was still elevated. Job growth was quite strong, however, and industrial production appeared to be picking up. Labor markets remained very tight, and recent wage and price increases had been a little larger on balance, though price inflation continued subdued.

Nonfarm payroll employment increased sharply in June and July. Job growth in the service-producing industries soared in both months, and construction employment remained on an upward trend. In manufacturing, the number of jobs turned up in July. The civilian unemployment rate was 4.3 percent in July, matching its average for the first half of the year.

Industrial production recorded a large increase in July after having edged up in June. Part of the July advance reflected a surge in the output of electric utilities associated with the heat wave in the eastern United States and an upturn in mining production after a weak first half of the year. In manufacturing, production advanced briskly over the June–July period. While production of motor vehicles and aircraft fell on balance over the two months, output of high-tech products continued to expand at a rapid pace, and the manufacture of other goods rebounded strongly in July after a small decline in June. Utilization of manufacturing capacity edged up in July but remained below its long-run average rate.

Growth of consumer spending slowed appreciably in the second quarter after having surged earlier in the year; still, the underlying trend in spending remained relatively strong as a result of continuing robust expansion of disposable incomes and household wealth thus far this year and very positive consumer sentiment. Retail sales had increased moderately recently—a small decline in June was more than offset by a July rebound—while consumer outlays for services were buoyant in the second quarter (latest data). Housing activity remained strong in the June–July period; housing starts were only a little below the very high levels of earlier months of the year, and home sales remained at an elevated level in June (latest data).

The limited available information suggested that the pace of expansion in business fixed investment had moderated somewhat after having advanced rapidly in the second quarter. Demand for high-tech equipment remained strong overall, even though growth of outlays for computers appeared to have eased a little recently; spending for motor vehicles and aircraft seemed to be leveling out after a marked decrease in the first half of the year; and expenditures on other types of durable equipment remained sluggish. Nonresidential construction activity slipped in the second quarter after sizable gains last year and the early part of this year.

The book value of business inventories increased moderately in the second quarter, and in many industries the levels of inventory stocks were lean in relation to sales. In manufacturing, inventories continued to edge down in the second quarter, and the aggregate inventory–sales ratio for the sector at the end of the quarter was slightly below the lower end of its range for the preceding twelve months. Wholesale stocks recorded another modest gain in the second quarter, and the stock–shipments ratio for this sector at quarter's end was below the bottom of its narrow range for the past year. Inventory accumulation in the retail sector slowed in the second quarter, but stocks kept pace with sales, and the aggregate stock–sales ratio was in the middle of its range for the past twelve months.

The nominal deficit on U.S. trade in goods and services widened substantially in the second quarter, as the value of imports increased much more than that of exports. The rise in imports was spread widely across the major trade categories; sharply higher prices for imported oil, along with a moderate addition in the quantity imported, accounted for much of the rise, but there also were sizable step-ups in imports of computers, semiconductors, and industrial supplies—notably building materials. The increase in exports was concentrated in agricultural goods, automotive products, industrial supplies, computers, and semiconductors. Recent information suggested that economic recovery in Europe was continuing to gain momentum through the second quarter, while the Japanese economy was showing some signs of having bottomed out over the first half of the year. Economic activity had remained on a strong upward trend in Canada in recent months, and economic growth picked up during the spring in the United Kingdom after having stagnated over the previous two quarters. The recent economic performance of the developing countries had been mixed. Most Asian economies grew robustly in the first half of the year, but economic activity in a number of Latin American economies, with the notable exceptions of Brazil and Mexico, remained weak.

Consumer prices rose moderately in July after having been unchanged in May and June; a rebound in energy prices contributed to the July increase. The strong upturn in energy prices this year accounted for all of the uptick in consumer price inflation in the twelve months ended in July compared with the previous twelve-month period. Excluding food as well as the volatile energy component, core consumer price inflation had remained subdued thus far in 1999 and during the twelve months ended in July. Inflation was modest at the producer level as well, as prices of finished goods other than food and energy edged lower over the June–July period. Core producer prices rose more in the twelve months ended in July than in the year-earlier period, but that pickup resulted in important part from sharp increases in the prices of tobacco products. At earlier stages of processing, producer prices of crude and intermediate materials other than food and energy had firmed noticeably in recent months. While the source of some of those increases had been the pass-through of higher crude oil prices, improved worldwide growth, especially in Asia, also contributed. With labor markets very tight, increases in wages and total compensation had been somewhat larger recently. The employer cost index for hourly compensation of private industry workers jumped in the second quarter after an unusually small gain in the first quarter, and increases in average hourly earnings of production or nonsupervisory workers picked up in June and July. Nonetheless, year-over-year changes in some measures of nominal compensation continued to decline.

At its meeting on June 29–30, 1999, the Committee adopted a directive that called for a slight tightening of conditions in reserve markets consistent with an increase of ¼ percentage point in the federal funds rate to an average of around 5 percent. The members noted at that meeting that there were few current indications of rising inflation; nonetheless, with financial markets and foreign economies recovering since the Committee had eased policy last fall, the persisting strength of demand was enough to put added pressure over time on already very tight labor markets and at some point lead to a pickup in inflation that could threaten the sustainability of the economy's expansion. Because there was substantial uncertainty relating to the extent and timing of prospective inflationary pressures and thus the possibility that further firming of policy might not be needed in the very near term, the directive did not contain any bias relating to the direction of possible adjustments to policy in the intermeeting period.

Open market operations immediately after the meeting were directed toward implementing the desired, slightly greater pressure on reserve positions, and the federal funds rate averaged very close to the Committee's 5 percent target over the intermeeting period. Treasury coupon yields fell early in the intermeeting interval, as market participants apparently adjusted downward their expectations regarding further monetary tightening in response to the generally unexpected move to a neutral directive and, subsequently, the receipt of favorable data on inflation. Yields later retraced their declines, however, in reaction to the semiannual monetary policy report and the Chairman's associated testimony and to the release of data indicating an acceleration of labor costs, growing signs of a firming of activity abroad, and a weaker dollar. On net, most interest rates were about unchanged over the intermeeting interval. Key measures of share prices in equity markets, buoyed early in the period by lower interest rates and better-than-anticipated quarterly earnings reports, largely reversed those gains when rates backed up, and share prices ended the period with mixed results.

In foreign exchange markets, the trade-weighted value of the dollar depreciated slightly over the intermeeting period in relation to the currencies of a broad group of important U.S. trading partners. The dollar declined against the currencies of the major industrial countries in response to indications of improved economic performances in Europe and Japan and to higher long-term interest rates in many of those countries. However, this depreciation was partially offset by a rise in relation to the currencies of other important trading partners, reflecting increased uncertainty in financial markets in many Asian and Latin American countries that was associated in part with concerns about rising U.S. interest rates.

The expansion of broad measures of money had moderated in recent months. The slower growth of nominal GDP and the rise in market interest rates in the spring and summer likely had restrained increases in both M2 and M3. In addition, M3's expansion probably had been held down by a sharp slowing in the growth of bank credit in July. For the year through July, M2 was estimated to have increased at a rate somewhat above the Committee's annual range and M3 at a rate approximating the upper end of its range. Total domestic nonfinancial debt had continued to expand at a pace somewhat above the middle of its range, though borrowing by nonfinancial sectors had slowed in recent months.

The staff forecast prepared for this meeting suggested that the expansion would gradually moderate to a rate commensurate with the growth of the economy's estimated potential. The growth of domestic final demand increasingly would be held back by the anticipated waning of positive wealth effects associated with earlier large gains in equity prices; the slower growth of spending on consumer durables, houses, and business equipment in the wake of the prolonged buildup in the stocks of these items; and the higher intermediate- and longer-term interest rates that had evolved as markets came to expect that a rise in short-term interest rates would be needed to achieve a better balance between aggregate demand and aggregate supply. The lagged effects of the earlier rise in the foreign exchange value of the dollar were expected to place continuing, though diminishing, restraint on U.S. exports for some period ahead. Price inflation was projected to rise somewhat over the forecast horizon, in part as a result of higher import prices and some firming of gains in nominal labor compensation in persistently tight labor markets that would not be fully offset by rising productivity.

In the Committee's discussion of current and prospective economic developments, members commented that the expansion of economic activity continued to display substantial underlying strength with few indications of slowing in the growth of consumer and business expenditures. While the information for the second quarter pointed to a marked deceleration from the pace in other recent quarters, the slowdown was induced to an important extent by sharply reduced inventory investment that partly offset robust further growth in consumer and housing expenditures and a surge in spending by business for equipment. The members generally anticipated a rebound in the rate of economic expansion over the balance of the year and in 2000, possibly to a pace averaging around the economy's long-run potential. Growth at this rate would represent a noticeable slowing from the pace that had prevailed in recent years, and its realization depended importantly on the damping effects on domestic demand of the less accommodative financial conditions that had developed in recent months—higher long-term interest rates and a flattening of equity prices. Given the persistent strength of domestic demand and improving economies abroad, many members saw the risks to this outlook as tilted to the upside, especially if short-term interest rates were to remain at their current levels. Against this background, the risks in the outlook for prices also seemed to be tilted toward somewhat higher inflation. Price inflation had been held in check by accelerating productivity and declines in oil and other import prices. Evidence was mixed on whether the acceleration in productivity was persisting, but the earlier favorable developments in import prices were already dissipating, adding to the inflation risk posed by the possibility of further tightening in labor markets should domestic demand fail to moderate.

In their comments about regional economic developments, the members reported generally favorable business conditions and further growth in all regions, with variations ranging from some acceleration in a number of Federal Reserve Districts to modest deceleration in some others. Several indicated that economic activity in some parts of the country was being held down by shortages of labor. Most industries continued to exhibit strength, but weakness was reported in agriculture and related businesses and in manufacturing industries such as textiles.

With regard to the outlook for key sectors of the economy, members referred to the favorable prospects for continued robust growth in employment and incomes that likely would sustain appreciable further expansion in consumer expenditures. However, substantial uncertainty surrounded the outlook for stock market prices whose sharp rise and the associated increase in wealth over the course of recent years had helped to foster a high level of consumer confidence and willingness to spend. The absence of further large gains in stock prices, should recent trends persist, would remove this stimulus and probably induce some moderation in the growth of consumer spending. However, as the experience of recent years had amply demonstrated, stock market trends were very difficult to predict. Concerning the prospects for business capital investment, members saw indications that outlays might rise more moderately after a surge in the second quarter. Weak trends in orders for many types of equipment and softness in nonresidential construction pointed to a considerable deceleration in total business investment. At the same time, however, further advances in technology and declining prices were likely to underpin continued very strong expenditures for computer and communications equipment, thereby sustaining still robust if reduced increases in overall business investment.

Residential construction activity was expected to moderate a bit over coming quarters as the rise that had occurred in mortgage interest rates exerted its lagged effects. The deceleration was likely to be limited in the near term, however, as the backlogs that had built up earlier in the year and associated shortages in inventories of new homes were worked down. Indeed, anecdotal reports indicated currently strong housing markets in several areas of the country. Over time, the outlook for employment and incomes should provide support to the housing market, but likely at a modestly diminished level.

The outlook for inventory investment remained characteristically uncertain, though the members commented that there were reasons to anticipate some pickup in such investment following the shortfall in the second quarter. While the long-run trend undoubtedly remained in the direction of declining inventory–sales ratios, the shortfall of inventory investment during the spring probably had on the whole lowered holdings at least temporarily below intended levels as evidenced in part by anecdotal reports that lean inventories had reduced sales in some areas. Moreover, some buildup relating to century date change concerns seemed likely; in this regard, anecdotal reports suggested that some businesses planned to accumulate inventories in the form of imports because of questions about the availability of such goods around the year-end. Members acknowledged that available survey and anecdotal evidence did not point to any widespread perception of a significant need to build up inventories, and indeed there were indications of overstocking in some industries. Even so, appreciable inventory accumulation was seen as the most likely prospect for the balance of the year. While such a forecast was subject to substantial risks in both directions, it implied, if realized, a significant boost to GDP growth over the second half of the year.

The government sector was now expected to exert somewhat less restraint on overall demand in the economy, as burgeoning budget surpluses seemed to be weakening restraints on federal government outlays and tax cuts were a possibility. In addition, export growth was projected to strengthen in conjunction with an improving economic outlook in a number of important U.S. trading partners, and import growth seemed likely to moderate over the next several quarters, reflecting the projected deceleration in the U.S. economy and the waning effects of the past appreciation of the dollar. A number of members commented, however, that they saw downside risks to the trade outlook despite the improving economic performance in many countries. Adverse developments in those countries remained a worrisome concern in light of unsettled political conditions that made it very difficult for government authorities in many of them to implement the measures that were needed to solve underlying economic problems.

In the course of the Committee's discussion of the outlook for inflation, members commented that there was no persuasive evidence in recent statistical measures that price inflation was currently picking up or that inflation expectations were rising, though the declines in both inflation and expectations experienced over the course of recent years no longer seemed to be occurring. Members nonetheless expressed concern about the risks of some acceleration under foreseeable economic circumstances. They cited a variety of statistical and anecdotal signs that could be viewed as harbingers of rising price inflation. Those included an upturn in commodity prices, notably that of oil whose effects tended over time to spread relatively widely through the economy, and the direct and indirect effects of the dollar's depreciation. Members also reported some indications of reduced discounting by business firms and plans for, or actual implementation of, higher prices that businesses now saw as less likely than earlier to be reversed for competitive reasons. However, these reports were still relatively scattered.

The members' basic concern about the outlook for inflation related to the possibility that continued strength in demand might not be accommodated without placing greater pressures on labor compensation and prices. The greatest risks would come from a further tightening of labor markets, but many members were also concerned about the possibility of accelerating costs at current levels of labor resource utilization. The major uncertainty was the extent to which labor productivity would continue to accelerate and hold down the rise in unit labor costs. Recent data from the product side of the national income and product accounts suggested some slowing in productivity growth and pressure on unit labor costs, but these tendencies were not confirmed by a close reading of income side data. In these circumstances, the outlook for price inflation remained subject to considerable uncertainty.

In the Committee's discussion of policy for the period ahead, the members with one exception favored a proposal for a slight tightening of conditions in reserve markets that would be consistent with an increase in the federal funds rate to an average of about 5¼ percent. In the view of these members, a limited policy move at this time would appropriately supplement the small firming action taken at midyear and at least for now would position monetary policy where it needed to be to foster continued subdued inflation and good economic performance. It would tend to validate the appreciable firming in financial markets that had occurred in recent months, to some extent in anticipation of Committee tightening. That firming was important to hold the expansion of economic activity to a sustainable pace, especially as improving foreign economies boosted the demand for U.S. exports. While key measures of prices did not at this point suggest any upturn in inflation, a failure to act would incur a substantial risk of increasing pressure on already tight labor markets and higher inflation. During the discussion, some members observed that today's action would reduce further the stimulus provided during the autumn of last year to counter the global financial turmoil and related risks to the U.S. economy. While not all vestiges of that turmoil had disappeared, financial conditions had improved markedly, foreign economies had strengthened on balance, and downside risks to economic performance in the United States were generally reduced. One member indicated that in light of the persistence of low inflation a policy tightening move was not warranted at this time and would in fact incur some risk of unnecessarily curbing the expansion in economic activity.

All the members who supported a tightening action also favored the retention of a symmetric directive. These members agreed that the Committee should keep its options open with regard to the next policy move, whose direction and timing would depend on evolving economic and financial conditions. In this regard, while agreeing that inflation risks had been substantially reduced by the actions taken in June and contemplated at today's meeting, many members continued to see a possible increase in inflation pressures as the main threat to sustained economic expansion. However, they did not anticipate that further tightening would be needed in the near term, allowing the Committee time to gather substantial additional information about the balance of aggregate supply and demand. The members all agreed that a symmetric directive would not preclude a tightening move if warranted by developments over the months ahead.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The information reviewed at this meeting suggests continued solid expansion of economic activity. Nonfarm payroll employment has increased rapidly in recent months, and the civilian unemployment rate, at 4.3 percent in July, matched its average for the first half of the year. Manufacturing output continued to grow moderately on average in June and July. Total retail sales have grown less rapidly in recent months, while housing activity has remained robust. Available indicators suggest that the expansion in business capital spending has slackened somewhat after a surge this spring. The nominal deficit on U.S. trade in goods and services widened substantially in the second quarter. Consumer price inflation has been boosted in recent months by an appreciable rise in energy prices; against the background of very tight labor markets, increases in wages and total compensation have been somewhat larger.
>
> Most interest rates are little changed on balance since the meeting on June 29–30, 1999. Key measures of share prices in equity markets have posted mixed changes over the intermeeting period. In foreign exchange markets, the trade-weighted value of the dollar has declined slightly over the period in relation to the currencies of a broad group of important U.S. trading partners.
>
> M2 and M3 have grown at a moderate pace in recent months. For the year through July, M2 is estimated to have increased at a rate somewhat above the Committee's annual range and M3 at a rate approximating the upper end of its range. Total domestic nonfinancial debt has continued to expand at a pace somewhat above the middle of its range.
>
> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. In furtherance of these objectives, the Committee reaffirmed at its meeting in June the ranges it had established in February for growth of M2 and M3 of 1 to 5 percent and 2 to 6 percent respectively, measured from the fourth quarter of 1998 to the fourth quarter of 1999. The range for growth of total domestic nonfinancial debt was maintained at 3 to 7 percent for the year. For 2000, the Committee agreed on a tentative basis in June to retain the same ranges for growth of the monetary aggregates and debt, measured from the fourth quarter of 1999 to the fourth quarter of 2000. The behavior of the monetary aggregates will continued to be evaluated in the light of progress toward price level stability, movements in their velocities, and developments in the economy and financial markets.
>
> To promote the Committee's long-run objectives of price stability and sustainable economic growth, the Committee in the immediate future seeks conditions in reserve markets consistent with increasing the federal funds rate to an average of around 5¼ percent. In view of the evidence currently available, the Committee believes that prospective developments are equally likely to warrant an increase or a decrease in the federal funds rate operating objective during the intermeeting period.

Votes for this action: Messrs. Greenspan, McDonough, Boehne, Ferguson, Gramlich, Meyers, Moskow, Kelley, and Stern. Vote against this action: Mr. McTeer.

Mr. McTeer dissented for essentially the same reasons he did at the June 30 meeting: low inflation and, except for energy, minimal inflation in the pipeline. He believes that positive supply-side forces will continue to damp the impact of strong demand on output prices and that productivity gains will continue to damp the effect of higher wages on unit labor costs.

Establishment of Subcommittee

Chairman Greenspan announced the formation of a subcommittee to review the wording of the directive, its meaning, and what the Committee announces shortly after its meetings. He noted that the sentence relating to the symmetry of the directive was subject to differing interpretations, and the Committee's decision to announce immediately significant changes in the symmetry or asymmetry in the directive had made it desirable to clarify its meaning. Members also had expressed some discomfort with the way these announcements had been interpreted. While the Committee did not contemplate retreating from its policy of immediate announcements, it might want to examine whether some adjustment in its procedures would be helpful. The Chairman did not feel that the Committee was prepared to come to a decision on these issues before more experience was gained with the current announcement approach, but he believed it was advisable to form a subcommittee at this time to study the various questions that were involved. He anticipated that the subcommittee would come back to the Committee no later than next spring with recommendations or at least some alternatives for Committee consideration. He asked Mr. Ferguson to serve as its chairman and to select other members after consultation with his colleagues on the Committee.

It was agreed that the next meeting of the Committee would be held on Tuesday, October 5, 1999.

The meeting adjourned at 1:40 p.m.

Donald L. Kohn
Secretary

Legal Developments

FINAL RULE—AMENDMENT TO REGULATION K

The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), and the Federal Deposit Insurance Corporation (FDIC) (collectively, the Agencies) are adopting as a joint final rule their joint interim rule implementing section 2214 of the Economic Growth and Regulatory Paperwork Reduction Act of 1996 (EGRPRA). Section 2214 of EGRPRA authorizes the Agencies to extend the examination cycle for certain United States branches and agencies of foreign banks. This joint final rule makes United States branches and agencies of foreign banks with total assets of $250 million or less eligible for an 18-month examination cycle if they meet certain qualifying criteria.

Effective October 22, 1999, 12 C.F.R. Parts 4, 211, and 347 are amended as follows:

Part 4—Organization and Functions, Availability and Release of Information, Contracting Outreach Program

1. The authority citation for Part 4 continues to read as follows:

Authority: 12 U.S.C. 93a. Subpart A also issued under 5 U.S.C. 552; 12 U.S.C. 481, 1820(d), and 3105(c)(1). Subpart B also issued under 5 U.S.C. 552; E.O. 12600 (3 C.F.R., 1987 Comp., p. 235). Subpart C also issued under 5 U.S.C. 301, 552; 12 U.S.C. 481, 482, 1821(o), 1821(t); 18 U.S.C. 641, 1905, 1906; 31 U.S.C. 9701. Subpart D also issued under 12 U.S.C. 1833e.

2. In section 4.7, paragraphs (b)(1)(iii)(B) and (b)(2) introductory text are revised to read as follows:

Section 4.7—Frequency of examination of Federal agencies and branches.

* * * * *

(b) * * *

(1) * * *

(iii) * * *

(B) The branch or agency has maintained on a daily basis, over the past three quarters, eligible assets in an amount not less than 108 percent of the preceding quarter's average third party liabilities (determined consistent with applicable federal and state law), and sufficient liquidity is currently available to meet its obligations to third parties;

* * * * *

(2) *Discretionary standards.* In determining whether a Federal branch or agency that meets the standards of paragraph (b)(1) of this section should not be eligible for an 18-month examination cycle pursuant to this paragraph (b), the OCC may consider additional factors, including whether:

Part 211—International Banking Operations (Regulation K)

Subpart B—Foreign Banking Organizations

1. The authority citation for Part 211 continues to read as follows:

Authority: 12 U.S.C. 221 *et seq.*, 1818, 1835a, 1841 *et seq.*, 3101 *et seq.*, and 3901 *et seq.*

2. In section 211.26, paragraphs (c)(2)(i)(C)(2) and (c)(2)(ii) introductory text are revised to read as follows:

Section 211.26—Examination of offices and affiliates of foreign banks.

* * * * *

(c) * * *

(2) * * *

(i) * * *

(C) * * *

* * * * *

(2) The branch or agency has maintained on a daily basis, over the past three quarters, eligible assets in an amount not less than 108 percent of the preceding quarter's average third party liabilities (determined consistent with applicable federal and state law) and sufficient liquidity is currently available to meet its obligations to third parties;

* * * * *

(ii) *Discretionary standards.* In determining whether a branch or agency of a foreign bank that meets the standards of paragraph (c)(2)(i) of this section should not be eligible for an 18-month examination cycle pursuant to this paragraph (c)(2), the Board may consider additional factors, including whether:

Part 347—International Banking

1. The authority citation for Part 347 continues to read as follows:

Authority: 12 U.S.C. 1813, 1815, 1817, 1819, 1820, 1828, 3103, 3104, 3105, 3108; Title IX, Pub. L. No. 98–181, 97 Stat. 1153.

2. Section 347.214 is revised to read as follows:

Section 347.214—Examination of branches of foreign banks.

(a) *Frequency of on-site examination.* Each branch or agency of a foreign bank shall be examined on-site at least once during each 12-month period (beginning on the date the most recent examination of the office ended) by:
- (1) The Board of Governors of the Federal Reserve System (Board);
- (2) The FDIC, if an insured branch;
- (3) The Office of the Comptroller of the Currency (OCC), if the branch or agency of the foreign bank is licensed by the Comptroller; or
- (4) The state supervisor, if the office of the foreign bank is licensed or chartered by the state.

(b) *18-month cycle for certain small institutions.*
- (1) *Mandatory standards.* The FDIC may conduct a full-scope, on-site examination at least once during each 18-month period, rather than each 12-month period as provided in paragraph (a) of this section, if the insured branch:
  - (i) Has total assets of $250 million or less;
  - (ii) Has received a composite ROCA supervisory rating (which rates risk management, operational controls, compliance, and asset quality) of 1 or 2 at its most recent examination;
  - (iii) Satisfies the requirement of either the following paragraph (b)(iii)(A) or (B):
    - (A) The foreign bank's most recently reported capital adequacy position consists of, or is equivalent to, Tier 1 and total risk-based capital ratios of at least 6 percent and 10 percent, respectively, on a consolidated basis; or
    - (B) The insured branch has maintained on a daily basis, over the past three quarters, eligible assets in an amount not less than 108 percent of the preceding quarter's average third party liabilities (determined consistent with applicable federal and state law) and sufficient liquidity is currently available to meet its obligations to third parties;
  - (iv) Is not subject to a formal enforcement action or order by the Board, FDIC, or the OCC; and
  - (v) Has not experienced a change in control during the preceding 12-month period in which a full-scope, on-site examination would have been required but for this section.
- (2) *Discretionary standards.* In determining whether an insured branch that meets the standards of paragraph (b)(1) of this section should not be eligible for an 18-month examination cycle pursuant to this paragraph (b), the FDIC may consider additional factors, including whether:
  - (i) Any of the individual components of the ROCA supervisory rating of an insured branch is rated "3" or worse;
  - (ii) The results of any off-site monitoring indicate a deterioration in the condition of the insured branch;
  - (iii) The size, relative importance, and role of a particular insured branch when reviewed in the context of the foreign bank's entire U.S. operations otherwise necessitate an annual examination; and
  - (iv) The condition of the parent foreign bank gives rise to such a need.

(c) *Authority to conduct more frequent examinations.* Nothing in paragraphs (a) and (b) of this section limits the authority of the FDIC to examine any insured branch as frequently as it deems necessary.

FINAL RULE—AMENDMENT TO REGULATION CC

The Board of Governors is amending 12 C.F.R. Part 229, its Regulation CC (Availability of Funds and Collection of Checks). The Board is adopting amendments to Subpart C of Regulation CC, which contains rules governing the collection and return of checks. The amendments to the regulation and Commentary are intended to provide further clarification as to the extent to which depository institutions and others may vary the terms of the regulation by agreement for the purpose of instituting electronic return systems.

Effective December 15, 1999, 12 C.F.R. Part 229 is amended as follows:

Part 229—Availability of Funds and Collection of Checks (Regulation CC)

1. The authority citation for Part 229 continues to read as follows:

Authority: 12 U.S.C. 4001 *et seq.*

2. In section 229.36, paragraph (c) is removed and reserved.

3. In Appendix E, under section XXII, paragraph C. is removed and reserved.

4. In Appendix E, under section XXIII, new paragraphs C.9. and C.10. are added to read as follows:

Appendix E to Part 229—Commentary

* * * * *

XXIII. Section 229.37 Variations by Agreement

* * * * *

C. * * *

9. A presenting bank and a paying bank may agree that presentment takes place when the paying bank receives an electronic transmission of information describing the check rather than upon delivery of the physical check. (*See* 12 C.F.R. 229.36(b).)
10. A depositary bank may agree with a paying or returning bank to accept an image or other notice in lieu of a returned check even when the check is available for return under this part. Except to the extent that other parties interested in the check assent to or are bound by the variation of the notice-in-lieu provisions of this part, banks entering into such an agreement may be responsible under this part or other applicable law to other interested parties for any losses caused by the handling of a returned check under the agreement. (*See* 12 C.F.R. 229.30(f), 229.31(f), 229.38(a).)

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

Orders Issued Under Section 3 of the Bank Holding Company Act

Illini Corporation
Springfield, Illinois

Order Approving Acquisition of a Bank

Illini Corporation ("Illini"), 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 (12 U.S.C. § 1842) to acquire Farmers State Bank of Camp Point, Camp Point, Illinois ("Farmers Bank").

Notice of the proposal, affording interested persons an opportunity to submit comments, has been published (64 *Federal Register* 41,429 (1999)). 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.

Illini controls one subsidiary bank and is the 185th largest commercial banking organization in Illinois, controlling deposits of approximately $134.7 million, representing less than 1 percent of total deposits in commercial banking organizations in the state.[1] Farmers Bank is the 554th largest commercial banking organization in Illinois, controlling deposits of approximately $26.7 million, representing less than 1 percent of total deposits in commercial banking organizations in the state. On consummation of the proposal, Illini would remain the 185th largest commercial banking organization in Illinois, controlling deposits of approximately $161.3 million, representing less than 1 percent of total deposits in the state.

Illini and Farmers Bank do not compete in any banking market. 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 banking resources in any relevant banking market, and that competitive considerations are consistent with approval.

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 supervisory factors. The Board has carefully considered the financial and managerial resources of Illini and its subsidiary bank in light of comments provided by a director of Illini ("Protestant").[2] The Board also has reviewed these factors in light of all the facts of record, including supervisory reports of examination and other confidential supervisory information assessing the financial and managerial resources of Illini; its subsidiary bank, Illini Bank, Sangamon, Illinois ("Illini Bank"); and Farmers Bank.

The Board notes that Illini and Illini Bank are well capitalized with satisfactory earnings and would remain well capitalized after the proposed acquisition. Illini would incur debt as a result of this proposal, and appears to have sufficient resources to service that debt without impairing Illini Bank. The Board also notes that Illini and Illini Bank have engaged in a planned streamlining of operations and have found replacements to fill a number of recent key vacancies. Farmers Bank is a well capitalized bank with satisfactory management, and Illini proposes to retain the current management of Farmers Bank. Consummation of this proposal would result in the addition of a new shareholder who would control the second largest percentage of Illini's shares and who has substantial banking experience. The Board has considered the current and proposed management resources of Illini in light of examination reports and other supervisory information provided by the Federal Deposit Insurance Corporation ("FDIC"), which is the primary federal supervisory agency for Illini Bank. Based on these and other facts of record, the Board concludes that considerations relating to the financial and managerial resources and future prospects of Illini, its subsidiary bank, and Farmers Bank are consistent with approval of the

1. All banking data are as of June 30, 1998.

2. Protestant asserts that Illini has lost a number of its key management personnel over recent years, has limited managerial resources and would be unable to manage Farmers Bank, which is located 100 miles from Illini. Protestant also asserts that Illini's management is overwhelmed by litigation and has had a substantial breakdown in communication with many of Illini's shareholders. Finally, Protestant contends that the financial performance of Illini's subsidiary bank has been poor.

proposal, as are the other supervisory factors that the Board must consider under section 3 of the BHC Act.

The Board has carefully considered the effect of the proposed acquisition on the convenience and needs of the community to be served in light of all the facts of record. Based on all the facts of record, including the performance records of Illini Bank and Farmers Bank under the Community Reinvestment Act ("CRA") (12 U.S.C. § 2901 *et seq.*), the Board concludes that convenience and needs considerations are consistent with approval of the proposal.[3]

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.[4] Under its rules, the Board may, in its discretion, hold a public meeting or hearing on a application to acquire a bank if a meeting or hearing is necessary or appropriate to clarify factual issues related to the application and to provide an opportunity for testimony. 12 C.F.R. 225.16(e). The Board has carefully considered Protestant's request in light of all the facts of record. In the Board's view, Protestant has had ample opportunity to present his views and, in fact, has submitted written comments that have been carefully considered by the Board in acting on the proposal. Protestant's request fails to identify disputed issues of facts that are material to the Board's decision and that may be clarified by a public meeting or hearing. Protestant also has failed to show that a public meeting or hearing is necessary for the proper presentation or consideration of his views. 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 is hereby denied. Approval of the application is specifically conditioned on compliance by Illini with all the commitments made in connection with the proposal. For purposes of this order, the commitments and conditions referred to above 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.

The acquisition of Farmers Bank shall not be consummated before the fifteenth calendar day after the effective date of the 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 Chicago, acting pursuant to delegated authority.

By order of the Board of Governors, effective October 25, 1999.

3. Illini Bank received a "satisfactory" rating at its most recent CRA performance examination by the FDIC in January 1999. Farmers Bank received a "satisfactory" rating at its most recent CRA performance examination by the FDIC, as of February 1999.

4. Protestant also 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 timely written recommendation of denial. The Board has not received such a recommendation from the appropriate supervisory authority.

Voting for this action: Chairman Greenspan, Vice Chairman Ferguson, and Governors Kelley and Gramlich. Absent and not voting: Governor Meyer.

ROBERT DEV. FRIERSON
Associate Secretary of the Board

Orders Issued Under International Banking Act

Antwerpse Diamantbank N.V. Antwerp, Belgium

Order Approving Establishment of a Representative Office

Antwerpse Diamantbank N.V. ("Bank"), Antwerp, Belgium, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 10(a) of the IBA (12 U.S.C. § 3107(a)) 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*, April 26, 1999). The time for filing comments has expired, and the Board has considered the application and all comments received.

Bank, with total consolidated assets of approximately $1.07 billion, is primarily engaged in financing of and providing other financial services to participants in the diamond industry.[1] Bank also operates a wholly owned bank subsidiary in Switzerland, which also provides financial services primarily to customers in the diamond industry.

Bank is a subsidiary of KBC Bank N.V. (KBC Bank), Brussels, Belgium.[2] KBC Bank, with total consolidated assets of $157 billion, is the second largest bank in Belgium.[3] Through its offices and subsidiaries, KBC Bank offers banking services in approximately thirty countries worldwide.

The proposed representative office would conduct marketing and promotional activities, and serve as a liaison between Bank and its customers and correspondents.

In acting on an application to establish a representative office, the IBA and Regulation K provide that the Board shall take into account whether the foreign bank engages directly in the business of banking outside of the United

1. Unless otherwise indicated, data are as of March 31, 1999.

2. KBC Bank is wholly owned by KB ABB CERA Bank and Insurance Holding Company N.V. ("KBC Bank and Insurance"), Brussels, Belgium, which in turn is majority owned by Almanij N.V., Antwerp, Belgium, a publicly traded financial holding company; the remaining shares of KBC Bank and Insurance are widely held.

3. Data are as of June 30, 1999.

States, and has furnished to the Board the information it needs to assess the application adequately. The Board also shall take into account whether the foreign bank and any foreign bank parent is subject to comprehensive supervision or regulation on a consolidated basis by its home country supervisor (12 U.S.C. § 3107(a)(2); 12 C.F.R. 211.24(d)(2)).[4] In addition, the Board also may take into account additional standards as set forth in the IBA and Regulation K (12 U.S.C. § 3105(d)(3)-(4); 12 C.F.R. 211.24(c)(2)).

As noted above, Bank and KBC 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. With respect to supervision by home country authorities, the Board previously has determined, in connection with an application involving another bank in Belgium, that the bank was subject to home country supervision on a consolidated basis.[5] Bank and its foreign bank parent, KBC Bank, are supervised by the Belgian Banking and Finance Commission (the "Commission") on substantially the same terms and conditions as the other bank. Based on all the facts of record, the Board has determined that Bank and KBC Bank are subject to comprehensive supervision and regulation on a consolidated basis by their home country supervisor.[6]

The Board also has taken into account the additional standards set forth in section 7 of the IBA and Regulation K (*see* 12 U.S.C. § 3105(d)(3)-(4); 12 C.F.R. 211.24(c)(2)). The Commission has no objection to the establishment of the proposed representative office.

With respect to the financial and managerial resources of Bank, taking into consideration Bank's record of operations in its home country, its overall financial resources, and its standing with its home country supervisors, the Board has also determined that 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.

With respect to access to information about Bank's operations, the Board has reviewed the restrictions on disclosure in relevant jurisdictions in which Bank and KBC Bank operate and has communicated with relevant government authorities regarding access to information. Bank and its parents have committed to make available to the Board such information on the operations of Bank and KBC Bank and any of their affiliates that 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, Bank and its parents 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 Commission may share information on Bank's and KBC 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, the Board concludes that Bank and KBC Bank have 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 and its parents, as well as the terms and conditions set forth in this order, the Board has determined that Bank's application to establish the representative office should be, and hereby is, 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 and indirect activities in the United States. Approval of this application also is specifically conditioned on compliance by Bank and its parents with the commitments made in connection with this application and with the conditions in this order.[7] 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 Bank and its affiliates.

By order of the Board of Governors, effective October 27, 1999.

Voting for this action: Chairman Greenspan, Vice Chairman Ferguson, and Governors Kelley, Meyer, and Gramlich.

ROBERT DEV. FRIERSON
Associate Secretary of the Board

4. In assessing this standard, the Board considers, among other factors, the extent to which the home country supervisors:
(1) Ensure that the bank has adequate procedures for monitoring and controlling its activities worldwide;
(2) Obtain information on the condition of the bank and its subsidiaries and offices through regular examination reports, audit reports, or otherwise;
(3) Obtain information on the dealings with and relationship between the bank and its affiliates, both foreign and domestic;
(4) 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;
(5) 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. *See Crédit Communal de Belgique S.A.*, 82 *Federal Reserve Bulletin* 104 (1996).

6. By order dated October 27, 1999, the Board determined that KBC Bank was subject to supervision on a consolidated basis.

7. 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 and 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.

KBC Bank N.V.
Brussels, Belgium

Order Approving Establishment of a Branch, Agency, and Representative Office

KBC Bank N.V. ("Bank"), Brussels, Belgium, a foreign bank within the meaning of the International Banking Act ("IBA"), has applied under section 7(d) of the IBA (12 U.S.C. § 3105(d)) to establish a branch in New York, New York, and an agency in Atlanta, Georgia. Bank has also applied under section 10(a) of the IBA (12 U.S.C. § 3107(a)) to establish a representative office in Los Angeles, California. 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, agency, or representative office in the United States.

Notice of the application, affording interested persons an opportunity to submit comments, was published on November 9, 1998, in a newspaper of general circulation in New York, New York (*New York Daily News*); Atlanta, Georgia (*Atlanta Journal and Constitution*); and Los Angeles, California (*Los Angeles Times*). The time for filing comments has expired, and the Board has considered the application and all comments received.

Bank, with consolidated total assets of $157 billion, is the second largest bank in Belgium.[1] Through its offices and subsidiaries, Bank offers banking services in approximately thirty countries worldwide. Bank is a qualifying foreign banking organization within the meaning of Regulation K (12 C.F.R. 211.23(b)).

Bank was established in connection with a series of mergers and related transactions creating its parent, KB ABB CERA Bank and Insurance Holding Company N.V. ("KBC Holding"), Brussels, Belgium.[2] As part of these transactions, the former Kredietbank N.V. ("Kredietbank"), Brussels, Belgium, and the former CERA Bank C.V., Louvain, Belgium, were merged and their operations were contributed to Bank. Up until the merger, Kredietbank operated a branch in New York, New York; an agency in Atlanta, Georgia; and a representative office in Los Angeles, California. Bank has requested authority to retain and operate these offices through this application. Pursuant to Regulation K, the Board allowed the merger to proceed before an application to establish the offices was filed and acted on by the Board.[3]

In order to approve an application by a foreign bank to establish a branch, agency, or representative office in the United States, the IBA and Regulation K require the Board to determine that the foreign bank applicant 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. The Board also shall take into account whether the foreign bank and any foreign bank parent is subject to comprehensive supervision or regulation on a consolidated basis by its home country supervisor (12 U.S.C. 12 C.F.R. 3105(d)(2), 3107(a)(2); 12 C.F.R. 211.24(d)(2), 211.24(c)(1)).[4] The Board may also take into account additional standards as set forth in the IBA and Regulation K (12 U.S.C. § 3105(d)(3)-(4); 12 C.F.R. 211.24(c)(2)-(3)).

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 previously has determined, in connection with an application involving another bank in Belgium, that the bank was subject to home country supervision on a consolidated basis.[5] Bank is supervised by the Belgian Banking and Finance Commission (the "Commission") on substantially the same terms and conditions as that other bank. Based on all the facts of record, the Board has determined that Bank is subject to comprehensive supervision on a consolidated basis by its home country supervisor.[6]

The Board also has taken into account the additional standards set forth in section 7 of the IBA and Regulation K (*see* 12 U.S.C. § 3105(d)(3)-(4); 12 C.F.R. 211.24(c)(2)). The Commission has no objection to the establishment of the proposed branch, agency, and representative office.

With respect to the financial and managerial resources of Bank, taking into consideration Bank's record of operations in its home country, its overall financial resources, and its standing with its home country supervisors, the Board has also determined that financial and managerial factors are consistent with approval of the proposed branch, agency, and representative office. Bank appears to have the experience and capacity to support the proposed branch, agency, and representative office and has established con-

1. Unless otherwise indicated, data are as of June 30, 1999.

2. Almanij N.V., Antwerp, Belgium, a publicly traded financial holding company, owns a majority interest in KBC Holding; the remaining interest is widely held.

3. *See* 12 C.F.R.211.24(a)(3).

4. 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;
(i) 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.

These are indicia of comprehensive, consolidated supervision. No single factor is essential, and other elements may inform the Board's determination.

5. *See Crédit Communal de Belgique S.A.*, 82 *Federal Reserve Bulletin* 104 (1996).

6. In this regard, KBC Holding and Almanij N.V. are also considered financial holding companies subject to the E.U. Directive on Consolidated Supervision and to oversight by the Commission.

trols and procedures for the proposed offices 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 and its parents have 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, as amended, and other applicable federal law. To the extent that the provision of such information to the Board may be prohibited by law, Bank and its parents 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 Commission 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, the Board concludes 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 and its parents, as well as the terms and conditions set forth in this order, the Board has determined that Bank's application to establish the branch, agency, and representative office should be, and hereby is, 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. Approval of this application also is specifically conditioned on compliance by Bank and its parents with the commitments made in connection with this application and with the conditions in this order.[7] 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 Bank and its affiliates.

By order of the Board of Governors, effective October 27, 1999.

Voting for this action: Chairman Greenspan, Vice Chairman Ferguson, and Governors Kelley, Meyer, and Gramlich.

ROBERT DEV. FRIERSON
Associate Secretary of the Board

7. The Board's authority to approve the establishment of the proposed offices parallels the continuing authority of the States of New York, Georgia, and California to license offices of a foreign bank. The Board's approval of this application does not supplant the authority of the States of New York, Georgia, and California, respectively, to license the proposed offices of Bank in accordance with any terms or conditions that they may impose.

APPLICATIONS APPROVED UNDER BANK HOLDING COMPANY ACT
By the Secretary of the Board

Recent applications have been approved by the Secretary of the Board as listed below. Copies are available upon request to the Freedom of Information Office, Office of the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

Section 3

Applicant(s)	Bank(s)	Effective Date
TransPecos Financial Corp., San Antonio, Texas	The Security State Bank of Pecos, Pecos, Texas	October 14, 1999

APPLICATIONS APPROVED UNDER BANK HOLDING COMPANY ACT
By Federal Reserve Banks

Recent applications have been approved by the Federal Reserve Banks as listed below. Copies are available upon request to the Reserve Banks.

Section 3

Applicant(s)	Bank(s)	Reserve Bank	Effective Date
Backlund-White, Inc., Peoria, Illinois	Backlund Investment Company, Peoria, Illinois State Street Bank and Trust Company, Quincy, Illinois	Chicago	October 19, 1999
Backlund-White, Inc., Peoria, Illinois	Backlund Scott Company, Peoria, Illinois Wyoming Bank and Trust Company, Wyoming, Illinois	Chicago	October 19, 1999
Backlund-White, Inc., Peoria, Illinois	Hopedale Investment Company, Peoria, Illinois Community Bank of Hopedale, Hopedale, Illinois	Chicago	October 19, 1999
Backlund Investment Company, Peoria, Illinois	Hopedale Investment Company, Peoria, Illinois Community Bank of Hopedale, Hopedale, Illinois	Chicago	October 19, 1999
Bartonville Investment Company, Peoria, Illinois	Hopedale Investment Company, Peoria, Illinois Community Bank of Hopedale, Hopedale, Illinois	Chicago	October 19, 1999
Backlund Scott Company, Peoria, Illinois	Hopedale Investment Company, Peoria, Illinois Community Bank of Hopedale, Hopedale, Illinois	Chicago	October 19, 1999
Centennial First Financial Services, Redlands, California	Redlands Centennial Bank, Redlands, California	San Francisco	October 8, 1999
Citrus Financial Services, Inc., Vero Beach, Florida	The Commercial Bank of Highlands County, N.A., Sebring, Florida	Atlanta	October 13, 1999
First Bancshares, Inc., Kansas City, Kansas	The Lawrence Bank, Lawrence, Kansas	Kansas City	September 30, 1999
FMLB Acquisition, Inc., Medicine Lodge, Kansas	First Medicine Lodge Bancshares, Inc., Medicine Lodge, Kansas	Kansas City	October 13, 1999
Hillcrest Bancshares, Inc., Overland Park, Kansas	American Bank, Wichita, Kansas	Kansas City	October 15, 1999
Horizon Bancorporation, Inc., Bradenton, Florida	Horizon Bank, Bradenton, Florida	Atlanta	October 8, 1999
Kennett Merger Corporation, Kennett, Missouri	Kennett Bancshares, Inc., Kennett, Missouri Kennett National Bank, Kennett, Missouri	St. Louis	October 7, 1999
Lea M. McMullan Trust, Shelbyville, Kentucky	L. B. S. McMullan Limited Family Partnership, Shelbyville, Kentucky Citizens Union Bancorp of Shelbyville, Inc., Shelbyville, Kentucky	St. Louis	September 30, 1999

Section 3—Continued

Applicant(s)	Bank(s)	Reserve Bank	Effective Date
Marine Bancorp, Inc., Marathon, Florida	Marine Bank of the Florida Keys, Marathon, Florida	Atlanta	October 12, 1999
National Bank of Commerce in Superior, Superior, Wisconsin NATCOM Bancshares, Inc., Superior, Wisconsin	New National Bank of Commerce in Superior, Superior, Wisconsin	Minneapolis	October 21, 1999
Nexity Financial Corporation, Birmingham, Alabama	Peoples State Bank, Grant, Alabama	Atlanta	October 15, 1999
Overton Financial Corporation, Overton, Texas Overton Delaware Corporation, Dover, Delaware	Longview Financial Corporation, Longview, Texas	Dallas	October 14, 1999
Peninsula Bancorp, Inc., Daytona Beach, Florida	Peninsula Bank of Central Florida, Daytona Beach, Florida	Atlanta	October 7, 1999
Pinnacle Bancorp, Inc., Central City, Nebraska	Park National Bank, Estes Park, Colorado	Kansas City	October 14, 1999
Provident Bancorp, Amesbury, Massachusetts	The Provident Bank, Amesbury, Massachusetts	Boston	October 1, 1999
Security Financial Services Corporation, Durand, Wisconsin	Security National Bank of Durand, Durand, Wisconsin	Minneapolis	October 12, 1999
SJN Banc Co., St. John, Kansas	St. John National Bank, St. John, Kansas	Kansas City	October 18, 1999
Synovus Financial Corp., Columbus, Georgia TB&C Bancshares, Inc., Columbus, Georgia	Horizon Bancshares, Inc., Pensacola, Florida Horizon Bank of Florida, Pensacola, Florida	Atlanta	October 4, 1999
Village Bancorp, Inc., Prospect Heights, Illinois	Village Bank and Trust of Munster, Munster, Indiana	Chicago	October 18, 1999
WCB Holding Company of Illinois, Geneva, Illinois	Winfield Community Bank, Winfield, Illinois	Chicago	October 7, 1999

Section 4

Applicant(s)	Nonbanking Activity/Company	Reserve Bank	Effective Date
Area Bancshares Corporation, Owensboro, Kentucky	To engage in financial and investment advisory activities and agency transactional services as riskless principal	St. Louis	October 19, 1999
Bank of America Corporation, Charlotte, North Carolina	724 Solutions, Inc., Toronto, Canada	Richmond	October 8, 1999
Boston Private Financial Holdings, Inc., Boston, Massachusetts	RINET Company, Inc., Boston, Massachusetts Cornerstone Fund Advisors, Inc., Boston, Massachusetts	Boston	October 15, 1999

Section 4—Continued

Applicant(s)	Nonbanking Activity/Company	Reserve Bank	Effective Date
Citigroup, Inc., New York, New York Citicorp, New York, New York Citicorp Strategic Technology Corporation, New York, New York	724 Solutions Inc., Toronto, Canada	New York	October 5, 1999
Citizens Banking Corporation, Flint, Michigan F & M Bancorporation, Kaukauna, Wisconsin	F & M Trust Company, Kaukauna, Wisconsin	Chicago	October 7, 1999
GreatBanc, Inc., Aurora, Illinois	ANB Financial Services, Inc., Aurora, Illinois	Chicago	September 30, 1999
Landesbank Baden-Württemberg, Stuttgart, Germany	SüdLeasing (USA) Corp., New York, New York	New York	October 20, 1999
Mid-Missouri Bancshares, Inc., Springfield, Missouri	Mid-Missouri Mortgage Co., Springfield, Missouri	St. Louis	September 29, 1999
Valley View Bancshares, Inc., Overland Park, Kansas	Valley View Financial Group Trust Company, Mission, Kansas	Kansas City	October 1, 1999
Wells Fargo & Company, San Francisco, California Norwest Mortgage, Inc., Des Moines, Iowa Southwest Partners, Inc., Des Moines, Iowa	1st Com Mortgage, Palm Springs, California First Com Mortgage, Inc., Palm Desert, California RAS Financial Services, Inc., Palos Verdes Estates, California	San Francisco	October 4, 1999
Wells Fargo & Company, San Francisco, California Norwest Mortgage, Inc., Des Moines, Iowa Norwest Ventures, LLC, Des Moines, Iowa	MSC Mortgage, LLC, Sarasota, Florida	San Francisco	October 1, 1999

Applications Approved Under Bank Merger Act
By the Secretary of the Board

Recent applications have been approved by the Secretary of the Board as listed below. Copies are available upon request to the Freedom of Information Office, Office of the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

Applicant(s)	Bank(s)	Effective Date
Union Colony Bank, Greeley, Colorado	First National Bank of Johnstown, Johnstown, Colorado	October 18, 1999

By Federal Reserve Banks

Recent applications have been approved by the Federal Reserve Banks as listed below. Copies are available upon request to the Reserve Banks.

Applicant(s)	Bank(s)	Reserve Bank	Effective Date
Pinnacle Bank, Papillion, Nebraska	Pinnacle Bank, Palmer, Nebraska Pinnacle Bank, N.A., Central City, Nebraska	Kansas City	October 14, 1999

Pending Cases Involving the Board of Governors

This list of pending cases does not include suits against the Federal Reserve Banks in which the Board of Governors is not named a party.

Wasserman v. Federal Reserve Bank, No. 99–6280 (2d Cir., filed August 26, 1999). Appeal of district court dismissal of case challenging refusal by the Board and the Federal Reserve Bank of New York to investigate certain matters.

Artis v. Greenspan, No. 1:99CV02073 (EGS) (D.D.C., filed August 3, 1999). Employment discrimination action.

Sheriff Gerry Ali v. U.S. State Department, No. 99–7438 (C.D. Cal., filed July 21, 1999). Action relating to impounded bank drafts.

Sedgwick v. Board of Governors, No. Civ 99 0702 (D. Arizona, filed April 14, 1999). Action under Federal Tort Claims Act alleging violation of bank supervision requirements. The Board filed a motion to dismiss on June 15, 1999.

Hunter v. Board of Governors, No. 1:98CV02994 (TFH) (D.D.C., filed December 9, 1998). Action under the Freedom of Information Act and the Privacy Act. The Board filed a motion to dismiss or for summary judgment on July 22, 1999.

Folstad v. Board of Governors, No. 1:99 CV 124 (W.D. Mich., filed February 17, 1999). Freedom of Information Act complaint. On March 23, 1999, the Board filed a motion to dismiss or for summary judgment.

Nelson v. Greenspan, No. 1:99CV00215 (EGS) (D.D.C., filed January 28, 1999). Employment discrimination complaint. On March 29, 1999, the Board filed a motion to dismiss the action.

Fraternal Order of Police v. Board of Governors, No. 1:98CV03116 (WBB)(D.D.C., filed December 22, 1998). Declaratory judgment action challenging Board labor practices. On February 26, 1999, the Board filed a motion to dismiss the action.

Independent Community Bankers of America v. Board of Governors, No. 98–1482 (D.C. Cir., filed October 21, 1998). Petition for review of a Board order dated September 23, 1998, conditionally approving the applications of Travelers Group, Inc., New York, New York, to become a bank holding company by acquiring Citicorp, New York, New York, and its bank and nonbank subsidiaries. Oral argument was heard on October 1, 1999.

Board of Governors v. Carrasco, No. 98 Civ. 3474 (LAK) (S.D.N.Y., filed May 15, 1998). Action to freeze assets of individual pending administrative adjudication of civil money penalty assessment by the Board. On May 26, 1998, the court issued a preliminary injunction restraining the transfer or disposition of the individual's assets and appointing the Federal Reserve Bank of New York as receiver for those assets.

Board of Governors v. Pharaon, No. 98–6101 (2d Cir., filed May 4, 1998). Appeal and cross-appeal of district court order granting in part and denying in part the Board's motion for summary judgment seeking prejudgment interest and a statutory surcharge in connection with a civil money penalty assessed by the Board. On February 24, 1999, the court granted the Board's appeal and denied the cross-appeal, and remanded the matter to the district court for determination of prejudgment interest due to the Board.

Fenili v. Davidson, No. C-98-01568-CW (N.D. California, filed April 17, 1998). Tort and constitutional claim arising out of return of a check. On June 5, 1998, the Board filed its motion to dismiss.

Logan v. Greenspan, No. 1:98CV00049 (EGS) (D.D.C., filed January 9, 1998). Employment discrimination complaint. On September 29, 1999, the case was dismissed without prejudice.

Goldman v. Department of the Treasury, No. 98–9451 (11th Circuit, filed November 10, 1998). Appeal from a District Court order dismissing an action challenging Federal Reserve notes as lawful money.

Kerr v. Department of the Treasury, No. CV-S-97-01877-DWH (D. Nev., filed December 22, 1997). Challenge to income taxation and Federal Reserve notes. On September 3, 1998, a motion to dismiss was filed on behalf of all federal defendants. The court dismissed the action on March 31, 1999, and on April 28, 1999, the plaintiff filed a notice of appeal.

Bettersworth v. Board of Governors, No. 97-CA-624 (W.D. Tex., filed August 21, 1997). Privacy Act case. On June 1, 1999, the Board filed a motion for summary judgment.

Final Enforcement Orders Issued by the Board of Governors

William Barber
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against William Barber, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

William Carmichael
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against William Carmichael, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

Richard Edwards, Vivian Edwards, and Jeremy Edwards
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against Richard Edwards, Vivian Edwards, and Jeremy Edwards, all institution-affiliated parties of the First Western Bank, Cooper City, Florida, a state member bank.

Grant Marant
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against Grant Marant, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

Linda Marant
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against Linda Marant, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

David Nieminen and Gay Lynn Nieminen
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against David Nieminen and Gay Lynn Nieminen, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

James Rouse and Jenene Rouse
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against James Rouse and Jenene Rouse, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

H. Burns Warfield
Cooper City, Florida

The Federal Reserve Board announced on October 1, 1999, the issuance of a consent Order against H. Burns Warfield, an institution-affiliated party of the First Western Bank, Cooper City, Florida, a state member bank.

Financial and Business Statistics

Guide to Tabular Presentation

SYMBOLS AND ABBREVIATIONS

c	Corrected
e	Estimated
n.a.	Not available
p	Preliminary
r	Revised (Notation appears on column heading when about half of the figures in that column are changed.)
*	Amounts insignificant in terms of the last decimal place shown in the table (for example, less than 500,000 when the smallest unit given is millions)
0	Calculated to be zero
. . .	Cell not applicable
ATS	Automatic transfer service
BIF	Bank insurance fund
CD	Certificate of deposit
CMO	Collateralized mortgage obligation
CRA	Community Reinvestment Act of 1977
FFB	Federal Financing Bank
FHA	Federal Housing Administration
FHLBB	Federal Home Loan Bank Board
FHLMC	Federal Home Loan Mortgage Corporation
FmHA	Farmers Home Administration
FNMA	Federal National Mortgage Association
FSLIC	Federal Savings and Loan Insurance Corporation
G-7	Group of Seven
G-10	Group of Ten
GNMA	Government National Mortgage Association
GDP	Gross domestic product
HUD	Department of Housing and Urban Development
IMF	International Monetary Fund
IO	Interest only
IPCs	Individuals, partnerships, and corporations
IRA	Individual retirement account
MMDA	Money market deposit account
MSA	Metropolitan statistical area
NOW	Negotiable order of withdrawal
OCD	Other checkable deposit
OPEC	Organization of Petroleum Exporting Countries
OTS	Office of Thrift Supervision
PMI	Private mortgage insurance
PO	Principal only
REIT	Real estate investment trust
REMIC	Real estate mortgage investment conduit
RHS	Rural Housing Service
RP	Repurchase agreement
RTC	Resolution Trust Corporation
SCO	Securitized credit obligation
SDR	Special drawing right
SIC	Standard Industrial Classification
VA	Department of Veterans Affairs

GENERAL INFORMATION

In many of the tables, components do not sum to totals because of rounding.

Minus signs are used to indicate (1) a decrease, (2) a negative figure, or (3) an outflow.

"U.S. government securities" may include guaranteed issues of U.S. government agencies (the flow of funds figures also include not fully guaranteed issues) as well as direct obligations of the Treasury.

"State and local government" also includes municipalities, special districts, and other political subdivisions.

1.10 RESERVES, MONEY STOCK, AND DEBT MEASURES

Percent annual rate of change, seasonally adjusted[1]

Monetary or credit aggregate	1998	1999			1999				
	Q4	Q1	Q2	Q3	May	June	July	Aug.	Sept.
Reserves of depository institutions[2]									
1 Total	−1.8	−1.2	6.6	−15.4	10.4	−40.4	−24.9	2.5r	1.3
2 Required	−2.5	1.0	5.6	−15.0	8.0	−41.7	−20.3	1.1	−.7
3 Nonborrowed	−.6	−1.3	6.7	−17.1	11.5	−41.0	−29.6	1.6	1.4
4 Monetary base[3]	8.7	9.1	10.1	8.5	13.9	6.2	8.0	7.1r	11.2
Concepts of money and debt[4]									
5 M1	5.0	2.8	3.5	−2.3	−3.9r	−4.0r	−1.7	3.2r	−9.7
6 M2	11.0	7.2	5.6	5.0	4.5	4.2	5.4	5.5	4.8
7 M3	12.9	7.6	5.7r	5.5	5.5r	6.2r	5.0r	5.2r	6.2
8 Debt	6.3	6.5	6.8	n.a.	5.1	5.4	5.4r	6.1	n.a.
Nontransaction components									
9 In M2[5]	13.0	8.7	6.4	7.4	7.3	6.8	7.6	6.3	9.4
10 In M3 only[6]	18.4	8.6	5.9r	7.0	8.3r	11.9r	4.0r	4.2r	10.1
Time and savings deposits									
Commercial banks									
11 Savings, including MMDAs	17.6	11.6	9.7	11.5	8.0	12.1	13.7	7.6	14.1
12 Small time[7]	.3	−5.5	−3.3	1.2	−1.8	−2.0	1.0	3.1	7.0
13 Large time[8,9]	3.8	−.3	−3.2	6.6	−2.5	−7.4	21.0	−4.7r	23.4
Thrift institutions									
14 Savings, including MMDAs	10.1	12.8	14.6	15.1	27.0	18.5r	19.3r	4.0	5.0
15 Small time[7]	−6.7	−6.5	−7.9	−5.1	−9.4	−14.4	−4.6	1.5	3.5
16 Large time[8]	10.4	7.6	−7.0	4.2	−14.8	−1.4	10.9	6.8	9.4
Money market mutual funds									
17 Retail	28.5	20.5	10.2	6.5	9.1	7.8	1.5	9.9	8.8
18 Institution-only	41.8	17.9	14.5	7.5	13.8	7.7	−4.6	22.9	6.3
Repurchase agreements and Eurodollars									
19 Repurchase agreements[10]	18.9	14.1	−2.7	15.3	23.2	53.2	−.4	6.2	−1.9
20 Eurodollars[10]	3.2	−.8	32.0r	6.9	11.0r	22.5r	−17.8r	−32.6r	1.5
Debt components[4]									
21 Federal	−2.8	−3.1	−2.3	n.a.	−5.1	.3	1.5r	1.0	n.a.
22 Nonfederal	9.2	9.4	9.5	n.a.	8.0r	6.8	6.5r	7.5	n.a.

1. Unless otherwise noted, rates of change are calculated from average amounts outstanding during preceding month or quarter.

2. Figures incorporate adjustments for discontinuities, or "breaks," associated with regulatory changes in reserve requirements. (See also table 1.20.)

3. The seasonally adjusted, break-adjusted monetary base consists of (1) seasonally adjusted, break-adjusted total reserves (line 1), plus (2) the seasonally adjusted currency component of the money stock, plus (3) (for all quarterly reporters on the "Report of Transaction Accounts, Other Deposits and Vault Cash" and for all weekly reporters whose vault cash exceeds their required reserves) the seasonally adjusted, break-adjusted difference between current vault cash and the amount applied to satisfy current reserve requirements.

4. Composition of the money stock measures and debt is as follows:

M1: (1) currency outside the U.S. Treasury, Federal Reserve Banks, and the vaults of depository institutions, (2) travelers checks of nonbank issuers, (3) demand deposits at all commercial banks other than those owed to depository institutions, the U.S. government, and foreign banks and official institutions, less cash items in the process of collection and Federal Reserve float, and (4) other checkable deposits (OCDs), consisting of negotiable order of withdrawal (NOW) and automatic transfer service (ATS) accounts at depository institutions, credit union share draft accounts, and demand deposits at thrift institutions. Seasonally adjusted M1 is computed by summing currency, travelers checks, demand deposits, and OCDs, each seasonally adjusted separately.

M2: M1 plus (1) savings (including MMDAs), (2) small-denomination time deposits (time deposits—including retail RPs—in amounts of less than $100,000), and (3) balances in retail money market mutual funds. Excludes individual retirement accounts (IRAs) and Keogh balances at depository institutions and money market funds. Seasonally adjusted M2 is calculated by summing savings deposits, small-denomination time deposits, and retail money fund balances, each seasonally adjusted separately, and adding this result to seasonally adjusted M1.

M3: M2 plus (1) large-denomination time deposits (in amounts of $100,000 or more), (2) balances in institutional money funds, (3) RP liabilities (overnight and term) issued by all depository institutions, and (4) Eurodollars (overnight and term) held by U.S. residents at foreign branches of U.S. banks worldwide and at all banking offices in the United Kingdom and Canada. Excludes amounts held by depository institutions, the U.S. government, money market funds, and foreign banks and official institutions. Seasonally adjusted M3 is calculated by summing large time deposits, institutional money fund balances, RP liabilities, and Eurodollars, each seasonally adjusted separately, and adding this result to seasonally adjusted M2.

Debt: The debt aggregate is the outstanding credit market debt of the domestic nonfinancial sectors—the federal sector (U.S. government, not including government-sponsored enterprises or federally related mortgage pools) and the nonfederal sectors (state and local governments, households and nonprofit organizations, nonfinancial corporate and nonfarm noncorporate businesses, and farms). Nonfederal debt consists of mortgages, tax-exempt and corporate bonds, consumer credit, bank loans, commercial paper, and other loans. The data, which are derived from the Federal Reserve Board's flow of funds accounts, are break-adjusted (that is, discontinuities in the data have been smoothed into the series) and month-averaged (that is, the data have been derived by averaging adjacent month-end levels).

5. Sum of (1) savings deposits (including MMDAs), (2) small time deposits, and (3) retail money fund balances, each seasonally adjusted separately.

6. Sum of (1) large time deposits, (2) institutional money fund balances, (3) RP liabilities (overnight and term) issued by depository institutions, and (4) Eurodollars (overnight and term) of U.S. addressees, each seasonally adjusted separately.

7. Small time deposits—including retail RPs—are those issued in amounts of less than $100,000. All IRA and Keogh account balances at commercial banks and thrift institutions are subtracted from small time deposits.

8. Large time deposits are those issued in amounts of $100,000 or more, excluding those booked at international banking facilities.

9. Large time deposits at commercial banks less those held by money market funds, depository institutions, the U.S. government, and foreign banks and official institutions.

10. Includes both overnight and term.

1.11 RESERVES OF DEPOSITORY INSTITUTIONS AND RESERVE BANK CREDIT[1]

Millions of dollars

Factor	Average of daily figures			Average of daily figures for week ending on date indicated						
	1999			1999						
	July	Aug.	Sept.	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29
SUPPLYING RESERVE FUNDS										
1 Reserve Bank credit outstanding	525,806	528,020	536,558	527,977	527,445	530,311	534,561	534,616	538,420	537,386
U.S. government securities[2]										
2 Bought outright—System account[3]	486,633	487,746	490,477	487,185	489,467	490,139	490,522	490,649	491,006	489,966
3 Held under repurchase agreements	1,718	1,296	2,373	1,052	642	917	2,458	1,268	1,938	2,871
Federal agency obligations										
4 Bought outright	255	247	238	249	247	238	238	238	238	238
5 Held under repurchase agreements	3,451	4,751	9,515	5,647	4,527	5,358	8,387	8,224	11,155	9,728
6 Acceptances	0	0	0	0	0	0	0	0	0	0
Loans to depository institutions										
7 Adjustment credit	75	84	57	25	36	56	14	23	72	101
8 Seasonal credit	226	273	283	267	279	291	276	268	283	304
9 Extended credit	0	0	0	0	0	0	0	0	0	0
10 Float	388	430	288	341	195	858	−42	948	153	199
11 Other Federal Reserve assets	33,061	33,193	33,328	33,210	32,052	32,455	32,708	32,998	33,575	33,979
12 Gold stock	11,046	11,047	11,046	11,047	11,047	11,046	11,045	11,046	11,046	11,048
13 Special drawing rights certificate account	8,200	8,200	7,667	8,200	8,200	8,200	8,200	8,057	7,200	7,200
14 Treasury currency outstanding	27,084	27,231r	27,333	27,227r	27,262r	27,298	27,312	27,326	27,340	27,354
ABSORBING RESERVE FUNDS										
15 Currency in circulation	533,769	536,083r	542,316	536,406r	536,203r	536,933	541,794	542,585	542,522	542,494
16 Treasury cash holdings	70	69	89	62	83	84	87	87	86	93
Deposits, other than reserve balances, with Federal Reserve Banks										
17 Treasury	5,221	5,076	6,389	5,080	4,851	5,403	5,113	5,480	7,512	7,403
18 Foreign	213	196	226	207	180	212	196	229	265	218
19 Service-related balances and adjustments	7,110	7,020	7,101	7,005	7,033	6,919	7,019	7,119	6,925	7,325
20 Other	271	274	248	267	282	256	257	269	248	223
21 Other Federal Reserve liabilities and capital	17,611	18,110	18,524	17,860	18,044	18,178	18,582	18,245	18,601	18,606
22 Reserve balances with Federal Reserve Banks[4]	7,872	7,669r	7,712	7,564	7,279	8,871	8,069	7,031	7,848	6,626

Factor	End-of-month figures			Wednesday figures						
	July	Aug.	Sept.	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29
SUPPLYING RESERVE FUNDS										
1 Reserve Bank credit outstanding	527,785	534,796	546,150	526,596	532,627	535,708	541,915	540,481	544,833	543,003
U.S. government securities[2]										
2 Bought outright—System account[3]	486,103	490,198	489,037	488,290	490,096	490,257	490,474	491,129	491,054	491,019
3 Held under repurchase agreements	3,195	2,575	7,607	665	1,195	3,825	3,430	1,335	4,893	5,220
Federal agency obligations										
4 Bought outright	249	238	238	249	238	238	238	238	238	238
5 Held under repurchase agreements	3,280	9,195	14,456	4,900	8,250	8,528	13,350	13,040	14,877	11,183
6 Acceptances	0	0	0	0	0	0	0	0	0	0
Loans to depository institutions										
7 Adjustment credit	82	53	179	20	33	53	8	28	132	105
8 Seasonal credit	266	285	300	282	289	284	271	278	287	313
9 Extended credit	0	0	0	0	0	0	0	0	0	0
10 Float	81	−291	65	599	222	−230	1,098	1,241	−504	583
11 Other Federal Reserve assets	34,529	32,544	34,268	31,590	32,304	32,752	33,046	33,192	33,857	34,342
12 Gold stock	11,048	11,045	11,047	11,047	11,046	11,045	11,046	11,046	11,048	11,048
13 Special drawing rights certificate account	8,200	8,200	7,200	8,200	8,200	8,200	8,200	7,200	7,200	7,200
14 Treasury currency outstanding	27,151	27,298r	27,368	27,227r	27,262r	27,298	27,312	27,326	27,340	27,354
ABSORBING RESERVE FUNDS										
15 Currency in circulation	533,517	538,466r	544,012	537,139r	537,307r	539,713	543,558	543,474	543,163	544,173
16 Treasury cash holdings	57	84	93	83	84	87	88	85	93	93
Deposits, other than reserve balances, with Federal Reserve Banks										
17 Treasury	4,984	5,559	6,641	4,903	5,401	6,481	4,146	10,128	7,721	8,232
18 Foreign	257	166	243	241	164	175	216	242	161	191
19 Service-related balances and adjustments	7,010	6,919r	7,393	7,005	7,033r	6,919	7,019	7,119	6,925	7,325
20 Other	229	225	191	263	266	264	264	256	244	191
21 Other Federal Reserve liabilities and capital	18,389	18,728	19,105	17,525	17,934	18,362	18,239	18,108	18,552	18,485
22 Reserve balances with Federal Reserve Banks[4]	9,739	11,194r	14,088	5,911	10,948	10,250	14,942	6,641	13,562	9,915

1. Amounts of cash held as reserves are shown in table 1.12, line 2.
2. Includes securities loaned—fully guaranteed by U.S. government securities pledged with Federal Reserve Banks—and excludes securities sold and scheduled to be bought back under matched sale–purchase transactions.
3. Includes compensation that adjusts for the effects of inflation on the principal of inflation-indexed securities.
4. Excludes required clearing balances and adjustments to compensate for float.

1.12 RESERVES AND BORROWINGS Depository Institutions[1]

Millions of dollars

Reserve classification	1996	1997	1998	1999						
	Prorated monthly averages of biweekly averages									
	Dec.	Dec.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 Reserve balances with Reserve Banks[2]	13,330	10,664	9,021	8,851	9,238	10,070	8,539	7,797	7,802	7,697
2 Total vault cash[3]	44,525	44,740	44,305	42,898	42,164	42,459	42,632	44,059	44,664	44,519
3 Applied vault cash[4]	37,844	37,255	35,997	34,270	34,407	34,805	33,856	34,005	34,069[r]	34,089
4 Surplus vault cash[5]	6,681	7,485	8,308	8,628	7,757	7,654	8,776	10,054	10,595[r]	10,430
5 Total reserves[6]	51,174	47,920	45,018	43,121	43,645	44,875	42,394	41,802	41,871	41,785
6 Required reserves	49,758	46,235	43,435	41,816	42,486	43,619	41,133	40,726	40,742[r]	40,590
7 Excess reserve balances at Reserve Banks[7]	1,416	1,685	1,583	1,305	1,159	1,256	1,261	1,076	1,129[r]	1,196
8 Total borrowings at Reserve Banks[8]	155	324	117	65	166	127	145	309	344	338
9 Seasonal borrowings	68	79	15	18	39	89	127	226	271	282
10 Extended credit[9]	0	0	0	0	0	0	0	0	0	0
	Biweekly averages of daily figures for two week periods ending on dates indicated									
	1999									
	June 2	June 16	June 30	July 14	July 28	Aug. 11	Aug. 25	Sept. 8[r]	Sept. 22	Oct. 6
1 Reserve balances with Reserve Banks[2]	10,096	8,546	8,309	7,526	8,041	7,923	7,421	8,470	7,440	7,375
2 Total vault cash[3]	42,697	41,829	43,426	44,019	43,899	44,994	44,786	43,774	44,556	45,199
3 Applied vault cash[4]	34,962	33,492	34,062	33,788	34,198	34,123	34,003	34,126	34,327	33,635
4 Surplus vault cash[5]	7,736	8,337	9,365	10,231	9,702	10,871	10,783	9,648	10,229	11,564
5 Total reserves[6]	45,058	42,037	42,371	41,314	42,238	42,046	41,423	42,596	41,766	41,010
6 Required reserves	43,623	40,883	41,027	40,303	41,098	40,967	40,289	41,388	40,744	39,523
7 Excess reserve balances at Reserve Banks[7]	1,434	1,154	1,343	1,011	1,140	1,078	1,134	1,207	1,022	1,486
8 Total borrowings at Reserve Banks[8]	117	114	180	331	266	409	304	318	323	385
9 Seasonal borrowings	106	100	158	196	249	263	273	284	276	294
10 Extended credit[9]	0	0	0	0	0	0	0	0	0	0

1. Data in this table also appear in the Board's H.3 (502) weekly statistical release. For ordering address, see inside front cover. Data are not break-adjusted or seasonally adjusted.
2. Excludes required clearing balances and adjustments to compensate for float and includes other off-balance-sheet "as-of" adjustments.
3. Vault cash eligible to satisfy reserve requirements. It includes only vault cash held by those banks and thrifts that are not exempt from reserve requirements. Dates refer to the maintenance periods in which the vault cash can be used to satisfy reserve requirements.
4. All vault cash held during the lagged computation period by "bound" institutions (that is, those whose required reserves exceed their vault cash) plus the amount of vault cash applied during the maintenance period by "nonbound" institutions (that is, those whose vault cash exceeds their required reserves) to satisfy current reserve requirements.
5. Total vault cash (line 2) less applied vault cash (line 3).
6. Reserve balances with Federal Reserve Banks (line 1) plus applied vault cash (line 3).
7. Total reserves (line 5) less required reserves (line 6).
8. Also includes adjustment credit.
9. Consists of borrowing at the discount window under the terms and conditions established for the extended credit program to help depository institutions deal with sustained liquidity pressures. Because there is not the same need to repay such borrowing promptly as with traditional short-term adjustment credit, the money market effect of extended credit is similar to that of nonborrowed reserves.

1.14 FEDERAL RESERVE BANK INTEREST RATES

Percent per year

Current and previous levels

Federal Reserve Bank	Adjustment credit[1]			Seasonal credit[2]			Extended credit[3]			Special Liquidity Facility credit[4]		
	On 11/5/99	Effective date	Previous rate	On 11/5/99	Effective date	Previous rate	On 11/5/99	Effective date	Previous rate	On 11/5/99	Effective date	Previous rate
Boston	4.75	8/24/99	4.50	5.70	11/4/99	5.65	6.20	11/4/99	6.15	6.75	10/1/99	n.a.
New York		8/24/99										
Philadelphia		8/24/99										
Cleveland		8/24/99										
Richmond		8/24/99										
Atlanta		8/24/99										
Chicago		8/24/99										
St. Louis		8/24/99										
Minneapolis		8/25/99										
Kansas City		8/24/99										
Dallas		8/26/99										
San Francisco	4.75	8/24/99	4.50	5.70	11/4/99	5.65	6.20	11/4/99	6.15	6.75	10/1/99	n.a.

Range of rates for adjustment credit in recent years[5]

Effective date	Range (or level)—All F.R. Banks	F.R. Bank of N.Y.
In effect Dec. 31, 1977	6	6
1978—Jan. 9	6–6.5	6.5
20	6.5	6.5
May 11	6.5–7	7
12	7	7
July 3	7–7.25	7.25
10	7.25	7.25
Aug. 21	7.75	7.75
Sept. 22	8	8
Oct. 16	8–8.5	8.5
20	8.5	8.5
Nov. 1	8.5–9.5	9.5
3	9.5	9.5
1979—July 20	10	10
Aug. 17	10–10.5	10.5
20	10.5	10.5
Sept. 19	10.5–11	11
21	11	11
Oct. 8	11–12	12
10	12	12
1980—Feb. 15	12–13	13
19	13	13
May 29	12–13	13
30	12	12
June 13	11–12	11
16	11	11
July 28	10–11	10
29	10	10
Sept. 26	11	11
Nov. 17	12	12
Dec. 5	12–13	13
8	13	13
1981—May 5	13–14	14
8	14	14
Nov. 2	13–14	13
6	13	13
Dec. 4	12	12

Effective date	Range (or level)—All F.R. Banks	F.R. Bank of N.Y.
1982—July 20	11.5–12	11.5
23	11.5	11.5
Aug. 2	11–11.5	11
3	11	11
16	10.5	10.5
27	10–10.5	10
30	10	10
Oct. 12	9.5–10	9.5
13	9.5	9.5
Nov. 22	9–9.5	9
26	9	9
Dec. 14	8.5–9	9
15	8.5–9	8.5
17	8.5	8.5
1984—Apr. 9	8.5–9	9
13	9	9
Nov. 21	8.5–9	8.5
26	8.5	8.5
Dec. 24	8	8
1985—May 20	7.5–8	7.5
24	7.5	7.5
1986—Mar. 7	7–7.5	7
10	7	7
Apr. 21	6.5–7	6.5
23	6.5	6.5
July 11	6	6
Aug. 21	5.5–6	5.5
22	5.5	5.5
1987—Sept. 4	5.5–6	6
11	6	6
1988 Aug. 9	6–6.5	6.5
11	6.5	6.5
1989—Feb. 24	6.5–7	7
27	7	7

Effective date	Range (or level)—All F.R. Banks	F.R. Bank of N.Y.
1990—Dec. 19	6.5	6.5
1991—Feb. 1	6–6.5	6
4	6	6
Apr. 30	5.5–6	5.5
May 2	5.5	5.5
Sept. 13	5–5.5	5
17	5	5
Nov. 6	4.5–5	4.5
7	4.5	4.5
Dec. 20	3.5–4.5	3.5
24	3.5	3.5
1992—July 2	3–3.5	3
7	3	3
1994—May 17	3–3.5	3.5
18	3.5	3.5
Aug. 16	3.5–4	4
18	4	4
Nov. 15	4–4.75	4.75
17	4.75	4.75
1995—Feb. 1	4.75–5.25	5.25
9	5.25	5.25
1996—Jan. 31	5.00–5.25	5.00
Feb. 5	5.00	5.00
1998—Oct. 15	4.75–5.00	4.75
16	4.75	4.75
Nov. 17	4.50–4.75	4.50
19	4.50	4.50
1999—Aug. 24	4.50–4.75	4.75
26	4.75	4.75
In effect Nov. 5, 1999	4.75	4.75

1. Available on a short-term basis to help depository institutions meet temporary needs for funds that cannot be met through reasonable alternative sources. The highest rate established for loans to depository institutions may be charged on adjustment credit loans of unusual size that result from a major operating problem at the borrower's facility.

2. Available to help relatively small depository institutions meet regular seasonal needs for funds that arise from a clear pattern of intrayearly movements in their deposits and loans and that cannot be met through special industry lenders. The discount rate on seasonal credit takes into account rates charged by market sources of funds and ordinarily is reestablished on the first business day of each two-week reserve maintenance period; however, it is never less than the discount rate applicable to adjustment credit.

3. May be made available to depository institutions when similar assistance is not reasonably available from other sources, including special industry lenders. Such credit may be provided when exceptional circumstances (including sustained deposit drains, impaired access to money market funds, or sudden deterioration in loan repayment performance) or practices involve only a particular institution, or to meet the needs of institutions experiencing difficulties adjusting to changing market conditions over a longer period (particularly at times of deposit disintermediation). The discount rate applicable to adjustment credit ordinarily is charged on extended-credit loans outstanding less than thirty days; however, at the discretion of the Federal Reserve Bank, this time period may be shortened. Beyond this initial period, a flexible rate somewhat above rates charged on market sources of funds is charged. The rate ordinarily is reestablished on the first business day of each two-week reserve maintenance period, but it is never less than the discount rate applicable to adjustment credit plus 50 basis points.

4. Available in the period between October 1, 1999, and April 7, 2000, to help depository institutions in sound financial condition meet unusual needs for funds in the period around the century date change. The interest rate on loans from the special facility is the Federal Open Market Committee's intended federal funds rate plus 150 basis points.

5. For earlier data, see the following publications of the Board of Governors: *Banking and Monetary Statistics, 1914–1941*, and *1941–1970*; and the *Annual Statistical Digest, 1970–1979*.

In 1980 and 1981, the Federal Reserve applied a surcharge to short-term adjustment-credit borrowings by institutions with deposits of $500 million or more that had borrowed in successive weeks or in more than four weeks in a calendar quarter. A 3 percent surcharge was in effect from Mar. 17, 1980, through May 7, 1980. A surcharge of 2 percent was reimposed on Nov. 17, 1980; the surcharge was subsequently raised to 3 percent on Dec. 5, 1980, and to 4 percent on May 5, 1981. The surcharge was reduced to 3 percent effective Sept. 22, 1981, and to 2 percent effective Oct. 12, 1981. As of Oct. 1, 1981, the formula for applying the surcharge was changed from a calendar quarter to a moving thirteen-week period. The surcharge was eliminated on Nov. 17, 1981.

1.15 RESERVE REQUIREMENTS OF DEPOSITORY INSTITUTIONS[1]

Type of deposit	Requirement	
	Percentage of deposits	Effective date
Net transaction accounts[2]		
1 $0 million–$46.5 million[3]	3	12/31/98
2 More than $46.5 million[4]	10	12/31/98
3 Nonpersonal time deposits[5]	0	12/27/90
4 Eurocurrency liabilities[6]	0	12/27/90

1. Required reserves must be held in the form of deposits with Federal Reserve Banks or vault cash. Nonmember institutions may maintain reserve balances with a Federal Reserve Bank indirectly, on a pass-through basis, with certain approved institutions. For previous reserve requirements, see earlier editions of the *Annual Report* or the *Federal Reserve Bulletin*. Under the Monetary Control Act of 1980, depository institutions include commercial banks, savings banks, savings and loan associations, credit unions, agencies and branches of foreign banks, and Edge Act corporations.

2. Transaction accounts include all deposits against which the account holder is permitted to make withdrawals by negotiable or transferable instruments, payment orders of withdrawal, or telephone or preauthorized transfers for the purpose of making payments to third persons or others. However, accounts subject to the rules that permit no more than six preauthorized, automatic, or other transfers per month (of which no more than three may be by check, draft, debit card, or similar order payable directly to third parties) are savings deposits, not transaction accounts.

3. The Monetary Control Act of 1980 requires that the amount of transaction accounts against which the 3 percent reserve requirement applies be modified annually by 80 percent of the percentage change in transaction accounts held by all depository institutions, determined as of June 30 of each year. Effective with the reserve maintenance period beginning December 31, 1998, for depository institutions that report weekly, and with the period beginning January 14, 1999, for institutions that report quarterly, the amount was decreased from $47.8 million to $46.5 million.

Under the Garn–St Germain Depository Institutions Act of 1982, the Board adjusts the amount of reservable liabilities subject to a zero percent reserve requirement each year for the succeeding calendar year by 80 percent of the percentage increase in the total reservable liabilities of all depository institutions, measured on an annual basis as of June 30. No corresponding adjustment is made in the event of a decrease. The exemption applies only to accounts that would be subject to a 3 percent reserve requirement. Effective with the reserve maintenance period beginning December 31, 1998, for depository institutions that report weekly, and with the period beginning January 14, 1999, for institutions that report quarterly, the exemption was raised from $4.7 million to $4.9 million.

4. The reserve requirement was reduced from 12 percent to 10 percent on Apr. 2, 1992, for institutions that report weekly, and on Apr. 16, 1992, for institutions that report quarterly.

5. For institutions that report weekly, the reserve requirement on nonpersonal time deposits with an original maturity of less than 1½ years was reduced from 3 percent to 1½ percent for the maintenance period that began Dec. 13, 1990, and to zero for the maintenance period that began Dec. 27, 1990. For institutions that report quarterly, the reserve requirement on nonpersonal time deposits with an original maturity of less than 1½ years was reduced from 3 percent to zero on Jan. 17, 1991.

The reserve requirement on nonpersonal time deposits with an original maturity of 1½ years or more has been zero since Oct. 6, 1983.

6. The reserve requirement on Eurocurrency liabilities was reduced from 3 percent to zero in the same manner and on the same dates as the reserve requirement on nonpersonal time deposits with an original maturity of less than 1½ years (see note 5).

1.17 FEDERAL RESERVE OPEN MARKET TRANSACTIONS[1]

Millions of dollars

Type of transaction and maturity	1996	1997	1998	1999 Feb.	Mar.	Apr.	May	June	July	Aug.
U.S. TREASURY SECURITIES[2]										
Outright transactions (excluding matched transactions)										
Treasury bills										
1 Gross purchases	9,901	9,147	3,550	0	0	0	0	0	0	0
2 Gross sales	0	0	0	0	0	0	0	0	0	0
3 Exchanges	426,928	436,257	450,835	36,862	35,065	48,142	37,107	35,045	42,037	37,052
4 For new bills	426,928	435,907	450,835	36,862	35,065	48,142	37,107	35,045	42,037	37,052
5 Redemptions	0	0	2,000	0	0	0	0	0	0	0
Others within one year										
6 Gross purchases	524	5,549	6,297	2,103	1,060	1,677	1,421	880	951	429
7 Gross sales	0	0	0	0	0	0	0	0	0	0
8 Maturity shifts	30,512	41,716	46,062	5,578	3,015	3,768	3,768	2,740	3,279	7,669
9 Exchanges	−41,394	−27,499	−49,434	−7,458	−5,956	−3,370	−4,607	−5,540	−368	−10,798
10 Redemptions	2,015	1,996	2,676	0	0	726	0	0	41	0
One to five years										
11 Gross purchases	3,898	20,080	12,901	2,752	2,428	3,362	4,442	948	0	1,272
12 Gross sales	0	0	0	0	0	0	0	0	0	0
13 Maturity shifts	−25,022	−37,987	−37,777	−4,928	−3,015	−3,768	−3,768	−2,740	−3,279	−4,751
14 Exchanges	31,459	20,274	37,154	4,778	5,956	3,020	2,562	5,540	0	8,433
Five to ten years										
15 Gross purchases	1,116	3,449	2,294	335	346	945	1,584	65	0	447
16 Gross sales	0	0	0	0	0	0	0	0	0	0
17 Maturity shifts	−5,469	−1,954	−5,908	−650	0	0	0	0	0	−2,918
18 Exchanges	6,666	5,215	7,439	1,340	0	0	2,045	0	373	1,290
More than ten years										
19 Gross purchases	1,655	5,897	4,884	0	2,404	262	2,890	0	0	1,075
20 Gross sales	0	0	0	0	0	0	0	0	0	0
21 Maturity shifts	−20	−1,775	−2,377	0	0	0	0	0	0	0
22 Exchanges	3,270	2,360	4,842	1,340	0	350	0	0	0	1,075
All maturities										
23 Gross purchases	17,094	44,122	29,926	5,190	6,238	6,246	10,337	1,893	951	3,223
24 Gross sales	0	0	0	0	0	0	0	0	0	0
25 Redemptions	2,015	1,996	4,676	0	0	726	0	0	41	0
Matched transactions										
26 Gross purchases	3,092,399	3,577,954	4,395,430	324,078	393,267	366,838	356,960	380,872	347,067	374,032
27 Gross sales	3,094,769	3,580,274	4,399,330	322,669	394,865	364,476	358,362	380,464	346,747	373,159
Repurchase agreements										
28 Gross purchases	457,568	810,485	512,671	26,098	62,878	45,067	27,605	17,710	27,707	23,097
29 Gross sales	450,359	809,268	514,186	27,025	53,706	48,867	30,531	14,614	33,612	23,717
30 Net change in U.S. Treasury securities	19,919	41,022	19,835	5,672	13,812	4,082	6,008	5,397	−4,675	3,476
FEDERAL AGENCY OBLIGATIONS										
Outright transactions										
31 Gross purchases	0	0	0	0	0	0	0	0	0	0
32 Gross sales	0	0	25	0	0	0	0	0	0	0
33 Redemptions	409	1,540	322	0	25	0	0	52	10	11
Repurchase agreements										
34 Gross purchases	75,354	160,409	284,316	37,416	35,731	20,623	38,167	32,786	46,941	61,968
35 Gross sales	74,842	159,369	276,266	36,067	34,009	22,937	36,962	32,104	48,840	56,053
36 Net change in federal agency obligations	103	−500	7,703	1,349	1,697	−2,314	1,205	630	−1,909	5,904
37 Total net change in System Open Market Account	**20,021**	**40,522**	**27,538**	**7,021**	**15,509**	**1,768**	**7,213**	**6,028**	**−6,584**	**9,380**

1. Sales, redemptions, and negative figures reduce holdings of the System Open Market Account; all other figures increase such holdings.

2. Transactions exclude changes in compensation for the effects of inflation on the principal of inflation-indexed securities.

1.18 FEDERAL RESERVE BANKS Condition and Federal Reserve Note Statements[1]

Millions of dollars

Account	Wednesday 1999 Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29	End of month 1999 July 31	Aug. 31	Sept. 30
	Consolidated condition statement							
ASSETS								
1 Gold certificate account	11,045	11,046	11,046	11,048	11,048	11,048	11,045	11,047
2 Special drawing rights certificate account	8,200	8,200	7,200	7,200	7,200	8,200	8,200	7,200
3 Coin	288	283	283	284	287	322	294	298
Loans								
4 To depository institutions	337	279	306	418	418	348	338	480
5 Other	0	0	0	0	0	0	0	0
6 Acceptances held under repurchase agreements	0	0	0	0	0	0	0	0
Federal agency obligations								
7 Bought outright	238	238	238	238	238	249	238	238
8 Held under repurchase agreements	8,528	13,350	13,040	14,877	11,183	3,280	9,195	14,456
9 **Total U.S. Treasury securities**	**494,082**	**493,904**	**492,464**	**495,946**	**496,239**	**489,298**	**492,773**	**496,644**
10 Bought outright[2]	490,257	490,474	491,129	491,054	491,019	486,103	490,198	489,037
11 Bills	199,379	199,592	199,283	199,204	199,165	198,447	199,320	197,183
12 Notes	210,829	210,832	211,795	211,798	211,801	209,771	210,829	211,801
13 Bonds	80,049	80,050	80,051	80,052	80,053	77,884	80,049	80,053
14 Held under repurchase agreements	3,825	3,430	1,335	4,893	5,220	3,195	2,575	7,607
15 **Total loans and securities**	**503,185**	**507,772**	**506,048**	**511,480**	**508,078**	**493,175**	**502,544**	**511,817**
16 Items in process of collection	7,731	10,644	8,399	6,892	6,978	5,087	9,328	5,649
17 Bank premises	1,332	1,332	1,333	1,334	1,337	1,327	1,332	1,336
Other assets								
18 Denominated in foreign currencies[3]	15,846	15,850	15,854	15,862	15,861	15,498	15,845	16,105
19 All other[4]	15,656	15,946	16,075	16,729	17,149	17,723	15,445	16,864
20 **Total assets**	**563,283**	**571,073**	**566,238**	**570,827**	**567,937**	**552,378**	**564,033**	**570,317**
LIABILITIES								
21 Federal Reserve notes	512,790	516,617	516,516	516,199	517,199	506,746	511,545	517,035
22 **Total deposits**	**24,498**	**26,716**	**24,075**	**28,966**	**25,609**	**22,112**	**24,750**	**28,759**
23 Depository institutions	17,577	22,089	13,449	20,840	16,996	16,642	18,800	21,684
24 U.S. Treasury—General account	6,481	4,146	10,128	7,721	8,232	4,984	5,559	6,641
25 Foreign—Official accounts	175	216	242	161	191	257	166	243
26 Other	264	264	256	244	191	229	225	191
27 Deferred credit items	7,633	9,500	7,539	7,110	6,643	5,131	9,011	5,418
28 Other liabilities and accrued dividends[5]	4,648	4,790	4,660	5,068	5,012	4,402	4,605	5,323
29 **Total liabilities**	**549,569**	**557,624**	**552,790**	**557,343**	**554,464**	**538,391**	**549,911**	**556,535**
CAPITAL ACCOUNTS								
30 Capital paid in	6,308	6,308	6,312	6,318	6,329	6,296	6,308	6,330
31 Surplus	5,952	5,952	5,952	5,952	5,952	5,952	5,952	5,952
32 Other capital accounts	1,454	1,189	1,184	1,215	1,192	1,739	1,863	1,499
33 **Total liabilities and capital accounts**	**563,283**	**571,073**	**566,238**	**570,827**	**567,937**	**552,378**	**564,033**	**570,317**
MEMO								
34 Marketable U.S. Treasury securities held in custody for foreign and international accounts	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Federal Reserve note statement							
35 Federal Reserve notes outstanding (issued to Banks)	781,767	787,402	800,028	815,877	824,276	746,929	780,358	827,075
36 LESS: Held by Federal Reserve Banks	268,978	270,784	283,512	299,677	307,076	240,184	268,813	310,040
37 Federal Reserve notes, net	512,790	516,617	516,516	516,199	517,199	506,746	511,545	517,035
Collateral held against notes, net								
38 Gold certificate account	11,045	11,046	11,046	11,048	11,048	11,048	11,045	11,047
39 Special drawing rights certificate account	8,200	8,200	7,200	7,200	7,200	8,200	8,200	7,200
40 Other eligible assets	0	0	0	0	0	0	0	0
41 U.S. Treasury and agency securities	493,544	497,372	498,271	497,952	498,952	487,498	492,300	498,788
42 **Total collateral**	**512,790**	**516,617**	**516,516**	**516,199**	**517,199**	**506,746**	**511,545**	**517,035**

1. Some of the data in this table also appear in the Board's H.4.1 (503) weekly statistical release. For ordering address, see inside front cover.
2. Includes securities loaned—fully guaranteed by U.S. Treasury securities pledged with Federal Reserve Banks—and includes compensation that adjusts for the effects of inflation on the principal of inflation-indexed securities. Excludes securities sold and scheduled to be bought back under matched sale purchase transactions.
3. Valued monthly at market exchange rates.
4. Includes special investment account at the Federal Reserve Bank of Chicago in Treasury bills maturing within ninety days.
5. Includes exchange-translation account reflecting the monthly revaluation at market exchange rates of foreign exchange commitments.

1.19 FEDERAL RESERVE BANKS Maturity Distribution of Loan and Security Holding

Millions of dollars

Type of holding and maturity	Wednesday					End of month		
	1999					1999		
	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29	July 31	Aug. 31	Sept. 30
1 **Total loans**	**337**	**279**	**306**	**418**	**418**	**348**	**338**	**480**
2 Within fifteen days[1]	105	72	198	384	372	228	189	330
3. Sixteen days to ninety days	232	207	108	35	46	120	149	150
4 **Total U.S. Treasury securities**[2]	**494,072**	**493,894**	**492,454**	**495,946**	**496,239**	**489,298**	**492,763**	**496,644**
5 Within fifteen days[1]	15,830	14,583	17,471	14,729	19,310	7,883	11,187	10,704
6 Sixteen days to ninety days	99,846	100,852	100,875	101,811	97,374	107,061	100,038	96,836
7 Ninety-one days to one year	141,081	141,141	136,787	142,082	142,227	139,477	144,224	152,924
8 One year to five years	122,346	122,347	122,347	122,348	122,349	122,393	122,346	121,199
9 Five years to ten years	50,194	50,197	50,199	50,201	50,204	49,861	50,195	50,204
10 More than ten years	64,773	64,774	64,775	64,776	64,777	62,623	64,773	64,777
11 **Total federal agency obligations**	**4,501**	**9,323**	**9,013**	**15,115**	**11,421**	**3,529**	**5,168**	**14,694**
12 Within fifteen days[1]	4,263	9,085	8,775	14,887	11,223	3,280	4,930	14,496
13 Sixteen days to ninety days	27	27	57	47	17	31	27	17
14 Ninety-one days to one year	41	41	51	51	51	48	41	51
15 One year to five years	20	20	10	10	10	20	20	10
16 Five years to ten years	150	50	120	120	120	150	150	120
17 More than ten years	0	0	0	0	0	0	0	0

1. Holdings under repurchase agreements are classified as maturing within fifteen days in accordance with maximum maturity of the agreements.

2. Includes compensation that adjusts for the effects of inflation on the principal of inflation-indexed securities.

1.20 AGGREGATE RESERVES OF DEPOSITORY INSTITUTIONS AND MONETARY BASE[1]

Billions of dollars, averages of daily figures

Item	1995 Dec.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Feb.	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July	1999 Aug.	1999 Sept.
	Seasonally adjusted											
ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[2]												
1 Total reserves[3]	56.45	50.16	46.86	44.90	44.55	43.72	43.98	44.36	42.87	41.98	42.07	42.11
2 Nonborrowed reserves[4]	56.20	50.01	46.54	44.79	44.44	43.65	43.81	44.23	42.72	41.67	41.72	41.77
3 Nonborrowed reserves plus extended credit[5]	56.20	50.01	46.54	44.79	44.44	43.65	43.81	44.23	42.72	41.67	41.72	41.77
4 Required reserves	55.16	48.75	45.18	43.32	43.34	42.41	42.82	43.11	41.61	40.90	40.94	40.92
5 Monetary base[6]	434.10	451.37	478.88	512.32	520.84	524.23	528.74	534.86	537.63	541.20	544.41[r]	549.51
	Not seasonally adjusted											
6 Total reserves[7]	58.02	51.45	48.01	45.12	45.25	43.14	43.67	44.91	42.43	41.85	41.92	41.85
7 Nonborrowed reserves	57.76	51.30	47.69	45.00	45.13	43.08	43.50	44.78	42.29	41.54	41.58	41.51
8 Nonborrowed reserves plus extended credit[5]	57.76	51.30	47.69	45.00	45.13	43.08	43.50	44.78	42.29	41.54	41.58	41.51
9 Required reserves[8]	56.73	50.04	46.33	43.54	44.03	41.84	42.51	43.65	41.17	40.77	40.79[r]	40.65
10 Monetary base[9]	439.03	456.63	484.98	518.28	519.70	523.35	526.77	533.12	535.88	540.98	543.87[r]	548.08
NOT ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[10]												
11 Total reserves[11]	57.90	51.17	47.92	45.02	45.24	43.12	43.65	44.88	42.39	41.80	41.87	41.79
12 Nonborrowed reserves	57.64	51.02	47.60	44.90	45.12	43.06	43.48	44.75	42.25	41.49	41.53	41.45
13 Nonborrowed reserves plus extended credit[5]	57.64	51.02	47.60	44.90	45.12	43.06	43.48	44.75	42.25	41.49	41.53	41.45
14 Required reserves	56.61	49.76	46.24	43.44	44.02	41.82	42.49	43.62	41.13	40.73	40.74	40.59
15 Monetary base[12]	444.45	463.40	491.79	525.06	526.85	530.30	533.49	539.98	542.82	548.07[r]	550.86[r]	555.14
16 Excess reserves[13]	1.29	1.42	1.69	1.58	1.22	1.31	1.16	1.26	1.26	1.08	1.13	1.20
17 Borrowings from the Federal Reserve	.26	.16	.32	.12	.12	.07	.17	.13	.15	.31	.34	.34

1. Latest monthly and biweekly figures are available from the Board's H.3 (502) weekly statistical release. Historical data starting in 1959 and estimates of the effect on required reserves of changes in reserve requirements are available from the Money and Reserves Projections Section, Division of Monetary Affairs, Board of Governors of the Federal Reserve System, Washington, DC 20551.

2. Figures reflect adjustments for discontinuities, or "breaks," associated with regulatory changes in reserve requirements. (See also table 1.10.)

3. Seasonally adjusted, break-adjusted total reserves equal seasonally adjusted, break-adjusted required reserves (line 4) plus excess reserves (line 16).

4. Seasonally adjusted, break-adjusted nonborrowed reserves equal seasonally adjusted, break-adjusted total reserves (line 1) less total borrowings of depository institutions from the Federal Reserve (line 17).

5. Extended credit consists of borrowing at the discount window under the terms and conditions established for the extended credit program to help depository institutions deal with sustained liquidity pressures. Because there is not the same need to repay such borrowing promptly as with traditional short-term adjustment credit, the money market effect of extended credit is similar to that of nonborrowed reserves.

6. The seasonally adjusted, break-adjusted monetary base consists of (1) seasonally adjusted, break-adjusted total reserves (line 1), plus (2) the seasonally adjusted currency component of the money stock, plus (3) (for all quarterly reporters on the "Report of Transaction Accounts, Other Deposits and Vault Cash" and for all those weekly reporters whose vault cash exceeds their required reserves) the seasonally adjusted, break-adjusted difference between current vault cash and the amount applied to satisfy current reserve requirements.

7. Break-adjusted total reserves equal break-adjusted required reserves (line 9) plus excess reserves (line 16).

8. To adjust required reserves for discontinuities that are due to regulatory changes in reserve requirements, a multiplicative procedure is used to estimate what required reserves would have been in past periods had current reserve requirements been in effect. Break-adjusted required reserves include required reserves against transactions deposits and nonpersonal time and savings deposits (but not reservable nondeposit liabilities).

9. The break-adjusted monetary base equals (1) break-adjusted total reserves (line 6), plus (2) the (unadjusted) currency component of the money stock, plus (3) (for all quarterly reporters on the "Report of Transaction Accounts, Other Deposits and Vault Cash" and for all those weekly reporters whose vault cash exceeds their required reserves) the break-adjusted difference between current vault cash and the amount applied to satisfy current reserve requirements.

10. Reflects actual reserve requirements, including those on nondeposit liabilities, with no adjustments to eliminate the effects of discontinuities associated with regulatory changes in reserve requirements.

11. Reserve balances with Federal Reserve Banks plus vault cash used to satisfy reserve requirements.

12. The monetary base, not break-adjusted and not seasonally adjusted, consists of (1) total reserves (line 11), plus (2) required clearing balances and adjustments to compensate for float at Federal Reserve Banks, plus (3) the currency component of the money stock, plus (4) (for all quarterly reporters on the "Report of Transaction Accounts, Other Deposits and Vault Cash" and for all those weekly reporters whose vault cash exceeds their required reserves) the difference between current vault cash and the amount applied to satisfy current reserve requirements. Since February 1984, currency and vault cash figures have been measured over the computation periods ending on Mondays.

13. Unadjusted total reserves (line 11) less unadjusted required reserves (line 14).

1.21 MONEY STOCK AND DEBT MEASURES[1]

Billions of dollars, averages of daily figures

Item	1995 Dec.	1996 Dec.	1997 Dec.	1998 Dec.	1999 June	1999 July	1999 Aug.	1999 Sept.
	Seasonally adjusted							
Measures[2]								
1 M1	1,126.7	1,081.3	1,074.9	1,093.4	1,101.1	1,099.5	1,102.4[r]	1,093.5
2 M2	3,649.1	3,823.9	4,046.4	4,401.0	4,520.9[r]	4,541.1[r]	4,562.1[r]	4,580.4
3 M3	4,618.5	4,955.6	5,403.4	5,995.8	6,163.9[r]	6,189.5[r]	6,216.4[r]	6,248.5
4 Debt	13,716.1	14,460.8	15,223.5[r]	16,244.9	16,776.0[r]	16,851.2[r]	16,936.7	n.a.
M1 components								
5 Currency[3]	372.3	394.1	424.5	459.2	484.1	487.3	491.0[r]	495.0
6 Travelers checks[4]	8.3	8.0	7.7	7.8	8.2	8.6	8.6[r]	8.3
7 Demand deposits[5]	389.4	403.0	396.5	377.5	363.0[r]	362.6	363.2[r]	352.6
8 Other checkable deposits[6]	356.7	276.2	246.2	248.8	245.9	241.0	239.7	237.6
Nontransaction components								
9 In M2[7]	2,522.4	2,742.6	2,971.5	3,307.6	3,419.8	3,441.5	3,459.7	3,486.9
10 In M3 only[8]	969.4	1,131.7	1,357.0	1,594.8	1,643.0[r]	1,648.5[r]	1,654.3[r]	1,668.2
Commercial banks								
11 Savings deposits, including MMDAs	775.3	905.2	1,022.9	1,189.8	1,246.3	1,260.5	1,268.5	1,283.4
12 Small time deposits[9]	575.0	593.7	626.1	626.0	612.5	613.0	614.6	618.2
13 Large time deposits[10, 11]	346.6	414.8	490.2	541.0	530.2	539.5	537.4[r]	547.9
Thrift institutions								
14 Savings deposits, including MMDAs	359.8	367.1	377.3	415.2	447.9[r]	455.1	456.6	458.5
15 Small time deposits[9]	356.7	353.8	343.2	325.9	312.9	311.7	312.1	313.0
16 Large time deposits[10]	74.5	78.4	85.9	89.1	87.9	88.7	89.2	89.9
Money market mutual funds								
17 Retail	455.5	522.8	602.0	750.7	800.3	801.3	807.9	813.8
18 Institution-only	255.9	313.3	379.9	516.2	548.1	546.0	556.4	559.3
Repurchase agreements and Eurodollars								
19 Repurchase agreements[12]	198.7	211.3	251.7	297.8	308.7	308.6	310.2	309.7
20 Eurodollars[12]	93.7	113.9	149.3	150.7	168.1[r]	165.6[r]	161.1[r]	161.3
Debt components								
21 Federal debt	3,639.1	3,781.3	3,800.3	3,750.8	3,703.6	3,708.1[r]	3,711.3	n.a.
22 Nonfederal debt	10,077.0	10,679.5	11,423.2[r]	12,494.2	13,072.4[r]	13,143.1[r]	13,225.4	n.a.
	Not seasonally adjusted							
Measures[2]								
23 M1	1,152.4	1,104.9	1,097.4	1,115.3	1,098.4[r]	1,098.1[r]	1,097.6[r]	1,088.1
24 M2	3,671.7	3,843.7	4,064.6	4,417.8	4,508.8[r]	4,531.3[r]	4,556.5[r]	4,566.1
25 M3	4,638.0	4,972.5	5,419.6	6,011.9	6,147.2[r]	6,160.2[r]	6,199.4[r]	6,220.4
26 Debt	13,716.6	14,459.3	15,220.6[r]	16,241.8	16,724.2[r]	16,785.8[r]	16,874.5	n.a.
M1 components								
27 Currency[3]	376.2	397.9	428.9	464.2	483.2	487.8	490.2	493.4
28 Travelers checks[4]	8.5	8.3	7.9	8.0	8.1	8.3	8.2	8.1
29 Demand deposits[5]	407.2	419.9	412.3	392.4	361.4[r]	362.6	361.8[r]	350.6
30 Other checkable deposits[6]	360.5	278.8	248.3	250.7	245.7	239.5[r]	237.4	235.9
Nontransaction components								
31 In M2[7]	2,519.3	2,738.9	2,967.2	3,302.5	3,410.4	3,433.2	3,458.8	3,478.0
32 In M3 only[8]	966.4	1,128.8	1,355.0	1,594.1	1,638.4[r]	1,628.9[r]	1,642.9[r]	1,654.3
Commercial banks								
33 Savings deposits, including MMDAs	774.1	903.3	1,020.4	1,186.8	1,249.8	1,261.4	1,267.7	1,276.5
34 Small time deposits[9]	573.8	592.7	625.3	625.4	611.1	612.8	614.2	617.9
35 Large time deposits[10, 11]	345.8	413.3	487.7	537.4	535.7	539.3	537.6[r]	548.3
Thrift institutions								
36 Savings deposits, including MMDAs	359.2	366.3	376.4	414.1	449.1	455.4	456.3	456.0
37 Small time deposits[9]	355.9	353.2	342.8	325.6	312.2	311.6	311.9	312.8
38 Large time deposits[10]	74.3	78.1	85.4	88.5	88.8	88.7	89.2	90.0
Money market mutual funds								
39 Retail	456.1	523.2	602.3	750.6	788.2	792.1	808.8	814.8
40 Institution-only	257.7	316.0	384.5	523.3	540.6	533.4	548.0	547.5
Repurchase agreements and Eurodollars								
41 Repurchase agreements[12]	193.8	205.7	245.1	290.5	308.6	305.9	308.4	308.4
42 Eurodollars[12]	94.9	115.7	152.3	154.5	164.7[r]	161.6[r]	159.7[r]	160.1
Debt components								
43 Federal debt	3,645.9	3,787.9	3,805.8	3,754.9	3,662.8	3,652.3	3,666.1	n.a.
44 Nonfederal debt	10,070.7	10,671.4	11,414.8[r]	12,486.9[r]	13,061.4[r]	13,133.5[r]	13,208.4	n.a.

Footnotes appear on following page.

NOTES TO TABLE 1.21

1. Latest monthly and weekly figures are available from the Board's H.6 (508) weekly statistical release. Historical data starting in 1959 are available from the Money and Reserves Projections Section, Division of Monetary Affairs, Board of Governors of the Federal Reserve System, Washington, DC 20551.

2. Composition of the money stock measures and debt is as follows:

M1: (1) currency outside the U.S. Treasury, Federal Reserve Banks, and the vaults of depository institutions, (2) travelers checks of nonbank issuers, (3) demand deposits at all commercial banks other than those owed to depository institutions, the U.S. government, and foreign banks and official institutions, less cash items in the process of collection and Federal Reserve float, and (4) other checkable deposits (OCDs), consisting of negotiable order of withdrawal (NOW) and automatic transfer service (ATS) accounts at depository institutions, credit union share draft accounts, and demand deposits at thrift institutions. Seasonally adjusted M1 is computed by summing currency, travelers checks, demand deposits, and OCDs, each seasonally adjusted separately.

M2: M1 plus (1) savings deposits (including MMDAs), (2) small-denomination time deposits (time deposits—including retail RPs—in amounts of less than $100,000), and (3) balances in retail money market mutual funds. Excludes individual retirement accounts (IRAs) and Keogh balances at depository institutions and money market funds. Seasonally adjusted M2 is calculated by summing savings deposits, small-denomination time deposits, and retail money fund balances, each seasonally adjusted separately, and adding this result to seasonally adjusted M1.

M3: M2 plus (1) large-denomination time deposits (in amounts of $100,000 or more) issued by all depository institutions, (2) balances in institutional money funds, (3) RP liabilities (overnight and term) issued by all depository institutions, and (4) Eurodollars (overnight and term) held by U.S. residents at foreign branches of U.S. banks worldwide and at all banking offices in the United Kingdom and Canada. Excludes amounts held by depository institutions, the U.S. government, money market funds, and foreign banks and official institutions. Seasonally adjusted M3 is calculated by summing large time deposits, institutional money fund balances, RP liabilities, and Eurodollars, each seasonally adjusted separately, and adding this result to seasonally adjusted M2.

Debt: The debt aggregate is the outstanding credit market debt of the domestic nonfinancial sectors—the federal sector (U.S. government, not including government-sponsored enterprises or federally related mortgage pools) and the nonfederal sectors (state and local governments, households and nonprofit organizations, nonfinancial corporate and nonfarm noncorporate businesses, and farms). Nonfederal debt consists of mortgages, tax-exempt and corporate bonds, consumer credit, bank loans, commercial paper, and other loans. The data, which are derived from the Federal Reserve Board's flow of funds accounts, are break-adjusted (that is, discontinuities in the data have been smoothed into the series) and month-averaged (that is, the data have been derived by averaging adjacent month-end levels).

3. Currency outside the U.S. Treasury, Federal Reserve Banks, and vaults of depository institutions.

4. Outstanding amount of U.S. dollar-denominated travelers checks of nonbank issuers. Travelers checks issued by depository institutions are included in demand deposits.

5. Demand deposits at commercial banks and foreign-related institutions other than those owed to depository institutions, the U.S. government, and foreign banks and official institutions, less cash items in the process of collection and Federal Reserve float.

6. Consists of NOW and ATS account balances at all depository institutions, credit union share draft account balances, and demand deposits at thrift institutions.

7. Sum of (1) savings deposits (including MMDAs), (2) small time deposits, and (3) retail money fund balances.

8. Sum of (1) large time deposits, (2) institutional money fund balances, (3) RP liabilities (overnight and term) issued by depository institutions, and (4) Eurodollars (overnight and term) of U.S. addressees.

9. Small time deposits—including retail RPs—are those issued in amounts of less than $100,000. All IRAs and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposits.

10. Large time deposits are those issued in amounts of $100,000 or more, excluding those booked at international banking facilities.

11. Large time deposits at commercial banks less those held by money market funds, depository institutions, the U.S. government, and foreign banks and official institutions.

12. Includes both overnight and term.

1.26 COMMERCIAL BANKS IN THE UNITED STATES Assets and Liabilities[1]

A. All commercial banks

Billions of dollars

Account	Monthly averages								Wednesday figures			
	1998	1999							1999			
	Sept.	Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[r]	Sept.	Sept. 8	Sept. 15	Sept. 22	Sept. 29
	Seasonally adjusted											
Assets												
1 Bank credit	4,393.9[r]	4,492.0	4,502.0	4,511.6	4,548.3	4,544.1	4,580.2	4,612.4	4,592.2	4,616.9	4,618.1	4,623.4
2 Securities in bank credit	1,177.6	1,187.4	1,188.9	1,188.5	1,206.7	1,224.4	1,241.6	1,252.1	1,241.8	1,264.1	1,257.0	1,246.6
3 U.S. government securities	771.6	800.5	801.4	799.7	812.6	813.8	819.9	817.2	818.7	818.3	817.1	814.3
4 Other securities	406.1	387.0	387.4	388.8	394.1	410.6	421.8	434.9	423.2	445.9	440.0	432.3
5 Loans and leases in bank credit[2]	3,216.3[r]	3,304.6	3,313.2	3,323.1	3,341.6	3,319.7	3,338.6	3,360.2	3,350.4	3,352.8	3,361.1	3,376.8
6 Commercial and industrial	920.9	956.2	960.6	956.2	962.3	963.9	972.1	980.4	982.0	978.8	977.1	984.4
7 Real estate	1,294.4[r]	1,348.5	1,351.0	1,360.3	1,365.9	1,367.4	1,379.7	1,396.6	1,385.6	1,388.2	1,405.6	1,406.8
8 Revolving home equity	103.6	102.0	103.0	104.3	103.7	97.9	98.5	106.4	98.9	99.3	113.4	113.9
9 Other	1,190.8[r]	1,246.5	1,247.9	1,256.0	1,262.2	1,269.5	1,281.2	1,290.2	1,286.7	1,288.9	1,292.1	1,292.9
10 Consumer	491.3	498.6	499.5	495.9	491.3	481.9	480.1	481.2	480.1	482.2	482.6	480.5
11 Security[3]	141.7[r]	118.8	121.8	126.6	130.8	122.1	122.3	115.9	118.5	113.5	113.0	119.3
12 Other loans and leases	368.0[r]	382.4	380.3	384.1	391.3	384.4	384.3	386.0	384.2	390.1	382.8	385.7
13 Interbank loans	217.0	221.2	217.4	227.5	224.5	224.1	215.0	207.8	211.1	206.3	210.3	202.4
14 Cash assets[4]	252.3	256.2	257.8	259.9	261.0	258.0	254.1	263.9	268.5	259.2	271.0	258.5
15 Other assets[5]	327.5	354.5	344.8	347.2	348.6	348.4	345.7	348.5	341.3	349.6	348.9	354.2
16 **Total assets**[6]	**5,133.2**[r]	**5,265.3**	**5,263.5**	**5,287.4**	**5,323.7**	**5,316.4**	**5,336.3**	**5,373.4**	**5,354.0**	**5,372.9**	**5,389.0**	**5,379.3**
Liabilities												
17 Deposits	3,264.8	3,367.9	3,376.5	3,374.9	3,377.2	3,391.2	3,385.8	3,395.8	3,396.6	3,413.2	3,380.8	3,389.2
18 Transaction	675.3	660.9	656.6	649.6	655.7	648.9	638.0	635.8	625.0	643.7	634.6	643.7
19 Nontransaction	2,589.5	2,706.9	2,719.9	2,725.2	2,721.5	2,742.3	2,747.8	2,760.0	2,771.6	2,769.5	2,746.1	2,745.5
20 Large time	702.7	721.2	725.7	723.6	718.8	721.8	718.1	728.1	722.2	725.2	726.1	736.7
21 Other	1,886.8	1,985.7	1,994.2	2,001.7	2,002.7	2,020.6	2,029.7	2,031.8	2,049.4	2,044.3	2,020.0	2,008.8
22 Borrowings	944.1	987.8	983.7	997.8	1,020.5	1,018.1	1,025.5	1,036.0	1,030.1	1,024.3	1,049.5	1,041.1
23 From banks in the U.S.	305.0	319.0	311.8	324.3	338.4	339.1	338.2	342.4	343.8	340.3	342.5	341.3
24 From others	639.1	668.8	671.9	673.6	682.0	679.0	687.3	693.6	686.3	683.9	707.0	699.8
25 Net due to related foreign offices	206.4	210.4	210.2	203.9	215.1	212.5	222.3	218.3	227.1	218.7	216.9	209.9
26 Other liabilities	302.8	272.4	273.8	271.1	275.5	273.4	279.0	292.2	286.2	294.1	288.0	302.1
27 **Total liabilities**	**4,718.1**	**4,838.4**	**4,844.2**	**4,847.7**	**4,888.2**	**4,895.2**	**4,912.6**	**4,942.2**	**4,940.0**	**4,950.3**	**4,935.2**	**4,942.3**
28 Residual (assets less liabilities)[7]	415.2[r]	426.9	419.3	439.7	435.5	421.2	423.7	431.1	414.0	422.6	453.8	436.9
	Not seasonally adjusted											
Assets												
29 Bank credit	4,385.9[r]	4,490.5	4,510.3	4,514.3	4,542.5	4,528.2	4,559.2	4,602.5	4,573.8	4,608.4	4,608.7	4,619.9
30 Securities in bank credit	1,168.2	1,194.1	1,197.6	1,194.0	1,203.4	1,213.3	1,228.8	1,241.0	1,231.8	1,251.4	1,244.3	1,237.1
31 U.S. government securities	762.9	806.9	811.4	807.9	812.1	805.9	808.1	807.1	809.5	807.2	805.9	805.1
32 Other securities	405.4	387.2	386.2	386.1	391.3	407.3	420.7	433.9	422.3	444.2	438.4	432.1
33 Loans and leases in bank credit[2]	3,217.7[r]	3,296.5	3,312.8	3,320.3	3,339.1	3,315.0	3,330.4	3,361.5	3,342.0	3,357.0	3,364.4	3,382.8
34 Commercial and industrial	917.7	959.8	967.3	960.7	962.6	961.5	963.4	976.5	971.9	974.3	975.6	984.7
35 Real estate	1,297.9[r]	1,341.9	1,347.6	1,359.7	1,366.5	1,368.4	1,382.3	1,400.3	1,389.5	1,393.5	1,407.9	1,410.1
36 Revolving home equity	104.4	101.1	102.4	103.9	103.3	97.7	98.7	107.2	99.4	100.0	114.3	114.9
37 Other	1,193.5[r]	1,240.8	1,245.2	1,255.8	1,263.2	1,270.7	1,283.6	1,293.1	1,290.1	1,293.5	1,293.6	1,295.2
38 Consumer	494.2	493.9	496.0	493.4	488.6	479.6	481.3	484.2	482.4	485.6	486.7	483.1
39 Security[3]	137.9[r]	122.3	123.7	126.4	130.2	120.1	118.6	112.6	111.9	112.2	111.0	115.6
40 Other loans and leases	370.1[r]	378.6	378.1	380.1	391.3	385.5	384.9	387.9	386.3	391.3	383.2	389.2
41 Interbank loans	213.1	224.4	222.4	223.3	221.8	217.8	207.2	204.2	211.4	204.0	202.3	197.8
42 Cash assets[4]	249.9	248.8	255.5	257.6	256.6	250.2	243.7	261.1	275.3	256.4	258.1	255.5
43 Other assets[5]	329.7	349.8	347.8	348.7	354.5	351.1	348.4	350.5	348.2	349.8	345.9	357.4
44 **Total assets**[6]	**5,120.9**[r]	**5,255.0**	**5,277.7**	**5,285.2**	**5,316.6**	**5,289.1**	**5,299.7**	**5,359.0**	**5,349.2**	**5,359.2**	**5,355.7**	**5,371.3**
Liabilities												
45 Deposits	3,262.5	3,362.6	3,387.2	3,365.5	3,375.2	3,374.9	3,371.9	3,394.4	3,418.8	3,418.5	3,351.5	3,381.7
46 Transaction	669.0	654.5	664.2	640.6	650.8	638.2	621.6	630.0	633.6	642.8	607.5	637.4
47 Nontransaction	2,593.4	2,708.1	2,723.0	2,724.9	2,724.4	2,736.7	2,750.2	2,764.4	2,785.2	2,775.6	2,743.9	2,744.3
48 Large time	704.3	723.2	722.6	724.8	716.1	715.1	715.5	729.6	723.0	726.6	728.4	738.4
49 Other	1,889.1	1,984.9	2,000.3	2,000.1	2,008.3	2,021.7	2,034.8	2,034.8	2,062.2	2,049.0	2,015.6	2,006.0
50 Borrowings	939.9	981.2	983.5	1,006.0	1,024.1	1,008.8	1,002.0	1,030.9	1,001.3	1,011.5	1,066.5	1,047.7
51 From banks in the U.S.	301.8	318.6	312.4	325.2	338.3	334.5	331.0	338.7	334.0	334.8	345.4	339.4
52 From others	638.1	662.6	671.1	680.8	685.7	674.3	671.0	692.2	667.3	676.8	721.1	708.3
53 Net due to related foreign offices	203.1	208.5	203.1	210.1	209.3	204.7	217.3	214.3	212.6	208.3	219.5	217.2
54 Other liabilities	301.8	273.0	273.4	270.8	274.8	272.6	278.9	291.1	285.5	292.9	286.6	301.3
55 **Total liabilities**	**4,707.2**	**4,825.3**	**4,847.3**	**4,852.3**	**4,883.4**	**4,861.0**	**4,870.1**	**4,930.7**	**4,918.2**	**4,931.1**	**4,924.0**	**4,947.9**
56 Residual (assets less liabilities)[7]	413.7[r]	429.7	430.4	432.9	433.2	428.1	429.6	428.3	431.1	428.1	431.7	423.4
MEMO												
57 Revaluation gains on off-balance-sheet items[8]	112.7	86.3	86.4	85.9	85.8	91.1	96.1	104.6	100.4	111.9	106.9	100.8
58 Revaluation losses on off-balance-sheet items[8]	112.3	85.8	87.9	87.3	87.6	92.0	98.3	103.3	98.9	110.4	104.7	100.5

Footnotes appear on p. A21.

1.26 COMMERCIAL BANKS IN THE UNITED STATES Assets and Liabilities[1]—Continued

B. Domestically chartered commercial banks

Billions of dollars

Account	Monthly averages								Wednesday figures			
	1998	1999							1999			
	Sept.	Mar.	Apr.	May	June	July[r]	Aug.[r]	Sept.	Sept. 8	Sept. 15	Sept. 22	Sept. 29
	Seasonally adjusted											
Assets												
1 Bank credit	3,795.6[r]	3,941.4[r]	3,952.4[r]	3,972.1[r]	4,016.3[r]	4,025.0	4,057.8	4,094.8	4,083.4	4,092.8	4,099.8	4,105.6
2 Securities in bank credit	965.7	990.2	988.9	992.8	1,011.0[r]	1,034.9	1,051.7	1,062.9	1,059.6	1,068.2	1,066.4	1,058.5
3 U.S. government securities	687.9	715.1	712.3	712.7	724.5	728.0	735.8	735.6	736.2	736.4	736.6	733.0
4 Other securities	277.8	275.0	276.6	280.1	286.5[r]	306.9	315.8	327.3	323.3	331.8	329.8	325.5
5 Loans and leases in bank credit[2]	2,829.9[r]	2,951.2[r]	2,963.5[r]	2,979.4[r]	3,005.3[r]	2,990.1	3,006.1	3,032.0	3,023.8	3,024.6	3,033.4	3,047.1
6 Commercial and industrial	704.8	746.3	752.4	755.5	766.8	772.2	777.7	784.3	786.1	784.4	780.1	787.2
7 Real estate	1,270.5	1,328.4	1,331.0	1,340.5	1,346.7	1,349.0	1,362.1	1,379.0	1,368.3	1,370.5	1,387.8	1,389.2
8 Revolving home equity	103.6	102.0	103.0	104.3	103.7	97.9	98.5	106.4	98.9	99.3	113.4	113.9
9 Other	1,166.9	1,226.4	1,228.0	1,236.2	1,243.0	1,251.1	1,263.6	1,272.6	1,269.4	1,271.2	1,274.4	1,275.3
10 Consumer	491.3	498.6[r]	499.5	495.9	491.3[r]	481.9	480.1	481.2	480.1	482.2	482.6	480.5
11 Security[3]	74.8	68.1	70.1	73.4	79.0	69.6	67.4	64.8	67.9	60.5	64.4	67.4
12 Other loans and leases	288.5[r]	309.8[r]	310.5[r]	314.0[r]	321.5[r]	317.3	318.7	322.7	321.5	327.0	318.6	322.6
13 Interbank loans	189.7	195.6	192.0	200.9	200.0	196.7	189.2	184.9	184.2	186.2	185.8	182.2
14 Cash assets[4]	218.1	222.1	223.2	223.9	227.5	222.9	216.0	223.0	227.4	218.3	229.5	218.6
15 Other assets[5]	290.2	317.0	307.3	311.3	315.1	316.2	316.6	319.2	313.3	319.0	319.2	325.3
16 **Total assets[6]**	**4,436.3[r]**	**4,617.8[r]**	**4,616.6[r]**	**4,649.8[r]**	**4,700.6[r]**	**4,702.9**	**4,721.3**	**4,763.0**	**4,749.5**	**4,757.5**	**4,775.3**	**4,772.7**
Liabilities												
17 Deposits	2,949.5	3,057.7	3,064.6	3,064.4	3,071.5	3,081.2	3,077.1	3,085.1	3,085.1	3,102.1	3,071.8	3,079.1
18 Transaction	660.0	650.4	646.5	639.1	644.8	637.9	627.0	625.0	613.4	632.7	624.4	633.0
19 Nontransaction	2,289.5	2,407.3	2,418.1	2,425.3	2,426.6	2,443.3	2,450.1	2,460.2	2,471.7	2,469.4	2,447.3	2,446.1
20 Large time	404.7	422.7	425.5	425.6	426.2	425.6	424.4	433.5	427.8	430.8	432.8	441.7
21 Other	1,884.7	1,984.6	1,992.6	1,999.7	2,000.5	2,017.7	2,025.7	2,026.6	2,043.9	2,038.6	2,014.5	2,004.5
22 Borrowings	738.7	814.3	811.6	825.1	839.6	846.0	853.6	867.4	865.6	852.5	881.8	871.7
23 From banks in the U.S.	276.5	295.2	290.8	302.9	311.9	314.5	314.7	317.2	319.7	314.4	319.5	314.1
24 From others	462.2	519.1	520.8	522.3	527.7	531.5	539.0	550.1	546.0	538.1	562.3	557.7
25 Net due to related foreign offices	108.4	117.7	115.4	118.7	145.6	145.2	150.4	152.1	156.3	152.2	148.3	150.6
26 Other liabilities	226.9	204.4	206.6	211.1	214.1	210.1	217.4	227.7	225.4	226.4	221.8	238.3
27 **Total liabilities**	**4,023.4**	**4,194.0**	**4,198.2**	**4,219.4**	**4,270.7**	**4,282.5**	**4,298.4**	**4,332.3**	**4,332.5**	**4,333.2**	**4,323.7**	**4,339.8**
28 Residual (assets less liabilities)[7]	412.9[r]	423.8[r]	418.4[r]	430.4[r]	429.9[r]	420.4	422.9	430.7	417.0	424.2	451.6	432.9
	Not seasonally adjusted											
Assets												
29 Bank credit	3,788.5[r]	3,938.3[r]	3,963.5[r]	3,980.0[r]	4,013.7[r]	4,012.2	4,040.5	4,085.9	4,069.0	4,086.7	4,090.9	4,098.7
30 Securities in bank credit	957.0	995.7	999.1	999.9	1,008.6[r]	1,025.4	1,040.0	1,052.4	1,050.4	1,057.1	1,054.2	1,048.7
31 U.S. government securities	680.0	720.7	722.6	720.1	723.6	720.7	725.1	726.4	728.3	726.3	726.0	724.5
32 Other securities	277.0	275.0	276.5	279.8	285.0[r]	304.7	315.0	326.0	322.1	330.8	328.1	324.2
33 Loans and leases in bank credit[2]	2,831.5[r]	2,942.6[r]	2,964.4[r]	2,980.1[r]	3,005.0[r]	2,986.9	3,000.4	3,033.5	3,018.6	3,029.6	3,036.7	3,050.0
34 Commercial and industrial	702.1	749.6	760.6	762.6	768.8[r]	770.6	770.7	780.7	778.1	780.8	778.6	785.9
35 Real estate	1,274.0	1,321.7	1,327.9	1,340.1	1,347.5	1,350.2	1,364.8	1,382.7	1,372.3	1,375.9	1,390.1	1,392.5
36 Revolving home equity	104.4	101.1	102.4	103.9	103.3	97.7	98.7	107.2	99.4	100.0	114.3	114.9
37 Other	1,169.6	1,220.6	1,225.5	1,236.3	1,244.2	1,252.5	1,266.1	1,275.5	1,272.8	1,275.8	1,275.8	1,277.5
38 Consumer	494.2	493.9	496.0	493.4	488.6[r]	479.6	481.3	484.2	482.4	485.6	486.7	483.1
39 Security[3]	70.8	70.9	72.1	73.5	78.2	67.9	63.7	61.3	61.9	58.9	61.9	63.2
40 Other loans and leases	290.5[r]	306.6[r]	307.9[r]	310.4[r]	322.0[r]	318.6	319.9	324.6	323.9	328.5	319.4	325.4
41 Interbank loans	185.8	198.7	197.0	196.7	197.3	190.4	181.5	181.4	184.6	183.8	177.9	177.6
42 Cash assets[4]	215.8	215.7	222.0	222.0	222.2	215.2	206.0	220.5	235.2	216.8	216.8	214.3
43 Other assets[5]	291.9	311.8	312.0	313.5	322.1	319.6	318.8	320.8	319.2	318.9	316.2	328.3
44 **Total assets[6]**	**4,424.6[r]**	**4,606.2[r]**	**4,636.5[r]**	**4,653.8[r]**	**4,696.8[r]**	**4,679.5**	**4,688.2**	**4,749.5**	**4,748.9**	**4,747.1**	**4,742.6**	**4,759.8**
Liabilities												
45 Deposits	2,947.4	3,049.1	3,075.9	3,052.7	3,068.8	3,067.4	3,065.7	3,084.2	3,110.6	3,110.0	3,042.1	3,067.8
46 Transaction	653.0	643.8	654.3	630.3	640.1	627.3	610.7	618.6	621.9	631.5	596.8	625.6
47 Nontransaction	2,294.3	2,405.3	2,421.6	2,422.4	2,428.6	2,440.1	2,455.0	2,465.5	2,488.7	2,478.5	2,445.3	2,442.2
48 Large time	404.2	422.5	423.4	424.5	422.6	420.7	422.5	433.1	428.9	431.8	432.0	438.5
49 Other	1,890.2	1,982.8	1,998.2	1,997.9	2,006.0	2,019.4	2,032.5	2,032.5	2,059.9	2,046.7	2,013.3	2,003.7
50 Borrowings	734.5	807.7	811.4	833.3	843.1	836.7	830.2	862.3	836.8	839.8	898.8	878.3
51 From banks in the U.S.	273.3	294.8	291.4	303.8	311.7	309.9	307.5	313.5	309.9	308.8	322.5	312.1
52 From others	461.2	512.9	519.9	529.5	531.4	526.8	522.7	548.8	526.9	531.0	576.4	566.2
53 Net due to related foreign offices	106.8	117.6	114.0	126.7	141.2	139.9	147.4	149.7	147.7	145.8	150.8	154.6
54 Other liabilities	226.3	205.0	207.3	211.3	213.9	210.1	217.1	227.0	224.7	225.6	221.2	237.7
55 **Total liabilities**	**4,014.9**	**4,179.4**	**4,208.6**	**4,224.1**	**4,267.0**	**4,254.1**	**4,260.4**	**4,323.2**	**4,319.8**	**4,321.2**	**4,312.9**	**4,338.5**
56 Residual (assets less liabilities)[7]	409.6[r]	426.9[r]	427.9[r]	429.8[r]	429.8[r]	425.4	427.7	426.3	429.1	425.9	429.7	421.4
MEMO												
57 Revaluation gains on off-balance-sheet items[8]	65.0	46.8	48.3	50.6	51.0	53.8	57.9	66.3	64.5	70.1	68.2	63.5
58 Revaluation losses on off-balance-sheet items[8]	68.1	46.7	49.3	52.5	53.4	55.7	62.0	66.0	64.1	69.8	66.8	64.0
59 Mortgage-backed securities[9]	313.3	336.9	335.7	335.5	332.1	330.7	335.2	337.9	340.9	339.4	335.5	335.5

Footnotes appear on p. A21.

1.26 COMMERCIAL BANKS IN THE UNITED STATES Assets and Liabilities[1]—Continued

C. Large domestically chartered commercial banks

Billions of dollars

Account	Monthly averages								Wednesday figures			
	1998	1999							1999			
	Sept.[r]	Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[r]	Sept.	Sept. 8	Sept. 15	Sept. 22	Sept. 29
	Seasonally adjusted											
Assets												
1 Bank credit	2,370.2	2,418.0	2,422.3	2,430.6	2,458.8	2,452.8	2,471.6	2,494.9	2,488.0	2,492.3	2,501.5	2,500.6
2 Securities in bank credit	557.2	547.5	544.5	544.3	555.0	575.0	589.6	599.2	594.7	603.2	605.4	594.7
3 U.S. government securities	376.4	383.2	379.4	377.5	383.8	383.9	391.5	389.7	391.0	390.6	391.2	386.1
4 Trading account	22.2	22.5	25.9	22.3	25.1	22.7	23.3	20.9	20.7	19.4	21.4	21.8
5 Investment account	354.2	360.8	353.5	355.2	358.7	361.2	368.3	368.9	370.3	371.2	369.7	364.2
6 Other securities	180.8	164.2	165.1	166.8	171.3	191.0	198.0	209.4	203.8	212.5	214.2	208.7
7 Trading account	91.4	66.7	66.1	68.3	67.5	73.0	77.0	84.2	80.7	88.4	86.4	82.5
8 Investment account	89.4	97.5	99.0	98.6	103.8	118.1	121.0	125.2	123.1	124.1	127.8	126.1
9 State and local government	23.4	24.9	24.6	24.8	25.3	25.4	25.7	25.7	25.7	25.7	25.6	25.7
10 Other	66.0	72.7	74.4	73.8	78.5	92.6	95.3	99.5	97.4	98.4	102.2	100.4
11 Loans and leases in bank credit[2]	1,813.1	1,870.6	1,877.8	1,886.3	1,903.8	1,877.9	1,882.1	1,895.7	1,893.2	1,889.1	1,896.1	1,905.9
12 Commercial and industrial	518.6	548.3	552.7	552.9	561.4	564.0	567.7	571.6	574.4	571.9	567.5	573.1
13 Bankers acceptances	1.3	1.1	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2
14 Other	517.3	547.1	551.7	551.9	560.4	563.0	566.6	570.4	573.3	570.8	566.3	572.0
15 Real estate	708.4	718.8	718.7	722.2	721.6	716.4	721.4	732.8	724.9	725.6	740.7	740.5
16 Revolving home equity	75.1	73.4	74.2	75.1	74.1	68.1	68.7	76.6	69.2	69.6	83.6	84.1
17 Other	633.3	645.4	644.4	647.1	647.5	648.3	652.7	656.2	655.8	656.1	657.1	656.4
18 Consumer	299.1	302.0	300.5	297.6	292.8	284.0	280.8	279.1	280.2	280.0	279.3	277.3
19 Security[3]	68.9	62.3	64.6	68.3	73.8	64.3	62.2	59.4	62.3	55.0	59.4	62.2
20 Federal funds sold to and repurchase agreements with broker–dealers	51.7	46.3	47.9	51.4	55.6	46.9	45.3	42.1	45.3	38.5	41.8	44.1
21 Other	17.2	16.0	16.7	16.8	18.2	17.4	16.9	17.3	17.0	16.6	17.6	18.2
22 State and local government	11.3	11.3	11.4	11.4	11.4	11.7	11.8	11.9	12.0	12.0	11.9	11.8
23 Agricultural	8.9	8.9	8.9	8.6	8.6	8.5	8.8	8.8	8.8	8.8	8.8	8.8
24 Federal funds sold to and repurchase agreements with others	12.9	12.4	11.8	14.4	38.7	25.2	7.7	10.9	9.3	11.2	11.8	11.8
25 All other loans	85.2	90.9	91.4	91.6	75.6	82.9	98.6	96.5	97.5	100.4	92.0	95.4
26 Lease-financing receivables	99.7	115.7	117.9	119.3	120.0	120.8	123.1	124.6	123.9	124.1	124.7	125.0
27 Interbank loans	121.3	133.9	131.7	143.3	144.7	139.8	134.6	132.6	131.4	131.4	136.3	130.1
28 Federal funds sold to and repurchase agreements with commercial banks	68.0	84.9	81.1	88.0	87.1	89.6	85.9	83.3	83.0	82.2	85.4	81.6
29 Other	53.3	48.9	50.6	55.2	57.6	50.1	48.7	49.4	48.4	49.2	50.9	48.5
30 Cash assets[4]	151.4	153.0	155.3	153.0	156.1	150.2	143.7	149.8	153.7	144.6	154.7	147.3
31 Other assets[5]	231.4	244.8	234.7	237.3	240.6	238.3	236.2	238.4	233.2	240.1	236.9	243.8
32 **Total assets**[6]	**2,836.4**	**2,911.0**	**2,905.5**	**2,925.6**	**2,961.7**	**2,942.9**	**2,947.8**	**2,977.2**	**2,967.7**	**2,969.8**	**2,990.7**	**2,983.2**
Liabilities												
33 Deposits	1,665.7	1,692.0	1,699.1	1,693.8	1,694.0	1,691.9	1,680.0	1,685.5	1,687.0	1,698.6	1,675.2	1,679.8
34 Transaction	378.3	361.8	364.2	355.3	357.0	350.6	338.3	338.9	333.0	346.3	336.8	342.1
35 Nontransaction	1,287.4	1,330.2	1,334.9	1,338.6	1,337.0	1,341.3	1,341.6	1,346.5	1,354.0	1,352.4	1,338.3	1,337.7
36 Large time	217.5	228.1	228.9	225.9	227.8	228.8	224.8	232.5	227.6	229.8	231.6	240.2
37 Other	1,069.9	1,102.1	1,106.0	1,112.7	1,109.2	1,112.5	1,116.8	1,114.1	1,126.4	1,122.6	1,106.8	1,097.5
38 Borrowings	578.3	626.8	625.9	633.6	643.4	639.3	645.3	653.6	652.7	638.9	668.4	655.9
39 From banks in the U.S.	201.1	209.9	207.1	215.6	220.7	217.4	219.0	221.1	223.4	216.6	223.5	219.2
40 From others	377.2	416.9	418.8	418.0	422.7	421.8	426.3	432.4	429.3	422.3	444.9	436.7
41 Net due to related foreign offices	104.6	113.1	110.5	113.6	141.5	140.9	146.9	148.7	153.3	148.7	144.8	147.1
42 Other liabilities	199.1	174.9	176.3	180.0	182.0	178.7	184.2	193.5	191.1	192.1	187.8	204.1
43 **Total liabilities**	**2,547.7**	**2,606.9**	**2,611.7**	**2,621.1**	**2,660.9**	**2,650.7**	**2,656.4**	**2,681.3**	**2,684.0**	**2,678.4**	**2,676.2**	**2,686.8**
44 Residual (assets less liabilities)[7]	288.8	304.1	293.8	304.6	300.8	292.1	291.4	296.0	283.7	291.5	314.5	296.5

Footnotes appear on p. A21.

1.26 COMMERCIAL BANKS IN THE UNITED STATES Assets and Liabilities[1]—Continued

C. Large domestically chartered commercial banks—Continued

Account	Monthly averages								Wednesday figures			
	1998	1999							1999			
	Sept.[r]	Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[r]	Sept.	Sept. 8	Sept. 15	Sept. 22	Sept. 29
	Not seasonally adjusted											
Assets												
45 Bank credit	2,359.6	2,420.7	2,428.3	2,428.4	2,449.1	2,438.8	2,452.2	2,482.8	2,473.0	2,482.3	2,486.2	2,490.8
46 Securities in bank credit	550.2	551.4	549.8	546.1	550.8	567.1	579.5	591.1	588.7	594.3	594.4	587.4
47 U.S. government securities	370.0	387.3	385.5	380.4	381.0	378.1	382.5	382.3	385.5	382.3	381.4	379.6
48 Trading account	22.0	23.4	25.2	20.8	23.5	20.9	22.2	20.7	21.4	19.7	20.8	20.8
49 Investment account	348.0	363.8	360.2	359.6	357.5	357.2	360.4	361.6	364.1	362.6	360.6	358.8
50 Mortgage-backed securities	240.1	245.2	242.3	239.3	234.9	233.6	237.7	240.5	243.3	241.9	238.3	238.0
51 Other	107.9	118.7	117.9	120.3	122.6	123.5	122.6	121.2	120.8	120.7	122.3	120.7
52 One year or less	28.5	24.5	24.9	24.3	25.3	25.3	24.9	24.4	23.7	23.7	24.8	25.4
53 One to five years	45.5	53.5	54.1	55.8	57.6	58.7	58.5	58.1	58.3	58.2	58.7	57.1
54 More than five years	33.9	40.6	38.9	40.2	39.7	39.5	39.2	38.6	38.8	38.8	38.8	38.2
55 Other securities	180.2	164.2	164.4	165.8	169.8	189.0	197.0	208.7	203.3	212.1	213.0	207.8
56 Trading account	91.4	66.7	66.1	68.3	67.5	73.0	77.0	84.2	80.7	88.4	86.4	82.5
57 Investment account	88.9	97.5	98.2	97.5	102.3	116.0	120.0	124.5	122.6	123.6	126.6	125.3
58 State and local government	23.2	24.9	24.7	24.9	25.1	24.9	25.4	25.6	25.5	25.6	25.6	25.7
59 Other	65.6	72.6	73.5	72.6	77.2	91.1	94.6	98.9	97.1	98.1	101.0	99.6
60 Loans and leases in bank credit[2]	1,809.4	1,869.2	1,878.5	1,882.3	1,898.3	1,871.7	1,872.7	1,891.7	1,884.2	1,887.9	1,891.8	1,903.4
61 Commercial and industrial	516.9	550.9	558.8	557.4	561.4	562.5	561.9	569.1	568.0	569.4	566.5	573.0
62 Bankers acceptances	1.3	1.1	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2
63 Other	515.6	549.8	557.7	556.4	560.4	561.5	560.9	568.0	566.9	568.2	565.4	571.9
64 Real estate	708.8	715.7	715.8	719.4	719.6	715.5	722.0	733.2	726.3	727.2	739.0	740.2
65 Revolving home equity	75.6	72.7	73.7	74.7	73.9	68.2	69.0	77.2	69.6	70.1	84.2	84.8
66 Other	393.1	392.6	390.5	392.3	393.1	394.1	398.5	400.0	401.6	400.9	398.5	398.9
67 Commercial	240.0	250.5	251.5	252.4	252.6	253.2	254.4	256.0	255.1	256.2	256.2	256.5
68 Consumer	301.0	299.3	298.1	295.4	290.8	282.2	281.4	281.0	281.9	282.2	281.5	278.9
69 Security[3]	64.9	65.1	66.5	68.4	73.0	62.7	58.4	55.9	56.3	53.4	56.9	58.0
70 Federal funds sold to and repurchase agreements with broker-dealers	47.8	48.9	49.8	51.2	54.1	45.3	41.8	38.8	40.1	36.6	39.1	40.2
71 Other	17.1	16.2	16.7	17.2	18.9	17.4	16.6	17.1	16.2	16.8	17.8	17.8
72 State and local government	11.4	11.2	11.3	11.3	11.3	11.6	11.9	12.0	12.1	12.1	12.0	11.9
73 Agricultural	9.1	8.6	8.6	8.6	8.7	8.8	9.0	9.0	9.0	9.0	9.0	9.0
74 Federal funds sold to and repurchase agreements with others	12.9	12.4	11.8	14.4	38.7	25.2	7.7	10.9	9.3	11.2	11.8	11.8
75 All other loans	85.7	89.2	89.5	88.2	74.5	82.7	97.8	97.1	98.5	100.6	91.8	96.6
76 Lease-financing receivables	98.8	116.6	118.1	119.2	120.2	120.4	122.5	123.4	122.9	122.9	123.1	124.0
77 Interbank loans	119.4	134.0	135.7	143.4	145.1	137.6	129.3	130.3	128.2	129.6	132.8	129.4
78 Federal funds sold to and repurchase agreements with commercial banks	66.5	84.7	83.8	87.1	86.2	86.0	80.9	81.3	79.7	80.9	82.6	81.1
79 Other	52.9	49.3	52.0	56.3	58.8	51.5	48.4	49.0	48.5	48.6	50.2	48.3
80 Cash assets[4]	150.4	148.0	154.2	151.5	151.9	144.4	136.9	148.7	158.9	144.7	146.9	144.8
81 Other assets[5]	232.8	241.0	239.1	239.6	246.0	240.5	237.7	239.6	236.3	240.3	236.0	246.0
82 Total assets[6]	**2,824.0**	**2,905.0**	**2,919.1**	**2,924.3**	**2,953.3**	**2,923.0**	**2,917.5**	**2,962.5**	**2,957.4**	**2,958.0**	**2,963.1**	**2,972.4**
Liabilities												
83 Deposits	1,661.2	1,690.5	1,705.2	1,679.4	1,688.0	1,680.6	1,670.0	1,681.5	1,696.7	1,701.2	1,651.7	1,672.3
84 Transaction	374.2	356.6	368.3	348.8	353.4	343.9	329.0	335.6	335.8	346.5	320.5	340.4
85 Nontransaction	1,286.9	1,333.9	1,337.0	1,330.6	1,334.6	1,336.7	1,341.0	1,345.9	1,360.9	1,354.6	1,331.2	1,331.9
86 Large time	217.0	227.9	226.8	224.7	224.3	223.9	223.0	232.0	228.6	230.7	230.8	237.0
87 Other	1,069.9	1,106.0	1,110.2	1,105.9	1,110.3	1,112.7	1,118.0	1,113.9	1,132.3	1,123.9	1,100.5	1,094.8
88 Borrowings	572.0	625.8	628.3	641.4	645.8	630.2	621.8	645.8	627.7	626.7	677.2	655.0
89 From banks in the U.S.	197.5	211.9	209.4	216.7	220.3	213.7	212.5	216.9	216.1	212.0	223.8	214.4
90 From nonbanks in the U.S.	374.5	414.0	418.8	424.7	425.5	416.5	409.3	428.9	411.6	414.7	453.4	440.7
91 Net due to related foreign offices	103.0	113.1	109.0	121.7	137.1	135.7	144.0	146.3	144.7	142.3	147.3	151.1
92 Other liabilities	199.1	174.9	176.3	180.0	182.0	178.7	184.2	193.5	191.1	192.1	187.8	204.1
93 Total liabilities	**2,535.3**	**2,604.3**	**2,618.8**	**2,622.5**	**2,652.8**	**2,625.1**	**2,620.0**	**2,667.1**	**2,660.2**	**2,662.3**	**2,663.9**	**2,682.4**
94 Residual (assets less liabilities)[7]	288.7	300.7	300.3	301.7	300.5	297.8	297.6	295.4	297.3	295.7	299.2	290.0
MEMO												
95 Revaluation gains on off-balance-sheet items[8]	65.0	46.8	48.3	50.6	51.0	53.8	57.9	66.3	64.5	70.1	68.2	63.5
96 Revaluation losses on off-balance-sheet items[8]	68.1	46.6	49.3	52.5	53.4	55.7	62.0	66.0	64.1	69.8	66.8	64.0
97 Mortgage-backed securities[9]	263.7	273.3	270.6	266.6	262.0	260.4	265.2	267.5	270.7	269.0	265.1	264.8
98 Pass-through securities	170.3	183.5	180.6	177.8	174.5	174.1	177.8	176.8	179.7	178.4	174.5	174.2
99 CMOs, REMICs, and other mortgage-backed securities	93.5	89.8	90.0	88.7	87.5	86.3	87.4	90.7	91.0	90.6	90.6	90.6
100 Net unrealized gains (losses) on available-for-sale securities[10]	3.7	.6	.9	.6	.0	−3.3	−4.2	−4.9	−5.1	−4.9	−4.8	−4.8
101 Offshore credit to U.S. residents[11]	36.8	39.0	37.9	37.7	37.0	36.3	32.2	27.8	27.2	27.5	28.0	28.4

Footnotes appear on p. A21.

1.26 COMMERCIAL BANKS IN THE UNITED STATES Assets and Liabilities[1]—Continued

D. Small domestically chartered commercial banks

Billions of dollars

Account	Monthly averages 1998 Sept.[r]	1999 Mar.[r]	1999 Apr.[r]	1999 May[r]	1999 June[r]	1999 July[r]	1999 Aug.[r]	1999 Sept.	Wednesday figures 1999 Sept. 8	Sept. 15	Sept. 22	Sept. 29
	Seasonally adjusted											
Assets												
1 Bank credit	1,425.4	1,523.4	1,530.1	1,541.5	1,557.5	1,572.2	1,586.2	1,599.9	1,595.4	1,600.5	1,598.3	1,605.0
2 Securities in bank credit	408.6	442.7	444.4	448.4	456.0	459.9	462.1	463.7	464.8	465.0	461.0	463.7
3 U.S. government securities	311.5	331.9	332.9	335.2	340.7	344.1	344.3	345.8	345.3	345.8	345.4	346.9
4 Other securities	97.0	110.8	111.5	113.2	115.2	115.8	117.8	117.8	119.6	119.2	115.6	116.9
5 Loans and leases in bank credit[2]	1,016.8	1,080.7	1,085.7	1,093.1	1,101.5	1,112.2	1,124.1	1,136.3	1,130.6	1,135.4	1,137.3	1,141.2
6 Commercial and industrial	186.2	198.0	199.7	202.6	205.4	208.2	210.1	212.7	211.7	212.5	212.6	214.1
7 Real estate	562.1	609.6	612.3	618.3	625.1	632.5	640.7	646.2	643.4	644.8	647.1	648.8
8 Revolving home equity	28.5	28.6	28.8	29.2	29.5	29.8	29.8	29.8	29.7	29.7	29.8	29.8
9 Other	533.6	581.0	583.5	589.1	595.6	602.8	610.9	616.4	613.6	615.1	617.3	619.0
10 Consumer	192.2	196.7	199.0	198.3	198.5	198.0	199.3	202.1	199.8	202.1	203.3	203.3
11 Security[3]	5.9	5.8	5.5	5.2	5.2	5.3	5.3	5.3	5.6	5.5	5.0	5.2
12 Other loans and leases	70.4	70.6	69.2	68.7	67.3	68.2	68.7	69.9	70.1	70.5	69.3	69.9
13 Interbank loans	68.4	61.7	60.3	57.6	55.3	56.9	54.7	52.3	52.8	54.8	49.5	52.0
14 Cash assets[4]	66.6	69.1	67.9	71.0	71.4	72.6	72.3	73.2	73.6	73.7	74.8	71.4
15 Other assets[5]	58.7	72.1	72.6	74.0	74.5	78.0	80.4	80.7	80.1	78.9	82.3	81.4
16 **Total assets[6]**	**1,599.9**	**1,706.8**	**1,711.1**	**1,724.1**	**1,738.9**	**1,760.0**	**1,773.5**	**1,785.8**	**1,781.8**	**1,787.6**	**1,784.6**	**1,789.4**
Liabilities												
17 Deposits	1,283.8	1,365.7	1,365.5	1,370.6	1,377.4	1,389.4	1,397.1	1,399.6	1,398.2	1,403.5	1,396.6	1,399.4
18 Transaction	281.8	288.6	282.3	283.9	287.8	287.3	288.6	286.0	280.5	286.5	287.6	290.9
19 Nontransaction	1,002.1	1,077.1	1,083.2	1,086.8	1,089.6	1,102.0	1,108.4	1,113.6	1,117.7	1,117.0	1,109.0	1,108.5
20 Large time	187.2	194.6	196.6	199.8	198.3	196.8	199.6	201.1	200.3	201.0	201.2	201.5
21 Other	814.9	882.5	886.6	887.0	891.3	905.3	908.9	912.6	917.4	916.0	907.7	907.0
22 Borrowings	160.4	187.5	185.7	191.5	196.2	206.7	208.4	213.8	212.9	213.6	213.4	215.9
23 From banks in the U.S.	75.4	85.3	83.7	87.3	91.2	97.1	95.7	96.1	96.3	97.8	96.0	94.9
24 From others	85.0	102.2	102.0	104.3	105.0	109.7	112.7	117.7	116.7	115.8	117.4	120.9
25 Net due to related foreign offices	3.7	4.5	4.9	5.0	4.1	4.3	3.5	3.4	3.0	3.5	3.5	3.6
26 Other liabilities	27.7	29.4	30.4	31.1	32.1	31.4	33.1	34.2	34.3	34.2	34.0	34.3
27 **Total liabilities**	**1,475.7**	**1,587.1**	**1,586.5**	**1,598.3**	**1,609.8**	**1,631.7**	**1,642.0**	**1,651.1**	**1,648.4**	**1,654.9**	**1,647.5**	**1,653.1**
28 Residual (assets less liabilities)[7]	124.2	119.7	124.6	125.8	129.0	128.3	131.5	134.8	133.3	132.8	137.1	136.4
	Not seasonally adjusted											
Assets												
29 Bank credit	1,428.9	1,517.6	1,535.2	1,551.6	1,564.6	1,573.4	1,588.3	1,603.2	1,596.0	1,604.5	1,604.7	1,607.9
30 Securities in bank credit	406.8	444.2	449.3	453.8	457.8	458.2	460.5	461.3	461.7	462.8	459.7	461.2
31 U.S. government securities	310.0	333.4	337.1	339.7	342.6	342.6	342.5	344.0	342.8	344.0	344.6	344.9
32 Other securities	96.7	110.8	112.2	114.0	115.2	115.6	118.0	117.3	118.9	118.7	115.1	116.3
33 Loans and leases in bank credit[2]	1,022.1	1,073.4	1,085.9	1,097.8	1,106.8	1,115.2	1,127.8	1,141.8	1,134.3	1,141.7	1,145.0	1,146.7
34 Commercial and industrial	185.2	198.6	201.8	205.2	207.4	208.1	208.8	211.6	210.1	211.4	212.1	212.9
35 Real estate	565.2	605.9	612.1	620.7	627.9	634.6	642.9	649.5	646.0	648.7	651.1	652.3
36 Revolving home equity	28.8	28.4	28.7	29.2	29.4	29.5	29.7	30.0	29.9	29.9	30.1	30.1
37 Other	536.5	577.5	583.4	591.6	598.5	605.1	613.2	619.5	616.1	618.8	621.0	622.1
38 Consumer	193.1	194.5	197.9	198.0	197.8	197.4	199.9	203.2	200.5	203.4	205.1	204.2
39 Security[3]	5.9	5.8	5.5	5.2	5.2	5.3	5.3	5.3	5.6	5.5	5.0	5.2
40 Other loans and leases	72.7	68.5	68.5	68.7	68.5	69.8	71.0	72.1	72.2	72.7	71.6	72.2
41 Interbank loans	66.4	64.7	61.3	53.3	52.2	52.8	52.1	51.1	56.4	54.3	45.1	48.2
42 Cash assets[4]	65.4	67.7	67.8	70.6	70.3	70.8	69.2	71.9	76.3	72.1	69.9	69.5
43 Other assets[5]	59.1	70.8	72.9	73.9	76.2	79.2	81.1	81.1	82.9	78.6	80.2	82.3
44 **Total assets[6]**	**1,600.5**	**1,701.2**	**1,717.4**	**1,729.5**	**1,743.4**	**1,756.5**	**1,770.6**	**1,787.0**	**1,791.4**	**1,789.1**	**1,779.5**	**1,787.5**
Liabilities												
45 Deposits	1,286.2	1,358.6	1,370.7	1,373.3	1,380.8	1,386.8	1,395.7	1,402.7	1,413.9	1,408.8	1,390.4	1,395.5
46 Transaction	278.8	287.3	286.0	281.5	286.7	283.4	281.7	283.1	286.1	285.0	276.3	285.2
47 Nontransaction	1,007.4	1,071.4	1,084.7	1,091.8	1,094.1	1,103.4	1,114.0	1,119.6	1,127.8	1,123.9	1,114.1	1,110.3
48 Large time	187.2	194.6	196.6	199.8	198.3	196.8	199.6	201.1	200.3	201.0	201.2	201.5
49 Other	820.2	876.7	888.0	892.0	895.7	906.6	914.4	918.6	927.6	922.8	912.8	908.9
50 Borrowings	162.5	181.9	183.1	191.9	197.3	206.5	208.4	216.5	209.1	213.1	221.7	223.3
51 From banks in the U.S.	75.8	82.9	82.0	87.1	91.4	96.2	95.0	96.5	93.8	96.8	98.7	97.7
52 From others	86.7	99.0	101.1	104.8	105.9	110.3	113.4	119.9	115.3	116.3	123.0	125.6
53 Net due to related foreign offices	3.7	4.5	4.9	5.0	4.1	4.3	3.5	3.4	3.0	3.5	3.5	3.6
54 Other liabilities	27.2	30.0	31.1	31.3	31.9	31.4	32.9	33.5	33.6	33.5	33.4	33.7
55 **Total liabilities**	**1,479.6**	**1,575.1**	**1,589.7**	**1,601.5**	**1,614.2**	**1,629.0**	**1,640.5**	**1,656.1**	**1,659.6**	**1,658.9**	**1,648.9**	**1,656.0**
56 Residual (assets less liabilities)[7]	120.9	126.1	127.7	128.0	129.3	127.5	130.1	130.9	131.8	130.2	130.6	131.4
MEMO												
57 Mortgage-backed securities[9]	49.5	63.6	65.1	68.9	70.1	70.4	70.0	70.4	70.2	70.4	70.4	70.7

Footnotes appear on p. A21.

1.26 COMMERCIAL BANKS IN THE UNITED STATES Assets and Liabilities[1]—Continued

E. Foreign-related institutions

Billions of dollars

Account	Monthly averages								Wednesday figures			
	1998	1999							1999			
	Sept.	Mar.r	Apr.r	Mayr	Juner	July	Aug.	Sept.	Sept. 8	Sept. 15r	Sept. 22	Sept. 29
	Seasonally adjusted											
Assets												
1 Bank credit	598.3r	550.6	549.6	539.5	531.9	519.1	522.4r	517.5	508.8	524.1	518.3	517.8
2 Securities in bank credit	211.9	197.3	200.0	195.7	195.7	189.5	190.0	189.3	182.3	195.9	190.7	188.1
3 U.S. government securities	83.6	85.3	89.1	87.0	88.1	85.8r	84.0	81.7	82.4	81.8	80.5	81.3
4 Other securities	128.2	112.0	110.9	108.7	107.6	103.8	106.0	107.6	99.8	114.1	110.2	106.8
5 Loans and leases in bank credit[2]	386.4r	353.4	349.7	343.7	336.3	329.6	332.4r	328.2	326.6	328.2	327.6	329.7
6 Commercial and industrial	216.0r	209.9	208.2	200.7	195.5	191.6r	194.4r	196.1	195.9	194.4	196.9	197.2
7 Real estate	23.9r	20.1	19.9	19.8	19.2	18.4	17.6	17.6	17.3	17.7	17.8	17.6
8 Security[3]	66.9r	50.7	51.7	53.1	51.8	52.5r	54.8r	51.2	50.6	53.0	48.7	51.9
9 Other loans and leases	79.5r	72.6	69.8	70.1	69.8	67.1	65.6	63.3	62.7	63.0	64.2	63.1
10 Interbank loans	27.3	25.7	25.4	26.6	24.5	27.4	25.7	22.9	26.8	20.2	24.5	20.2
11 Cash assets[4]	34.3	34.1	34.6	35.9	33.5	35.1	38.1	40.9	41.1	40.8	41.5	39.9
12 Other assets[5]	37.3	37.5	37.5	35.9	33.4	32.2	29.0	29.3	28.0	30.6	29.7	28.9
13 **Total assets[6]**	**696.9r**	**647.6**	**646.9**	**637.6**	**623.1**	**613.5**	**615.0**	**610.3**	**604.5**	**615.4**	**613.7**	**606.6**
Liabilities												
14 Deposits	315.3	310.2	311.9	310.4	305.7	310.0	308.7	310.7	311.5	311.1	309.0	310.1
15 Transaction	15.3	10.5	10.1	10.5	10.9	10.9	11.0	10.9	11.6	11.0	10.2	10.7
16 Nontransaction	300.0	299.7	301.8	299.9	294.8	299.0r	297.7	299.8	299.9	300.1	298.8	299.4
17 Borrowings	205.4	173.5	172.1	172.7	180.9	172.1r	171.9	168.7	164.4	171.8	167.6	169.4
18 From banks in the U.S.	28.5	23.8	21.0	21.4	26.6	24.6	23.6	25.2	24.1	26.0	23.0	27.3
19 From others	176.9	149.7	151.1	151.3	154.4	147.5r	148.3	143.4	140.3	145.8	144.7	142.1
20 Net due to related foreign offices	98.1	92.7	94.8	85.2	69.4	67.3	71.9	66.1	70.7	66.5	68.6	59.3
21 Other liabilities	75.9	68.0	67.2	59.9	61.4	63.4r	61.7	64.5	60.8	67.8	66.3	63.8
22 **Total liabilities**	**694.7**	**644.4**	**645.9**	**628.3**	**617.5**	**612.7**	**614.2**	**609.9**	**607.5**	**617.1**	**611.5**	**602.5**
23 Residual (assets less liabilities)[7]	2.2r	3.1	.9	9.3	5.6	.8	.8	.4	−3.0	−1.6	2.2	4.1
	Not seasonally adjusted											
Assets												
24 Bank credit	597.5r	552.3	546.8	534.3	528.8	516.0r	518.7r	516.6	504.8	521.7	517.8	521.2
25 Securities in bank credit	211.3	198.4	198.4	194.1	194.8	187.9	188.7	188.6	181.3	194.3	190.1	188.5
26 U.S. government securities	82.9	86.2	88.8	87.8	88.5	85.2	83.0	80.7	81.2	80.9	79.8	80.5
27 Trading account	20.7	20.4	21.7	19.0	20.6	19.0	16.5	14.8	15.9	14.9	13.7	14.5
28 Investment account	62.1	65.7	67.0	68.8	67.9	66.2	66.5	65.9	65.3	66.0	66.1	66.1
29 Other securities	128.4	112.2	109.6	106.3	106.3	102.7	105.7	107.9	100.1	113.4	110.3	107.9
30 Trading account	84.2	68.3	66.5	64.8	63.3	60.9r	65.2	70.0	62.4	75.5	72.0	70.7
31 Investment account	44.2	43.9	43.1	41.4	43.0	41.7	40.5	37.8	37.7	37.9	38.3	37.3
32 Loans and leases in bank credit[2]	386.2r	353.9	348.4	340.2	334.1	328.1r	330.0r	328.0	323.4	327.4	327.7	332.7
33 Commercial and industrial	215.6	210.2	206.7	198.0	193.8	190.8r	192.7r	195.8	193.7	193.6	197.0	198.8
34 Real estate	23.9r	20.2	19.7	19.6	19.0	18.2	17.5	17.6	17.3	17.7	17.8	17.6
35 Security[3]	67.1r	51.4	51.7	52.9	52.0	52.1r	54.9	51.3	50.0	53.3	49.1	52.4
36 Other loans and leases	79.6r	72.1	70.3	69.7	69.3	66.9r	64.9	63.3	62.4	62.8	63.8	63.9
37 Interbank loans	27.3	25.7	25.4	26.6	24.5	27.4	25.7	22.9	26.8	20.2	24.5	20.2
38 Cash assets[4]	34.1	33.1	33.5	35.6	34.3	35.0	37.7	40.6	40.1	39.7	41.3	41.2
39 Other assets[5]	37.8	38.1	35.7	35.2	32.4	31.4	29.6	29.7	29.0	30.9	29.7	29.1
40 **Total assets[6]**	**696.3r**	**648.8**	**641.1**	**631.3**	**619.8**	**609.5**	**611.5**	**609.6**	**600.4**	**612.1**	**613.1**	**611.4**
Liabilities												
41 Deposits	315.1	313.5	311.3	312.8	306.4	307.5	306.1	310.2	308.2	308.4	309.4	313.9
42 Transaction	16.0	10.7	9.9	10.3	10.7	10.8	10.9	11.4	11.8	11.3	10.7	11.8
43 Nontransaction	299.1	302.8	301.4	302.5	295.7	296.7	295.2	298.8	296.5	297.1	298.6	302.1
44 Borrowings	205.4	173.5	172.1	172.7	180.9	172.1r	171.9	168.7	164.4	171.8	167.6	169.4
45 From banks in the U.S.	28.5	23.8	21.0	21.4	26.6	24.6	23.6	25.2	24.1	26.0	23.0	27.3
46 From others	176.9	149.7	151.1	151.3	154.4	147.5r	148.3	143.4	140.3	145.8	144.7	142.1
47 Net due to related foreign offices	96.3	91.0	89.2	83.4	68.1	64.8	69.8	64.6	64.9	62.4	68.7	62.5
48 Other liabilities	75.5	68.0	66.1	59.4	61.0	62.5r	61.8	64.1	60.8	67.3	65.4	63.6
49 **Total liabilities**	**692.3**	**646.0**	**638.7**	**628.2**	**616.4**	**606.8**	**609.7**	**607.5**	**598.4**	**610.0**	**611.1**	**609.4**
50 Residual (assets less liabilities)[7]	4.1r	2.8	2.5	3.1	3.4	2.7	1.8	2.0	2.0	2.2	1.9	2.0
MEMO												
51 Revaluation gains on off-balance-sheet items[8]	47.7	39.5	38.2	35.3	34.9	37.3	38.1	38.3	35.9	41.9	38.7	37.3
52 Revaluation losses on off-balance-sheet items[8]	44.2	39.1	38.6	34.8	34.1	36.3r	36.3	37.3	34.8	40.6	37.9	36.5

Footnotes appear on p. A21.

NOTES TO TABLE 1.26

NOTE. Tables 1.26, 1.27, and 1.28 have been revised to reflect changes in the Board's H.8 statistical release, "Assets and Liabilities of Commercial Banks in the United States." Table 1.27, "Assets and Liabilities of Large Weekly Reporting Commercial Banks," and table 1.28, "Large Weekly Reporting U.S. Branches and Agencies of Foreign Banks," are no longer being published in the *Bulletin*. Instead, abbreviated balance sheets for both large and small domestically chartered banks have been included in table 1.26, parts C and D. Data are both merger-adjusted and break-adjusted. In addition, data from large weekly reporting U.S. branches and agencies of foreign banks have been replaced by balance sheet estimates of all foreign-related institutions and are included in table 1.26, part E. These data are break-adjusted.

The not-seasonally-adjusted data for all tables now contain additional balance sheet items, which were available as of October 2, 1996.

1. Covers the following types of institutions in the fifty states and the District of Columbia: domestically chartered commercial banks that submit a weekly report of condition (large domestic); other domestically chartered commercial banks (small domestic); branches and agencies of foreign banks, and Edge Act and agreement corporations (foreign-related institutions). Excludes International Banking Facilities. Data are Wednesday values or *pro rata* averages of Wednesday values. Large domestic banks constitute a universe; data for small domestic banks and foreign-related institutions are estimates based on weekly samples and on quarter-end condition reports. Data are adjusted for breaks caused by reclassifications of assets and liabilities.

The data for large and small domestic banks presented on pp. A17–19 are adjusted to remove the estimated effects of mergers between these two groups. The adjustment for mergers changes past levels to make them comparable with current levels. Estimated quantities of balance sheet items acquired in mergers are removed from past data for the bank group that contained the acquired bank and put into past data for the group containing the acquiring bank. Balance sheet data for acquired banks are obtained from Call Reports, and a ratio procedure is used to adjust past levels.

2. Excludes federal funds sold to, reverse RPs with, and loans made to commercial banks in the United States, all of which are included in "Interbank loans."

3. Consists of reverse RPs with brokers and dealers and loans to purchase and carry securities.

4. Includes vault cash, cash items in process of collection, balances due from depository institutions, and balances due from Federal Reserve Banks.

5. Excludes the due-from position with related foreign offices, which is included in "Net due to related foreign offices."

6. Excludes unearned income, reserves for losses on loans and leases, and reserves for transfer risk. Loans are reported gross of these items.

7. This balancing item is not intended as a measure of equity capital for use in capital adequacy analysis. On a seasonally adjusted basis this item reflects any differences in the seasonal patterns estimated for total assets and total liabilities.

8. Fair value of derivative contracts (interest rate, foreign exchange rate, other commodity and equity contracts) in a gain/loss position, as determined under FASB Interpretation No. 39.

9. Includes mortgage-backed securities issued by U.S. government agencies, U.S. government-sponsored enterprises, and private entities.

10. Difference between fair value and historical cost for securities classified as available-for-sale under FASB Statement No. 115. Data are reported net of tax effects. Data shown are restated to include an estimate of these tax effects.

11. Mainly commercial and industrial loans but also includes an unknown amount of credit extended to other than nonfinancial businesses.

1.32 COMMERCIAL PAPER AND BANKERS DOLLAR ACCEPTANCES OUTSTANDING

A. Commercial Paper

Millions of dollars, seasonally adjusted, end of period

Item	Year ending December					1999					
	1994	1995	1996	1997	1998	Mar.	Apr.	May	June	July	Aug.
1 **All issuers**	**595,382**	**674,904**	**775,371**	**966,699**	**1,163,303**	**1,204,627**	**1,219,789**	**1,230,009**	**1,221,020**	**1,242,107**	**1,257,658**
Financial companies[1]											
2 Dealer-placed paper, total[2]	223,038	275,815	361,147	513,307	614,142	684,616	697,030	710,857	705,603	712,718	710,320
3 Directly placed paper, total[3]	207,701	210,829	229,662	252,536	322,030	276,424	276,721	268,129	272,014	277,570	290,228
4 Nonfinancial companies[4]	164,643	188,260	184,563	200,857	227,132	243,587	246,038	251,023	243,404	251,819	257,110

1. Institutions engaged primarily in commercial, savings, and mortgage banking; sales, personal, and mortgage financing; factoring, finance leasing, and other business lending; insurance underwriting; and other investment activities.
2. Includes all financial-company paper sold by dealers in the open market.
3. As reported by financial companies that place their paper directly with investors.
4. Includes public utilities and firms engaged primarily in such activities as communications, construction, manufacturing, mining, wholesale and retail trade, transportation, and services.

B. Bankers Dollar Acceptances[1]

Millions of dollars, not seasonally adjusted, year ending September[2]

Item	1995	1996	1997	1998
1 **Total amount of reporting banks' acceptances in existence**	**29,242**	**25,832**	**25,774**	**14,363**
2 Amount of other banks' eligible acceptances held by reporting banks	1,249	709	736	523
3 Amount of own eligible acceptances held by reporting banks (included in item 1)	10,516	7,770	6,862	4,884
4 Amount of eligible acceptances representing goods stored in, or shipped between, foreign countries (included in item 1)	11,373	9,361	10,467	5,413

1. Includes eligible, dollar-denominated bankers acceptances legally payable in the United States. Eligible acceptances are those that are eligible for discount by Federal Reserve Banks; that is, those acceptances that meet the criteria of Paragraph 7 of Section 13 of the Federal Reserve Act (12 U.S.C. §372).
2. Data on bankers dollar acceptances are gathered from approximately 65 institutions; includes U.S. chartered commerical banks (domestic and foreign offices), U.S. branches and agencies of foreign banks, and Edge and agreement corporations. The reporting group is revised every year.

1.33 PRIME RATE CHARGED BY BANKS Short-Term Business Loans[1]

Percent per year

Date of change	Rate	Period	Average rate	Period	Average rate	Period	Average rate
1996—Jan. 1	8.50	1996	8.27	1997—Jan.	8.25	1999—Aug.	8.50
Feb. 1	8.25	1997	8.44	Feb.	8.25	Sept.	8.49
		1998	8.35	Mar.	8.30	Oct.	8.12
1997—Mar. 26	8.50			Apr.	8.50	Nov.	7.89
		1996—Jan.	8.50	May	8.50	Dec.	7.75
1998—Sept. 30	8.25	Feb.	8.25	June	8.50	1999—Jan.	7.75
Oct. 16	8.00	Mar.	8.25	July	8.50	Feb.	7.75
Nov. 18	7.75	Apr.	8.25	Aug.	8.50	Mar.	7.75
		May	8.25	Sept.	8.50	Apr.	7.75
1999—July 1	8.00	June	8.25	Oct.	8.50	May	7.75
Aug. 25	8.25	July	8.25	Nov.	8.50	June	7.75
		Aug.	8.25	Dec.	8.50	July	8.00
		Sept.	8.25	1998—Jan.	8.50	Aug.	8.06
		Oct.	8.25	Feb.	8.50	Sept.	8.25
		Nov.	8.25	Mar.	8.50	Oct.	8.25
		Dec.	8.25	Apr.	8.50		
				May	8.50		
				June	8.50		
				July	8.50		

1. The prime rate is one of several base rates that banks use to price short-term business loans. The table shows the date on which a new rate came to be the predominant one quoted by a majority of the twenty-five largest banks by asset size, based on the most recent Call Report. Data in this table also appear in the Board's H.15 (519) weekly and G.13 (415) monthly statistical releases. For ordering address, see inside front cover.

1.35 INTEREST RATES Money and Capital Markets

Percent per year; figures are averages of business day data unless otherwise noted

Item	1996	1997	1998	1999				1999, week ending				
				June	July	Aug.	Sept.	Aug. 27	Sept. 3	Sept. 10	Sept. 17	Sept. 24
MONEY MARKET INSTRUMENTS												
1 Federal funds[1,2,3]	5.30	5.46	5.35	4.76	4.99	5.07	5.22	5.02	5.34	5.16	5.24	5.16
2 Discount window borrowing[2,4]	5.02	5.00	4.92	4.50	4.50	4.56	4.75	4.57	4.75	4.75	4.75	4.75
Commercial paper[3,5,6]												
Nonfinancial												
3 1-month	n.a.	5.57	5.40	4.95	5.06	5.18	5.28	5.23	5.28	5.28	5.28	5.29
4 2-month	n.a.	5.57	5.38	4.98	5.08	5.23	5.29	5.28	5.29	5.29	5.30	5.29
5 3-month	n.a.	5.56	5.34	4.98	5.11	5.25	5.32	5.30	5.31	5.31	5.33	5.33
Financial												
6 1-month	n.a.	5.59	5.42	4.96	5.08	5.20	5.29	5.26	5.29	5.29	5.28	5.29
7 2-month	n.a.	5.59	5.40	5.00	5.10	5.24	5.31	5.30	5.31	5.31	5.31	5.31
8 3-month	n.a.	5.60	5.37	5.04	5.14	5.28	5.32	5.32	5.32	5.32	5.31	5.33
Commercial paper (historical)[3,5,7]												
9 1-month	5.43	5.54	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10 3-month	5.41	5.58	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11 6-month	5.42	5.62	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Finance paper, directly placed (historical)[3,5,8]												
12 1-month	5.31	5.44	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13 3-month	5.29	5.48	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14 6-month	5.21	5.48	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bankers acceptances[3,5,9]												
15 3-month	5.31	5.54	5.39	5.04	5.16	5.30	5.37	5.36	5.37	5.36	5.36	5.38
16 6-month	5.31	5.57	5.30	5.14	5.42	5.64	5.75	5.70	5.71	5.76	5.76	5.77
Certificates of deposit, secondary market[3,10]												
17 1-month	5.35	5.54	5.49	5.01	5.13	5.25	5.34	5.30	5.32	5.34	5.34	5.34
18 3-month	5.39	5.62	5.47	5.13	5.24	5.41	5.50	5.42	5.45	5.45	5.45	5.45
19 6-month	5.47	5.73	5.44	5.31	5.58	5.83	5.89	5.86	5.88	5.89	5.88	5.88
20 Eurodollar deposits, 3-month[3,11]	5.38	5.61	5.45	5.09	5.21	5.36	5.48	5.39	5.41	5.44	5.44	5.44
U.S. Treasury bills												
Secondary market[3,5]												
21 3-month	5.01	5.06	4.78	4.57	4.55	4.72	4.68	4.81	4.82	4.67	4.61	4.65
22 6-month	5.08	5.18	4.83	4.82	4.58	4.87	4.88	4.89	4.97	4.93	4.89	4.85
23 1-year	5.22	5.32	4.80	4.82	4.75	4.91	4.96	4.91	5.00	4.99	4.97	4.95
Auction high[3,5,12]												
24 3-month	5.02	5.07	4.81	4.59	4.60	4.76	4.73	4.85	4.88	4.72	4.66	4.66
25 6-month	5.09	5.18	4.85	4.81	4.62	4.88	4.91	4.95	4.99	4.95	4.93	4.89
26 1-year	5.23	5.36	4.85	4.89	4.71	4.95	5.00	n.a.	n.a.	n.a.	5.00	n.a.
U.S. TREASURY NOTES AND BONDS												
Constant maturities[13]												
27 1-year	5.52	5.63	5.05	5.10	5.03	5.20	5.25	5.19	5.29	5.28	5.26	5.23
28 2-year	5.84	5.99	5.13	5.62	5.55	5.68	5.66	5.61	5.72	5.68	5.66	5.64
29 3-year	5.99	6.10	5.14	5.70	5.62	5.77	5.75	5.69	5.80	5.78	5.76	5.71
30 5-year	6.18	6.22	5.15	5.81	5.68	5.84	5.80	5.71	5.86	5.82	5.80	5.77
31 7-year	6.34	6.33	5.28	6.05	5.94	6.15	6.12	6.02	6.18	6.15	6.12	6.07
32 10-year	6.44	6.35	5.26	5.90	5.79	5.94	5.92	5.81	5.97	5.94	5.92	5.88
33 20-year	6.83	6.69	5.72	6.36	6.28	6.43	6.50	6.35	6.50	6.51	6.52	6.46
34 30-year	6.71	6.61	5.58	6.04	5.98	6.07	6.07	5.93	6.08	6.07	6.08	6.06
Composite												
35 More than 10 years (long-term)	6.80	6.67	5.69	6.31	6.22	6.37	6.43	6.28	6.43	6.44	6.45	6.40
STATE AND LOCAL NOTES AND BONDS												
Moody's series[14]												
36 Aaa	5.52	5.32	4.93	5.22	5.24	5.47	5.56	5.49	5.51	5.50	5.62	5.60
37 Baa	5.79	5.50	5.14	5.59	5.64	5.93	6.06	5.95	6.00	5.99	6.11	6.10
38 *Bond Buyer* series[15]	5.76	5.52	5.09	5.37	5.36	5.58	5.69	5.61	5.67	5.66	5.69	5.71
CORPORATE BONDS												
39 Seasoned issues, all industries[16]	7.66	7.54	6.87	7.62	7.57	7.77	7.78	7.67	7.81	7.81	7.78	7.75
Rating group												
40 Aaa	7.37	7.27	6.53	7.23	7.19	7.40	7.39	7.29	7.44	7.43	7.40	7.35
41 Aa	7.55	7.48	6.80	7.52	7.48	7.68	7.68	7.58	7.72	7.72	7.68	7.63
42 A	7.69	7.54	6.93	7.69	7.65	7.84	7.84	7.74	7.88	7.87	7.85	7.81
43 Baa	8.05	7.87	7.22	8.02	7.95	8.15	8.20	8.06	8.21	8.20	8.18	8.19
MEMO												
Dividend–price ratio[17]												
44 Common stocks	2.19	1.77	1.49	1.25	1.20	1.25	1.27	1.20	1.25	1.24	1.27	1.27

1. The daily effective federal funds rate is a weighted average of rates on trades through New York brokers.
2. Weekly figures are averages of seven calendar days ending on Wednesday of the current week; monthly figures include each calendar day in the month.
3. Annualized using a 360-day year or bank interest.
4. Rate for the Federal Reserve Bank of New York.
5. Quoted on a discount basis.
6. Interest rates interpolated from data on certain commercial paper trades settled by the Depository Trust Company. The trades represent sales of commercial paper by dealers or direct issuers to investors (that is, the offer side). See Board's Commercial Paper Web pages (http://www.federalreserve.gov/releases/cp) for more information.
7. An average of offering rates on commercial paper for firms whose bond rating is AA or the equivalent. Series ended August 29, 1997.
8. An average of offering rates on paper directly placed by finance companies. Series ended August 29, 1997.
9. Representative closing yields for acceptances of the highest-rated money center banks.
10. An average of dealer offering rates on nationally traded certificates of deposit.
11. Bid rates for Eurodollar deposits collected around 9:30 a.m. Eastern time. Data are for indication purposes only.
12. Auction date for daily data; weekly and monthly averages computed on an issue-date basis. On or after October 28, 1998, data are stop yields from uniform-price auctions. Before that, they are weighted average yields from multiple-price auctions.
13. Yields on actively traded issues adjusted to constant maturities. Source: U.S. Department of the Treasury.
14. General obligation bonds based on Thursday figures; Moody's Investors Service.
15. State and local government general obligation bonds maturing in twenty years are used in compiling this index. The twenty-bond index has a rating roughly equivalent to Moodys' A1 rating. Based on Thursday figures.
16. Daily figures from Moody's Investors Service. Based on yields to maturity on selected long-term bonds.
17. Standard & Poor's corporate series. Common stock ratio is based on the 500 stocks in the price index.

NOTE. Some of the data in this table also appear in the Board's H.15 (519) weekly and G.13 (415) monthly statistical releases. For ordering address, see inside front cover.

1.36 STOCK MARKET Selected Statistics

Indicator	1996	1997	1998	1999 Jan.	1999 Feb.	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July	1999 Aug.	1999 Sept.
	Prices and trading volume (averages of daily figures)[1]											
Common stock prices (indexes)												
1 New York Stock Exchange (Dec. 31, 1965 = 50)	357.98	456.99	550.65	595.43	588.70	603.69	627.75	635.62	629.53	648.83	621.03	607.87
2 Industrial	453.57	574.97	684.35	741.43	736.20	751.93	780.84	791.72	783.96	809.33	778.82	769.47
3 Transportation	327.30	415.08	468.61	479.72	477.47	491.25	523.08	537.88	520.66	528.72	492.13	462.33
4 Utility	126.36	143.87	190.52	224.75	218.24	218.11	228.48	242.98	241.36	250.50	241.84	237.71
5 Finance	303.94	424.84	516.65	523.38	514.75	544.08	564.99	562.66	546.43	557.92	521.59	493.37
6 Standard & Poor's Corporation (1941–43 = 10)[2]	670.49	873.43	1,085.50	1,248.77	1,246.58	1,281.66	1,334.76	1,332.07	1,322.55	1,380.99	1,327.49	1,318.17
7 American Stock Exchange (Aug. 31, 1973 = 50)[3]	570.86	628.34	682.69	704.22	699.15	711.08	748.29	787.02	772.01	803.75	781.33	788.74
Volume of trading (thousands of shares)												
8 New York Stock Exchange	409,740	523,254	666,534	847,135	756,932	776,538	874,818	785,778	723,025	721,294	709,569	772,627
9 American Stock Exchange	22,567	24,390	28,870	31,015	31,774	29,563	38,895	35,241	28,806	25,754	27,795	32,540
	Customer financing (millions of dollars, end-of-period balances)											
10 Margin credit at broker–dealers[4]	**97,400**	**126,090**	**140,980**	**153,240**	**151,530**	**156,440**	**172,880**	**177,984**	**176,930**	**178,360**	**176,390**	**179,316**
Free credit balances at brokers[5]												
11 Margin accounts[6]	22,540	31,410	40,250	36,880	38,850	40,120	41,200	41,250	42,865	44,330	44,230	47,125
12 Cash accounts	40,430	52,160	62,450	59,600	57,910	59,435	60,870	61,665	64,100	60,000	62,600	62,810

Margin requirements (percent of market value and effective date)[7]

Indicator	Mar. 11, 1968	June 8, 1968	May 6, 1970	Dec. 6, 1971	Nov. 24, 1972	Jan. 3, 1974
13 Margin stocks	70	80	65	55	65	50
14 Convertible bonds	50	60	50	50	50	50
15 Short sales	70	80	65	55	65	50

1. Daily data on prices are available upon request to the Board of Governors. For ordering address, see inside front cover.
2. In July 1976 a financial group, composed of banks and insurance companies, was added to the group of stocks on which the index is based. The index is now based on 400 industrial stocks (formerly 425), 20 transportation (formerly 15 rail), 40 public utility (formerly 60), and 40 financial.
3. On July 5, 1983, the American Stock Exchange rebased its index, effectively cutting previous readings in half.
4. Since July 1983, under the revised Regulation T, margin credit at broker–dealers has included credit extended against stocks, convertible bonds, stocks acquired through the exercise of subscription rights, corporate bonds, and government securities. Separate reporting of data for margin stocks, convertible bonds, and subscription issues was discontinued in April 1984.
5. Free credit balances are amounts in accounts with no unfulfilled commitments to brokers and are subject to withdrawal by customers on demand.
6. Series initiated in June 1984.
7. Margin requirements, stated in regulations adopted by the Board of Governors pursuant to the Securities Exchange Act of 1934, limit the amount of credit that can be used to purchase and carry "margin securities" (as defined in the regulations) when such credit is collateralized by securities. Margin requirements on securities are the difference between the market value (100 percent) and the maximum loan value of collateral as prescribed by the Board. Regulation T was adopted effective Oct. 15, 1934; Regulation U, effective May 1, 1936; Regulation G, effective Mar. 11, 1968; and Regulation X, effective Nov. 1, 1971.

On Jan. 1, 1977, the Board of Governors for the first time established in Regulation T the initial margin required for writing options on securities, setting it at 30 percent of the current market value of the stock underlying the option. On Sept. 30, 1985, the Board changed the required initial margin, allowing it to be the same as the option maintenance margin required by the appropriate exchange or self-regulatory organization; such maintenance margin rules must be approved by the Securities and Exchange Commission.

1.38 FEDERAL FISCAL AND FINANCING OPERATIONS

Millions of dollars

Type of account or operation	Fiscal year			Calendar year					
				1999					
	1997	1998	1999	Apr.	May	June	July	Aug.	Sept.
U.S. budget[1]									
1 Receipts, total	1,579,292	1,721,798	1,827,285	266,229r	98,663r	199,507r	121,923r	126,324r	200,396
2 On-budget	1,187,302	1,305,999	1,382,817	219,490r	62,722r	156,929r	87,959r	91,554	161,304
3 Off-budget	391,990	415,799	444,468	46,739	35,941	42,578	33,964	34,770	39,092
4 Outlays, total	1,601,235	1,652,552	1,704,545	152,770r	122,631r	145,939r	147,086r	129,127r	143,966
5 On-budget	1,290,609	1,335,948	1,383,767	120,474r	91,434r	136,141r	117,652r	97,984r	108,846
6 Off-budget	310,626	316,604	320,778	29,296r	31,197	9,799	29,434	31,143	35,119
7 Surplus or deficit (−), total	−21,943	69,246	122,740	113,459	−23,969	53,568	−25,164	−2,803r	56,430
8 On-budget	−103,307	−29,949	−951	99,016r	−28,712	20,788	−29,693	−6,430r	52,458
9 Off-budget	81,364	99,195	123,691	17,443r	4,744	32,779	4,530	3,627	3,973
Source of financing (total)									
10 Borrowing from the public	38,171	−51,211	−88,304	−85,208	−551	−22,246	1,193	26,470	−47,718
11 Operating cash (decrease, or increase (−))	604	4,743	−17,580	−36,512	32,495	−27,459	13,553	3,160	−20,069
12 Other[2]	−16,832	−22,778	−16,856	8,261	−7,975	−3,863	10,418	−26,827r	11,357
MEMO									
13 Treasury operating balance (level, end of period)	43,621	38,878	56,458	58,138	25,643	53,102	39,549	36,389	56,458
14 Federal Reserve Banks	7,692	4,952	6,641	10,040	5,506	6,720	4,984	5,559	6,641
15 Tax and loan accounts	35,930	33,926	49,817	48,098	20,586	46,382	34,565	30,831	49,817

1. Since 1990, off-budget items have been the social security trust funds (federal old-age survivors insurance and federal disability insurance) and the U.S. Postal Service.

2. Includes special drawing rights (SDRs); reserve position on the U.S. quota in the International Monetary Fund (IMF); loans to the IMF; other cash and monetary assets; accrued interest payable to the public; allocations of SDRs; deposit funds; miscellaneous liability (including checks outstanding) and asset accounts; seigniorage; increment on gold; net gain or loss for U.S. currency valuation adjustment; net gain or loss for IMF loan-valuation adjustment; and profit on sale of gold.

SOURCE. Monthly totals: U.S. Department of the Treasury, *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government*; fiscal year totals: U.S. Office of Management and Budget, *Budget of the U.S. Government*.

1.39 U.S. BUDGET RECEIPTS AND OUTLAYS[1]

Millions of dollars

Source or type	Fiscal year 1998	Fiscal year 1999	Calendar year 1997 H2	1998 H1	1998 H2	1999 H1	1999 July	1999 Aug.	1999 Sept.
RECEIPTS									
1 **All sources**	**1,721,798**	**1,827,285**	**773,810**	**922,630**	**825,057**	**966,045[r]**	**121,923[r]**	**126,324[r]**	**200,396**
2 Individual income taxes, net	828,586	879,480	354,072	447,514	392,332	481,527	59,975	60,709	89,250
3 Withheld	646,483	693,940	306,865	316,309	339,144	351,068	59,717	57,476	49,244
4 Nonwithheld	281,527	308,185	58,069	219,136	65,204	240,278	3,262	5,163	43,077
5 Refunds	99,476	122,706	10,869	87,989	12,032	109,467[r]	2,988[r]	1,921[r]	3,072
Corporation income taxes									
6 Gross receipts	213,249	216,325	104,659	109,353	104,163	106,861	5,303	5,115	42,571
7 Refunds	24,593	31,645	10,135	14,220	14,250	17,092	1,898	1,418	2,336
8 Social insurance taxes and contributions, net	571,831	611,832	260,795	312,713	268,466	324,831	46,368	49,389	55,481
9 Employment taxes and contributions[2]	540,014	580,880	247,794	293,520	256,142	306,235	44,392	44,960	54,794
10 Unemployment insurance	27,484	26,480	10,724	17,080	10,121	16,378	1,573	4,085	332
11 Other net receipts[3]	4,333	4,472	2,280	2,112	2,202	2,216	403	344	356
12 Excise taxes	57,673	70,399	31,133	29,922	33,366	31,015	5,723	5,397	7,167
13 Customs deposits	18,297	18,336	9,679	8,546	9,838	8,440	1,725	1,814	1,727
14 Estate and gift taxes	24,076	27,782	10,262	12,971	12,359	14,915	1,938	2,175	2,294
15 Miscellaneous receipts[4]	32,658	34,777	13,348	15,829	18,735	15,140	2,771	3,131	4,242
OUTLAYS									
16 **All types**	**1,652,552**	**1,704,545**	**824,368**	**815,884**	**877,414[r]**	**817,235[r]**	**147,086[r]**	**129,127[r]**	**143,966**
17 National defense	268,456	276,792	140,873	129,351	140,196	134,414	26,153	20,867	24,279
18 International affairs	13,109	15,264	9,420	4,610	8,297	6,879	569	530	1,371
19 General science, space, and technology	18,219	19,397	10,040	9,426	10,142	9,319	1,597	1,681	1,773
20 Energy	1,270	981	411	957	699	797	−13	26	375
21 Natural resources and environment	22,396	22,303	11,106	10,051	12,671	10,351	1,935	1,961	2,249
22 Agriculture	12,206	24,359	10,590	2,387	16,757	9,803	489	726	1,196
23 Commerce and housing credit	1,014	2,966	−3,526	−2,483	4,046	−1,629	64	−1,097[r]	7,361
24 Transportation	40,332	38,856	20,414	16,196	20,836	17,082	3,375	3,838	4,260
25 Community and regional development	9,720	12,791	5,749	4,863	6,972	5,368	755	879	1,330
26 Education, training, employment, and social services	54,919	57,438	26,851	25,928	27,762[r]	29,003	3,980	4,363	5,437
27 Health	131,440	140,803	63,552	65,053	67,838[r]	69,320	11,685	11,959	13,031
28 Social security and Medicare	572,047	580,491	283,109	286,305	316,809	261,146	51,157	45,607	48,681
29 Income security	233,202	237,180	106,353	125,196	109,481	126,552[r]	20,532[r]	16,505[r]	16,897
30 Veterans benefits and services	41,781	43,210	22,077	19,615	22,750	20,105	5,130	1,895	3,615
31 Administration of justice	22,832	25,837	10,212	11,287	12,041	13,149	1,935	2,349	2,306
32 General government	13,444	16,058	7,302	6,139	9,136	6,650	1,360	200	1,712
33 Net interest[5]	243,359	230,265	122,620	122,345	116,954	116,655	19,598	19,931	15,259
34 Undistributed offsetting receipts[6]	−47,194	−40,445	−22,795	−21,340	−25,793[r]	−17,724	−3,214	−3,095	−7,164

1. Functional details do not sum to total outlays for calendar year data because revisions to monthly totals have not been distributed among functions. Fiscal year total for receipts and outlays do not correspond to calendar year data because revisions from the *Budget* have not been fully distributed across months.
2. Old-age, disability, and hospital insurance, and railroad retirement accounts.
3. Federal employee retirement contributions and civil service retirement and disability fund.
4. Deposits of earnings by Federal Reserve Banks and other miscellaneous receipts.
5. Includes interest received by trust funds.
6. Rents and royalties for the outer continental shelf, U.S. government contributions for employee retirement, and certain asset sales.

SOURCE. Fiscal year totals: U.S. Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2000*; monthly and half-year totals: U.S. Department of the Treasury, *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government.*

1.40 FEDERAL DEBT SUBJECT TO STATUTORY LIMITATION

Billions of dollars, end of month

Item	1997		1998				1999		
	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30
1 **Federal debt outstanding**	**5,446**	**5,536**	**5,573**	**5,578**	**5,556**	**5,643**	**5,681**	**5,668**	n.a.
2 Public debt securities	5,413	5,502	5,542	5,548	5,526	5,614	5,652	5,639	5,656
3 Held by public	3,815	3,847	3,872	3,790	3,761	3,787	3,795	3,685	
4 Held by agencies	1,599	1,656	1,670	1,758	1,766	1,827	1,857	1,954	
5 Agency securities	33	34	31	30	29	29	29	29	n.a.
6 Held by public	26	27	26	26	26	29	28	28	
7 Held by agencies	7	7	5	4	4	1	1	1	
8 **Debt subject to statutory limit**	**5,328**	**5,417**	**5,457**	**5,460**	**5,440**	**5,530**	**5,566**	**5,552**	**5,568**
9 Public debt securities	5,328	5,416	5,456	5,460	5,439	5,530	5,566	5,552	5,568
10 Other debt[1]	0	0	0	0	0	0	0	0	0
MEMO									
11 Statutory debt limit	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950

1. Consists of guaranteed debt of U.S. Treasury and other federal agencies, specified participation certificates, notes to international lending organizations, and District of Columbia stadium bonds.

SOURCE. U.S. Department of the Treasury, *Monthly Statement of the Public Debt of the United States* and *Treasury Bulletin*.

1.41 GROSS PUBLIC DEBT OF U.S. TREASURY Types and Ownership

Billions of dollars, end of period

Type and holder	1995	1996	1997	1998	1998	1999		
					Q4	Q1	Q2	Q3
1 **Total gross public debt**	**4,988.7**	**5,323.2**	**5,502.4**	**5,614.2**	**5,614.2**	**5,651.6**	**5,638.8**	**5,656.3**
By type								
2 Interest-bearing	4,964.4	5,317.2	5,494.9	5,605.4	5,605.4	5,643.1	5,629.5	5,647.2
3 Marketable	3,307.2	3,459.7	3,456.8	3,355.5	3,355.5	3,361.3	3,248.5	3,233.0
4 Bills	760.7	777.4	715.4	691.0	691.0	725.5	647.8	653.2
5 Notes	2,010.3	2,112.3	2,106.1	1,960.7	1,960.7	1,912.0	1,868.5	1,828.8
6 Bonds	521.2	555.0	587.3	621.2	621.2	632.5	632.5	643.7
7 Inflation-indexed notes and bonds[1]	n.a.	n.a.	33.0	50.6	50.6	59.2	59.9	67.6
8 Nonmarketable[2]	1,657.2	1,857.5	2,038.1	2,249.9	2,249.9	2,281.8	2,381.0	2,414.2
9 State and local government series	104.5	101.3	124.1	165.3	165.3	167.5	172.6	168.1
10 Foreign issues[3]	40.8	37.4	36.2	34.3	34.3	33.5	30.9	31.0
11 Government	40.8	47.4	36.2	34.3	34.3	33.5	30.9	30.8
12 Public	.0	.0	.0	.0	.0	.0	.0	.0
13 Savings bonds and notes	181.9	182.4	181.2	180.3	180.3	180.6	180.0	180.0
14 Government account series[4]	1,299.6	1,505.9	1,666.7	1,840.0	1,840.0	1,870.2	1,967.5	2,005.2
15 Non-interest-bearing	24.3	6.0	7.5	8.8	8.8	8.5	9.3	9.0
By holder[5]								
16 U.S. Treasury and other federal agencies and trust funds	1,304.5	1,497.2	1,655.7	1,826.8	1,826.8	1,857.1	1,953.6	
17 Federal Reserve Banks	391.0	410.9	451.9	471.7	471.7	464.5	493.8	
18 Private investors	3,307.7	3,431.2	3,414.6	3,334.0	3,334.0	3,327.6	3,199.3	
19 Depository institutions	315.4	296.6	300.3	237.4r	237.4r	247.6	n.a.	
20 Mutual funds	286.5r	315.8	321.3	339.5r	339.5r	341.3	n.a.	
21 Insurance companies	241.5	214.1	176.6	144.6r	144.6r	137.7	n.a.	n.a.
22 State and local treasuries[6]	289.8	257.0	239.3	269.3r	269.3r	266.6	n.a.	
Individuals								
23 Savings bonds	185.0	187.0	186.5	186.7	186.7	186.6	186.6	
24 Pension funds	474.5	505.1	539.1	547.0r	547.0r	544.9	n.a.	
25 Private	298.7	314.6	334.3	345.4r	345.4r	347.3	n.a.	
26 State and Local	175.8	190.5	204.8	201.6r	201.6r	197.6	n.a.	
27 Foreign and international[7]	835.2	1,102.1	1,241.6	1,278.7r	1,278.7r	1,270.8r	1,257.3	
28 Other miscellaneous investors[6,8]	679.7r	553.5	409.9	330.8r	330.8r	332.1	n.a.	

1. The U.S. Treasury first issued inflation-indexed securities during the first quarter of 1997.
2. Includes (not shown separately) securities issued to the Rural Electrification Administration, depository bonds, retirement plan bonds, and individual retirement bonds.
3. Nonmarketable series denominated in dollars, and series denominated in foreign currency held by foreigners.
4. Held almost entirely by U.S. Treasury and other federal agencies and trust funds.
5. Data for Federal Reserve Banks and U.S. government agencies and trust funds are actual holdings; data for other groups are Treasury estimates.
6. In March 1996, in a redefinition of series, fully defeased debt backed by nonmarketable federal securities was removed from "Other miscellaneous investors" and added to "State and local treasuries." The data shown here have been revised accordingly.
7. Includes nonmarketable foreign series treasury securities and treasury deposit funds. Excludes treasury securities held under repurchase agreements in custody accounts at the Federal Reserve Bank of New York.
8. Includes individuals, government-sponsored enterprises, brokers and dealers, bank personal trusts and estates, corporate and noncorporate businesses, and other investors.

SOURCE. U.S. Treasury Department, data by type of security, *Monthly Statement of the Public Debt of the United States;* data by holder, *Treasury Bulletin*.

1.42 U.S. GOVERNMENT SECURITIES DEALERS Transactions[1]

Millions of dollars, daily averages

Item	1999			1999, week ending								
	June	July	Aug.	Aug. 4	Aug. 11	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29
OUTRIGHT TRANSACTIONS[2]												
By type of security												
1 U.S. Treasury bills	28,954	24,009	26,323	22,956	20,259	25,938	25,259	38,241	27,843	32,118	23,234	24,693
Coupon securities, by maturity												
2 Five years or less	98,738	93,047	99,186	93,758	109,543	96,467	97,441	95,890	81,430	77,284	68,958	95,035
3 More than five years	61,981	53,586	68,592	59,602	82,361	78,109	57,413	60,198	49,912	59,754	44,882	62,209
4 Inflation-indexed	1,278	1,372	826	630	1,011	882	558	1,006	475	462	347	629
Federal agency												
5 Discount notes	44,580	43,320	45,889	43,379	42,671	45,086	49,259	48,585	46,278	47,150	43,798	47,373
Coupon securities, by maturity												
6 One year or less	677	652	777	788	475	930	885	818	964	987	898	1,279
7 More than one year, but less than or equal to five years	5,526	4,592	5,126	5,109	6,285	5,273	3,076	6,068	4,235	4,681	5,336	9,346
8 More than five years	4,256	4,278	4,832	5,814	7,213	3,870	2,400	5,361	2,843	7,416	4,031	4,149
9 Mortgage-backed	72,636	69,129	66,417	63,647	95,043	66,965	49,728	52,887	79,337	93,477	41,392	44,491
By type of counterparty												
With interdealer broker												
10 U.S. Treasury	103,512	93,223	105,210	92,648	118,908	108,038	97,926	103,077	85,541	90,150	72,030	100,747
11 Federal agency	3,636	3,677	4,070	5,008	4,831	4,854	2,494	3,407	3,470	4,800	5,686	4,507
12 Mortgage-backed	26,565	25,013	25,261	22,485	30,892	27,936	20,003	23,534	23,324	34,704	17,418	20,472
With other												
13 U.S. Treasury	87,439	78,790	89,717	84,297	94,267	93,358	82,745	92,258	74,118	79,468	65,392	81,819
14 Federal agency	51,402	49,164	52,553	50,082	51,813	50,305	53,126	57,426	50,850	55,435	48,377	57,639
15 Mortgage-backed	46,072	44,117	41,156	41,162	64,152	39,028	29,725	29,353	56,013	58,773	23,974	24,019
FUTURES TRANSACTIONS[3]												
By type of deliverable security												
16 U.S. Treasury bills	0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	0
Coupon securities, by maturity												
17 Five years or less	3,813	2,469	4,701	3,640	4,586	4,381	6,014	4,400	2,538	2,167	1,720	1,819
18 More than five years	14,278	12,348	14,980	12,391	15,454	14,282	15,022	17,151	13,485	14,803	11,765	14,028
19 Inflation-indexed	0	0	0	0	0	0	0	0	0	0	0	0
Federal agency												
20 Discount notes	0	0	0	0	0	0	0	0	0	0	0	0
Coupon securities, by maturity												
21 One year or less	0	0	0	0	0	0	0	0	0	0	0	0
22 More than one year, but less than or equal to five years	0	0	0	0	0	0	0	0	0	0	0	0
23 More than five years	0	0	0	0	0	0	0	0	0	0	0	0
24 Mortgage-backed	0	0	0	0	0	0	0	0	0	0	0	0
OPTIONS TRANSACTIONS[4]												
By type of underlying security												
25 U.S. Treasury bills	0	0	0	0	0	0	0	0	0	0	0	0
Coupon securities, by maturity												
26 Five years or less	1,725	951	1,197	923	1,978	883	994	1,074	879	989	754	645
27 More than five years	4,992	3,892	4,480	3,647	6,026	4,592	4,868	2,546	4,611	2,935	2,705	3,710
28 Inflation-indexed	0	0	0	0	0	0	0	0	0	0	0	0
Federal agency												
29 Discount notes	0	0	0	0	0	0	0	0	0	0	0	0
Coupon securities, by maturity												
30 One year or less	0	0	0	0	0	0	0	0	0	0	0	0
31 More than one year, but less than or equal to five years	0	0	0	0	0	0	0	0	0	0	0	0
32 More than five years	0	0	0	0	0	0	0	0	0	0	0	0
33 Mortgage-backed	779	1,175	1,033	0	0	0	0	0	0	0	0	0

1. Transactions are market purchases and sales of securities as reported to the Federal Reserve Bank of New York by the U.S. government securities dealers on its published list of primary dealers. Monthly averages are based on the number of trading days in the month. Transactions are assumed to be evenly distributed among the trading days of the report week. Immediate, forward, and futures transactions are reported at principal value, which does not include accrued interest; options transactions are reported at the face value of the underlying securities.

Dealers report cumulative transactions for each week ending Wednesday.

2. Outright transactions include immediate and forward transactions. Immediate delivery refers to purchases or sales of securities (other than mortgage-backed federal agency securities) for which delivery is scheduled in five business days or less and "when-issued" securities that settle on the issue date of offering. Transactions for immediate delivery of mortgage-backed agency securities include purchases and sales for which delivery is scheduled in thirty business days or less. Stripped securities are reported at market value by maturity of coupon or corpus.

Forward transactions are agreements made in the over-the-counter market that specify delayed delivery. Forward contracts for U.S. Treasury securities and federal agency debt securities are included when the time to delivery is more than five business days. Forward contracts for mortgage-backed agency securities are included when the time to delivery is more than thirty business days.

3. Futures transactions are standardized agreements arranged on an exchange. All futures transactions are included regardless of time to delivery.

4. Options transactions are purchases or sales of put and call options, whether arranged on an organized exchange or in the over-the-counter market, and include options on futures contracts on U.S. Treasury and federal agency securities.

NOTE. "n.a." indicates that data are not published because of insufficient activity.

1.43 U.S. GOVERNMENT SECURITIES DEALERS Positions and Financing[1]

Millions of dollars

Item	1999			1999, week ending							
	June	July	Aug.	Aug. 4	Aug. 11	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22
	Positions[2]										
NET OUTRIGHT POSITIONS[3]											
By type of security											
1 U.S. Treasury bills	3,929	4,005	165	2,580	82	−105	−6,972	7,295	5,816	−1,306	2,541
Coupon securities, by maturity											
2 Five years or less	−30,024	−25,332	−31,236	−31,534	−32,317	−33,271	−28,766	−30,286	−33,085	−34,425	−35,223
3 More than five years	−15,615	−14,263	−7,689	−11,258	−6,537	−8,053	−6,845	−7,215	−9,493	−15,435	−18,404
4 Inflation-indexed	2,036	3,202	3,370	3,095	3,328	3,286	3,306	3,774	3,703	3,799	3,940
Federal agency											
5 Discount notes	16,953	21,732	29,448	22,734	25,937	26,270	37,455	32,385	36,636	40,505	40,704
Coupon securities, by maturity											
6 One year or less	2,518	3,233	4,065	3,867	4,051	3,406	3,795	5,297	4,905	4,771	5,392
7 More than one year, but less than or equal to five years	6,288	7,633	6,923	5,376	5,924	6,975	7,645	8,216	7,354	6,918	6,443
8 More than five years	6,450	2,882	1,023	347	331	1,978	996	1,200	1,736	2,877	2,418
9 Mortgage-backed	14,787	18,844	17,990	13,840	20,397	18,723	18,721	16,238	17,132	20,159	22,066
NET FUTURES POSITIONS[4]											
By type of deliverable security											
10 U.S. Treasury bills	0	0	0	0	0	0	0	0	n.a.	0	0
Coupon securities, by maturity											
11 Five years or less	8,731	7,576	10,940	12,151	13,851	12,925	8,173	7,650	8,136	8,176	8,247
12 More than five years	−827	−4,401	−5,879	−2,218	−3,923	−6,173	−8,300	−7,434	−4,965	2,020	203
13 Inflation-indexed	0	0	0	0	0	0	0	0	0	0	0
Federal agency											
14 Discount notes	0	0	0	0	0	0	0	0	0	0	0
Coupon securities, by maturity											
15 One year or less	0	0	0	0	0	0	0	0	0	0	0
16 More than one year, but less than or equal to five years	0	0	0	0	0	0	0	0	0	0	0
17 More than five years	0	0	0	0	0	0	0	0	0	0	0
18 Mortgage-backed	0	0	0	0	0	0	0	0	0	0	0
NET OPTIONS POSITIONS											
By type of deliverable security											
19 U.S. Treasury bills	0	0	0	0	0	0	0	0	0	0	0
Coupon securities, by maturity											
20 Five years or less	−2,266	−2,059	−1,661	−1,972	−3,326	−2,192	41	−878	−555	−456	523
21 More than five years	−1,000	89	−553	725	1,748	−307	−2,826	−1,725	−2,364	−1,304	−671
22 Inflation-indexed	0	0	0	n.a.	0	0	0	0	0	0	0
Federal agency											
23 Discount notes	0	0	0	0	0	0	0	0	0	0	0
Coupon securities, by maturity											
24 One year or less	0	0	0	0	0	0	0	0	0	0	0
25 More than one year, but less than or equal to five years	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26 More than five years	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27 Mortgage-backed	5,880	2,070	3,540	3,716	3,533	2,464	3,586	4,630	2,468	1,443	2,097
	Financing[5]										
Reverse repurchase agreements											
28 Overnight and continuing	272,933	258,349	273,639	256,246	265,179	284,331	280,908	274,150	276,844	297,141	286,250
29 Term	790,804	821,067	780,367	855,989	905,104	703,068	729,755	733,653	757,629	793,309	821,609
Securities borrowed											
30 Overnight and continuing	244,326	254,405	254,149	252,560	250,398	260,815	253,055	253,085	252,062	251,946	253,559
31 Term	91,955	90,588	87,850	91,564	90,094	88,964	86,402	83,148	84,953	91,765	95,900
Securities received as pledge											
32 Overnight and continuing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33 Term	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Repurchase agreements											
34 Overnight and continuing	651,952	675,629	694,296	675,359	686,176	700,660	705,359	696,064	686,295	699,375	697,399
35 Term	674,583	688,157	650,774	721,927	764,896	580,375	604,961	605,775	631,178	674,289	710,400
Securities loaned											
36 Overnight and continuing	13,306	11,458	9,885	11,626	9,344	9,109	10,542	9,492	9,022	9,194	8,974
37 Term	5,886	6,991	7,269	7,337	7,461	7,317	7,194	7,031	7,012	6,966	7,453
Securities pledged											
38 Overnight and continuing	49,670	55,853	53,526	55,603	52,507	56,013	52,282	51,878	52,453	53,386	55,262
39 Term	9,290	9,530	8,213	9,467	9,294	7,145	7,735	7,920	7,914	8,034	8,153
Collateralized loans											
40 Total	14,760	17,509	18,826	19,340	15,807	19,308	19,308	20,879	20,894	21,840	26,460

1. Data for positions and financing are obtained from reports submitted to the Federal Reserve Bank of New York by the U.S. government securities dealers on its published list of primary dealers. Weekly figures are close-of-business Wednesday data. Positions for calendar days of the report week are assumed to be constant. Monthly averages are based on the number of calendar days in the month.

2. Securities positions are reported at market value.

3. Net outright positions include immediate and forward positions. Net immediate positions include securities purchased or sold (other than mortgage-backed agency securities) that have been delivered or are scheduled to be delivered in five business days or less and "when-issued" securities that settle on the issue date of offering. Net immediate positions for mortgage-backed agency securities include securities purchased or sold that have been delivered or are scheduled to be delivered in thirty business days or less.

Forward positions reflect agreements made in the over-the-counter market that specify delayed delivery. Forward contracts for U.S. Treasury securities and federal agency debt securities are included when the time to delivery is more than five business days. Forward contracts for mortgage-backed agency securities are included when the time to delivery is more than thirty business days.

4. Futures positions reflect standardized agreements arranged on an exchange. All futures positions are included regardless of time to delivery.

5. Overnight financing refers to agreements made on one business day that mature on the next business day; continuing contracts are agreements that remain in effect for more than one business day but have no specific maturity and can be terminated without advance notice by either party; term agreements have a fixed maturity of more than one business day. Financing data are reported in terms of actual funds paid or received, including accrued interest.

NOTE. "n.a." indicates that data are not published because of insufficient activity.

1.44 FEDERAL AND FEDERALLY SPONSORED CREDIT AGENCIES Debt Outstanding

Millions of dollars, end of period

Agency	1995[r]	1996[r]	1997[r]	1998[r]	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July
1 **Federal and federally sponsored agencies**	**738,928**	**844,611**	**925,823**	**1,022,609**	**1,347,872**	**1,377,524**	**1,404,576**	**1,425,396**	n.a.
2 Federal agencies	39,186	37,347	29,380	27,792	26,243	26,100	26,094	26,370	26,204
3 Defense Department[1]	6	6	6	6	6	6	6	6	6
4 Export-Import Bank[2,3]	3,455	2,050	1,447	552	n.a.	n.a.	n.a.	n.a.	n.a.
5 Federal Housing Administration[4]	116	97	84	102	80	84	88	99	105
6 Government National Mortgage Association certificates of participation[5]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7 Postal Service[6]	8,073	5,765	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8 Tennessee Valley Authority	27,536	29,429	27,853	27,786	26,237	26,094	26,088	26,364	26,198
9 United States Railway Association[6]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10 Federally sponsored agencies[7]	699,742	807,264	896,443	994,817	1,321,629	1,351,424	1,378,482	1,399,026	n.a.
11 Federal Home Loan Banks	205,817	243,194	263,404	313,919	402,364	415,602	421,655	437,109	444,775
12 Federal Home Loan Mortgage Corporation	93,279	119,961	156,980	169,200	299,196	310,387	317,533	314,412	334,575
13 Federal National Mortgage Association	257,230	299,174	331,270	369,774	475,418	478,994	492,913	499,897	502,653
14 Farm Credit Banks[8]	53,175	57,379	60,053	63,517	66,529	67,527	66,608	67,749	66,922
15 Student Loan Marketing Association[9]	50,335	47,529	44,763	37,717	36,762	37,660	38,129	37,959	n.a.
16 Financing Corporation[10]	8,170	8,170	8,170	8,170	8,170	8,170	8,170	8,170	8,170
17 Farm Credit Financial Assistance Corporation[11]	1,261	1,261	1,261	1,261	1,261	1,261	1,261	1,261	1,261
18 Resolution Funding Corporation[12]	29,996	29,996	29,996	29,996	29,996	29,996	29,996	29,996	29,996
MEMO									
19 **Federal Financing Bank debt**[13]	**103,817**	**78,681**	**58,172**	**49,090**	**41,454**	**41,637**	**41,131**	**40,585**	**39,901**
Lending to federal and federally sponsored agencies									
20 Export-Import Bank[3]	3,449	2,044	1,431	552					
21 Postal Service[6]	8,073	5,765	n.a.	n.a.					
22 Student Loan Marketing Association	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23 Tennessee Valley Authority	3,200	3,200	n.a.	n.a.					
24 United States Railway Association[6]	n.a.	n.a.	n.a.	n.a.					
Other lending[14]									
25 Farmers Home Administration	33,719	21,015	18,325	13,530	8,715	8,550	8,275	7,935	7,445
26 Rural Electrification Administration	17,392	17,144	16,702	14,898	13,980	13,999	13,997	13,877	13,944
27 Other	37,984	29,513	21,714	20,110	18,759	19,088	18,859	18,773	18,512

1. Consists of mortgages assumed by the Defense Department between 1957 and 1963 under family housing and homeowners assistance programs.
2. Includes participation certificates reclassified as debt beginning Oct. 1, 1976.
3. On-budget since Sept. 30, 1976.
4. Consists of debentures issued in payment of Federal Housing Administration insurance claims. Once issued, these securities may be sold privately on the securities market.
5. Certificates of participation issued before fiscal year 1969 by the Government National Mortgage Association acting as trustee for the Farmers Home Administration, the Department of Health, Education, and Welfare, the Department of Housing and Urban Development, the Small Business Administration, and the Veterans Administration.
6. Off-budget.
7. Includes outstanding noncontingent liabilities: notes, bonds, and debentures. Includes Federal Agricultural Mortgage Corporation, therefore details do not sum to total. Some data are estimated.
8. Excludes borrowing by the Farm Credit Financial Assistance Corporation, which is shown on line 17.
9. Before late 1982, the association obtained financing through the Federal Financing Bank (FFB). Borrowing excludes that obtained from the FFB, which is shown on line 22.
10. The Financing Corporation, established in August 1987 to recapitalize the Federal Savings and Loan Insurance Corporation, undertook its first borrowing in October 1987.
11. The Farm Credit Financial Assistance Corporation, established in January 1988 to provide assistance to the Farm Credit System, undertook its first borrowing in July 1988.
12. The Resolution Funding Corporation, established by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989, undertook its first borrowing in October 1989.
13. The FFB, which began operations in 1974, is authorized to purchase or sell obligations issued, sold, or guaranteed by other federal agencies. Because FFB incurs debt solely for the purpose of lending to other agencies, its debt is not included in the main portion of the table to avoid double counting.
14. Includes FFB purchases of agency assets and guaranteed loans; the latter are loans guaranteed by numerous agencies, with the amounts guaranteed by any one agency generally being small. The Farmers Home Administration entry consists exclusively of agency assets, whereas the Rural Electrification Administration entry consists of both agency assets and guaranteed loans.

1.45 NEW SECURITY ISSUES Tax-Exempt State and Local Governments

Millions of dollars

Type of issue or issuer, or use	1996	1997	1998	1999 Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 **All issues, new and refunding**[1]	**171,222**	**214,694**	**262,342**	**16,233**	**24,323**	**15,758**	**16,234**	**23,428**	**18,671**	**15,746**	**18,433**
By type of issue											
2 General obligation	60,409	69,934	87,015	6,786	8,323	6,443	5,294	10,997	6,206	4,268	5,171
3 Revenue	110,813	134,989	175,327	9,446	16,000	9,315	10,941	12,431	12,465	11,478	13,262
By type of issuer											
4 State	13,651	18,237	23,506	1,837	1,895	907	1,220	1,236	2,194	911	2,341
5 Special district or statutory authority[2]	113,228	134,919	178,421	11,145	14,604	10,010	11,279	18,414	13,572	11,578	13,449
6 Municipality, county, or township	44,343	70,558	60,173	3,251	7,825	4,841	3,735	3,779	2,906	3,257	2,642
7 **Issues for new capital**	**112,298**	**135,519**	**160,568**	**10,674**	**16,201**	**10,474**	**12,149**	**19,509**	**12,172**	**12,530**	**14,973**
By use of proceeds											
8 Education	26,851	31,860	36,904	3,751	3,537	2,734	2,795	3,793	3,415	2,842	2,885
9 Transportation	12,324	13,951	19,926	628	1,640	1,107	1,791	1,650	1,264	1,955	1,886
10 Utilities and conservation	9,791	12,219	21,037	394	2,839	1,372	603	1,594	535	1,038	1,976
11 Social welfare	24,583	27,794	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12 Industrial aid	6,287	6,667	8,594	343	1,084	618	1,058	739	850	585	1,271
13 Other purposes	32,462	35,095	42,450	3,207	3,918	2,592	3,760	7,195	2,729	3,255	3,941

1. Par amounts of long-term issues based on date of sale.
2. Includes school districts.

SOURCE. Securities Data Company beginning January 1990; *Investment Dealer's Digest* before then.

1.46 NEW SECURITY ISSUES U.S. Corporations

Millions of dollars

Type of issue, offering, or issuer	1996	1997	1998	1999 Jan.	Feb.	Mar.	Apr.	May	June	July[r]	Aug.
1 **All issues**[1]	**773,110**	**929,256**	**1,128,491**	**93,665**	**103,175**	**126,161**	**85,862**	**110,475**	**96,608**	**96,608**	**83,466**
2 **Bonds**[2]	**651,104**	**811,376**	**1,001,736**	**86,529**	**92,885**	**116,440**	**76,721**	**94,713**	**88,338**	**83,546**	**75,708**
By type of offering											
3 Sold in the United States	567,671	708,188	923,771	76,511	82,871	101,024	65,886	86,730	79,031	69,451	63,383
4 Sold abroad	83,433	103,188	77,965	10,018	10,014	15,416	10,834	7,983	9,306	14,095	12,325
MEMO											
5 Private placements, domestic	43,688	54,990	37,845	684	648	1,224	n.a.	n.a.	n.a.	n.a.	n.a.
By industry group											
6 Nonfinancial	167,904	222,603	307,935	21,193	23,131	39,818	30,676	32,843	24,531	25,526	22,704
7 Financial	483,200	588,773	693,801	65,336	69,754	76,623	46,045	61,870	63,807	58,020	53,005
8 **Stocks**[3]	**122,006**	**117,880**	**126,755**	**7,136**	**10,290**	**9,721**	**9,141**	**15,762**	**8,270**	**13,062**	**7,758**
By type of offering											
9 Public	122,006	117,880	126,755	7,136	10,290	9,721	9,141	15,762	8,270	13,062	7,758
10 Private placement[4]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
By industry group											
11 Nonfinancial	80,460	60,386	74,113	3,701	8,911	8,534	7,640	10,425	6,436	11,589	6,379
12 Financial	41,546	57,494	52,642	3,435	1,379	1,187	1,501	5,337	1,834	1,473	1,379

1. Figures represent gross proceeds of issues maturing in more than one year; they are the principal amount or number of units calculated by multiplying by the offering price. Figures exclude secondary offerings, employee stock plans, investment companies other than closed-end, intracorporate transactions, and Yankee bonds. Stock data include ownership securities issued by limited partnerships.
2. Monthly data include 144(a) offerings.
3. Monthly data cover only public offerings.
4. Data are not available.

SOURCE. Securities Data Company and the Board of Governors of the Federal Reserve System.

1.47 OPEN-END INVESTMENT COMPANIES Net Sales and Assets[1]

Millions of dollars

Item	1997	1998	1999							
			Feb.	Mar.	Apr.	May	June	July	Aug.[r]	Sept.
1 **Sales of own shares**[2]	**1,190,900**	**1,461,430**	**132,199**	**164,290**	**166,324**	**140,422**	**138,502**	**140,926**	**132,991**	**133,399**
2 Redemptions of own shares	918,728	1,217,022	128,125	146,479	139,035	127,800	117,953	128,173	125,908	129,128
3 Net sales[3]	272,172	244,408	4,074	17,811	27,288	12,622	20,550	12,754	7,084	4,272
4 **Assets**[4]	**3,409,315**	**4,173,531**	**4,180,115**	**4,328,150**	**4,505,237**	**4,442,880**	**4,650,385**	**4,585,131**	**4,548,784**	**4,499,681**
5 Cash[5]	174,154	191,393	198,134	198,741	211,243	211,580	214,779	209,061	209,349	209,907
6 Other	3,235,161	3,982,138	3,981,982	4,129,409	4,293,994	4,231,300	4,435,607	4,376,070	4,339,435	4,289,774

1. Data include stock, hybrid, and bond mutual funds and exclude money market mutual funds.
2. Excludes reinvestment of net income dividends and capital gains distributions and share issue of conversions from one fund to another in the same group.
3. Excludes sales and redemptions resulting from transfers of shares into or out of money market mutual funds within the same fund family.
4. Market value at end of period, less current liabilities.
5. Includes all U.S. Treasury securities and other short-term debt securities.

SOURCE. Investment Company Institute. Data based on reports of membership, which comprises substantially all open-end investment companies registered with the Securities and Exchange Commission. Data reflect underwritings of newly formed companies after their initial offering of securities.

1.48 CORPORATE PROFITS AND THEIR DISTRIBUTION

Billions of dollars; quarterly data at seasonally adjusted annual rates

Account	1996	1997	1998	1997		1998				1999	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2[r]
1 Profits with inventory valuation and capital consumption adjustment	750.4	817.9	824.6	840.9	820.8	829.2	820.6	827.0	821.7	868.8	859.3
2 Profits before taxes	680.2	734.4	717.8	758.9	736.4	719.1	723.5	720.5	708.1	752.6	768.0
3 Profits-tax liability	226.1	246.1	240.1	254.2	249.3	239.9	241.6	243.2	235.6	250.7	257.0
4 Profits after taxes	454.1	488.3	477.7	504.7	487.1	479.2	481.8	477.3	472.5	501.9	511.0
5 Dividends	261.9	275.1	279.2	275.1	276.4	277.3	278.1	279.0	282.3	285.6	289.7
6 Undistributed profits	192.3	213.2	198.5	229.5	210.6	201.8	203.7	198.3	190.2	216.4	221.3
7 Inventory valuation	−1.2	6.9	14.5	4.8	4.3	25.3	7.8	11.7	13.4	11.6	−17.4
8 Capital consumption adjustment	71.4	76.6	92.3	77.2	80.1	84.9	89.4	94.8	100.2	104.6	108.7

SOURCE. U.S. Department of Commerce, *Survey of Current Business*.

1.51 DOMESTIC FINANCE COMPANIES Assets and Liabilities[1]

Billions of dollars, end of period; not seasonally adjusted

Account	1996	1997	1998	1997	1998				1999	
				Q4	Q1	Q2	Q3	Q4	Q1	Q2
ASSETS										
1 Accounts receivable, gross[2]	637.1	663.3	711.7	663.3	667.2	676.0	687.6	711.7	733.8	756.5
2 Consumer	244.9	256.8	261.8	256.8	251.7	251.3	254.0	261.8	261.7	269.2
3 Business	309.5	318.5	347.5	318.5	325.9	334.9	335.1	347.5	362.8	373.7
4 Real estate	82.7	87.9	102.3	87.9	89.6	89.9	98.5	102.3	109.2	113.5
5 LESS: Reserves for unearned income	55.6	52.7	56.3	52.7	52.1	53.2	52.4	56.3	52.9	53.4
6 Reserves for losses	13.1	13.0	13.8	13.0	13.1	13.2	13.2	13.8	13.4	13.4
7 Accounts receivable, net	568.3	597.6	641.6	597.6	601.9	609.6	622.0	641.6	667.6	689.7
8 All other	290.0	312.4	337.9	312.4	329.7	340.1	313.7	337.9	363.3	373.2
9 **Total assets**	**858.3**	**910.0**	**979.5**	**910.0**	**931.6**	**949.7**	**935.7**	**979.5**	**1,030.8**	**1,062.9**
LIABILITIES AND CAPITAL										
10 Bank loans	19.7	24.1	26.3	24.1	22.0	22.3	24.9	26.3	24.8	25.1
11 Commercial paper	177.6	201.5	231.5	201.5	211.7	225.9	226.9	231.5	222.9	231.0
Debt										
12 Owed to parent	60.3	64.7	61.8	64.7	64.6	60.0	58.3	61.8	64.6	65.4
13 Not elsewhere classified	332.5	328.8	339.7	328.8	338.2	348.7	337.6	339.7	366.7	383.1
14 All other liabilities	174.7	189.6	203.2	189.6	193.1	188.9	185.4	203.2	220.3	226.1
15 Capital, surplus, and undivided profits	93.5	101.3	117.0	101.3	102.1	103.9	103.6	117.0	131.5	132.2
16 **Total liabilities and capital**	**858.3**	**910.0**	**979.5**	**910.0**	**931.6**	**949.7**	**936.6**	**979.5**	**1,030.8**	**1,062.9**

1. Includes finance company subsidiaries of bank holding companies but not of retailers and banks. Data are amounts carried on the balance sheets of finance companies; securitized pools are not shown, as they are not on the books.
2. Before deduction for unearned income and losses.

1.52 DOMESTIC FINANCE COMPANIES Owned and Managed Receivables[1]

Billions of dollars, amounts outstanding

	Type of credit	1996	1997	1998	1999					
					Mar.	Apr.	May	June	July	Aug.
		Seasonally adjusted								
1	**Total**	**762.4[r]**	**810.5[r]**	**875.8[r]**	**909.8**	**919.5**	**931.9**	**938.1**	**954.7[r]**	**967.9**
2	Consumer	307.6[r]	327.9[r]	352.8[r]	363.2	364.2	369.5	372.4	375.9	381.4
3	Real estate	111.9	121.1	131.4	137.5	141.2	142.8	141.2	144.2	146.7
4	Business	342.9[r]	361.5[r]	391.6[r]	409.1	414.2	419.5	424.5	434.6[r]	439.9
		Not seasonally adjusted								
5	**Total**	**769.7**	**818.1**	**884.0**	**911.9**	**919.4**	**931.6**	**942.9**	**948.9[r]**	**962.7**
6	Consumer	310.6	330.9	356.1	359.7	360.9	368.3	374.6	378.1	382.5
7	Motor vehicles loans	86.7	87.0	103.1	104.7	106.8	105.1	108.6	108.5	112.7
8	Motor vehicle leases	92.5	96.8	93.3	93.9	94.8	95.3	95.6	97.0	98.3
9	Revolving[2]	32.5	38.6	32.3	31.2	31.3	31.3	32.4	32.8	33.0
10	Other[3]	33.2	34.4	33.1	32.0	32.0	32.0	32.6	32.0	32.1
	Securitized assets[4]									
11	Motor vehicle loans	36.8	44.3	54.8	59.0	57.8	65.8	65.3	68.3	68.0
12	Motor vehicle leases	8.7	10.8	12.7	12.0	11.8	11.6	11.3	11.1	10.8
13	Revolving	.0	.0	8.7	9.1	8.8	8.7	9.7	9.9[r]	9.4
14	Other	20.1	19.0	18.1	17.8	17.6	18.3	19.0	18.4[r]	18.1
15	Real estate	111.9	121.1	131.4	137.5	141.2	142.8	141.2	144.2	146.7
16	One- to four-family	52.1	59.0	75.7	77.7	81.7	83.6	80.5	83.6	86.0
17	Other	30.5	28.9	26.6	31.6	31.6	31.5	33.0	33.1	33.7
	Securitized real estate assets[4]									
18	One- to four-family	28.9	33.0	29.0	28.0	27.6	27.4	27.5	27.2	26.8
19	Other	.4	.2	.1	.3	.3	.3	.2	.2	.2
20	Business	347.2	366.1	396.5	414.8	417.4	420.5	427.1	426.7[r]	433.5
21	Motor vehicles	67.1	63.5	79.6	84.8	86.2	84.4	82.8	78.8	78.6
22	Retail loans	25.1	25.6	28.1	30.0	30.7	31.6	30.9	31.7	33.3
23	Wholesale loans[5]	33.0	27.7	32.8	36.0	36.5	33.8	32.7	27.9	26.8
24	Leases	9.0	10.2	18.7	18.8	18.9	19.0	19.2	19.3	18.5
25	Equipment	194.8	203.9	198.0	202.3	203.1	203.8	208.3	208.5[r]	210.5
26	Loans	59.9	51.5	50.4	51.6	52.0	51.7	53.3	52.9	53.1
27	Leases	134.9	152.3	147.6	150.7	151.0	152.1	155.1	155.6[r]	157.4
28	Other business receivables[6]	47.6	51.1	69.9	75.7	76.9	78.9	82.6	89.2	92.7
	Securitized assets[4]									
29	Motor vehicles	24.0	33.0	29.2	31.0	30.5	32.0	32.1	28.4	30.4
30	Retail loans	2.7	2.4	2.6	2.4	2.4	2.2	2.9	2.8	2.7
31	Wholesale loans	21.3	30.5	24.7	26.6	26.2	27.8	27.2	23.5	25.7
32	Leases	.0	.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0
33	Equipment	11.3	10.7	13.0	12.8	12.5	13.2	13.3	13.8	13.5
34	Loans	4.7	4.2	6.6	6.1	5.8	6.5	6.7	7.1	6.9
35	Leases	6.6	6.5	6.4	6.7	6.6	6.6	6.6	6.7	6.6
36	Other business receivables[6]	2.4	4.0	6.8	8.2	8.3	8.3	8.0	7.9	7.8

NOTE. This table has been revised to incorporate several changes resulting from the benchmarking of finance company receivables to the June 1996 Survey of Finance Companies. In that benchmark survey, and in the monthly surveys that have followed, more detailed breakdowns have been obtained for some components. In addition, previously unavailable data on securitized real estate loans are now included in this table. The new information has resulted in some reclassification of receivables among the three major categories (consumer, real estate, and business) and in discontinuities in some component series between May and June 1996.

Includes finance company subsidiaries of bank holding companies but not of retailers and banks. Data in this table also appear in the Board's G.20 (422) monthly statistical release. For ordering address, see inside front cover.

1. Owned receivables are those carried on the balance sheet of the institution. Managed receivables are outstanding balances of pools upon which securities have been issued; these balances are no longer carried on the balance sheets of the loan originator. Data are shown before deductions for unearned income and losses. Components may not sum to totals because of rounding.

2. Excludes revolving credit reported as held by depository institutions that are subsidiaries of finance companies.

3. Includes personal cash loans, mobile home loans, and loans to purchase other types of consumer goods such as appliances, apparel, boats, and recreation vehicles.

4. Outstanding balances of pools upon which securities have been issued; these balances are no longer carried on the balance sheets of the loan originator.

5. Credit arising from transactions between manufacturers and dealers, that is, floor plan financing.

6. Includes loans on commercial accounts receivable, factored commercial accounts, and receivable dealer capital; small loans used primarily for business or farm purposes; and wholesale and lease paper for mobile homes, campers, and travel trailers.

1.53 MORTGAGE MARKETS Mortgages on New Homes

Millions of dollars except as noted

Item	1996	1997	1998	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July	1999 Aug.	1999 Sept.
	Terms and yields in primary and secondary markets									
PRIMARY MARKETS										
Terms[1]										
1 Purchase price (thousands of dollars)	182.4	180.1	195.2	211.0	209.4	207.5	211.0	207.6	213.8	210.3
2 Amount of loan (thousands of dollars)	139.2	140.3	151.1	162.9	162.4	161.6	162.0	158.2	163.1	161.8
3 Loan-to-price ratio (percent)	78.2	80.4	80.0	79.4	79.5	79.8	79.0	78.6	78.3	78.8
4 Maturity (years)	27.2	28.2	28.4	28.8	28.9	28.7	28.6	28.5	28.5	29.1
5 Fees and charges (percent of loan amount)[2]	1.21	1.02	.89	.82	.77	.69	.72	.83	.68	.64
Yield (percent per year)										
6 Contract rate[1]	7.56	7.57	6.95	6.74	6.74	6.78	6.92	7.16	6.99	6.99
7 Effective rate[1,3]	7.77	7.73	7.08	6.86	6.85	6.89	7.03	7.29	7.08	7.09
8 Contract rate (HUD series)[4]	8.03	7.76	7.00	7.03	6.93	7.17	7.59	7.75	7.87	7.76
SECONDARY MARKETS										
Yield (percent per year)										
9 FHA mortgages (Section 203)[5]	8.19	7.89	7.04	7.07	7.08	7.58	8.13	8.00	8.10	8.05
10 GNMA securities[6]	7.48	7.26	6.43	6.58	6.50	6.79	7.21	7.28	7.53	7.42
	Activity in secondary markets									
FEDERAL NATIONAL MORTGAGE ASSOCIATION										
Mortgage holdings (end of period)										
11 Total	287,052	316,678	414,515	440,139	446,025	464,530	473,315	480,651	495,302	504,938
12 FHA/VA insured	30,592	31,925	33,770	34,870	36,158	38,938	41,143	44,132	47,846	49,456
13 Conventional	256,460	284,753	380,745	405,269	409,867	425,592	432,172	436,519	447,456	455,482
14 Mortgage transactions purchased (during period)	68,618	70,465	188,448	16,923	14,225	25,640	15,934	14,004	21,094	15,200
Mortgage commitments (during period)										
15 Issued	65,859	69,965	193,795	16,891	20,192	12,517	19,507	12,966	18,153	7,998
16 To sell[7]	130	1,298	1,880	266	75	178	351	260	478	609
FEDERAL HOME LOAN MORTGAGE CORPORATION										
Mortgage holdings (end of period)[8]										
17 Total	137,755	164,421	255,010	277,624	284,006	285,881	299,184	300,093	306,214	315,968
18 FHA/VA insured	220	177	785	754	1,613	1,610	1,726	1,735	1,708	1,708
19 Conventional	137,535	164,244	254,225	276,870	282,393	284,271	297,458	298,358	304,506	314,260
Mortgage transactions (during period)										
20 Purchases	125,103	117,401	267,402	29,921	26,473	22,503	21,950	17,602	18,674	15,238
21 Sales	119,702	114,258	250,565	28,740	25,464	21,972	20,349	16,835	17,468	14,153
22 Mortgage commitments contracted (during period)[9]	128,995	120,089	281,899	32,546	24,050	20,052	21,610	14,988	18,951	14,608

1. Weighted averages based on sample surveys of mortgages originated by major institutional lender groups for purchase of newly built homes; compiled by the Federal Housing Finance Board in cooperation with the Federal Deposit Insurance Corporation.
2. Includes all fees, commissions, discounts, and "points" paid (by the borrower or the seller) to obtain a loan.
3. Average effective interest rate on loans closed for purchase of newly built homes, assuming prepayment at the end of ten years.
4. Average contract rate on new commitments for conventional first mortgages; from U.S. Department of Housing and Urban Development (HUD). Based on transactions on the first day of the subsequent month.
5. Average gross yield on thirty-year, minimum-downpayment first mortgages insured by the Federal Housing Administration (FHA) for immediate delivery in the private secondary market. Based on transactions on first day of subsequent month.
6. Average net yields to investors on fully modified pass-through securities backed by mortgages and guaranteed by the Government National Mortgage Association (GNMA), assuming prepayment in twelve years on pools of thirty-year mortgages insured by the Federal Housing Administration or guaranteed by the Department of Veterans Affairs.
7. Does not include standby commitments issued, but includes standby commitments converted.
8. Includes participation loans as well as whole loans.
9. Includes conventional and government-underwritten loans. The Federal Home Loan Mortgage Corporation's mortgage commitments and mortgage transactions include activity under mortgage securities swap programs, whereas the corresponding data for FNMA exclude swap activity.

1.54 MORTGAGE DEBT OUTSTANDING[1]

Millions of dollars, end of period

Type of holder and property	1995	1996	1997	1998			1999	
				Q2	Q3	Q4	Q1	Q2p
1 **All holders**	**4,603,384**	**4,898,661**	**5,212,073**	**5,434,008**	**5,568,417**	**5,722,421**	**5,861,070**	**6,013,592**
By type of property								
2 One- to four-family residences	3,509,721	3,719,010	3,954,854	4,117,231	4,217,417	4,322,453	4,414,500	4,527,176
3 Multifamily residences	277,002	294,783	310,456	323,324	330,595	340,782	351,652	359,796
4 Nonfarm, nonresidential	732,100	797,734	856,464	900,453	926,039	962,680	997,514	1,026,903
5 Farm	84,561	87,134	90,299	93,001	94,367	96,506	97,403	99,717
By type of holder								
6 Major financial institutions	1,900,089	1,981,885	2,083,978	2,121,961	2,137,438	2,195,376	2,202,494	2,243,008
7 Commercial banks[2]	1,090,189	1,145,389	1,245,315	1,281,870	1,295,828	1,337,772	1,337,218	1,361,947
8 One- to four-family	646,545	677,603	745,510	770,116	770,340	797,533	782,441	790,465
9 Multifamily	42,521	45,451	49,670	51,227	52,205	52,871	56,170	58,572
10 Nonfarm, nonresidential	377,293	397,452	423,148	432,208	444,596	458,333	469,095	482,367
11 Farm	23,830	24,883	26,986	28,319	28,688	29,035	29,512	30,544
12 Savings institutions[3]	596,763	628,335	631,822	632,359	634,251	643,964	646,213	656,383
13 One- to four-family	482,353	513,712	520,672	522,088	525,844	533,792	534,494	544,659
14 Multifamily	61,987	61,570	59,543	58,908	56,696	56,825	56,763	55,002
15 Nonfarm, nonresidential	52,135	52,723	51,252	50,978	51,312	52,930	54,521	56,279
16 Farm	288	331	354	386	399	417	435	444
17 Life insurance companies	213,137	208,161	206,841	207,732	207,359	213,640	219,063	224,677
18 One- to four-family	8,890	6,977	7,187	6,814	6,594	6,590	6,956	7,285
19 Multifamily	28,714	30,750	30,402	30,618	30,565	31,522	31,528	32,321
20 Nonfarm, nonresidential	165,876	160,314	158,780	159,456	159,189	164,004	168,862	173,106
21 Farm	9,657	10,120	10,472	10,844	11,011	11,524	11,717	11,965
22 Federal and related agencies	308,757	295,192	286,167	287,161	287,125	292,636	288,313	288,235
23 Government National Mortgage Association	2	2	8	8	7	7	6	8
24 One- to four-family	2	2	8	8	7	7	6	8
25 Multifamily	0	0	0	0	0	0	0	0
26 Farmers Home Administration[4]	41,791	41,596	41,195	40,921	40,907	40,851	40,691	40,691
27 One- to four-family	17,705	17,303	17,253	17,059	17,025	16,895	16,777	16,777
28 Multifamily	11,617	11,685	11,720	11,722	11,736	11,739	11,731	11,731
29 Nonfarm, nonresidential	6,248	6,841	7,370	7,497	7,566	7,705	7,769	7,769
30 Farm	6,221	5,768	4,852	4,644	4,579	4,513	4,413	4,413
31 Federal Housing and Veterans' Administrations	9,809	6,244	3,821	3,631	3,405	3,674	3,675	3,684
32 One- to four-family	5,180	3,524	1,767	1,610	1,550	1,849	1,850	1,818
33 Multifamily	4,629	2,719	2,054	2,021	1,855	1,825	1,825	1,867
34 Resolution Trust Corporation	1,864	0	0	0	0	0	0	0
35 One- to four-family	691	0	0	0	0	0	0	0
36 Multifamily	647	0	0	0	0	0	0	0
37 Nonfarm, nonresidential	525	0	0	0	0	0	0	0
38 Farm	0	0	0	0	0	0	0	0
39 Federal Deposit Insurance Corporation	4,303	2,431	724	564	482	361	315	189
40 One- to four-family	492	365	109	85	72	54	47	28
41 Multifamily	428	413	123	96	82	61	54	32
42 Nonfarm, nonresidential	3,383	1,653	492	384	328	245	214	129
43 Farm	0	0	0	0	0	0	0	0
44 Federal National Mortgage Association	178,807	168,813	161,308	159,816	159,104	157,675	157,185	155,637
45 One- to four-family	163,648	155,008	149,831	149,383	149,069	147,594	147,063	145,033
46 Multifamily	15,159	13,805	11,477	10,433	10,035	10,081	10,122	10,604
47 Federal Land Banks	28,428	29,602	30,657	31,352	32,009	32,983	33,128	33,744
48 One- to four-family	1,673	1,742	1,804	1,845	1,883	1,941	1,949	1,985
49 Farm	26,755	27,860	28,853	29,507	30,126	31,042	31,179	31,758
50 Federal Home Loan Mortgage Corporation	43,753	46,504	48,454	50,869	51,211	57,085	53,313	54,282
51 One- to four-family	39,901	41,758	42,629	44,597	44,254	49,106	44,140	43,574
52 Multifamily	3,852	4,746	5,825	6,272	6,957	7,979	9,173	10,708
53 Mortgage pools or trusts[5]	1,863,210	2,064,882	2,273,022	2,442,715	2,548,301	2,632,839	2,762,770	2,861,430
54 Government National Mortgage Association	472,283	506,340	536,879	537,743	541,540	537,446	543,306	553,316
55 One- to four-family	461,438	494,158	523,225	523,400	527,043	522,498	527,912	537,407
56 Multifamily	10,845	12,182	13,654	14,343	14,497	14,948	15,395	15,909
57 Federal Home Loan Mortgage Corporation	515,051	554,260	579,385	609,791	635,726	646,459	687,179	718,085
58 One- to four-family	512,238	551,513	576,846	607,469	633,124	643,465	684,240	714,844
59 Multifamily	2,813	2,747	2,539	2,322	2,602	2,994	2,939	3,241
60 Federal National Mortgage Association	582,959	650,780	709,582	761,359	798,460	834,518	881,815	911,435
61 One- to four-family	569,724	633,210	687,981	737,631	770,979	804,205	849,513	877,863
62 Multifamily	13,235	17,570	21,601	23,728	27,481	30,313	32,302	33,572
63 Farmers Home Administration[4]	11	3	2	2	2	1	1	1
64 One- to four-family	2	0	0	0	0	0	0	0
65 Multifamily	0	0	0	0	0	0	0	0
66 Nonfarm, nonresidential	5	0	0	0	0	0	0	0
67 Farm	4	3	2	2	2	1	1	1
68 Private mortgage conduits	292,906	353,499	447,173	533,820	572,573	614,416	650,469	678,594
69 One- to four-family[6]	227,800	261,900	318,000	364,316	391,736	410,900	430,653	447,938
70 Multifamily	15,584	21,967	29,218	38,098	40,895	44,654	48,403	50,713
71 Nonfarm, nonresidential	49,522	69,633	99,955	131,406	139,942	158,862	171,413	179,942
72 Farm	0	0	0	0	0	0	0	0
73 Individuals and others[7]	531,329	556,702	568,907	582,171	595,552	601,570	607,493	620,919
74 One- to four-family	371,440	360,235	362,033	370,811	377,896	386,025	386,458	397,491
75 Multifamily	64,970	69,179	72,629	73,536	74,987	74,971	75,249	75,524
76 Nonfarm, nonresidential	77,112	109,119	115,467	118,525	123,107	120,600	125,640	127,312
77 Farm	17,806	18,169	18,779	19,299	19,562	19,974	20,147	20,592

1. Multifamily debt refers to loans on structures of five or more units.
2. Includes loans held by nondeposit trust companies but not loans held by bank trust departments.
3. Includes savings banks and savings and loan associations.
4. FmHA-guaranteed securities sold to the Federal Financing Bank were reallocated from FmHA mortgage pools to FmHA mortgage holdings in 1986:Q4 because of accounting changes by the Farmers Home Administration.
5. Outstanding principal balances of mortgage-backed securities insured or guaranteed by the agency indicated.
6. Includes securitized home equity loans.
7. Other holders include mortgage companies, real estate investment trusts, state and local credit agencies, state and local retirement funds, noninsured pension funds, credit unions, and finance companies.

SOURCE. Based on data from various institutional and government sources. Separation of nonfarm mortgage debt by type of property, if not reported directly, and interpolations and extrapolations, when required for some quarters, are estimated in part by the Federal Reserve. Line 69 from Inside Mortgage Securities and other sources.

1.55 CONSUMER CREDIT[1]

Millions of dollars, amounts outstanding, end of period

Holder and type of credit	1996	1997	1998	1999 Mar.	1999 Apr.	1999 May	1999 June[r]	1999 July[r]	1999 Aug.
	Seasonally adjusted								
1 **Total**	**1,182,439**	**1,234,122**	**1,300,491**	**1,332,798r**	**1,332,662r**	**1,343,427r**	**1,347,831**	**1,356,696**	**1,367,498**
2 Revolving	499,532	531,295	560,653	567,116r	569,860r	571,957r	578,530	584,362	588,681
3 Nonrevolving[2]	682,907	702,828	739,838	765,682r	762,801r	771,470r	769,301	772,334	778,816
	Not seasonally adjusted								
4 **Total**	**1,211,590**	**1,264,103**	**1,331,742**	**1,319,263r**	**1,322,021r**	**1,331,267r**	**1,340,414**	**1,349,886**	**1,368,691**
By major holder									
5 Commercial banks	526,769	512,563	508,932	494,039	494,663	492,852	477,774	477,977	482,683
6 Finance companies	152,391	160,022	168,491	167,815	170,145	168,490	173,617	173,374	177,863
7 Credit unions	144,148	152,362	155,406	155,766r	156,797r	158,102r	158,177	159,920	162,509
8 Savings institutions	44,711	47,172	51,611	53,623	54,803	55,982	57,161	58,340	59,519
9 Nonfinancial business	77,745	78,927	74,877	67,134r	67,112r	68,051r	68,042	68,228	69,040
10 Pools of securitized assets[3]	265,826	313,057	372,425	380,886	378,501	387,790	405,643	412,047	417,077
By major type of credit[4]									
11 Revolving	522,860	555,858	586,528	561,377r	563,907r	566,019r	572,463	576,538	584,822
12 Commercial banks	228,615	219,826	210,346	190,028	191,295	190,216	178,031	177,098	178,702
13 Finance companies	32,493	38,608	32,309	31,197	31,327	31,296	32,408	32,846	33,031
14 Credit unions	17,826	19,552	19,930	18,729r	18,823r	18,732r	18,856	19,054	19,312
15 Savings institutions	10,313	11,441	12,450	12,373	12,507	12,641	12,775	12,909	13,043
16 Nonfinancial business	44,901	44,966	39,166	33,754	33,726	34,446	34,618	34,794	35,379
17 Pools of securitized assets[3]	188,712	221,465	272,327	275,296	276,229	278,688	295,775	299,837	305,355
18 Nonrevolving credit	688,730	708,245	745,214	757,886r	758,114r	765,248r	767,951	773,348	783,869
19 Commercial banks	298,154	292,737	298,586	304,011	303,368	302,636	299,743	300,879	303,981
20 Finance companies	119,898	121,414	136,182	136,618	138,818	137,194	141,209	140,528	144,832
21 Credit unions	126,322	132,810	135,476	137,037r	137,974r	139,370r	139,321	140,866	143,197
22 Savings institutions	34,398	35,731	39,161	41,250	42,296	43,341	44,386	45,431	46,476
23 Nonfinancial business	32,844	33,961	35,711	33,380r	33,386r	33,605r	33,424	33,434	33,661
24 Pools of securitized assets[3]	77,114	91,592	100,098	105,590	102,272	109,102	109,868	112,210	111,722

1. The Board's series on amounts of credit covers most short- and intermediate-term credit extended to individuals. Data in this table also appear in the Board's G.19 (421) monthly statistical release. For ordering address, see inside front cover.

2. Comprises motor vehicle loans, mobile home loans, and all other loans that are not included in revolving credit, such as loans for education, boats, trailers, or vacations. These loans may be secured or unsecured.

3. Outstanding balances of pools upon which securities have been issued; these balances are no longer carried on the balance sheets of the loan originator.

4. Totals include estimates for certain holders for which only consumer credit totals are available.

1.56 TERMS OF CONSUMER CREDIT[1]

Percent per year except as noted

Item	1996	1997	1998	1999 Feb.	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July	1999 Aug.
INTEREST RATES										
Commercial banks[2]										
1 48-month new car	9.05	9.02	8.72	8.34	n.a.	n.a.	8.30	n.a.	n.a.	8.44
2 24-month personal	13.54	13.90	13.74	13.41	n.a.	n.a.	13.26	n.a.	n.a.	13.38
Credit card plan										
3 All accounts	15.63	15.77	15.71	15.41	n.a.	n.a.	15.21	n.a.	n.a.	15.08
4 Accounts assessed interest	15.50	15.57	15.59	14.73	n.a.	n.a.	14.94	n.a.	n.a.	14.79
Auto finance companies										
5 New car	9.84	7.12	6.30	6.43	6.31	6.52	6.57	6.60	6.70	6.28
6 Used car	13.53	13.27	12.64	12.08	12.09	12.17	12.16	12.31	12.69	12.96
OTHER TERMS[3]										
Maturity (months)										
7 New car	51.6	54.1	52.1	53.4	53.0	52.8	52.4	52.3	52.0	51.7
8 Used car	51.4	51.0	53.5	55.9	56.0	56.0	56.1	56.0	56.1	55.8
Loan-to-value ratio										
9 New car	91	92	92	92	91	92	92	92	92	92
10 Used car	100	99	99	99	99	99	99	99	100	100
Amount financed (dollars)										
11 New car	16,987	18,077	19,083	19,304	19,339	19,435	19,539	19,722	19,874	20,012
12 Used car	12,182	12,281	12,691	13,604	13,653	13,647	13,700	13,816	13,604	13,374

1. The Board's series on amounts of credit covers most short- and intermediate-term credit extended to individuals. Data in this table also appear in the Board's G.19 (421) monthly statistical release. For ordering address, see inside front cover.

2. Data are available for only the second month of each quarter.

3. At auto finance companies.

1.57 FUNDS RAISED IN U.S. CREDIT MARKETS[1]

Billions of dollars; quarterly data at seasonally adjusted annual rates

Transaction category or sector	1993	1994	1995	1996	1997	1997	1998				1999	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2
	Nonfinancial sectors											
1 **Total net borrowing by domestic nonfinancial sectors**	**584.4**	**575.8**	**720.4**	**743.0**	**785.3**	**912.0**	**1,075.5**	**1,042.4**	**899.2**	**1,072.8**	**1,248.1**	**865.6**
By sector and instrument												
2 Federal government	256.1	155.8	144.4	145.0	23.1	−5.5	−14.5	−28.4	−113.5	−54.1	−75.2	−112.2
3 Treasury securities	248.3	155.7	142.9	146.6	23.2	−7.3	−12.1	−26.9	−113.1	−66.3	−73.7	−112.8
4 Budget agency securities and mortgages	7.8	.2	1.5	−1.6	−.1	1.7	−2.4	−1.4	−.4	12.2	−1.5	.6
5 Nonfederal	328.3	420.0	576.0	598.0	762.2	917.5	1,090.0	1,070.8	1,012.6	1,127.0	1,323.3	977.8
By instrument												
6 Commercial paper	10.0	21.4	18.1	−.9	13.7	12.8	51.1	3.8	85.6	−43.0	64.4	3.4
7 Municipal securities and loans	74.8	−35.9	−48.2	2.6	71.4	99.9	113.5	101.3	82.9	89.6	100.7	48.0
8 Corporate bonds	75.2	23.3	91.1	116.3	150.5	163.6	278.8	294.8	108.0	193.2	274.0	260.8
9 Bank loans n.e.c.	6.4	75.2	103.7	70.5	106.5	178.1	35.0	169.2	107.8	120.9	70.0	21.8
10 Other loans and advances	−18.9	34.0	67.2	33.5	69.1	141.4	76.3	40.8	77.7	102.5	114.1	−5.3
11 Mortgages	122.4	177.0	205.1	287.4	298.4	278.6	476.4	398.9	471.1	593.8	573.4	595.7
12 Home	160.1	183.4	179.8	243.0	235.8	188.8	376.5	287.3	373.7	427.8	414.6	424.2
13 Multifamily residential	−5.1	−2.1	7.6	11.5	10.8	18.3	21.6	21.1	16.1	30.6	35.9	36.8
14 Commercial	−33.6	−6.5	16.2	30.4	48.7	68.6	74.1	83.8	75.9	126.8	119.3	125.4
15 Farm	1.0	2.2	1.6	2.6	3.2	2.9	4.1	6.7	5.5	8.6	3.6	9.3
16 Consumer credit	58.4	124.9	138.9	88.8	52.5	43.1	58.9	62.1	79.6	69.9	126.6	53.2
By borrowing sector												
17 Household	209.4	316.3	350.3	351.7	325.5	311.1	463.3	418.5	471.9	527.3	553.3	511.0
18 Nonfinancial business	52.7	150.0	277.2	253.2	380.6	520.3	532.5	570.3	470.7	524.6	682.6	431.1
19 Corporate	46.9	142.3	243.7	164.6	297.0	425.0	426.9	467.4	365.8	413.7	574.4	320.6
20 Nonfarm noncorporate	3.2	3.3	30.6	83.8	77.4	86.6	97.1	95.4	97.6	103.3	101.6	111.2
21 Farm	2.6	4.4	2.9	4.8	6.2	8.6	8.4	7.5	7.3	7.5	6.6	−.7
22 State and local government	66.2	−46.2	−51.5	−6.8	56.1	86.2	94.2	82.0	70.0	75.1	87.4	35.7
23 Foreign net borrowing in United States	69.8	−13.9	71.1	77.2	57.6	44.8	95.0	97.9	−19.6	−38.9	17.3	−43.3
24 Commercial paper	−9.6	−26.1	13.5	11.3	3.7	.7	55.3	−25.5	6.2	−4.7	18.3	−27.1
25 Bonds	82.9	12.2	49.7	55.8	47.2	34.2	42.5	119.2	−27.2	−34.2	.9	−19.1
26 Bank loans n.e.c.	.7	1.4	8.5	9.1	8.5	15.7	5.2	8.4	3.6	9.8	.9	5.7
27 Other loans and advances	−4.2	−1.4	−.5	1.0	−1.8	−5.8	−8.0	−4.2	−2.2	−9.7	−2.8	−2.7
28 **Total domestic plus foreign**	**654.2**	**561.9**	**791.5**	**820.3**	**842.9**	**956.8**	**1,170.4**	**1,140.3**	**879.5**	**1,034.0**	**1,265.4**	**822.4**
	Financial sectors											
29 **Total net borrowing by financial sectors**	**294.4**	**468.4**	**453.9**	**548.9**	**652.2**	**961.5**	**931.3**	**988.9**	**1,056.3**	**1,298.7**	**1,216.0**	**1,014.1**
By instrument												
30 Federal government-related	165.3	287.5	204.1	231.5	212.8	290.9	249.2	405.4	555.8	673.3	592.3	579.3
31 Government-sponsored enterprise securities	80.6	176.9	105.9	90.4	98.4	157.9	142.5	166.4	294.0	510.5	193.0	304.7
32 Mortgage pool securities	84.7	115.4	98.2	141.1	114.5	133.0	106.7	239.0	261.7	162.8	399.3	274.6
33 Loans from U.S. government	.0	−4.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
34 Private	129.1	180.9	249.8	317.5	439.4	670.7	682.1	583.5	500.5	625.4	623.7	434.8
35 Open market paper	−5.5	40.5	42.7	92.2	166.7	244.7	236.7	135.6	141.0	130.7	78.3	57.8
36 Corporate bonds	123.1	121.8	195.9	176.9	209.0	348.8	346.3	361.8	177.4	281.9	492.5	260.8
37 Bank loans n.e.c.	−14.4	−13.7	2.5	12.6	13.2	−4.7	57.3	−9.7	60.2	12.4	−8.8	10.5
38 Other loans and advances	22.4	22.6	3.4	27.9	35.6	61.7	32.7	76.0	82.3	169.9	41.6	117.9
39 Mortgages	3.6	9.8	5.3	7.9	14.9	20.1	9.1	19.9	39.6	30.6	20.1	−12.3
By borrowing sector												
40 Commercial banking	13.4	20.1	22.5	13.0	46.1	61.4	82.8	80.8	61.7	66.3	31.1	61.6
41 Savings institutions	11.3	12.8	2.6	25.5	19.7	41.7	10.6	31.2	63.7	103.2	58.0	58.6
42 Credit unions	.2	.2	−.1	.1	.1	.3	.5	.2	1.0	.4	1.5	1.4
43 Life insurance companies	.2	.3	−.1	1.1	.2	−.3	.0	−.6	1.6	1.8	3.3	3.0
44 Government-sponsored enterprises	80.6	172.1	105.9	90.4	98.4	157.9	142.5	166.4	294.0	510.5	193.0	304.7
45 Federally related mortgage pools	84.7	115.4	98.2	141.1	114.5	133.0	106.7	239.0	261.7	162.8	399.3	274.6
46 Issuers of asset-backed securities (ABSs)	85.4	76.5	142.4	153.9	200.7	374.8	283.0	352.4	294.2	335.7	302.2	318.3
47 Finance companies	−1.4	48.7	50.2	45.9	48.7	70.7	74.6	91.9	−12.0	17.8	71.2	88.4
48 Mortgage companies	.0	−11.5	−2.2	4.1	−4.6	−46.8	29.4	−28.2	2.3	3.0	−4.6	5.1
49 Real estate investment trusts (REITs)	1.7	10.2	4.5	11.9	39.6	66.0	63.1	64.4	79.3	44.0	25.6	−19.7
50 Brokers and dealers	12.0	.5	−5.0	−2.0	8.1	7.0	−1.0	20.0	−2.6	12.4	−31.1	−18.3
51 Funding corporations	6.3	23.1	34.9	64.1	80.7	95.9	139.2	−28.6	11.2	40.9	166.5	−63.4

1.57 FUNDS RAISED IN U.S. CREDIT MARKETS[1]—Continued

Transaction category or sector	1993	1994	1995	1996	1997	1997	1998				1999	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2
	All sectors											
52 **Total net borrowing, all sectors**	**948.6**	**1,030.3**	**1,245.4**	**1,369.2**	**1,495.1**	**1,918.3**	**2,101.7**	**2,129.3**	**1,935.8**	**2,332.7**	**2,481.3**	**1,836.4**
53 Open market paper	−5.1	35.7	74.3	102.6	184.1	258.2	343.0	113.8	232.7	83.0	161.1	34.1
54 U.S. government securities	421.4	448.1	348.5	376.5	235.9	285.3	234.7	377.1	442.3	619.1	517.1	467.1
55 Municipal securities	74.8	−35.9	−48.2	2.6	71.4	99.9	113.5	101.3	82.9	89.6	100.7	48.0
56 Corporate and foreign bonds	281.2	157.3	336.7	348.9	406.7	546.5	667.6	775.8	258.2	440.9	767.4	502.5
57 Bank loans n.e.c.	−7.2	62.9	114.7	92.1	128.2	189.2	97.6	167.9	171.6	143.0	62.1	38.0
58 Other loans and advances	−.8	50.4	70.1	62.5	102.8	197.4	101.0	112.5	157.8	262.7	152.9	110.0
59 Mortgages	126.0	186.8	210.5	295.3	313.3	298.7	485.5	418.7	510.7	624.4	593.5	583.5
60 Consumer credit	58.4	124.9	138.9	88.8	52.5	43.1	58.9	62.1	79.6	69.9	126.6	53.2
	Funds raised through mutual funds and corporate equities											
61 **Total net issues**	**429.7**	**125.2**	**144.3**	**228.9**	**188.4**	**160.9**	**213.5**	**268.5**	**−147.2**	**18.3**	**140.6**	**6.4**
62 Corporate equities	137.7	24.6	−3.1	−8.6	−76.7	−100.0	−108.8	−109.3	−320.6	−206.5	−114.7	−241.5
63 Nonfinancial corporations	21.3	−44.9	−58.3	−69.5	−114.4	−143.3	−139.2	−129.1	−308.4	−491.3	−65.7	−354.0
64 Foreign shares purchased by U.S. residents	63.4	48.1	50.4	60.0	42.0	1.7	14.0	12.3	−32.8	317.4	−33.4	124.7
65 Financial corporations	53.0	21.4	4.8	.8	−4.3	41.6	16.4	7.5	20.5	−32.7	−15.6	−12.2
66 Mutual fund shares	292.0	100.6	147.4	237.6	265.1	260.9	322.3	377.8	173.4	224.8	255.3	247.9

1. Data in this table also appear in the Board's Z.1 (780) quarterly statistical release, tables F.2 through F.4. For ordering address, see inside front cover.

1.58 SUMMARY OF FINANCIAL TRANSACTIONS[1]

Billions of dollars except as noted; quarterly data at seasonally adjusted annual rates

Transaction category or sector	1993	1994	1995	1996	1997	1997 Q4	1998 Q1	1998 Q2	1998 Q3	1998 Q4	1999 Q1	1999 Q2
NET LENDING IN CREDIT MARKETS[2]												
1 **Total net lending in credit markets**	**948.6**	**1,030.3**	**1,245.4**	**1,369.2**	**1,495.1**	**1,918.3**	**2,101.7**	**2,129.3**	**1,935.8**	**2,332.7**	**2,481.3**	**1,836.4**
2 Domestic nonfederal nonfinancial sectors	30.0	231.2	−90.0	22.5	−88.9	48.1	−49.7	512.7	94.9	−318.3	307.5	347.9
3 Household	−10.6	268.0	5.5	61.4	−86.2	7.5	−64.2	385.2	−44.8	−424.1	244.9	255.1
4 Nonfinancial corporate business	9.1	17.7	−8.8	−.8	−2.3	−13.0	8.4	−46.9	14.0	14.1	10.4	39.5
5 Nonfarm noncorporate business	−1.1	.6	4.7	−4.3	−.6	−.6	.0	.0	.0	.0	.0	.0
6 State and local governments	32.6	−55.0	−91.4	−33.7	.1	54.2	6.1	174.3	125.7	91.7	52.2	53.3
7 Federal government	−18.4	−27.4	−.2	−7.4	5.1	9.2	15.7	12.9	13.8	11.7	17.5	6.5
8 Rest of the world	129.3	132.3	273.9	414.4	310.7	203.9	223.8	321.8	60.8	390.7	213.3	51.6
9 Financial sectors	807.8	694.1	1,061.7	939.7	1,268.1	1,657.1	1,912.0	1,281.9	1,766.3	2,248.6	1,943.0	1,430.5
10 Monetary authority	36.2	31.5	12.7	12.3	38.3	54.3	27.6	11.5	41.6	3.5	71.8	62.4
11 Commercial banking	142.2	163.4	265.9	187.5	324.3	447.4	306.7	132.7	250.1	531.5	68.9	135.0
12 U.S.-chartered banks	149.6	148.1	186.5	119.6	274.9	357.6	268.4	130.0	309.2	540.2	134.1	231.5
13 Foreign banking offices in United States	−9.8	11.2	75.4	63.3	40.2	69.3	17.5	15.2	−68.1	−12.1	−54.9	−105.8
14 Bank holding companies	.0	.9	−.3	3.9	5.4	19.4	15.3	−17.6	6.0	−7.4	−6.0	.1
15 Banks in U.S.-affiliated areas	2.4	3.3	4.2	.7	3.7	1.1	5.5	5.1	2.9	10.7	−4.4	9.2
16 Savings institutions	−23.3	6.7	−7.6	19.9	−4.7	8.9	11.8	2.1	17.9	113.3	102.7	88.8
17 Credit unions	21.7	28.1	16.2	25.5	16.8	6.5	16.1	22.7	21.0	16.0	37.7	34.7
18 Bank personal trusts and estates	9.5	7.1	−8.3	−7.7	7.6	8.8	2.4	3.1	2.0	3.9	3.1	2.2
19 Life insurance companies	100.4	72.0	100.0	69.6	94.3	34.1	92.1	63.4	65.6	86.0	72.6	89.0
20 Other insurance companies	27.7	24.9	21.5	22.5	25.2	34.7	23.4	−1.5	−7.7	67.5	−19.7	5.0
21 Private pension funds	50.2	46.1	56.0	52.3	65.5	79.5	74.5	130.1	95.6	174.4	60.5	150.0
22 State and local government retirement funds	24.7	30.9	33.6	37.3	63.8	42.7	67.4	78.4	65.6	48.5	74.3	37.4
23 Money market mutual funds	20.4	30.0	86.5	88.8	87.5	141.8	159.3	208.1	255.5	353.1	227.6	−92.6
24 Mutual funds	159.5	−7.1	52.5	48.9	80.9	64.8	156.4	146.4	92.9	103.5	101.5	98.8
25 Closed-end funds	20.0	−3.7	10.5	4.7	−2.9	−2.9	4.5	4.5	4.5	4.5	4.4	4.4
26 Government-sponsored enterprises	87.8	117.8	86.7	84.2	94.3	158.1	198.3	150.6	264.7	429.5	157.2	259.5
27 Federally related mortgage pools	84.7	115.4	98.2	141.1	114.5	133.0	106.7	239.0	261.7	162.8	399.3	274.6
28 Asset-backed securities issuers (ABSs)	82.8	69.4	120.6	123.6	162.3	321.9	223.9	321.4	248.7	312.7	284.6	301.5
29 Finance companies	−20.9	48.3	49.9	18.4	21.9	−19.7	28.7	24.0	79.5	75.3	92.2	79.6
30 Mortgage companies	.0	−24.0	−3.4	8.2	−9.1	−93.6	58.8	−56.4	4.5	6.0	−9.1	10.2
31 Real estate investment trusts (REITs)	.4	−.7	1.4	4.4	20.2	38.9	25.6	6.1	−11.3	−40.8	1.7	−2.2
32 Brokers and dealers	14.8	−44.2	90.1	−15.7	14.9	71.7	245.8	−183.1	77.0	−209.1	184.5	−204.5
33 Funding corporations	−31.0	−17.8	−21.2	14.0	52.7	126.2	82.0	−21.4	−63.3	6.4	27.1	96.8
RELATION OF LIABILITIES TO FINANCIAL ASSETS												
34 **Net flows through credit markets**	**948.6**	**1,030.3**	**1,245.4**	**1,369.2**	**1,495.1**	**1,918.3**	**2,101.7**	**2,129.3**	**1,935.8**	**2,332.7**	**2,481.3**	**1,836.4**
Other financial sources												
35 Official foreign exchange	.8	−5.8	8.8	−6.3	.7	17.5	1.0	8.1	8.9	8.6	−14.0	−5.4
36 Special drawing rights certificates	.0	.0	2.2	−.5	−.5	.0	.0	.0	.0	.0	−4.0	.0
37 Treasury currency	.4	.7	.6	.1	.0	−1.9	.3	.2	1.7	−2.3	.0	.7
38 Foreign deposits	−18.5	52.9	35.3	85.9	106.8	100.6	−46.5	92.9	84.9	−131.9	127.7	114.5
39 Net interbank transactions	50.5	89.8	10.0	−51.6	−19.7	54.3	−95.2	39.8	44.2	−122.9	49.1	68.2
40 Checkable deposits and currency	117.3	−9.7	−12.7	15.8	41.5	72.1	52.6	90.1	−24.9	72.8	61.7	10.3
41 Small time and savings deposits	−70.3	−39.9	96.6	97.2	97.1	136.7	99.0	84.9	144.7	281.2	−63.8	104.0
42 Large time deposits	−23.5	19.6	65.6	114.0	122.5	59.2	187.8	−5.6	81.8	104.4	−5.9	42.6
43 Money market fund shares	20.2	43.3	142.3	145.8	157.6	149.9	213.6	247.2	367.9	313.1	204.9	100.5
44 Security repurchase agreements	71.3	78.2	110.5	41.4	120.9	103.3	250.3	−100.8	231.1	−170.3	408.2	−65.6
45 Corporate equities	137.7	24.6	−3.1	−8.6	−76.7	−100.0	−108.8	−109.3	−320.6	−206.5	−114.7	−241.5
46 Mutual fund shares	292.0	100.6	147.4	237.6	265.1	260.9	322.3	377.8	173.4	224.8	255.3	247.9
47 Trade payables	52.2	94.0	101.6	86.1	96.2	122.6	108.3	−57.4	34.6	−86.8	155.5	98.4
48 Security credit	61.4	−.1	26.7	52.4	111.0	128.0	159.3	134.3	167.0	−27.2	−86.9	89.3
49 Life insurance reserves	37.1	35.5	45.8	44.5	54.3	37.4	49.3	53.3	51.7	59.0	40.8	65.9
50 Pension fund reserves	268.0	254.7	235.1	246.9	304.0	304.1	294.7	272.9	279.5	313.8	284.3	316.4
51 Taxes payable	11.4	2.6	6.2	16.0	16.8	3.9	12.2	.9	27.3	11.7	−10.3	27.2
52 Investment in bank personal trusts	.9	17.8	4.0	−8.6	75.0	78.4	50.3	57.5	47.8	67.1	64.1	53.0
53 Noncorporate proprietors' equity	24.1	53.6	60.3	−.6	6.1	−43.5	−11.0	−5.4	−61.2	3.2	−2.5	12.3
54 Miscellaneous	356.0	245.6	444.6	498.3	513.3	222.2	980.1	376.5	712.6	702.0	238.7	1,092.8
55 **Total financial sources**	**2,337.6**	**2,088.3**	**2,773.2**	**2,975.1**	**3,487.1**	**3,624.1**	**4,621.2**	**3,687.3**	**3,988.1**	**3,746.3**	**4,069.6**	**3,968.0**
Liabilities not identified as assets (−)												
56 Treasury currency	−.2	−.2	−.5	−.9	−.6	−2.4	−.2	−.3	1.1	−3.4	−1.5	−.4
57 Foreign deposits	−5.7	43.0	25.1	59.6	106.8	145.5	−95.7	119.9	69.9	−156.5	62.0	73.5
58 Net interbank liabilities	4.2	−2.7	−3.1	−3.3	−19.9	−38.1	35.1	8.9	22.3	−52.8	58.7	−1.7
59 Security repurchase agreements	50.5	67.7	20.2	4.5	62.3	185.1	120.8	−170.0	110.2	.2	362.2	−14.8
60 Taxes payable	15.8	16.6	21.1	20.4	18.8	14.4	9.4	2.8	24.2	17.4	−22.4	−15.0
61 Miscellaneous	−158.5	−160.1	−221.4	−66.9	−254.9	−640.7	61.0	−225.9	−106.7	−43.9	−568.0	−390.0
Floats not included in assets (−)												
62 Federal government checkable deposits	−1.5	−4.8	−6.0	.5	−2.7	−10.0	8.3	−44.4	32.4	14.0	−1.8	−41.4
63 Other checkable deposits	−1.3	−2.8	−3.8	−4.0	−3.9	−5.0	−4.0	−2.9	−3.6	−1.8	−1.9	1.0
64 Trade credit	−4.0	1.5	−11.7	−49.9	3.6	15.7	41.9	−150.7	−94.5	−31.1	55.7	−6.9
65 **Total identified to sectors as assets**	**2,438.2**	**2,130.1**	**2,953.4**	**3,015.2**	**3,577.6**	**3,959.6**	**4,444.8**	**4,150.0**	**3,932.8**	**4,004.0**	**4,126.5**	**4,365.7**

1. Data in this table also appear in the Board's Z.1 (780) quarterly statistical release, tables F.1 and F.5. For ordering address, see inside front cover.

2. Excludes corporate equities and mutual fund shares.

1.59 SUMMARY OF CREDIT MARKET DEBT OUTSTANDING[1]

Billions of dollars, end of period

Transaction category or sector	1994	1995	1996	1997	1997	1998				1999	
					Q4	Q1	Q2	Q3	Q4	Q1	Q2
					Nonfinancial sectors						
1 **Total credit market debt owed by domestic nonfinancial sectors**	**13,013.9**	**13,734.3**	**14,477.4**	**15,261.1**	**15,261.1**	**15,522.2**	**15,742.1**	**15,956.2**	**16,283.6**	**16,588.0**	**16,758.7**
By sector and instrument											
2 Federal government	3,492.3	3,636.7	3,781.8	3,804.9	3,804.9	3,830.8	3,749.0	3,720.2	3,752.2	3,759.7	3,651.7
3 Treasury securities	3,465.6	3,608.5	3,755.1	3,778.3	3,778.3	3,804.8	3,723.4	3,694.7	3,723.7	3,731.6	3,623.4
4 Budget agency securities and mortgages	26.7	28.2	26.6	26.5	26.5	25.9	25.6	25.5	28.5	28.1	28.3
5 Nonfederal	9,521.6	10,097.6	10,695.6	11,456.3	11,456.3	11,691.4	11,993.2	12,236.0	12,531.4	12,828.3	13,107.0
By instrument											
6 Commercial paper	139.2	157.4	156.4	168.6	168.6	193.1	202.5	216.9	193.0	223.9	232.4
7 Municipal securities and loans	1,341.7	1,293.5	1,296.0	1,367.5	1,367.5	1,397.1	1,429.3	1,439.9	1,464.3	1,491.0	1,510.0
8 Corporate bonds	1,253.0	1,344.1	1,460.4	1,610.9	1,610.9	1,680.6	1,754.3	1,781.3	1,829.6	1,898.1	1,963.3
9 Bank loans n.e.c.	759.9	863.6	934.1	1,040.5	1,040.5	1,047.9	1,097.6	1,120.6	1,148.8	1,165.2	1,178.4
10 Other loans and advances	669.6	736.9	770.4	839.5	839.5	863.5	873.1	886.8	913.8	947.5	945.8
11 Mortgages	4,374.2	4,579.4	4,866.8	5,165.2	5,165.2	5,273.3	5,379.7	5,504.0	5,650.3	5,784.1	5,939.2
12 Home	3,330.0	3,509.8	3,719.0	3,954.8	3,954.8	4,037.9	4,116.4	4,216.4	4,321.1	4,413.8	4,526.0
13 Multifamily residential	261.5	269.1	284.3	295.0	295.0	300.4	305.7	309.7	317.4	326.6	335.8
14 Commercial	699.8	716.0	776.4	825.1	825.1	843.6	864.6	883.6	915.3	946.3	977.7
15 Farm	83.0	84.6	87.1	90.3	90.3	91.3	93.0	94.4	96.5	97.4	99.7
16 Consumer credit	983.9	1,122.8	1,211.6	1,264.1	1,264.1	1,236.0	1,256.8	1,286.6	1,331.7	1,318.6	1,338.0
By borrowing sector											
17 Household	4,427.0	4,782.2	5,105.1	5,433.3	5,433.3	5,494.5	5,613.2	5,746.1	5,903.6	5,985.9	6,128.1
18 Nonfinancial business	3,972.9	4,245.2	4,527.1	4,903.5	4,903.5	5,052.6	5,209.2	5,311.1	5,428.0	5,619.2	5,740.7
19 Corporate	2,708.9	2,947.7	3,141.0	3,433.8	3,433.8	3,559.4	3,686.4	3,762.5	3,852.2	4,019.2	4,107.9
20 Nonfarm noncorporate	1,121.8	1,152.4	1,236.1	1,313.6	1,313.6	1,337.9	1,361.8	1,385.5	1,411.9	1,437.6	1,466.7
21 Farm	142.2	145.1	149.9	156.1	156.1	155.3	161.0	163.1	163.8	162.4	166.2
22 State and local government	1,121.7	1,070.2	1,063.4	1,119.5	1,119.5	1,144.3	1,170.8	1,178.8	1,199.8	1,223.2	1,238.2
23 **Foreign credit market debt held in United States**	**370.3**	**441.4**	**518.7**	**570.1**	**570.1**	**591.6**	**617.1**	**612.8**	**603.7**	**607.8**	**596.5**
24 Commercial paper	42.7	56.2	67.5	65.1	65.1	76.7	71.4	74.0	72.9	77.2	70.1
25 Bonds	242.3	291.9	347.7	394.9	394.9	405.6	435.4	428.6	420.0	420.2	415.4
26 Bank loans n.e.c.	26.1	34.6	43.7	52.1	52.1	53.4	55.5	56.4	58.9	59.1	60.5
27 Other loans and advances	59.3	58.8	59.8	58.0	58.0	55.9	54.8	53.8	52.0	51.3	50.4
28 **Total credit market debt owed by nonfinancial sectors, domestic and foreign**	**13,384.2**	**14,175.8**	**14,996.0**	**15,831.2**	**15,831.2**	**16,113.8**	**16,359.2**	**16,568.9**	**16,887.3**	**17,195.8**	**17,355.2**
					Financial sectors						
29 **Total credit market debt owed by financial sectors**	**3,822.2**	**4,278.8**	**4,827.7**	**5,446.8**	**5,446.8**	**5,670.1**	**5,926.8**	**6,195.5**	**6,515.6**	**6,809.7**	**7,073.6**
By instrument											
30 Federal government-related	2,172.7	2,376.8	2,608.3	2,821.1	2,821.1	2,878.0	2,981.4	3,121.7	3,292.0	3,434.1	3,580.8
31 Government-sponsored enterprise securities	700.6	806.5	896.9	995.3	995.3	1,030.9	1,072.5	1,146.0	1,273.6	1,321.8	1,398.0
32 Mortgage pool securities	1,472.1	1,570.3	1,711.4	1,825.8	1,825.8	1,847.1	1,908.9	1,975.7	2,018.4	2,112.3	2,182.8
33 Loans from U.S. government	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
34 Private	1,649.5	1,901.9	2,219.4	2,625.7	2,625.7	2,792.1	2,945.4	3,073.8	3,223.6	3,375.6	3,492.7
35 Open market paper	441.6	486.9	579.1	745.7	745.7	804.9	838.9	874.2	906.7	926.4	940.9
36 Corporate bonds	1,008.8	1,204.7	1,381.5	1,557.5	1,557.5	1,640.8	1,738.7	1,786.2	1,849.4	1,969.3	2,042.9
37 Bank loans n.e.c.	48.9	51.4	64.0	77.2	77.2	90.6	88.2	103.2	107.2	104.1	106.8
38 Other loans and advances	131.6	135.0	162.9	198.5	198.5	206.6	225.6	246.2	288.7	299.1	328.6
39 Mortgages	18.7	24.1	31.9	46.8	46.8	49.1	54.1	64.0	71.6	76.6	73.6
By borrowing sector											
40 Commercial banks	94.5	102.6	113.6	140.6	140.6	148.7	159.6	169.6	188.6	187.5	202.7
41 Bank holding companies	133.6	148.0	150.0	168.6	168.6	181.2	190.5	196.1	193.5	202.6	202.7
42 Savings institutions	112.4	115.0	140.5	160.3	160.3	162.9	170.7	186.6	212.4	226.9	241.6
43 Credit unions	.5	.4	.4	.6	.6	.7	.8	1.0	1.1	1.5	1.8
44 Life insurance companies	.6	.5	1.6	1.8	1.8	1.8	1.6	2.0	2.5	3.3	4.0
45 Government-sponsored enterprises	700.6	806.5	896.9	995.3	995.3	1,030.9	1,072.5	1,146.0	1,273.6	1,321.8	1,398.0
46 Federally related mortgage pools	1,472.1	1,570.3	1,711.4	1,825.8	1,825.8	1,847.1	1,908.9	1,975.7	2,018.4	2,112.3	2,182.8
47 Issuers of asset-backed securities (ABSs)	570.1	712.5	866.4	1,078.2	1,078.2	1,142.9	1,230.4	1,307.0	1,394.6	1,463.8	1,542.9
48 Brokers and dealers	34.3	29.3	27.3	35.3	35.3	35.1	40.1	39.4	42.5	34.8	30.2
49 Finance companies	433.7	483.9	529.8	554.5	554.5	571.9	596.9	589.4	597.5	614.4	639.2
50 Mortgage companies	18.7	16.5	20.6	16.0	16.0	23.4	16.3	16.9	17.7	16.5	17.8
51 Real estate investment trusts (REITs)	40.0	44.6	56.5	96.1	96.1	111.9	128.0	147.8	158.8	165.2	160.3
52 Funding corporations	211.0	248.6	312.7	373.7	373.7	411.6	410.5	417.9	414.4	459.1	449.6
					All sectors						
53 **Total credit market debt, domestic and foreign**	**17,206.4**	**18,454.5**	**19,823.7**	**21,278.1**	**21,278.1**	**21,783.9**	**22,286.0**	**22,764.5**	**23,402.9**	**24,005.5**	**24,428.7**
54 Open market paper	623.5	700.4	803.0	979.4	979.4	1,074.8	1,112.7	1,165.1	1,172.6	1,227.6	1,243.3
55 U.S. government securities	5,665.0	6,013.6	6,390.0	6,626.0	6,626.0	6,708.7	6,730.3	6,841.9	7,044.3	7,193.8	7,232.5
56 Municipal securities	1,341.7	1,293.5	1,296.0	1,367.5	1,367.5	1,397.1	1,429.3	1,439.9	1,464.3	1,491.0	1,510.0
57 Corporate and foreign bonds	2,504.0	2,840.7	3,189.6	3,563.3	3,563.3	3,727.0	3,928.3	3,996.0	4,098.9	4,287.6	4,421.6
58 Bank loans n.e.c.	834.9	949.6	1,041.7	1,169.8	1,169.8	1,191.9	1,241.3	1,280.3	1,314.9	1,328.3	1,345.6
59 Other loans and advances	860.5	930.6	993.1	1,095.9	1,095.9	1,126.1	1,153.6	1,186.8	1,254.4	1,297.8	1,324.8
60 Mortgages	4,393.0	4,603.4	4,898.7	5,212.0	5,212.0	5,322.4	5,433.7	5,568.0	5,721.9	5,860.7	6,012.7
61 Consumer credit	983.9	1,122.8	1,211.6	1,264.1	1,264.1	1,236.0	1,256.8	1,286.6	1,331.7	1,318.6	1,338.0

1. Data in this table also appear in the Board's Z.1 (780) quarterly statistical release, tables L.2 through L.4. For ordering address, see inside front cover.

1.60 SUMMARY OF FINANCIAL ASSETS AND LIABILITIES[1]

Billions of dollars except as noted, end of period

Transaction category or sector	1994	1995	1996	1997	1997 Q4	1998 Q1	1998 Q2	1998 Q3	1998 Q4	1999 Q1	1999 Q2
CREDIT MARKET DEBT OUTSTANDING[2]											
1 **Total credit market assets**	**17,206.4**	**18,454.5**	**19,823.7**	**21,278.1**	**21,278.1**	**21,783.9**	**22,286.0**	**22,764.5**	**23,402.9**	**24,005.5**	**24,428.7**
2 Domestic nonfederal nonfinancial sectors	2,988.8	2,856.8	2,924.6	2,781.4	2,781.4	2,761.2	2,847.0	2,876.6	2,813.0	2,875.4	2,915.9
3 Household	1,932.1	1,895.5	2,011.6	1,871.1	1,871.1	1,868.2	1,919.2	1,913.4	1,805.8	1,874.9	1,889.2
4 Nonfinancial corporate business	289.2	280.4	270.2	268.0	268.0	249.6	238.7	244.7	265.4	246.1	257.0
5 Nonfarm noncorporate business	37.6	42.3	38.0	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4
6 State and local governments	729.9	638.6	604.8	605.0	605.0	606.0	651.6	681.1	704.4	717.1	732.3
7 Federal government	202.9	202.7	195.3	200.4	200.4	204.3	207.5	210.9	213.9	218.3	219.9
8 Rest of the world	1,216.0	1,531.1	1,926.6	2,256.8	2,256.8	2,317.1	2,396.0	2,412.2	2,534.3	2,591.8	2,603.3
9 Financial sectors	12,798.8	13,863.9	14,777.2	16,039.5	16,039.5	16,501.3	16,835.5	17,264.8	17,841.7	18,320.0	18,689.7
10 Monetary authority	368.2	380.8	393.1	431.4	431.4	433.8	440.3	446.5	452.5	466.0	485.1
11 Commercial banking	3,254.3	3,520.1	3,707.7	4,031.9	4,031.9	4,093.4	4,136.4	4,195.7	4,335.7	4,338.4	4,383.3
12 U.S.-chartered banks	2,869.6	3,056.1	3,175.8	3,450.7	3,450.7	3,505.1	3,543.6	3,616.2	3,761.2	3,782.9	3,847.6
13 Foreign banking offices in United States	337.1	412.6	475.8	516.1	516.1	517.9	525.6	510.1	504.2	487.8	465.7
14 Bank holding companies	18.4	18.0	22.0	27.4	27.4	31.2	26.8	28.3	26.5	25.0	25.0
15 Banks in U.S.-affiliated areas	29.2	33.4	34.1	37.8	37.8	39.2	40.4	41.1	43.8	42.7	45.0
16 Savings institutions	920.8	913.3	933.2	928.5	928.5	931.3	930.8	939.3	964.8	990.8	1,011.4
17 Credit unions	246.8	263.0	288.5	305.3	305.3	306.7	315.1	320.5	324.2	331.0	342.5
18 Bank personal trusts and estates	248.0	239.7	232.0	239.5	239.5	240.1	240.9	241.4	242.4	243.1	243.7
19 Life insurance companies	1,487.5	1,587.5	1,657.0	1,751.3	1,751.3	1,777.3	1,793.2	1,810.6	1,828.0	1,853.7	1,876.0
20 Other insurance companies	446.4	468.7	491.2	515.3	515.3	521.1	520.8	518.9	535.7	530.8	532.1
21 Private pension funds	660.9	716.9	769.2	834.7	834.7	853.4	885.9	909.8	953.4	968.5	1,006.0
22 State and local government retirement funds	497.4	531.0	568.2	632.0	632.0	648.9	668.5	684.9	697.0	715.6	724.9
23 Money market mutual funds	459.0	545.5	634.3	721.9	721.9	775.0	815.9	869.9	965.9	1,036.2	1,001.8
24 Mutual funds	718.8	771.3	820.2	901.1	901.1	940.0	979.1	1,005.9	1,025.9	1,050.5	1,078.1
25 Closed-end funds	86.0	96.4	101.1	98.3	98.3	99.4	100.5	101.7	102.8	103.9	105.0
26 Government-sponsored enterprises	663.3	750.0	807.9	902.2	902.2	951.4	989.4	1,055.4	1,163.0	1,201.9	1,267.1
27 Federally related mortgage pools	1,472.1	1,570.3	1,711.4	1,825.8	1,825.8	1,847.1	1,908.9	1,975.7	2,018.4	2,112.3	2,182.8
28 Asset-backed securities issuers (ABSs)	532.8	653.4	777.0	939.3	939.3	989.2	1,068.9	1,134.2	1,216.0	1,280.8	1,355.7
29 Finance companies	476.2	526.2	544.5	566.4	566.4	572.0	579.0	592.7	618.4	639.9	660.9
30 Mortgage companies	36.5	33.0	41.2	32.1	32.1	46.8	32.7	33.8	35.3	33.0	35.6
31 Real estate investment trusts (REITs)	24.6	26.0	30.4	50.6	50.6	57.0	58.5	55.7	45.5	45.9	45.3
32 Brokers and dealers	93.3	183.4	167.7	182.6	182.6	244.0	198.3	217.5	165.2	211.4	160.2
33 Funding corporations	106.0	87.4	101.4	149.4	149.4	173.5	172.6	155.1	151.7	166.4	192.2
RELATION OF LIABILITIES TO FINANCIAL ASSETS											
34 **Total credit market debt**	**17,206.4**	**18,454.5**	**19,823.7**	**21,278.1**	**21,278.1**	**21,783.9**	**22,286.0**	**22,764.5**	**23,402.9**	**24,005.5**	**24,428.7**
Other liabilities											
35 Official foreign exchange	53.2	63.7	53.7	48.9	48.9	48.2	50.1	54.5	60.1	53.6	50.9
36 Special drawing rights certificates	8.0	10.2	9.7	9.2	9.2	9.2	9.2	9.2	9.2	8.2	8.2
37 Treasury currency	17.6	18.2	18.3	18.3	18.3	18.4	18.4	18.8	18.3	18.3	18.5
38 Foreign deposits	373.9	418.8	516.1	618.8	618.8	607.2	630.4	651.7	639.9	671.8	700.4
39 Net interbank liabilities	280.1	290.7	240.8	219.4	219.4	179.6	189.1	198.7	187.7	180.5	196.4
40 Checkable deposits and currency	1,242.0	1,229.3	1,245.1	1,286.6	1,286.6	1,259.2	1,320.7	1,282.3	1,334.2	1,311.5	1,354.3
41 Small time and savings deposits	2,183.2	2,279.7	2,377.0	2,474.1	2,474.1	2,525.4	2,531.0	2,553.8	2,626.5	2,638.6	2,646.6
42 Large time deposits	411.2	476.9	590.9	713.4	713.4	760.9	754.0	776.5	805.5	804.3	809.0
43 Money market fund shares	602.9	745.3	891.1	1,048.7	1,048.7	1,130.7	1,153.7	1,249.7	1,334.2	1,416.0	1,398.1
44 Security repurchase agreements	549.5	660.0	701.5	822.4	822.4	889.3	861.5	918.9	875.0	980.3	961.4
45 Mutual fund shares	1,477.3	1,852.8	2,342.4	2,989.4	2,989.4	3,339.3	3,438.4	3,137.3	3,610.5	3,760.8	4,029.9
46 Security credit	279.0	305.7	358.1	469.1	469.1	505.3	540.6	579.0	577.4	552.7	576.7
47 Life insurance reserves	520.3	566.2	610.6	665.0	665.0	677.3	690.6	703.5	718.3	730.9	747.4
48 Pension fund reserves	4,948.1	5,767.8	6,642.5	7,894.4	7,894.4	8,583.1	8,730.8	8,194.6	9,160.7	9,335.8	9,770.1
49 Trade payables	1,140.6	1,242.3	1,328.4	1,424.6	1,424.6	1,419.2	1,405.0	1,418.3	1,424.3	1,430.4	1,454.6
50 Taxes payable	101.4	107.6	123.6	140.4	140.4	151.7	144.4	154.7	153.4	159.6	158.4
51 Investment in bank personal trusts	699.4	803.0	871.7	1,082.8	1,082.8	1,179.5	1,204.9	1,118.9	1,274.2	1,317.0	1,402.7
52 Miscellaneous	5,287.2	5,634.7	6,098.8	6,663.5	6,663.5	6,737.3	6,807.2	7,024.1	7,094.4	7,087.4	7,184.8
53 **Total liabilities**	**37,381.6**	**40,927.2**	**44,843.8**	**49,867.0**	**49,867.0**	**51,804.7**	**52,765.9**	**52,809.1**	**55,306.8**	**56,463.3**	**57,897.0**
Financial assets not included in liabilities (+)											
54 Gold and special drawing rights	21.1	22.1	21.4	21.1	21.1	21.2	21.0	21.2	21.6	20.7	20.8
55 Corporate equities	6,237.9	8,331.3	10,062.4	12,776.0	12,776.0	14,397.6	14,556.1	12,758.4	15,437.7	15,970.3	17,137.5
56 Household equity in noncorporate business	3,410.5	3,658.3	3,864.5	4,213.4	4,213.4	4,039.4	4,255.1	4,265.5	4,288.4	4,293.4	4,257.7
Liabilities not identified as assets (−)											
57 Treasury currency	−5.4	−5.8	−6.7	−7.3	−7.3	−7.4	−7.4	−7.2	−8.0	−8.4	−8.5
58 Foreign deposits	325.4	360.2	431.4	534.0	534.0	510.1	540.1	557.6	539.7	555.1	573.5
59 Net interbank transactions	6.5	−9.0	−10.6	−32.2	−32.2	−21.2	−17.1	−15.4	−27.0	−11.3	−10.5
60 Security repurchase agreements	66.2	86.4	90.9	153.1	153.1	187.4	140.9	175.2	168.4	263.0	255.6
61 Taxes payable	48.8	62.4	76.7	93.5	93.5	89.6	95.6	101.9	103.9	90.6	108.2
62 Miscellaneous	−948.1	−1,350.8	−1,714.9	−2,087.0	−2,087.0	−2,259.2	−2,311.2	−2,449.9	−2,719.9	−2,953.5	−2,998.9
Floats not included in assets (−)											
63 Federal government checkable deposits	3.4	3.1	−1.6	−8.1	−8.1	−10.4	−16.1	−12.0	−3.9	−7.2	−12.4
64 Other checkable deposits	38.0	34.2	30.1	26.2	26.2	21.4	24.2	15.7	23.1	18.9	22.1
65 Trade credit	−245.9	−257.5	−307.7	−314.5	−314.5	−358.1	−412.2	−440.1	−373.7	−415.3	−432.3
66 **Total identified to sectors as assets**	**47,775.0**	**54,015.9**	**60,204.6**	**68,519.7**	**68,519.7**	**72,110.7**	**73,561.4**	**71,928.4**	**77,351.9**	**79,215.7**	**81,816.2**

1. Data in this table also appear in the Board's Z.1 (780) quarterly statistical release, tables L.1 and L.5. For ordering address, see inside front cover.

2. Excludes corporate equities and mutual fund shares.

2.10 NONFINANCIAL BUSINESS ACTIVITY Selected Measures

Monthly data seasonally adjusted, and indexes 1992=100, except as noted

Measure	1996	1997	1998	1999								
				Jan.	Feb.	Mar.	Apr.	May	June[r]	July[r]	Aug.[r]	Sept.[p]
1 **Industrial production**[1]	**119.5**	**126.8**	**131.3**	**132.3**	**132.5**	**133.3**	**133.7**	**134.0**	**134.2**	**135.0**	**135.5**	**135.0**
Market groupings												
2 Products, total	114.4	119.6	123.5	124.5	124.6	125.2	125.6	125.8	125.7	125.7	126.6	125.8
3 Final, total	115.5	121.1	125.4	125.8	125.9	126.5	126.8	127.2	127.3	127.4	128.6	127.8
4 Consumer goods	111.3	114.1	115.2	115.2	115.3	115.3	115.5	115.6	116.2	115.9	116.8	116.1
5 Equipment	122.7	133.9	144.2	145.0	145.1	146.7	147.2	148.0	147.4	148.3	149.8	148.9
6 Intermediate	110.9	115.2	118.0	120.3	120.4	121.0	121.5	121.4	120.6	120.4	120.4	119.7
7 Materials	127.8	138.2	144.0	144.9	145.3	146.7	146.9	147.3	148.1	150.3	150.2	150.3
Industry groupings												
8 Manufacturing	121.4	129.7	135.1	136.4	136.9	137.5	138.0	138.4	138.4	139.1	139.7	139.5
9 Capacity utilization, manufacturing (percent)[2]	81.4	82.0	80.8	79.5	79.5	79.5	79.6	79.5	79.3	79.5	79.7	79.3
10 Construction contracts[3]	130.9	143.1[r]	157.3[r]	179.0[r]	168.0[r]	164.0[r]	170.0[r]	170.0[r]	176.0	168.0	160.0	162.0
11 Nonagricultural employment, total[4]	117.3	120.3	123.4	124.9	125.3	125.4	125.7	125.7	126.0	126.3	126.4	126.4
12 Goods-producing, total	2.4	2.4	2.3	102.6	102.7	102.5	102.5	102.1	102.1	102.3	101.9	101.9
13 Manufacturing, total	97.4	98.2	98.5	97.8	97.6	97.4	97.2	97.0	96.8	97.1	96.7	96.6
14 Manufacturing, production workers	98.6	99.6	99.6	98.6	98.3	98.2	98.0	97.8	97.5	98.0	97.4	97.3
15 Service-producing	123.1	126.5	130.1	132.1	132.5	132.7	133.1	133.2	133.6	134.0	134.3	134.3
16 Personal income, total	165.7	174.9	183.8	188.8	189.6	190.2	191.0	191.6[r]	193.0	193.5	194.5	n.a.
17 Wages and salary disbursements	159.8	171.2	182.6	189.0	190.2	190.6	191.7	192.6	193.7	195.1	196.2	n.a.
18 Manufacturing	135.7	144.7	151.1	152.4	152.8	152.9	153.5	154.4	155.2	156.4	156.1	n.a.
19 Disposable personal income[5]	164.5	172.3	179.2	183.8	184.5	185.2	185.9[r]	186.3[r]	187.7	188.0	189.3	n.a.
20 Retail sales	162.5	170.1	178.5	186.8	190.0	189.8	190.9	192.8	192.6	194.5	197.4	197.6
Prices[6]												
21 Consumer (1982–84=100)	156.9	160.5	163.0	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9
22 Producer finished goods (1982=100)	131.3	131.8	130.7	131.4	130.8	131.1	131.9	132.4	132.7	132.9	133.7	134.8

1. Data in this table appear in the Board's G.17 (419) monthly statistical release. The data are also available on the Board's web site, http://www.federalreserve.gov/releases/g17. The latest historical revision of the industrial production index and the capacity utilization rates was released in November 1998. The recent annual revision is described in an article in the January 1999 issue of the *Bulletin*. For a description of the methods of estimating industrial production and capacity utilization, see "Industrial Production and Capacity Utilization: Historical Revision and Recent Developments," *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67–92, and the references cited therein. For details about the construction of individual industrial production series, see "Industrial Production: 1989 Developments and Historical Revision," *Federal Reserve Bulletin*, vol. 76 (April 1990), pp. 187–204.

2. Ratio of index of production to index of capacity. Based on data from the Federal Reserve, DRI McGraw-Hill, U.S. Department of Commerce, and other sources.

3. Index of dollar value of total construction contracts, including residential, nonresidential, and heavy engineering, from McGraw-Hill Information Systems Company, F.W. Dodge Division.

4. Based on data from the U.S. Department of Labor, *Employment and Earnings*. Series covers employees only, excluding personnel in the armed forces.

5. Based on data from U.S. Department of Commerce, *Survey of Current Business*.

6. Based on data not seasonally adjusted. Seasonally adjusted data for changes in the price indexes can be obtained from the U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*.

NOTE. Basic data (not indexes) for series mentioned in notes 4 and 5, and indexes for series mentioned in notes 3 and 6, can also be found in the *Survey of Current Business*.

2.11 LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Thousands of persons; monthly data seasonally adjusted

Category	1996	1997	1998	1999							
				Feb.	Mar.	Apr.	May	June	July[r]	Aug.[r]	Sept.
HOUSEHOLD SURVEY DATA[1]											
1 Civilian labor force[2]	133,943	136,297	137,673	139,271	138,816	139,091	139,019	139,408	139,254	139,264	139,386
Employment											
2 Nonagricultural industries[3]	123,264	126,159	128,085	129,817	129,752	129,685	129,929	130,078	130,015	130,192	130,413
3 Agriculture	3,443	3,399	3,378	3,328	3,281	3,384	3,295	3,354	3,292	3,219	3,137
Unemployment											
4 Number	7,236	6,739	6,210	6,127	5,783	6,022	5,795	5,975	5,947	5,853	5,836
5 Rate (percent of civilian labor force)	5.4	4.9	4.5	4.4	4.2	4.3	4.2	4.3	4.3	4.2	4.2
ESTABLISHMENT SURVEY DATA											
6 **Nonagricultural payroll employment**[4]	**119,608**	**122,690**	**125,833**	**127,730**	**127,813**	**128,134**	**128,162**	**128,443**	**128,816**	**128,919**	**128,911**
7 Manufacturing	18,495	18,657	18,716	18,538	18,503	18,473	18,429	18,396	18,449	18,372	18,351
8 Mining	580	592	575	553	550	538	531	526	528	523	524
9 Contract construction	5,418	5,686	5,965	6,238	6,232	6,277	6,239	6,258	6,270	6,245	6,266
10 Transportation and public utilities	6,253	6,395	6,551	6,723	6,732	6,750	6,758	6,781	6,799	6,808	6,828
11 Trade	28,079	28,659	29,299	29,585	29,558	29,689	29,725	29,789	29,915	29,915	29,873
12 Finance	6,911	7,091	7,341	7,581	7,595	7,611	7,621	7,636	7,647	7,650	7,647
13 Service	34,454	36,040	37,525	38,458	38,556	38,697	38,782	38,952	39,055	39,201	39,240
14 Government	19,419	19,570	19,862	20,054	20,087	20,099	20,077	20,105	20,153	20,205	20,182

1. Beginning January 1994, reflects redesign of current population survey and population controls from the 1990 census.

2. Persons sixteen years of age and older, including Resident Armed Forces. Monthly figures are based on sample data collected during the calendar week that contains the twelfth day; annual data are averages of monthly figures. By definition, seasonality does not exist in population figures.

3. Includes self-employed, unpaid family, and domestic service workers.

4. Includes all full- and part-time employees who worked during, or received pay for, the pay period that includes the twelfth day of the month; excludes proprietors, self-employed persons, household and unpaid family workers, and members of the armed forces. Data are adjusted to the March 1992 benchmark, and only seasonally adjusted data are available at this time.

SOURCE. Based on data from U.S. Department of Labor, *Employment and Earnings*.

2.12 OUTPUT, CAPACITY, AND CAPACITY UTILIZATION[1]

Seasonally adjusted

Series	1998 Q4	1999 Q1	1999 Q2	1999 Q3[r]	1998 Q4	1999 Q1	1999 Q2	1999 Q3[r]	1998 Q4	1999 Q1	1999 Q2	1999 Q3[r]
	Output (1992=100)				Capacity (percent of 1992 output)				Capacity utilization rate (percent)[2]			
1 **Total industry**	**132.3**	**132.7**	**134.0**	**135.2**	**163.5**	**165.2**	**166.7**	**167.9**	**80.9**	**80.3**	**80.4**	**80.5**
2 Manufacturing	136.4	136.9	138.3	139.4	170.3	172.3	174.0	175.4	80.1	79.5	79.5	79.5
3 Primary processing[3]	120.6	121.7	121.8	122.8	146.1	146.9	147.7	148.3	82.5	82.8	82.5	82.8
4 Advanced processing[4]	144.4	144.6	146.6	147.8	182.0	184.5	186.7	188.5	79.3	78.3	78.5	78.4
5 Durable goods	161.2	162.1	164.9	167.8	201.2	204.4	207.4	209.8	80.1	79.3	79.5	80.0
6 Lumber and products	119.2	121.6	121.6	119.0	144.9	146.0	147.1	148.2	82.3	83.3	82.6	80.3
7 Primary metals	119.3	120.4	123.5	128.4	144.4	145.4	145.9	146.3	82.6	82.8	84.6	87.8
8 Iron and steel	112.9	115.5	120.4	127.3	146.5	147.9	148.8	149.3	77.0	78.1	80.9	85.2
9 Nonferrous	126.9	126.3	127.3	129.9	141.7	142.1	142.4	142.6	89.6	88.9	89.4	91.1
10 Industrial machinery and equipment	211.7	214.6	219.1	223.7	251.6	259.8	266.9	272.9	84.1	82.6	82.1	82.0
11 Electrical machinery	304.8	310.3	327.1	349.4	396.6	411.0	424.9	437.2	76.9	75.5	77.0	79.9
12 Motor vehicles and parts	148.5	147.5	151.1	151.6	186.0	186.7	187.1	187.4	79.8	79.0	80.8	80.9
13 Aerospace and miscellaneous transportation equipment	105.8	103.1	100.0	96.1	128.5	128.8	128.7	128.5	82.4	80.1	77.7	74.8
14 Nondurable goods	111.4	111.6	111.6	111.2	138.4	139.1	139.6	140.0	80.5	80.2	79.9	79.5
15 Textile mill products	110.2	109.7	111.4	111.6	135.2	135.0	134.7	134.2	81.5	81.2	82.7	83.1
16 Paper and products	114.3	116.3	114.9	115.9	133.4	134.2	135.0	135.8	85.7	86.7	85.1	85.3
17 Chemicals and products	114.0	114.0	115.2	116.3	149.7	150.3	150.8	151.2	76.1	75.8	76.4	76.9
18 Plastics materials	131.9	129.6	131.0	133.7	143.2	144.4	145.6	146.9	92.1	89.8	89.9	91.0
19 Petroleum products	111.9	115.4	112.9	113.1	117.1	117.4	117.7	118.1	95.6	98.3	95.9	95.8
20 Mining	100.7	98.8	97.9	99.4	120.6	120.9	121.2	121.4	83.5	81.7	80.8	81.8
21 Utilities	112.9	114.3	116.5	118.0	126.7	126.9	127.1	127.2	89.2	90.0	91.6	92.7
22 Electric	116.7	116.4	118.8	120.3	124.3	124.5	124.7	124.8	93.9	93.5	95.2	96.3

Series	1973 High	1975 Low	Previous cycle[5] High	Previous cycle[5] Low	Latest cycle[6] High	Latest cycle[6] Low	1998 Sept.	1999 Apr.	1999 May	1999 June[r]	1999 July[r]	1999 Aug.[r]	1999 Sept.[p]
	Capacity utilization rate (percent)[2]												
1 **Total industry**	**89.2**	**72.6**	**87.3**	**71.1**	**85.4**	**78.1**	**81.3**	**80.4**	**80.4**	**80.3**	**80.6**	**80.7**	**80.3**
2 Manufacturing	88.5	70.5	86.9	69.0	85.7	76.6	80.1	79.6	79.5	79.3	79.5	79.7	79.3
3 Primary processing[3]	91.2	68.2	88.1	66.2	88.9	77.7	82.1	82.5	82.5	82.4	82.8	82.9	82.8
4 Advanced processing[4]	87.2	71.8	86.7	70.4	84.2	76.1	79.5	78.6	78.6	78.3	78.4	78.6	78.2
5 Durable goods	89.2	68.9	87.7	63.9	84.6	73.1	80.3	79.5	79.5	79.5	80.1	80.2	79.6
6 Lumber and products	88.7	61.2	87.9	60.8	93.6	75.5	81.1	82.1	83.6	82.3	81.1	80.2	79.5
7 Primary metals	100.2	65.9	94.2	45.1	92.7	73.7	83.7	83.9	84.1	85.8	87.1	88.6	87.6
8 Iron and steel	105.8	66.6	95.8	37.0	95.2	71.8	78.1	80.0	80.4	82.3	84.4	86.4	84.9
9 Nonferrous	90.8	59.8	91.1	60.1	89.3	74.2	90.6	88.9	88.9	90.4	90.7	91.4	91.1
10 Industrial machinery and equipment	96.0	74.3	93.2	64.0	85.4	72.3	84.5	82.9	82.1	81.1	81.8	82.2	81.9
11 Electrical machinery	89.2	64.7	89.4	71.6	84.0	75.0	77.0	76.7	76.9	77.3	79.7	80.2	79.8
12 Motor vehicles and parts	93.4	51.3	95.0	45.5	89.1	55.9	80.9	79.9	80.6	81.8	81.0	81.6	80.1
13 Aerospace and miscellaneous transportation equipment	78.4	67.6	81.9	66.6	87.3	79.2	82.6	78.5	77.9	76.7	76.3	75.0	73.2
14 Nondurable goods	87.8	71.7	87.5	76.4	87.3	80.7	80.2	80.2	80.0	79.6	79.3	79.5	79.6
15 Textile mill products	91.4	60.0	91.2	72.3	90.4	77.7	82.3	82.6	82.4	83.1	84.1	82.5	82.8
16 Paper and products	97.1	69.2	96.1	80.6	93.5	85.0	85.7	85.1	84.6	85.7	84.7	85.6	85.6
17 Chemicals and products	87.6	69.7	84.6	69.9	86.2	79.3	75.9	76.4	76.5	76.3	76.1	77.3	77.3
18 Plastics materials	102.0	50.6	90.9	63.4	97.0	74.8	87.1	90.0	90.4	89.5	91.7	90.9	90.5
19 Petroleum products	96.7	81.1	90.0	66.8	88.5	85.1	94.7	97.2	96.0	94.5	95.9	95.6	95.9
20 Mining	94.3	88.2	96.0	80.3	88.0	87.0	85.2	81.1	80.8	80.5	81.3	82.1	82.1
21 Utilities	96.2	82.9	89.1	75.9	92.6	83.4	95.0	91.1	90.8	93.0	94.4	93.0	90.7
22 Electric	99.0	82.7	88.2	78.9	95.0	87.1	98.8	94.9	94.5	96.4	98.5	96.6	93.9

1. Data in this table appear in the Board's G.17 (419) monthly statistical release. The data are also available on the Board's web site, http://www.federalreserve.gov/releases/g17. The latest historical revision of the industrial production index and the capacity utilization rates was released in November 1998. The recent annual revision is described in an article in the January 1999 issue of the *Bulletin*. For a description of the methods of estimating industrial production and capacity utilization, see "Industrial Production and Capacity Utilization: Historical Revision and Recent Developments," *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67–92, and the references cited therein. For details about the construction of individual industrial production series, see "Industrial Production: 1989 Developments and Historical Revision," *Federal Reserve Bulletin*, vol. 76 (April 1990), pp. 187–204.

2. Capacity utilization is calculated as the ratio of the Federal Reserve's seasonally adjusted index of industrial production to the corresponding index of capacity.

3. Primary processing includes textiles; lumber; paper; industrial chemicals; synthetic materials; fertilizer materials; petroleum products; rubber and plastics; stone, clay, and glass; primary metals; and fabricated metals.

4. Advanced processing includes foods; tobacco; apparel; furniture and fixtures; printing and publishing; chemical products such as drugs and toiletries; agricultural chemicals; leather and products; machinery; transportation equipment; instruments; and miscellaneous manufactures.

5. Monthly highs, 1978–80; monthly lows, 1982.

6. Monthly highs, 1988–89; monthly lows, 1990–91.

2.13 INDUSTRIAL PRODUCTION Indexes and Gross Value[1]

Monthly data seasonally adjusted

Group	1992 proportion	1998 avg.	1998 Sept.	1998 Oct.	1998 Nov.	1998 Dec.	1999 Jan.	1999 Feb.	1999 Mar.	1999 Apr.	1999 May	1999 June[r]	1999 July[r]	1999 Aug.[r]	1999 Sept.[p]
			Index (1992 = 100)												
MAJOR MARKETS															
1 **Total index**	**100.0**	**131.3**	**131.9**	**132.4**	**132.2**	**132.3**	**132.3**	**132.5**	**133.3**	**133.7**	**134.0**	**134.2**	**135.0**	**135.5**	**135.0**
2 Products	60.5	123.5	124.1	124.9	124.5	124.4	124.5	124.6	125.2	125.6	125.8	125.7	125.7	126.6	125.8
3 Final products	46.3	125.4	126.0	126.7	126.1	125.9	125.8	125.9	126.5	126.8	127.2	127.3	127.4	128.6	127.8
4 Consumer goods, total	29.1	115.2	114.8	115.2	114.8	114.9	115.2	115.3	115.3	115.5	115.6	116.2	115.9	116.8	116.1
5 Durable consumer goods	6.1	135.7	137.4	140.5	138.9	139.8	141.5	143.3	142.2	144.9	146.7	147.4	146.3	149.9	146.5
6 Automotive products	2.6	132.9	136.4	141.1	139.6	139.8	141.7	140.4	138.4	140.9	144.8	146.4	139.9	149.2	143.4
7 Autos and trucks	1.7	137.8	143.4	150.6	149.1	147.7	149.4	149.3	147.5	150.1	154.6	158.8	146.7	163.3	152.8
8 Autos, consumer	.9	109.2	128.3	119.9	113.7	115.5	111.7	109.0	110.8	112.8	108.8	112.4	107.2	114.0	114.3
9 Trucks, consumer	.7	166.2	161.1	181.0	183.2	179.1	185.2	187.2	182.5	185.7	197.2	202.0	184.0	208.9	189.7
10 Auto parts and allied goods	.9	125.0	125.9	127.4	125.9	128.2	130.5	127.5	125.3	127.7	130.7	128.8	129.4	129.5	129.6
11 Other	3.5	137.8	138.0	139.7	137.9	139.5	141.0	145.4	145.0	147.9	147.9	147.9	151.4	150.1	148.7
12 Appliances, televisions, and air conditioners	1.0	206.2	209.9	215.2	222.5	226.0	229.6	241.4	241.7	251.5	248.0	250.8	267.0	264.6	259.5
13 Carpeting and furniture	.8	117.1	116.3	120.3	117.5	116.8	120.7	123.1	117.8	119.0	120.3	120.7	123.7	121.8	122.2
14 Miscellaneous home goods	1.6	114.7	114.5	113.6	109.5	111.4	110.9	113.5	115.5	116.7	117.3	116.2	115.8	115.1	114.2
15 Nondurable consumer goods	23.0	110.1	109.3	109.1	109.0	108.9	108.9	108.6	108.8	108.5	108.3	108.8	108.6	108.9	108.9
16 Foods and tobacco	10.3	109.0	106.9	108.0	109.6	109.6	110.0	110.2	109.6	109.0	108.4	108.1	107.1	106.6	106.7
17 Clothing	2.4	97.8	97.1	95.4	94.5	94.6	93.4	92.6	92.3	92.9	91.5	91.4	90.0	89.6	88.5
18 Chemical products	4.5	120.5	118.0	117.2	119.3	118.7	115.3	117.4	117.3	116.8	117.4	118.2	118.7	121.7	121.4
19 Paper products	2.9	105.8	105.9	105.2	104.1	103.6	102.0	101.0	99.5	100.4	101.0	102.4	103.0	104.4	106.2
20 Energy	2.9	112.2	116.8	115.0	106.5	107.1	113.3	108.9	115.3	114.0	113.5	116.2	118.1	117.1	115.6
21 Fuels	.8	110.5	108.3	108.4	109.1	109.6	112.2	113.3	110.5	112.0	111.5	110.1	111.4	112.4	113.5
22 Residential utilities	2.1	112.3	120.7	117.8	104.5	105.2	113.3	106.0	117.2	114.4	114.0	118.8	121.0	119.0	116.0
23 Equipment	17.2	144.2	146.2	147.5	146.5	145.6	145.0	145.1	146.7	147.2	148.0	147.4	148.3	149.8	148.9
24 Business equipment	13.2	163.5	167.4	169.0	168.1	167.9	167.3	167.6	169.3	170.6	171.4	171.0	172.1	173.9	172.9
25 Information processing and related	5.4	209.9	217.3	219.0	219.7	220.8	222.0	222.1	226.6	232.6	240.1	242.2	249.3	253.2	254.3
26 Computer and office equipment	1.1	646.0	693.6	716.7	745.2	759.9	777.0	787.2	824.8	852.8	870.1	877.3	912.4	935.6	965.1
27 Industrial	4.0	140.0	139.5	141.6	139.9	141.3	139.9	137.9	138.5	139.4	137.2	137.0	138.2	138.3	137.6
28 Transit	2.5	133.7	140.1	141.6	140.5	139.6	137.6	137.7	137.2	137.3	135.9	133.7	130.4	131.0	126.8
29 Autos and trucks	1.2	124.6	135.6	136.1	136.4	136.0	134.8	133.2	135.0	137.9	137.7	139.2	135.1	142.6	137.5
30 Other	1.3	138.9	140.9	141.1	138.5	131.7	131.5	140.2	142.8	135.7	133.3	128.9	125.4	129.0	129.4
31 Defense and space equipment	3.3	75.7	75.5	76.4	75.7	74.6	74.4	74.8	74.9	74.5	74.8	73.9	74.1	73.7	72.5
32 Oil and gas well drilling	.6	134.7	123.4	119.4	115.2	103.2	99.2	97.4	104.2	97.2	100.3	100.4	103.1	108.2	111.6
33 Manufactured homes	.2	149.2	147.8	150.9	154.6	156.6	159.1	154.1	152.8	148.0	145.2	142.8	133.6	136.0	132.0
34 Intermediate products, total	14.2	118.0	118.3	119.0	119.3	119.8	120.3	120.4	121.0	121.5	121.4	120.6	120.4	120.4	119.7
35 Construction supplies	5.3	127.2	126.9	128.4	129.6	131.0	132.4	132.7	131.7	132.0	132.1	131.4	132.7	132.4	132.1
36 Business supplies	8.9	112.6	113.3	113.5	113.2	113.3	113.1	113.1	114.7	115.2	115.0	114.2	113.2	113.3	112.4
37 Materials	39.5	144.0	144.4	144.5	144.6	145.2	144.9	145.3	146.7	146.9	147.3	148.1	150.3	150.2	150.3
38 Durable goods materials	20.8	176.4	177.7	178.8	179.9	180.4	180.1	180.0	182.6	183.3	184.0	185.4	189.2	188.9	189.6
39 Durable consumer parts	4.0	144.0	147.7	146.2	145.6	144.8	141.9	145.4	147.7	145.7	145.5	147.4	152.3	145.3	146.4
40 Equipment parts	7.6	277.4	282.7	287.0	289.9	292.6	293.2	292.5	297.0	302.5	305.5	309.9	318.2	323.4	325.8
41 Other	9.2	129.0	127.7	128.4	129.3	129.3	129.8	128.6	130.2	130.0	130.0	129.9	131.2	131.7	131.6
42 Basic metal materials	3.1	121.2	118.2	118.3	117.3	116.3	118.4	116.1	118.4	119.2	118.6	120.2	122.2	123.3	122.5
43 Nondurable goods materials	8.9	113.5	112.0	111.7	112.2	112.5	112.0	113.2	113.0	112.7	112.9	113.6	113.9	114.3	114.6
44 Textile materials	1.1	108.7	107.6	108.8	103.0	102.5	99.0	101.1	101.8	103.1	102.7	103.2	103.0	102.6	102.3
45 Paper materials	1.8	116.0	115.0	115.8	112.7	114.7	116.5	116.0	116.9	116.3	114.6	118.5	116.4	116.5	117.8
46 Chemical materials	3.9	114.5	111.8	111.1	113.7	113.0	112.8	114.0	113.7	113.7	114.3	115.0	115.7	116.4	116.7
47 Other	2.1	111.5	111.5	110.4	113.2	114.4	112.5	114.8	113.1	112.0	113.6	111.0	113.0	113.6	113.5
48 Energy materials	9.7	103.5	105.2	103.7	101.5	102.6	102.6	102.6	103.4	103.4	103.1	103.0	104.0	103.6	102.2
49 Primary energy	6.3	101.2	102.3	102.6	99.8	100.3	100.4	101.2	100.4	98.7	99.3	101.0	102.1	102.0	100.9
50 Converted fuel materials	3.3	108.1	110.9	106.1	104.9	107.2	107.1	105.6	109.2	112.4	110.5	107.0	108.0	106.7	104.8
SPECIAL AGGREGATES															
51 Total excluding autos and trucks	97.1	131.3	131.7	132.1	131.9	132.1	132.0	132.3	133.2	133.4	133.6	133.8	134.9	135.0	134.8
52 Total excluding motor vehicles and parts	95.1	130.8	131.0	131.5	131.4	131.7	131.7	131.7	132.6	132.9	133.2	133.3	134.2	134.6	134.3
53 Total excluding computer and office equipment	98.2	127.1	127.4	127.8	127.4	127.5	127.4	127.6	128.2	128.4	128.6	128.8	129.4	129.8	129.3
54 Consumer goods excluding autos and trucks	27.4	113.9	113.2	113.4	113.0	113.2	113.4	113.5	113.6	113.7	113.6	114.0	114.2	114.4	114.2
55 Consumer goods excluding energy	26.2	115.5	114.6	115.3	115.8	115.8	115.4	116.0	115.3	115.7	115.9	116.2	115.6	116.8	116.2
56 Business equipment excluding autos and trucks	12.0	167.9	171.0	172.7	171.6	171.5	170.9	171.5	173.1	174.3	175.2	174.5	176.3	177.4	176.8
57 Business equipment excluding computer and office equipment	12.1	142.4	145.1	146.2	144.6	144.1	143.1	143.2	144.0	144.7	145.1	144.5	145.0	146.3	144.8
58 Materials excluding energy	29.8	156.7	156.7	157.3	158.2	158.6	158.2	158.6	160.2	160.6	161.1	162.3	164.8	164.8	165.4

2.13 INDUSTRIAL PRODUCTION Indexes and Gross Value[1]—Continued

Group	SIC code[2]	1992 proportion	1998 avg.	1998 Sept.	1998 Oct.	1998 Nov.	1998 Dec.	1999 Jan.	1999 Feb.	1999 Mar.	1999 Apr.	1999 May	1999 June[r]	1999 July[r]	1999 Aug.[r]	1999 Sept.[p]
				Index (1992 = 100)												
MAJOR INDUSTRIES																
59 **Total index**	.	**100.0**	**131.3**	**131.9**	**132.4**	**132.2**	**132.3**	**132.3**	**132.5**	**133.3**	**133.7**	**134.0**	**134.2**	**135.0**	**135.5**	**135.0**
60 Manufacturing	. .	85.4	135.1	135.2	136.1	136.4	136.7	136.4	136.9	137.5	138.0	138.4	138.4	139.1	139.7	139.5
61 Primary processing	. . .	26.5	120.7	119.3	120.1	120.3	121.3	121.8	121.6	121.7	121.7	121.8	121.9	122.6	123.0	123.0
62 Advanced processing	.	58.9	142.1	143.2	144.2	144.6	144.4	143.8	144.6	145.4	146.2	146.7	146.8	147.4	148.2	147.8
63 Durable goods	.	45.0	157.5	159.6	161.2	161.0	161.5	161.4	161.7	163.1	164.1	165.0	165.6	167.4	168.4	167.6
64 Lumber and products	24	2.0	117.0	117.0	118.0	118.3	121.4	122.0	122.1	120.7	120.4	122.9	121.4	120.0	118.9	118.2
65 Furniture and fixtures	25	1.4	121.4	121.6	124.5	123.6	122.9	122.5	124.5	126.1	123.6	123.5	123.4	124.4	125.6	125.3
66 Stone, clay, and glass products	32	2.1	126.2	126.6	128.3	130.5	131.6	133.5	132.2	131.1	128.8	128.3	127.5	128.8	129.9	129.5
67 Primary metals	33	3.1	123.8	120.1	120.6	118.7	118.6	120.7	118.5	122.0	122.4	122.8	125.4	127.4	129.6	128.2
68 Iron and steel	331,2	1.7	121.1	113.4	114.4	109.7	114.6	116.7	112.6	117.1	118.9	119.6	122.6	125.8	129.0	126.9
69 Raw steel	331PT	.1	115.7	112.6	109.7	100.2	102.0	106.6	106.6	109.1	110.5	113.4	110.9	112.6	116.8	116.5
70 Nonferrous	333–6,9	1.4	127.0	128.1	128.0	129.3	123.4	125.4	125.6	127.9	126.6	126.5	128.7	129.3	130.4	129.9
71 Fabricated metal products	34	5.0	127.3	126.2	126.9	127.7	128.7	127.6	126.7	127.5	127.6	126.9	127.8	128.6	128.4	128.1
72 Industrial machinery and equipment	35	8.0	203.7	207.7	211.2	211.1	212.7	212.3	213.9	217.6	219.5	219.3	218.5	221.6	224.5	225.0
73 Computer and office equipment	357	1.8	649.1	695.5	718.5	746.9	761.6	778.9	789.3	828.3	859.3	878.6	889.9	926.6	953.6	983.6
74 Electrical machinery	36	7.3	291.9	297.7	302.4	304.8	307.3	308.7	309.2	313.1	322.2	326.9	332.2	345.2	350.8	352.2
75 Transportation equipment	37	9.5	123.0	127.6	128.4	127.1	125.6	124.0	125.6	125.5	124.9	125.1	125.4	124.3	124.0	121.5
76 Motor vehicles and parts	371	4.9	141.1	149.9	150.2	148.8	146.6	145.3	147.9	149.2	149.4	150.7	153.1	151.7	152.9	150.2
77 Autos and light trucks	371PT	2.6	128.5	136.5	140.4	138.1	137.3	137.9	137.3	136.3	138.7	141.4	145.3	134.9	149.2	141.1
78 Aerospace and miscellaneous transportation equipment	372–6,9	4.6	104.9	105.8	106.9	105.7	104.8	103.2	103.7	102.4	101.1	100.3	98.7	98.1	96.3	94.0
79 Instruments	38	5.4	113.0	114.2	114.6	114.1	113.9	114.3	113.8	114.6	115.6	117.9	117.7	118.4	118.0	117.4
80 Miscellaneous	39	1.3	117.7	117.0	115.9	114.1	115.4	114.8	115.8	116.7	118.2	119.4	118.4	119.0	119.1	118.4
81 Nondurable goods	.	40.4	111.9	110.6	110.9	111.6	111.7	111.3	111.9	111.7	111.8	111.7	111.3	111.0	111.3	111.5
82 Foods	20	9.4	109.6	107.7	109.1	111.3	111.1	112.0	112.3	111.4	111.4	110.8	110.0	108.8	108.5	109.0
83 Tobacco products	21	1.6	106.0	104.2	101.9	99.8	100.0	96.9	97.4	97.3	96.0	97.2	96.3	97.9	96.5	93.7
84 Textile mill products	22	1.8	112.2	111.2	112.4	108.8	109.4	109.3	110.6	109.0	111.4	111.0	111.8	113.0	110.7	111.0
85 Apparel products	23	2.2	99.2	98.3	97.3	95.5	95.3	94.1	93.6	93.3	94.0	93.1	92.3	91.4	89.9	88.4
86 Paper and products	26	3.6	115.0	113.9	115.4	112.3	115.3	116.2	116.4	116.5	114.6	114.2	115.9	114.9	116.2	116.5
87 Printing and publishing	27	6.7	105.1	104.6	104.2	105.4	105.1	103.6	103.8	103.7	104.3	104.2	103.4	102.5	102.8	103.3
88 Chemicals and products	28	9.9	115.5	113.3	113.1	114.7	114.0	112.5	114.4	115.1	115.1	115.4	115.2	115.0	116.9	116.9
89 Petroleum products	29	1.4	112.0	110.7	110.4	112.8	112.5	116.7	116.4	113.1	114.3	113.0	111.4	113.1	112.9	113.3
90 Rubber and plastic products	30	3.5	132.6	132.6	133.4	135.0	136.0	135.4	135.2	135.4	136.2	137.6	136.0	138.0	137.7	139.2
91 Leather and products	31	.3	75.3	73.5	72.8	74.3	73.0	70.9	70.5	70.7	70.3	70.6	71.0	69.9	70.3	69.6
92 Mining	.	6.9	104.0	102.4	102.0	101.1	99.0	98.5	98.9	98.9	98.3	97.9	97.7	98.7	99.6	99.8
93 Metal	10	.5	110.0	106.4	113.6	110.7	108.3	110.1	108.4	104.1	105.2	98.6	93.3	94.1	92.7	93.2
94 Coal	12	1.0	109.7	115.8	110.8	108.6	114.5	107.7	109.1	103.4	106.8	106.1	106.5	109.6	110.6	109.5
95 Oil and gas extraction	13	4.8	99.6	96.8	96.8	94.2	91.0	91.5	91.7	93.3	91.8	92.4	92.8	93.7	94.9	95.3
96 Stone and earth minerals	14	.6	124.7	120.3	118.8	132.1	125.6	126.9	127.7	129.1	126.7	124.1	122.6	121.8	122.0	122.0
97 Utilities	. . .	7.7	113.9	120.3	116.5	110.6	111.8	114.7	111.3	116.7	115.8	115.4	118.2	120.1	118.3	115.4
98 Electric	491,493PT	6.2	117.2	122.6	120.3	114.6	115.2	116.2	114.1	118.9	118.2	117.8	120.3	122.9	120.7	117.3
99 Gas	492,493PT	1.6	101.9	109.7	98.7	92.0	96.0	108.4	98.6	106.9	104.5	104.3	108.9	107.4	107.7	106.8
SPECIAL AGGREGATES																
100 Manufacturing excluding motor vehicles and parts	.	80.5	134.7	134.4	135.3	135.7	136.2	136.0	136.3	136.8	137.4	137.7	137.6	138.4	139.0	138.9
101 Manufacturing excluding computer and office equipment	.	83.6	130.2	130.0	130.8	130.9	131.1	130.8	131.2	131.5	131.9	132.2	132.2	132.7	133.2	132.8
102 Computers, communications equipment, and semiconductors	.	5.9	515.6	538.3	552.1	562.8	571.2	576.6	580.0	597.8	620.1	636.7	650.5	680.0	697.0	708.9
103 Manufacturing excluding computers and semiconductors	. .	81.1	120.1	119.9	120.4	120.4	120.5	120.1	120.5	120.7	120.8	120.9	120.7	121.0	121.4	120.9
104 Manufacturing excluding computers, communications equipment, and semiconductors	.	79.5	118.5	118.1	118.7	118.8	118.9	118.5	118.9	119.0	119.0	119.0	118.7	118.8	119.2	118.7
		Gross value (billions of 1992 dollars, annual rates)														
Major Markets																
105 **Products, total**	.	**2,001.9**	**2,489.8**	**2,501.0**	**2,519.7**	**2,511.6**	**2,513.9**	**2,527.3**	**2,527.2**	**2,536.0**	**2,547.5**	**2,549.8**	**2,550.7**	**2,547.4**	**2,568.4**	**2,550.5**
106 Final	.	1,552.1	1,958.0	1,966.4	1,982.3	1,973.4	1,972.7	1,982.5	1,982.7	1,989.4	1,997.8	2,000.0	2,005.3	2,002.0	2,024.1	2,009.0
107 Consumer goods	. . .	1,049.6	1,212.3	1,208.2	1,217.1	1,212.6	1,215.0	1,227.4	1,227.0	1,226.3	1,230.6	1,230.9	1,238.6	1,232.7	1,244.9	1,236.2
108 Equipment	.	502.5	746.9	762.7	769.8	765.2	762.0	758.8	759.5	767.3	771.5	773.5	770.8	773.7	783.8	777.4
109 Intermediate	.	449.9	533.6	535.7	538.7	539.1	541.9	545.4	545.1	547.1	550.2	550.3	546.5	546.4	546.0	543.1

1. Data in this table appear in the Board's G.17 (419) monthly statistical release. The data are also available on the Board's web site, http://www.federalreserve.gov/releases/g17. The latest historical revision of the industrial production index and the capacity utilization rates was released in November 1998. The recent annual revision is described in an article in the January 1999 issue of the *Bulletin*. For a description of the methods of estimating industrial production and capacity utilization, see "Industrial Production and Capacity Utilization: Historical Revision and Recent Developments," *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67–92, and the references cited therein. For details about the construction of individual industrial production series, see "Industrial Production: 1989 Developments and Historical Revision," *Federal Reserve Bulletin*, vol. 76 (April 1990), pp. 187–204.

2. Standard industrial classification.

2.14 HOUSING AND CONSTRUCTION

Monthly figures at seasonally adjusted annual rates except as noted

Item	1996	1997	1998	1998 Nov.	1998 Dec.	1999 Jan.	1999 Feb.	1999 Mar.	1999 Apr.	1999 May[r]	1999 June[r]	1999 July[r]	1999 Aug.
	Private residential real estate activity (thousands of units except as noted)												
NEW UNITS													
1 Permits authorized	1,426	1,441	1,604	1,688	1,708	1,778	1,738	1,654	1,572	1,591	1,641	1,641	1,619
2 One-family	1,070	1,062	1,184	1,254	1,296	1,275	1,306	1,242	1,214	1,243	1,241	1,247	1,210
3 Two-family or more	356	379	421	434	412	503	432	412	358	348	400	394	409
4 Started	1,477	1,474	1,617	1,654	1,750	1,820	1,752	1,746	1,577	1,668	1,607	1,680	1,672
5 One-family	1,161	1,134	1,271	1,375	1,383	1,393	1,380	1,394	1,260	1,389	1,305	1,332	1,296
6 Two-family or more	316	340	346	279	367	427	372	352	317	279	302	348	376
7 Under construction at end of period[1]	819	834	935	971	999	1,011	1,032	1,036	1,031	1,029	1,017	1,021	1,030
8 One-family	584	570	638	667	688	697	712	714	708	708	702	704	707
9 Two-family or more	235	264	297	304	311	314	320	322	323	321	315	317	323
10 Completed	1,406	1,406	1,473	1,600	1,440	1,648	1,528	1,700	1,633	1,650	1,674	1,608	1,581
11 One-family	1,123	1,120	1,158	1,254	1,150	1,292	1,246	1,357	1,324	1,344	1,346	1,261	1,266
12 Two-family or more	283	285	315	346	290	356	282	343	309	306	328	347	315
13 Mobile homes shipped	361	354	372	389	382	390	381	383	368	365	355	336	340
Merchant builder activity in one-family units													
14 Number sold	757	804	886	985	958	908	909	885	952	914	947	955	983
15 Number for sale at end of period[1]	326	287	300	292	295	295	297	300	300	304	307	308	313
Price of units sold (thousands of dollars)[2]													
16 Median	140.0	146.0	152.5	151.0	152.5	152.5	159.9	155.0	160.0	154.8	157.7	157.0	150.8
17 Average	166.4	176.2	181.9	178.6	183.3	182.8	191.4	189.4	191.4	188.2	193.6	188.2	198.3
EXISTING UNITS (one-family)													
18 Number sold	4,196	4,381	4,970	5,020	5,340	5,060	5,140	5,420	5,250	5,000	5,630	5,400	5,240
Price of units sold (thousands of dollars)[2]													
19 Median	115.8	121.8	128.4	129.4	128.5	130.3	128.1	129.6	130.7	132.8	136.9	136.0	137.4
20 Average	141.8	150.5	159.1	159.9	159.6	162.8	159.6	162.3	163.8	167.4	174.2	171.9	174.5
	Value of new construction (millions of dollars)[3]												
CONSTRUCTION													
21 **Total put in place**	**581,920**	**617,877**	**664,451**	**680,117**	**690,462**	**697,858**	**710,657**	**715,396**	**704,582[r]**	**698,461**	**698,852**	**694,783**	**692,013**
22 Private	447,593	474,842	518,987	534,743	541,591	543,471	548,682	555,362	547,885[r]	546,880	546,931	542,334	536,190
23 Residential	255,577	265,908	293,569	306,299	310,261	315,828	318,483	323,133	322,213[r]	321,803	320,913	318,055	316,724
24 Nonresidential	192,017	208,933	225,418	228,444	231,330	227,643	230,199	232,229	225,672[r]	225,077	226,018	224,279	219,466
25 Industrial buildings	32,644	31,355	32,308	30,845	30,327	29,895	28,967	29,052	26,217[r]	24,975	25,465	24,537	23,358
26 Commercial buildings	75,829	86,190	95,252	99,831	101,605	100,164	102,802	103,983	102,180[r]	104,134	104,457	103,449	102,771
27 Other buildings	30,648	37,198	39,438	39,744	42,354	38,833	40,449	39,840	39,737[r]	38,876	38,592	38,047	37,227
28 Public utilities and other	52,896	54,190	58,421	58,024	57,044	58,751	57,981	59,354	57,538[r]	57,092	57,504	58,246	56,110
29 Public	134,326	143,035	145,464	145,374	148,871	154,387	161,975	160,033	156,697[r]	151,581	151,921	152,449	155,823
30 Military	2,604	2,559	2,588	2,296	2,306	1,881	2,636	2,223	2,268[r]	2,128	2,137	2,305	1,697
31 Highway	39,883	44,295	45,067	43,929	44,583	50,538	54,880	53,099	50,897[r]	48,542	45,518	47,279	47,330
32 Conservation and development	5,827	5,576	5,487	5,639	5,406	6,018	6,271	6,194	6,016[r]	5,101	5,845	5,816	6,674
33 Other	86,012	90,605	92,322	93,510	96,576	95,950	98,188	98,517	97,516[r]	95,810	98,421	97,049	100,122

1. Not at annual rates.
2. Not seasonally adjusted.
3. Recent data on value of new construction may not be strictly comparable with data for previous periods because of changes by the Bureau of the Census in its estimating techniques. For a description of these changes, see *Construction Reports* (C-30-76-5), issued by the Census Bureau in July 1976.

SOURCE. Bureau of the Census estimates for all series except (1) mobile homes, which are private, domestic shipments as reported by the Manufactured Housing Institute and seasonally adjusted by the Census Bureau, and (2) sales and prices of existing units, which are published by the National Association of Realtors. All back and current figures are available from the originating agency. Permit authorizations are those reported to the Census Bureau from 19,000 jurisdictions beginning in 1994.

2.15 CONSUMER AND PRODUCER PRICES

Percentage changes based on seasonally adjusted data except as noted

Item	Change from 12 months earlier		Change from 3 months earlier (annual rate)				Change from 1 month earlier					Index level, Sept. 1999[1]
	1998 Sept.	1999 Sept.	1998	1999			1999					
			Dec.	Mar.	June	Sept.	May	June	July	Aug.	Sept.	
CONSUMER PRICES[2] (1982–84=100)												
1 **All items**	**1.5**	**2.6**	**2.0**	**1.5**	**2.9**	**4.2**	**.0**	**.0**	**.3**	**.3**	**.4**	**167.9**
2 Food	2.0	2.2	2.8	1.7	1.7	2.5	.4	.0	.2	.2	.2	164.6
3 Energy items	−9.8	10.2	−5.1	5.8	14.2	29.4	−1.3	−1.2	2.1	2.7	1.7	113.2
4 All items less food and energy	2.5	2.0	2.5	.9	2.3	2.5	.1	.1	.2	.1	.3	177.7
5 Commodities	.8	1.0	2.5	−3.0	2.0	2.5	−.1	.0	.1	−.1	.7	144.6
6 Services	3.1	2.5	2.5	2.7	2.5	2.3	.2	.1	.3	.2	.2	196.6
PRODUCER PRICES (1982=100)												
7 Finished goods	−.9	3.2	2.2	.6	2.5	7.5	.2	−.1	.2	.5	1.1	134.8
8 Consumer foods	.5	1.2	.3	2.1	.3	2.1	.4[r]	.4	−.9	.4	1.0	137.0
9 Consumer energy	−11.6	13.9	−8.9	5.7	21.9	43.9	.3[r]	−.6[r]	3.4	3.7	2.2	85.9
10 Other consumer goods	2.1	2.8	8.3	−1.3	.3	4.3	.1	−.1	.1	−.1	1.1	151.6
11 Capital equipment	−.4	.0	.3	−.6	.0	.3	.0[r]	−.1[r]	−.1	.0	.2	136.7
Intermediate materials												
12 Excluding foods and feeds	−2.1	2.0	−4.5	.3	5.7	7.0	.3[r]	.2[r]	.6	.7	.3	125.9
13 Excluding energy	−.9	.5	−2.7	−.9	3.1	2.7	.3[r]	.3[r]	.4	.2	.1	133.7
Crude materials												
14 Foods	−8.4	−.8	−7.0	4.1	.0	.4	2.5[r]	.5[r]	−4.8	3.8	1.3	100.5
15 Energy	−25.2	51.3	13.5	−21.1	158.3	126.6	13.2[r]	−.5[r]	3.7	7.2	10.4	94.1
16 Other	−11.6	1.2	−24.3	.9	7.3	28.1	2.1[r]	.5	2.3	1.8	2.2	139.6

1. Not seasonally adjusted.
2. Figures for consumer prices are for all urban consumers and reflect a rental-equivalence measure of homeownership.

SOURCE. U.S. Department of Labor, Bureau of Labor Statistics.

2.16 GROSS DOMESTIC PRODUCT AND INCOME

Billions of current dollars except as noted; quarterly data at seasonally adjusted annual rates

Account	1996	1997	1998	1998			1999	
				Q2	Q3	Q4	Q1	Q2[r]
GROSS DOMESTIC PRODUCT								
1 **Total**	**7,661.6**	**8,110.9**	**8,511.0**	**8,440.6**	**8,537.9**	**8,681.2**	**8,808.7**	**8,873.4**
By source								
2 Personal consumption expenditures	5,215.7	5,493.7	5,807.9	5,773.7	5,846.7	5,934.8	6,050.6	6,155.0
3 Durable goods	643.3	673.0	724.7	720.1	718.9	754.5	771.2	784.9
4 Nondurable goods	1,539.2	1,600.6	1,662.4	1,655.2	1,670.0	1,691.3	1,736.0	1,770.6
5 Services	3,033.2	3,220.1	3,420.8	3,398.4	3,457.7	3,488.9	3,543.4	3,599.5
6 Gross private domestic investment	1,131.9	1,256.0	1,367.1	1,345.0	1,364.4	1,392.4	1,417.4	1,417.4
7 Fixed investment	1,099.8	1,188.6	1,307.8	1,305.8	1,307.5	1,346.7	1,377.9	1,410.0
8 Nonresidential	787.9	860.7	938.2	941.9	931.6	957.9	972.6	994.2
9 Structures	216.9	240.2	246.9	245.4	246.2	250.9	255.0	256.1
10 Producers' durable equipment	571.0	620.5	691.3	696.6	685.4	706.9	717.6	738.1
11 Residential structures	311.8	327.9	369.6	363.8	375.8	388.9	405.3	415.7
12 Change in business inventories	32.1	67.4	59.3	39.2	57.0	45.7	39.5	7.5
13 Nonfarm	24.5	63.1	52.7	31.5	49.3	39.3	36.4	5.2
14 Net exports of goods and services	−91.2	−93.4	−151.2	−159.3	−165.5	−156.2	−196.9	−240.6
15 Exports	873.8	965.4	959.0	949.6	936.2	976.8	962.7	973.8
16 Imports	965.0	1,058.8	1,110.2	1,108.9	1,101.7	1,133.0	1,159.6	1,214.4
17 Government consumption expenditures and gross investment	1,405.2	1,454.6	1,487.1	1,481.2	1,492.3	1,510.2	1,537.5	1,541.5
18 Federal	518.4	520.2	520.6	520.7	519.4	530.7	536.6	532.8
19 State and local	886.8	934.4	966.5	960.4	972.9	979.5	1,000.9	1,008.7
By major type of product								
20 Final sales, total	7,629.5	8,043.5	8,451.6	8,401.3	8,480.9	8,635.5	8,769.1	8,865.9
21 Goods	2,780.3	2,911.2	3,044.7	3,025.3	3,029.0	3,118.8	3,154.1	3,189.2
22 Durable	1,228.8	1,310.1	1,391.0	1,380.8	1,373.0	1,433.1	1,436.1	1,449.8
23 Nondurable	1,551.6	1,601.0	1,653.7	1,644.4	1,655.9	1,685.7	1,718.1	1,739.4
24 Services	4,179.5	4,414.1	4,641.0	4,619.5	4,678.5	4,727.7	4,793.7	4,850.8
25 Structures	669.7	718.3	765.9	756.6	773.5	789.0	821.3	825.9
26 Change in business inventories	32.1	67.4	59.3	39.2	57.0	45.7	39.5	7.5
27 Durable goods	20.8	33.6	25.2	4.5	19.5	27.0	16.5	−3.9
28 Nondurable goods	11.4	33.8	34.1	34.7	37.5	18.7	23.1	11.4
MEMO								
29 **Total GDP in chained 1992 dollars**	**6,994.8**	**7,269.8**	**7,551.9**	**7,498.6**	**7,566.5**	**7,677.7**	**7,759.6**	**7,790.6**
NATIONAL INCOME								
30 **Total**	**6,256.0**	**6,646.5**	**6,994.7**	**6,945.5**	**7,032.3**	**7,126.0**	**7,265.2**	**7,344.8**
31 Compensation of employees	4,409.0	4,687.2	4,981.0	4,945.2	5,011.6	5,084.3	5,166.5	5,237.4
32 Wages and salaries	3,640.4	3,893.6	4,153.9	4,121.6	4,181.1	4,246.8	4,317.0	4,378.5
33 Government and government enterprises	640.9	664.2	689.3	685.8	692.7	699.2	711.2	716.2
34 Other	2,999.5	3,229.4	3,464.6	3,435.8	3,488.4	3,547.6	3,605.7	3,662.3
35 Supplement to wages and salaries	768.6	793.7	827.1	823.5	830.5	837.5	849.6	858.9
36 Employer contributions for social insurance	381.7	400.7	420.1	417.9	422.1	426.5	434.9	439.3
37 Other labor income	387.0	392.9	406.9	405.7	408.4	411.0	414.7	419.6
38 Proprietors' income[1]	527.7	551.2	577.2	571.7	576.1	596.9	598.3	609.0
39 Business and professional[1]	488.8	515.8	548.5	544.0	550.9	562.2	575.8	586.6
40 Farm[1]	38.9	35.5	28.7	27.7	25.2	34.7	22.5	22.4
41 Rental income of persons[2]	150.2	158.2	162.6	161.0	163.6	167.5	167.7	169.8
42 Corporate profits[1]	750.4	817.9	824.6	820.6	827.0	821.7	868.8	859.3
43 Profits before tax[3]	680.2	734.4	717.8	723.5	720.5	708.1	752.6	768.0
44 Inventory valuation adjustment	−1.2	6.9	14.5	7.8	11.7	13.4	11.6	−17.4
45 Capital consumption adjustment	71.4	76.6	92.3	89.4	94.8	100.2	104.6	108.7
46 Net interest	418.6	432.0	449.3	447.1	454.0	455.6	463.9	469.2

1. With inventory valuation and capital consumption adjustments.
2. With capital consumption adjustment.
3. For after-tax profits, dividends, and the like, see table 1.48.

SOURCE. U.S. Department of Commerce, *Survey of Current Business*.

2.17 PERSONAL INCOME AND SAVING

Billions of current dollars except as noted; quarterly data at seasonally adjusted annual rates

Account	1996	1997	1998	1998			1999	
				Q2	Q3	Q4	Q1	Q2[r]
PERSONAL INCOME AND SAVING								
1 **Total personal income**	**6,425.2**	**6,784.0**	**7,126.1**	**7,081.9**	**7,160.8**	**7,257.9**	**7,349.3**	**7,441.0**
2 Wage and salary disbursements	3,631.1	3,889.8	4,149.9	4,117.6	4,177.1	4,242.8	4,317.0	4,378.5
3 Commodity-producing industries	909.0	975.0	1,026.9	1,023.2	1,028.0	1,037.4	1,048.1	1,060.7
4 Manufacturing	674.6	719.5	751.5	750.8	750.9	754.1	759.2	767.5
5 Distributive industries	823.3	879.8	939.6	932.2	945.8	961.5	971.4	982.7
6 Service industries	1,257.9	1,370.8	1,494.0	1,476.4	1,510.6	1,544.6	1,586.2	1,618.9
7 Government and government enterprises	640.9	664.2	689.3	685.8	692.7	699.2	711.2	716.2
8 Other labor income	387.0	392.9	406.9	405.7	408.4	411.0	414.7	419.6
9 Proprietors' income[1]	527.7	551.2	577.2	571.7	576.1	596.9	598.3	609.0
10 Business and professional[1]	488.8	515.8	548.5	544.0	550.9	562.2	575.8	586.6
11 Farm[1]	38.9	35.5	28.7	27.7	25.2	34.7	22.5	22.4
12 Rental income of persons[2]	150.2	158.2	162.6	161.0	163.6	167.5	167.7	169.8
13 Dividends	248.2	260.3	263.1	262.1	263.0	265.7	268.8	272.7
14 Personal interest income	719.4	747.3	764.8	763.0	769.2	769.9	771.0	777.8
15 Transfer payments	1,068.0	1,110.4	1,149.0	1,145.8	1,152.9	1,158.3	1,175.2	1,181.4
16 Old-age survivors, disability, and health insurance benefits	538.0	565.9	586.5	585.0	589.0	590.6	597.9	601.4
17 LESS: Personal contributions for social insurance	306.3	326.2	347.4	345.1	349.5	354.1	363.4	367.9
18 EQUALS: Personal income	6,425.2	6,784.0	7,126.1	7,081.9	7,160.8	7,257.9	7,349.3	7,441.0
19 LESS: Personal tax and nontax payments	890.5	989.0	1,098.3	1,092.9	1,108.4	1,124.9	1,144.1	1,162.4
20 EQUALS: Disposable personal income	5,534.7	5,795.1	6,027.9	5,988.9	6,052.4	6,133.1	6,205.2	6,278.5
21 LESS: Personal outlays	5,376.2	5,674.1	6,000.2	5,963.3	6,039.8	6,133.6	6,250.7	6,358.6
22 EQUALS: Personal saving	158.5	121.0	27.7	25.6	12.6	−.6	−45.5	−80.1
MEMO								
Per capita (chained 1992 dollars)								
23 Gross domestic product	26,335.7	27,136.2	27,938.9	27,783.0	27,972.1	28,299.8	28,527.9	28,568.3
24 Personal consumption expenditures	17,893.0	18,340.9	19,065.0	19,007.8	19,156.3	19,336.4	19,602.7	19,783.1
25 Disposable personal income	18,989.0	19,349.0	19,790.0	19,719.0	19,829.0	19,980.0	20,101.0	20,183.0
26 Saving rate (percent)	2.9	2.1	.5	.4	.2	.0	−.7	−1.3
GROSS SAVING								
27 **Gross saving**	**1,274.5**	**1,406.3**	**1,468.0**	**1,448.5**	**1,474.5**	**1,466.6**	**1,511.4**	**1,484.9**
28 Gross private saving	1,114.5	1,141.6	1,090.4	1,079.0	1,078.7	1,073.7	1,061.9	1,017.2
29 Personal saving	158.5	121.0	27.7	25.6	12.6	−.6	−45.5	−80.1
30 Undistributed corporate profits[1]	262.4	296.7	305.4	300.9	304.8	303.9	332.5	312.6
31 Corporate inventory valuation adjustment	−1.2	6.9	14.5	7.8	11.7	13.4	11.6	−17.4
Capital consumption allowances								
32 Corporate	452.0	477.3	500.6	497.8	503.1	508.9	514.9	521.7
33 Noncorporate	232.3	242.8	252.7	250.7	254.2	257.5	260.0	262.9
34 Gross government saving	160.0	264.7	377.6	369.4	395.7	392.9	449.4	467.7
35 Federal	−39.6	49.5	142.5	143.9	161.6	135.8	192.3	209.6
36 Consumption of fixed capital	70.6	70.6	69.7	69.5	69.6	70.0	69.5	69.4
37 Current surplus or deficit (−), national accounts	−110.3	−21.1	72.8	74.4	92.0	65.8	122.7	140.2
38 State and local	199.7	215.2	235.2	225.6	234.2	257.1	257.2	258.1
39 Consumption of fixed capital	77.1	81.1	85.0	84.3	85.4	86.6	87.5	89.0
40 Current surplus or deficit (−), national accounts	122.6	134.1	150.2	141.3	148.7	170.5	169.7	169.1
41 **Gross investment**	**1,242.3**	**1,350.5**	**1,391.5**	**1,362.7**	**1,372.5**	**1,402.4**	**1,418.3**	**1,364.7**
42 Gross private domestic investment	1,131.9	1,256.0	1,367.1	1,345.0	1,364.4	1,392.4	1,417.4	1,417.4
43 Gross government investment	229.7	235.4	237.0	232.5	239.7	238.3	255.6	248.7
44 Net foreign investment	−119.2	−140.9	−212.6	−214.8	−231.6	−228.3	−254.7	−301.4
45 **Statistical discrepancy**	**−32.2**	**−55.8**	**−76.5**	**−85.7**	**−102.0**	**−64.2**	**−93.1**	**−120.1**

1. With inventory valuation and capital consumption adjustments.
2. With capital consumption adjustment.

SOURCE. U.S. Department of Commerce, *Survey of Current Business*.

3.10 U.S. INTERNATIONAL TRANSACTIONS Summary

Millions of dollars; quarterly data seasonally adjusted except as noted[1]

Item credits or debits	1996	1997	1998	1998 Q2	1998 Q3	1998 Q4	1999 Q1	1999 Q2[p]
1 Balance on current account	−129,295	−143,465	−220,562	−52,400	−63,476	−61,669	−68,654	−80,673
2 Balance on goods and services	−104,318	−104,730	−164,282	−41,961	−45,724	−43,262	−53,974	−65,016
3 Exports	849,806	938,543	933,907	231,889	229,284	236,904	231,904	234,526
4 Imports	−954,124	−1,043,273	−1,098,189	−273,850	−275,008	−280,166	−285,878	−299,542
5 Income, net	17,210	3,231	−12,205	−553	−6,965	−4,933	−4,340	−4,382
6 Investment, net	21,754	8,185	−6,956	735	−5,637	−3,571	−2,946	−3,011
7 Direct	67,746	69,220	59,405	16,177	11,834	14,558	14,834	14,103
8 Portfolio	−45,992	−61,035	−66,361	−15,442	−17,471	−18,129	−17,780	−17,114
9 Compensation of employees	−4,544	−4,954	−5,249	−1,288	−1,328	−1,362	−1,394	−1,371
10 Unilateral current transfers, net	−42,187	−41,966	−44,075	−9,886	−10,787	−13,474	−10,340	−11,275
11 Change in U.S. government assets other than official reserve assets, net (increase, −)	−989	68	−429	−483	185	−50	119	−380
12 Change in U.S. official reserve assets (increase, −)	6,668	−1,010	−6,784	−1,945	−2,026	−2,369	4,068	1,159
13 Gold	0	0	0	0	0	0	0	0
14 Special drawing rights (SDRs)	370	−350	−149	72	188	−227	563	−190
15 Reserve position in International Monetary Fund	−1,280	−3,575	−5,118	−1,031	−2,078	−1,924	3	1,413
16 Foreign currencies	7,578	2,915	−1,517	−986	−136	−218	3,502	−64
17 Change in U.S. private assets abroad (increase, −)	−386,441	−464,354	−285,605	−118,089	−60,256	−48,188	−19,335	−124,940
18 Bank-reported claims[3]	−91,555	−144,822	−24,918	−27,704	−33,344	37,192	27,771	−37,082
19 Nonbank-reported claims	−86,333	−120,403	−25,041	14,327	−20,320	16,202	−13,853	−26,429
20 U.S. purchases of foreign securities, net	−115,859	−89,174	−102,817	−32,886	14,994	−70,809	8,132	−26,387
21 U.S. direct investments abroad, net	−92,694	−109,955	−132,829	−43,172	−21,586	−30,773	−41,385	−35,042
22 Change in foreign official assets in United States (increase, +)	127,390	18,119	−21,684	−10,551	−46,489	24,352	4,708	−986
23 U.S. Treasury securities	115,671	−6,690	−9,957	−20,318	−32,811	31,836	800	−6,708
24 Other U.S. government obligations	5,008	4,529	6,332	254	1,906	1,562	5,993	5,792
25 Other U.S. government liabilities[3]	−316	−1,798	−3,113	−807	−224	−1,054	−1,594	−770
26 Other U.S. liabilities reported by U.S. banks[3]	5,704	22,286	−11,469	9,488	12,866	−7,133	−589	1,202
27 Other foreign official assets[4]	1,323	−208	−3,477	832	−2,494	−859	98	−502
28 Change in foreign private assets in United States (increase, +)	447,457	733,542	524,321	173,017	140,036	125,453	84,152	242,033
29 U.S. bank-reported liabilities[2]	16,478	149,026	40,731	34,138	77,313	−21,811	−14,184	49,374
30 U.S. nonbank-reported liabilities	39,404	107,779	9,412	18,040	11,875	−53,210	20,188	−710
31 Foreign private purchases of U.S. Treasury securities, net	154,996	146,433	46,155	25,759	−1,438	24,391	−8,781	−5,517
32 U.S. currency flows	17,362	24,782	16,622	2,349	7,277	6,250	2,440	3,057
33 Foreign purchases of other U.S. securities, net	130,240	196,258	218,026	71,785	20,103	49,328	61,540	77,272
34 Foreign direct investments in United States, net	88,977	109,264	193,375	20,946	24,906	120,505	22,949	118,557
35 Capital account transactions, net[5]	672	292	617	160	148	166	166	180
36 Discrepancy	−65,462	−143,192	10,126	10,291	31,878	−37,695	−5,224	−36,393
37 Due to seasonal adjustment	...	...	...	528	−10,582	4,144	5,264	582
38 Before seasonal adjustment	−65,462	−143,192	10,126	9,763	42,460	−41,839	−10,488	−36,975
MEMO								
Changes in official assets								
39 U.S. official reserve assets (increase, −)	6,668	−1,010	−6,784	−1,945	−2,026	−2,369	4,068	1,159
40 Foreign official assets in United States, excluding line 25 (increase, +)	127,706	19,917	−18,571	−9,744	−46,265	25,406	6,302	−216
41 Change in Organization of Petroleum Exporting Countries official assets in United States (part of line 22)	14,911	12,124	−11,499	−657	−11,642	2,057	2,058	1,774

1. Seasonal factors are not calculated for lines 11–16, 18–20, 22–35, and 38–41.
2. Reporting banks included all types of depository institutions as well as some brokers and dealers.
3. Associated primarily with military sales contracts and other transactions arranged with or through foreign official agencies.
4. Consists of investments in U.S. corporate stocks and in debt securities of private corporations and state and local governments.
5. Consists of capital transfers (such as those of accompanying migrants entering or leaving the country and debt forgiveness) and the acquisition and disposal of nonproduced nonfinancial assets.

SOURCE. U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*.

3.11 U.S. FOREIGN TRADE[1]

Millions of dollars; monthly data seasonally adjusted

Item	1996	1997	1998	1999 Jan.[r]	Feb.[r]	Mar.[r]	Apr.[r]	May[r]	June[r]	July[p]
1 Goods and services, balance	−104,318	−104,731	−164,282	−18,515	−19,311	−18,787	21,390	24,604	−24,886	−24,095
2 Merchandise	−191,270	−196,652	−246,932	−25,172	−25,680	−25,334	−27,899	31,179	−31,422	−30,584
3 Services	86,952	91,921	82,650	6,657	6,369	6,547	6,509	6,575	6,536	6,489
4 Goods and services, exports	849,806	938,543	933,907	77,025	77,047	78,113	77,978	78,623	79,122	82,027
5 Merchandise	612,057	679,715	670,246	54,704	54,326	55,269	55,121	55,472	55,890	58,782
6 Services	237,749	258,828	263,661	22,321	22,721	22,844	22,857	23,151	23,232	23,245
7 Goods and services, imports	−954,124	−1,043,273	−1,098,189	−95,540	−96,358	−96,900	−99,368	−103,227	−104,008	−106,122
8 Merchandise	−803,327	−876,366	−917,178	−79,876	−80,006	−80,603	−83,020	−86,651	−87,312	−89,366
9 Services	−150,797	−166,907	−181,011	−15,664	−16,352	−16,297	−16,348	−16,576	−16,696	−16,756

1. Data show monthly values consistent with quarterly figures in the U.S. balance of payments accounts.

SOURCE. *FT900*, U.S. Department of Commerce, Bureau of the Census and Bureau of Economic Analysis.

3.12 U.S. RESERVE ASSETS

Millions of dollars, end of period

Asset	1996	1997	1998	1999 Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[p]
1 **Total**	**75,090**	**69,954**	**81,755**	**74,359**	**73,694**	**72,121**	**71,689**	**73,305**	**72,649[r]**	**73,414**	**73,228**
2 Gold stock, including Exchange Stabilization Fund[1]	11,049	11,050	11,041	11,049	11,049	11,049	11,046	11,048	11,046[r]	11,047	11,047
3 Special drawing rights[2,3]	10,312	10,027	10,603	9,682	9,634	9,784	9,719	9,925	10,152	10,284	10,232
4 Reserve position in International Monetary Fund[2]	15,435	18,071	24,111	23,231	23,054	21,689	21,462	21,462	19,885	19,978	19,571
5 Foreign currencies[4]	38,294	30,809	36,001	30,397	29,957	29,599	29,462	30,870	31,566	32,105	32,378

1. Gold held "under earmark" at Federal Reserve Banks for foreign and international accounts is not included in the gold stock of the United States; see table 3.13, line 3. Gold stock is valued at $42.22 per fine troy ounce.

2. Special drawing rights (SDRs) are valued according to a technique adopted by the International Monetary Fund (IMF) in July 1974. Values are based on a weighted average of exchange rates for the currencies of member countries. From July 1974 through December 1980, sixteen currencies were used; since January 1981, five currencies have been used. U.S. SDR holdings and reserve positions in the IMF also have been valued on this basis since July 1974.

3. Includes allocations of SDRs by the International Monetary Fund on Jan. 1 of the year indicated, as follows: 1970—$867 million; 1971—$717 million; 1972—$710 million; 1979—$1,139 million; 1980—$1,152 million; 1981—$1,093 million; plus net transactions in SDRs.

4. Valued at current market exchange rates.

3.13 FOREIGN OFFICIAL ASSETS HELD AT FEDERAL RESERVE BANKS[1]

Millions of dollars, end of period

Asset	1996	1997	1998	1999 Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[p]
1 **Deposits**	**167**	**457**	**167**	**166**	**260**	**157**	**409**	**257**	**166**	**243**	**189**
Held in custody											
2 U.S. Treasury securities[2]	638,049	620,885	607,574	610,649	606,662	606,579	611,372	619,004	626,669	634,086	621,351
3 Earmarked gold[3]	11,197	10,763	10,343	10,347	10,340	10,340	10,329	10,329	10,271	10,155	10,114

1. Excludes deposits and U.S. Treasury securities held for international and regional organizations.

2. Marketable U.S. Treasury bills, notes, and bonds and nonmarketable U.S. Treasury securities, in each case measured at face (not market) value.

3. Held in foreign and international accounts and valued at $42.22 per fine troy ounce; not included in the gold stock of the United States.

3.15 SELECTED U.S. LIABILITIES TO FOREIGN OFFICIAL INSTITUTIONS

Millions of dollars, end of period

Item	1997	1998	1999 Feb.	Mar.	Apr.	May	June	July	Aug.[p]
1 **Total**[1]	**776,505**	**759,387**	**765,480**	**765,689**	**766,569**	**760,410**	**765,708**[r]	**773,494**[r]	**782,575**
By type									
2 Liabilities reported by banks in the United States[2]	135,384	125,332	127,989	124,743	135,791	124,270	126,180[r]	125,873[r]	126,287
3 U.S. Treasury bills and certificates[3]	148,301	134,177	138,235	141,941	135,765	136,199	138,518	147,492	153,499
U.S. Treasury bonds and notes									
4 Marketable	428,004	432,127	429,891	425,046	418,350	421,573	421,970	420,197	422,590
5 Nonmarketable[4]	5,994	6,074	6,151	6,191	6,231	6,143	5,982	6,022	6,060
6 U.S. securities other than U.S. Treasury securities[5]	58,822	61,677	63,214	67,768	70,432	72,225	73,058	73,910	74,139
By area									
7 Europe[1]	252,289	256,026	256,238	253,970	245,500	242,386	241,989	240,546	243,334
8 Canada	36,177	36,715	38,462	39,611	38,563	38,181	39,001	39,147	39,342
9 Latin America and Caribbean	96,942	79,422	75,986	72,828	81,379	81,075	76,828	77,832[r]	75,406
10 Asia	400,144	400,171	408,606	412,353	414,051	411,739	421,282	430,050	438,300
11 Africa	9,981	10,059	9,838	9,906	9,656	9,326	8,378[r]	8,376	8,122
12 Other countries	7,058	3,080	2,436	3,107	3,506	3,789	4,316	3,629	4,157

1. Includes the Bank for International Settlements.
2. Principally demand deposits, time deposits, bankers acceptances, commercial paper, negotiable time certificates of deposit, and borrowings under repurchase agreements.
3. Includes nonmarketable certificates of indebtedness and Treasury bills issued to official institutions of foreign countries.
4. Excludes notes issued to foreign official nonreserve agencies. Includes current value of zero-coupon Treasury bond issues to foreign governments as follows: Mexico, beginning March 1988, 20-year maturity issue and beginning March 1990, 30-year maturity issue; Venezuela, beginning December 1990, 30-year maturity issue; Argentina, beginning April 1993, 30-year maturity issue.
5. Debt securities of U.S. government corporations and federally sponsored agencies, and U.S. corporate stocks and bonds.

SOURCE. Based on U.S. Department of the Treasury data and on data reported to the department by banks (including Federal Reserve Banks) and securities dealers in the United States, and on the 1994 benchmark survey of foreign portfolio investment in the United States.

3.16 LIABILITIES TO, AND CLAIMS ON, FOREIGNERS Reported by Banks in the United States[1] Payable in Foreign Currencies

Millions of dollars, end of period

Item	1995	1996	1997	1998 Sept.	1998 Dec.	1999 Mar.	1999 June
1 Banks' liabilities	109,713	103,383	117,524	92,934	101,125	101,359	97,751
2 Banks' claims	74,016	66,018	83,038	67,901	78,152	80,642	67,864
3 Deposits	22,696	22,467	28,661	27,293	45,985	42,147	41,895
4 Other claims	51,320	43,551	54,377	40,608	32,167	38,495	25,969
5 Claims of banks' domestic customers[2]	6,145	10,978	8,191	8,453	20,718	11,039	23,474

1. Data on claims exclude foreign currencies held by U.S. monetary authorities.
2. Assets owned by customers of the reporting bank located in the United States that represent claims on foreigners held by reporting banks for the accounts of the domestic customers.

3.17 LIABILITIES TO FOREIGNERS Reported by Banks in the United States[1]
Payable in U.S. dollars

Millions of dollars, end of period

Item	1996	1997	1998	1999 Feb.	Mar.	Apr.	May	June	July	Aug.p
By Holder and Type of Liability										
1 **Total, all foreigners**	**1,162,148**	**1,283,027**	**1,347,176**	**1,340,815**	**1,337,831**	**1,334,253**	**1,352,608**	**1,382,159r**	**1,339,413r**	**1,384,848**
2 Banks' own liabilities	758,998	882,980	884,874	880,164	872,914	879,742	900,821	919,635r	889,186r	907,365
3 Demand deposits	27,034	31,344	29,556	31,906	30,913	31,180	32,184	36,322	43,183r	44,938
4 Time deposits[2]	186,910	198,546	152,227	153,275	152,157	157,727	156,634	156,677r	156,891r	155,201
5 Other[3]	143,510	168,011	140,245	161,865	157,083	160,393	160,611	152,193r	151,496r	151,412
6 Own foreign offices[4]	401,544	485,079	562,846	533,118	532,761	530,442	551,392	574,443r	537,616r	555,814
7 Banks' custodial liabilities[5]	403,150	400,047	462,302	460,651	464,917	454,511	451,787	462,524	450,227	477,483
8 U.S. Treasury bills and certificates[6]	236,874	193,239	183,494	184,890	192,840	178,515	177,768	179,351	187,872	192,347
9 Other negotiable and readily transferable instruments[7]	72,011	93,641	141,103	134,110	133,311	129,051	124,100	123,246	121,567	132,405
10 Other	94,265	113,167	137,705	141,651	138,766	146,945	149,919	159,927	140,788	152,731
11 Nonmonetary international and regional organizations[8]	13,972	11,690	11,833	19,707	15,337	15,669	13,997	17,987r	18,463r	18,201
12 Banks' own liabilities	13,355	11,486	10,850	18,949	14,621	14,932	13,250	16,002r	16,964r	16,789
13 Demand deposits	29	16	172	407	194	13	25	49	66	31
14 Time deposits[2]	5,784	5,466	5,793	7,215	6,856	6,324	5,840	7,231	7,380	6,419
15 Other[3]	7,542	6,004	4,885	11,327	7,571	8,595	7,385	8,722r	9,518r	10,339
16 Banks' custodial liabilities[5]	617	204	983	758	716	737	747	1,985	1,499	1,412
17 U.S. Treasury bills and certificates[6]	352	69	636	549	548	555	616	956	953	896
18 Other negotiable and readily transferable instruments[7]	265	133	347	207	168	182	131	1,029	533	516
19 Other	0	2	0	2	0	0	0	0	13	0
20 Official institutions[9]	312,019	283,685	259,509	266,224	266,684	271,556	260,469	264,698r	273,365r	279,786
21 Banks' own liabilities	79,406	102,028	80,251	79,510	76,996	86,061	79,452	78,445r	80,400r	77,868
22 Demand deposits	1,511	2,314	3,003	3,107	3,393	3,599	2,789	2,952r	2,652	2,537
23 Time deposits[2]	33,336	41,396	29,602	25,988	23,840	29,109	27,372	26,643r	26,845r	24,856
24 Other[3]	44,559	58,318	47,646	50,415	49,763	53,353	49,291	48,850r	50,903	50,475
25 Banks' custodial liabilities[5]	232,613	181,657	179,258	186,714	189,688	185,495	181,017	186,253	192,965	201,918
26 U.S. Treasury bills and certificates[6]	198,921	148,301	134,177	138,235	141,941	135,765	136,199	138,518	147,492	153,499
27 Other negotiable and readily transferable instruments[7]	33,266	33,151	44,407	47,679	47,174	49,443	44,586	47,582	45,094	48,297
28 Other	426	205	674	800	573	287	232	153	379	122
29 Banks[10]	694,835	815,247	885,047	852,867	851,749	848,081	881,368	910,000r	853,184r	887,990
30 Banks' own liabilities	562,898	641,447	675,998	646,831	648,753	646,370	676,341	695,226r	656,403r	676,881
31 Unaffiliated foreign banks	161,354	156,368	113,152	113,713	115,992	115,928	124,949	120,783r	118,787r	121,067
32 Demand deposits	13,692	16,767	14,071	15,275	13,985	13,344	15,957	15,812r	14,086r	15,436
33 Time deposits[2]	89,765	83,433	46,219	46,704	49,101	50,206	49,336	47,998	49,540r	49,872
34 Other[3]	57,897	56,168	52,862	51,734	52,906	52,378	59,656	56,973	55,161	55,759
35 Own foreign offices[4]	401,544	485,079	562,846	533,118	532,761	530,442	551,392	574,443r	537,616r	555,814
36 Banks' custodial liabilities[5]	131,937	173,800	209,049	206,036	202,996	201,711	205,027	214,774	196,781	211,109
37 U.S. Treasury bills and certificates[6]	23,106	31,915	35,359	34,134	36,737	29,636	28,323	27,757	28,284	26,314
38 Other negotiable and readily transferable instruments[7]	17,027	35,393	45,102	40,108	37,304	34,959	35,580	36,983	37,459	41,253
39 Other	91,804	106,492	128,588	131,794	128,955	137,116	141,124	150,034	131,038	143,542
40 Other foreigners	141,322	172,405	190,787	202,017	204,061	198,947	196,774	189,474r	194,401r	198,871
41 Banks' own liabilities	103,339	128,019	117,775	134,874	132,544	132,379	131,778	129,962r	135,419r	135,827
42 Demand deposits	11,802	12,247	12,310	13,117	13,341	14,224	13,413	17,509	26,379	26,934
43 Time deposits[2]	58,025	68,251	70,613	73,368	72,360	72,088	74,086	74,805r	73,126r	74,054
44 Other[3]	33,512	47,521	34,852	48,389	46,843	46,067	44,279	37,648	35,914	34,839
45 Banks' custodial liabilities[5]	37,983	44,386	73,012	67,143	71,517	66,568	64,996	59,512	58,982	63,044
46 U.S. Treasury bills and certificates[6]	14,495	12,954	13,322	11,972	13,614	12,559	12,630	12,120	11,143	11,638
47 Other negotiable and readily transferable instruments[7]	21,453	24,964	51,247	46,116	48,665	44,467	43,803	37,652	38,481	42,339
48 Other	2,035	6,468	8,443	9,055	9,238	9,542	8,563	9,740	9,358	9,067
Memo										
49 Negotiable time certificates of deposit in custody for foreigners	14,573	16,083	27,026	23,341	23,035	21,718	24,141	22,569	21,811	22,565

1. Reporting banks include all types of depository institutions as well as some brokers and dealers. Excludes bonds and notes of maturities longer than one year.
2. Excludes negotiable time certificates of deposit, which are included in "Other negotiable and readily transferable instruments."
3. Includes borrowing under repurchase agreements.
4. For U.S. banks, includes amounts owed to own foreign branches and foreign subsidiaries consolidated in quarterly Consolidated Reports of Condition filed with bank regulatory agencies. For agencies, branches, and majority-owned subsidiaries of foreign banks, consists principally of amounts owed to the head office or parent foreign bank, and to foreign branches, agencies, or wholly owned subsidiaries of the head office or parent foreign bank.
5. Financial claims on residents of the United States, other than long-term securities, held by or through reporting banks for foreign customers.
6. Includes nonmarketable certificates of indebtedness and Treasury bills issued to official institutions of foreign countries.
7. Principally bankers acceptances, commercial paper, and negotiable time certificates of deposit.
8. Principally the International Bank for Reconstruction and Development, the Inter-American Development Bank, and the Asian Development Bank. Excludes "holdings of dollars" of the International Monetary Fund.
9. Foreign central banks, foreign central governments, and the Bank for International Settlements.
10. Excludes central banks, which are included in "Official institutions."

3.17 LIABILITIES TO FOREIGNERS Reported by Banks in the United States[1]—Continued

Item	1996	1997	1998	1999 Feb.	Mar.	Apr.	May	June	July	Aug.p
AREA										
50 **Total, all foreigners**	**1,162,148**	**1,283,027**	**1,347,176**	**1,340,815**	**1,337,831**	**1,334,253**	**1,352,608**	**1,382,159r**	**1,339,413r**	**1,384,848**
51 **Foreign countries**	**1,148,176**	**1,271,337**	**1,335,343**	**1,321,108**	**1,322,494**	**1,318,584**	**1,338,611**	**1,364,172r**	**1,320,950r**	**1,366,647**
52 Europe	376,590	419,672	427,367	436,331	418,436	409,512	434,124	430,580r	438,232r	450,777
53 Austria	5,128	2,717	3,178	3,070	3,274	2,428	2,224	2,678	2,770r	3,210
54 Belgium and Luxembourg	24,084	41,007	42,818	41,594	41,468	37,991	39,227	31,298r	31,242	34,834
55 Denmark	2,565	1,514	1,437	1,826	1,992	1,300	1,267	961	1,143	1,811
56 Finland	1,958	2,246	1,862	1,643	1,800	1,655	1,645	1,384	1,358	1,335
57 France	35,078	46,607	44,616	47,617	47,937	49,097	48,328	45,235r	42,622	42,424
58 Germany	24,660	23,737	21,357	23,111	23,747	18,575	24,689	21,999	23,950r	23,719
59 Greece	1,835	1,552	2,066	2,509	2,447	2,237	2,691	2,737	3,168	3,121
60 Italy	10,946	11,378	7,103	6,684	5,744	5,910	5,943	6,192	6,426	5,840
61 Netherlands	11,110	7,385	10,793	14,792	12,273	11,037	11,752	12,152	12,206	11,292
62 Norway	1,288	317	710	1,102	1,022	1,181	1,210	1,049	1,184	1,333
63 Portugal	3,562	2,262	3,235	2,225	2,237	2,277	2,461	2,439	2,237	1,912
64 Russia	7,623	7,968	2,439	2,438	2,500	2,693	2,794	2,871	2,756	2,665
65 Spain	17,707	18,989	15,775	13,457	9,336	11,075	8,083	8,678	7,700	8,194
66 Sweden	1,623	1,628	3,027	2,918	2,193	1,974	3,429	2,966	3,851	3,779
67 Switzerland	44,538	39,023	50,654	60,348	47,874	54,547	66,214	65,967	60,758	76,126
68 Turkey	6,738	4,054	4,286	5,045	5,639	5,787	5,810	5,914	7,786	7,883
69 United Kingdom	153,420	181,904	181,554	173,543	175,302	169,795	178,015	187,310r	200,038r	192,431
70 Yugoslavia[11]	206	239	233	287	274	221	242	254	289	270
71 Other Europe and other former U.S.S.R.[12]	22,521	25,145	30,224	32,122	31,377	29,732	28,100	28,496r	26,748	28,598
72 Canada	38,920	28,341	30,212	28,019	31,788	28,360	28,543	29,951	29,387r	29,908
73 Latin America and Caribbean	467,529	536,393	554,733	538,465	551,711	578,151	591,047	610,176r	554,346r	581,398
74 Argentina	13,877	20,199	19,013	18,245	16,891	18,349	16,428	17,804r	17,202r	17,061
75 Bahamas	88,895	112,217	118,085	118,727	119,207	118,649	118,122	123,524	122,465	132,442
76 Bermuda	5,527	6,911	6,839	8,370	7,514	6,957	7,951	9,168	9,410	9,319
77 Brazil	27,701	31,037	15,800	12,913	13,841	17,128	17,295	14,696	15,389	15,398
78 British West Indies	251,465	276,418	302,472	285,676	300,109	322,011	334,386	347,368r	294,208r	315,799
79 Chile	2,915	4,072	5,010	5,189	5,057	6,805	7,236	5,918	6,744r	5,805
80 Colombia	3,256	3,652	4,616	4,462	4,636	4,710	4,861	4,615	4,634	4,519
81 Cuba	21	66	62	62	63	64	64	70	70	72
82 Ecuador	1,767	2,078	1,572	1,513	1,606	1,688	1,800	1,930	1,975	1,724
83 Guatemala	1,282	1,494	1,333	1,338	1,392	1,386	1,449	1,468	1,425	1,521
84 Jamaica	628	450	539	542	551	534	547	527	471	533
85 Mexico	31,240	33,972	37,148	35,891	36,622	36,004	37,588	37,920	39,024r	36,296
86 Netherlands Antilles	6,099	5,085	5,010	8,406	7,256	5,633	3,853	5,662	3,012	3,408
87 Panama	4,099	4,241	3,864	4,401	4,196	3,974	3,984	4,130	3,844r	3,816
88 Peru	834	893	840	828	810	819	854	816	836	960
89 Uruguay	1,890	2,382	2,486	2,274	2,378	2,345	2,331	2,552	2,319	2,146
90 Venezuela	17,363	21,601	19,894	19,354	19,149	20,512	21,204	20,393	20,437	19,796
91 Other	8,670	9,625	10,150	10,274	10,433	10,583	11,094	11,615	10,881	10,783
92 Asia	249,083	269,379	307,490	302,561	305,483	287,545	269,026	276,917r	283,218r	288,913
China										
93 Mainland	30,438	18,252	13,041	15,345	13,996	16,350	14,753	13,366	10,872	12,359
94 Taiwan	15,995	11,840	12,708	12,211	13,183	12,641	10,795	11,408r	12,482	12,678
95 Hong Kong	18,789	17,722	20,900	25,510	27,589	26,314	25,728	24,575	24,200	24,148
96 India	3,930	4,567	5,250	5,241	6,189	5,979	5,520	5,421	5,864	5,408
97 Indonesia	2,298	3,554	8,282	6,172	6,675	7,434	6,211	6,530	7,309	6,633
98 Israel	6,051	6,281	7,749	7,598	8,246	7,037	7,004	6,144	5,076	5,059
99 Japan	117,316	143,401	168,563	161,073	161,887	142,326	132,605	143,635	145,652r	145,338
100 Korea (South)	5,949	13,060	12,454	9,990	11,141	9,849	11,387	12,901	12,792	12,724
101 Philippines	3,378	3,250	3,324	2,482	2,362	2,440	2,492	2,273	2,177	2,189
102 Thailand	10,912	6,501	7,359	6,590	6,588	6,296	5,739	5,296	6,054	5,809
103 Middle Eastern oil-exporting countries[13]	16,285	14,959	15,609	16,157	15,433	14,497	15,453	15,168	15,581	15,947
104 Other	17,742	25,992	32,251	34,192	32,194	36,382	31,339	30,200r	35,159	40,621
105 Africa	8,116	10,347	8,905	8,658	8,463	7,874	7,713	7,485	7,508	7,660
106 Egypt	2,012	1,663	1,339	1,902	1,758	1,599	1,339	1,576	1,566	1,851
107 Morocco	112	138	97	73	85	90	72	101	116r	108
108 South Africa	458	2,158	1,522	1,343	1,258	1,165	1,132	1,091	1,049	831
109 Zaire	10	10	5	13	9	4	12	16	13	13
110 Oil-exporting countries[14]	2,626	3,060	3,088	2,737	2,772	2,534	2,508	2,247	2,281r	2,511
111 Other	2,898	3,318	2,854	2,590	2,581	2,482	2,650	2,454	2,483	2,346
112 Other	7,938	7,205	6,636	7,074	6,613	7,142	8,158	9,063	8,259r	7,991
113 Australia	6,479	6,304	5,495	5,552	5,582	5,987	6,820	7,624	7,252r	6,963
114 Other	1,459	901	1,141	1,522	1,031	1,155	1,338	1,439	1,007	1,028
115 Nonmonetary international and regional organizations	13,972	11,690	11,833	19,707	15,337	15,669	13,997	17,987r	18,463r	18,201
116 International[15]	12,099	10,517	10,221	17,080	12,845	13,242	11,689	14,987r	15,822r	16,112
117 Latin American regional[16]	1,339	424	594	1,411	1,394	1,304	653	898	819	658
118 Other regional[17]	534	749	1,018	1,216	1,098	1,123	1,655	2,102	1,822	1,431

11. Since December 1992, has excluded Bosnia, Croatia, and Slovenia.
12. Includes the Bank for International Settlements. Since December 1992, has included all parts of the former U.S.S.R. (except Russia), and Bosnia, Croatia, and Slovenia.
13. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
14. Comprises Algeria, Gabon, Libya, and Nigeria.
15. Principally the International Bank for Reconstruction and Development. Excludes "holdings of dollars" of the International Monetary Fund.
16. Principally the Inter-American Development Bank.
17. Asian, African, Middle Eastern, and European regional organizations, except the Bank for International Settlements, which is included in "Other Europe."

3.18 BANKS' OWN CLAIMS ON FOREIGNERS Reported by Banks in the United States[1]
Payable in U.S. Dollars

Millions of dollars, end of period

Area or country	1996	1997	1998	1999						
				Feb.	Mar.	Apr.	May	June	July	Aug.[p]
1 **Total, all foreigners**	**599,925**	**708,225**	**735,124**	**712,828**	**710,790**	**735,899**	**750,505**	**750,424[r]**	**720,129**	**730,014**
2 **Foreign countries**	**597,321**	**705,762**	**731,507**	**707,402**	**706,170**	**730,646**	**746,018**	**746,351[r]**	**715,722**	**727,156**
3 Europe	165,769	199,880	233,362	230,307	226,441	236,306	265,798	299,977[r]	292,697	305,067
4 Austria	1,662	1,354	1,043	1,824	2,759	2,389	2,902	2,514	3,855	3,080
5 Belgium and Luxembourg	6,727	6,641	7,187	7,073	5,451	7,533	9,811	10,028	9,214	7,463
6 Denmark	492	980	2,383	1,656	1,619	2,297	2,141	1,901	1,763	1,440
7 Finland	971	1,233	1,070	1,233	1,351	1,349	1,480	1,730	2,197	1,915
8 France	15,246	16,239	15,251	18,583	15,187	15,942	15,800	18,253	19,944	18,970
9 Germany	8,472	12,676	15,922	16,362	16,879	17,188	18,367	20,793	23,965	23,556
10 Greece	568	402	575	637	554	651	585	551[r]	628	659
11 Italy	6,457	6,230	7,283	5,714	6,035	6,727	6,434	6,783	7,451	7,747
12 Netherlands	7,117	6,141	5,734	6,048	6,690	7,251	8,588	8,724	9,334	10,133
13 Norway	808	555	827	561	596	970	753	717	821	583
14 Portugal	418	777	669	888	1,205	1,060	1,134	1,122	1,056	1,222
15 Russia	1,669	1,248	789	723	971	787	1,016	768	831	782
16 Spain	3,211	2,942	5,735	4,260	3,041	2,949	4,516	6,178	4,606	3,700
17 Sweden	1,739	1,854	4,223	4,664	4,439	4,141	2,950	3,005	3,199	4,082
18 Switzerland	19,798	28,846	46,880	50,905	51,677	48,477	65,498	75,553	66,927	71,871
19 Turkey	1,109	1,558	1,982	1,871	2,078	1,943	1,918	2,281	2,220	2,260
20 United Kingdom	85,234	103,143	106,349	97,422	97,275	105,246	112,945	130,857[r]	125,261	137,636
21 Yugoslavia[2]	115	52	53	54	54	55	54	54	50	49
22 Other Europe and other former U.S.S.R.[3]	3,956	7,009	9,407	9,829	8,580	9,351	8,906	8,165	9,375	7,919
23 Canada	26,436	27,189	47,212	40,801	41,264	40,756	41,116	37,071	31,537	31,698
24 Latin America and Caribbean	274,153	343,730	342,564	340,678	341,434	365,120	352,479	326,012	311,673	310,134
25 Argentina	7,400	8,924	9,553	10,184	10,399	10,075	10,318	10,772	10,492	10,260
26 Bahamas	71,871	89,379	96,455	91,104	88,639	84,023	78,480	71,993	77,048	77,806
27 Bermuda	4,129	8,782	4,969	6,033	4,096	4,426	6,276	6,111	7,813	9,731
28 Brazil	17,259	21,696	16,193	15,357	15,143	14,788	14,891	14,858	14,577	13,802
29 British West Indies	105,510	145,471	153,752	155,326	162,867	193,306	184,928	166,497	146,862	137,104
30 Chile	5,136	7,913	8,261	8,085	8,082	7,810	7,545	7,531	7,153[r]	6,900
31 Colombia	6,247	6,945	6,523	6,462	6,222	6,105	5,877	5,570	5,590[r]	5,046
32 Cuba	0	0	0	0	0	0	0	0	0	0
33 Ecuador	1,031	1,311	1,400	1,341	1,219	1,135	1,104	1,061	985	889
34 Guatemala	620	886	1,127	1,255	1,052	1,062	1,157	1,032	1,075	1,066
35 Jamaica	345	424	239	602	318	326	327	303	311	322
36 Mexico	18,425	19,428	21,143	21,564	20,532	19,434	19,314	18,633	18,977	17,821
37 Netherlands Antilles	25,209	17,838	6,779	6,571	6,661	5,711	5,867	5,483	5,101	14,020
38 Panama	2,786	4,364	3,584	3,390	3,320	4,329	3,298	3,351	3,064	2,899
39 Peru	2,720	3,491	3,260	3,353	3,232	3,111	3,053	2,974	2,710	2,516
40 Uruguay	589	629	1,126	934	838	772	724	1,050	1,105	1,049
41 Venezuela	1,702	2,129	3,089	3,684	3,506	3,138	3,245	3,479	3,501	3,460
42 Other	3,174	4,120	5,111	5,433	5,308	5,569	6,075	5,314	5,309	5,443
43 Asia	122,478	125,092	98,616	86,492	88,048	79,232	77,631	74,692	72,240	72,942
China										
44 Mainland	1,401	1,579	1,311	2,400	3,398	3,461	3,006	3,745	3,144[r]	2,758
45 Taiwan	1,894	922	1,041	778	1,331	866	763	870	904[r]	937
46 Hong Kong	12,802	13,991	9,080	6,806	8,014	6,309	4,977	7,102	5,333	4,969
47 India	1,946	2,200	1,440	1,529	1,701	1,703	1,458	1,568	1,708	1,728
48 Indonesia	1,762	2,651	1,954	2,110	1,897	1,911	2,061	1,760	1,791	1,711
49 Israel	633	768	1,166	774	1,082	803	1,236	1,955	1,433	1,669
50 Japan	59,967	59,549	46,712	39,141	39,971	32,639	30,596	27,093	25,900	26,226
51 Korea (South)	18,901	18,162	8,238	8,479	9,119	11,119	12,326	11,317	12,753	12,194
52 Philippines	1,697	1,689	1,465	1,589	1,540	1,546	1,808	1,669	1,380	1,279
53 Thailand	2,679	2,259	1,806	1,708	1,720	1,732	1,623	1,850	1,683	1,549
54 Middle Eastern oil-exporting countries[4]	10,424	10,790	16,130	12,815	12,151	11,669	10,569	10,127	9,396	10,906
55 Other	8,372	10,532	8,273	8,363	6,124	5,474	7,208	5,636	6,815	7,016
56 Africa	2,776	3,530	3,122	3,087	2,938	2,688	2,448	2,629	2,499	2,178
57 Egypt	247	247	257	264	260	228	221	241	252	209
58 Morocco	524	511	372	361	422	463	444	454	431	444
59 South Africa	584	805	643	933	798	567	640	724	598	449
60 Zaire	0	0	0	0	0	0	0	0	0	0
61 Oil-exporting countries[5]	420	1,212	936	625	325	257	288	340	297	280
62 Other	1,001	755	914	904	1,133	1,173	855	870	921	796
63 Other	5,709	6,341	6,631	6,037	6,045	6,544	6,546	5,970	5,076	5,137
64 Australia	4,577	5,300	6,167	5,367	5,638	6,060	6,093	5,636	4,811	4,907
65 Other	1,132	1,041	464	670	407	484	453	334	265	230
66 Nonmonetary international and regional organizations[6]	2,604	2,463	3,617	5,426	4,620	5,253	4,487	4,073	4,407	2,858

1. Reporting banks include all types of depository institutions as well as some brokers and dealers.
2. Since December 1992, has excluded Bosnia, Croatia, and Slovenia.
3. Includes the Bank for International Settlements. Since December 1992, has included all parts of the former U.S.S.R. (except Russia), and Bosnia, Croatia, and Slovenia.
4. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
5. Comprises Algeria, Gabon, Libya, and Nigeria.
6. Excludes the Bank for International Settlements, which is included in "Other Europe."

3.19 BANKS' OWN AND DOMESTIC CUSTOMERS' CLAIMS ON FOREIGNERS Reported by Banks in the United States[1] Payable in U.S. Dollars

Millions of dollars, end of period

Type of claim	1996	1997	1998	1999						
				Feb.	Mar.	Apr.	May	June[r]	July[r]	Aug.[p]
1 **Total**	**743,919**	**852,852**	**875,986**	.	**862,754**	.	.	**897,993**	...	.
2 Banks' claims	599,925	708,225	735,124	712,828	710,790	735,899	750,505	750,424	720,129	730,014
3 Foreign public borrowers	22,216	20,581	23,572	31,515	34,773	35,807	36,634	37,336	38,457	35,391
4 Own foreign offices[2]	341,574	431,685	484,456	461,705	467,948	485,347	492,109	488,744	460,218	457,526
5 Unaffiliated foreign banks	113,682	109,230	106,087	102,561	93,813	93,591	99,765	104,077	99,724	109,156
6 Deposits	33,826	30,995	27,208	29,406	25,070	23,979	25,251	24,270	24,979	24,029
7 Other	79,856	78,235	78,879	73,155	68,743	69,612	74,514	79,807	74,745	85,127
8 All other foreigners	122,453	146,729	121,009	117,047	114,256	121,154	121,997	120,267	121,730	127,941
9 Claims of banks' domestic customers[3]	143,994	144,627	140,862	.	151,964	.	..	147,569	.	.
10 Deposits	77,657	73,110	78,491	.	91,380	..	...	93,597	.	..
11 Negotiable and readily transferable instruments[4]	51,207	53,967	48,752	.	47,990	..	..	43,616	..	...
12 Outstanding collections and other claims	15,130	17,550	13,619	.	12,594	..	..	10,356	.	.
MEMO										
13 Customer liability on acceptances	10,388	9,624	4,519	.	4,485	.	.	4,437	.	.
14 Dollar deposits in banks abroad, reported by nonbanking business enterprises in the United States[5]	39,661	33,816	39,978	39,055	33,038	33,474	31,210	29,165	32,857	32,336

1. For banks' claims, data are monthly; for claims of banks' domestic customers, data are for quarter ending with month indicated.
Reporting banks include all types of depository institution as well as some brokers and dealers.
2. For U.S. banks, includes amounts due from own foreign branches and foreign subsidiaries consolidated in quarterly Consolidated Reports of Condition filed with bank regulatory agencies. For agencies, branches, and majority-owned subsidiaries of foreign banks, consists principally of amounts due from the head office or parent foreign bank, and from foreign branches, agencies, or wholly owned subsidiaries of the head office or parent foreign bank.
3. Assets held by reporting banks in the accounts of their domestic customers.
4. Principally negotiable time certificates of deposit, bankers acceptances, and commercial paper.
5. Includes demand and time deposits and negotiable and nonnegotiable certificates of deposit denominated in U.S. dollars issued by banks abroad.

3.20 BANKS' OWN CLAIMS ON UNAFFILIATED FOREIGNERS Reported by Banks in the United States[1] Payable in U.S. Dollars

Millions of dollars, end of period

Maturity, by borrower and area[2]	1995	1996	1997	1998		1999	
				Sept.	Dec.	Mar.	June[p]
1 **Total**	**224,932**	**258,106**	**276,550**	**281,342**	**250,547**	**242,463**	**259,219**
By borrower							
2 Maturity of one year or less	178,857	211,859	205,781	208,710	186,653	175,490	186,868
3 Foreign public borrowers	14,995	15,411	12,081	14,842	13,699	20,921	24,558
4 All other foreigners	163,862	196,448	193,700	193,868	172,954	154,569	162,310
5 Maturity of more than one year	46,075	46,247	70,769	72,632	63,894	66,973	72,351
6 Foreign public borrowers	7,522	6,790	8,499	10,926	9,840	13,290	11,657
7 All other foreigners	38,553	39,457	62,270	61,706	54,054	53,683	60,694
By area							
Maturity of one year or less							
8 Europe	55,622	55,690	58,294	68,980	68,684	66,887	84,731
9 Canada	6,751	8,339	9,917	8,795	10,947	7,816	6,690
10 Latin America and Caribbean	72,504	103,254	97,207	100,161	81,911	71,214	65,853
11 Asia	40,296	38,078	33,964	22,320	18,005	21,347	21,957
12 Africa	1,295	1,316	2,211	1,762	1,835	1,571	1,543
13 All other[3]	2,389	5,182	4,188	6,692	5,271	6,655	6,094
Maturity of more than one year							
14 Europe	4,995	6,965	13,240	15,264	14,923	16,949	18,754
15 Canada	2,751	2,645	2,525	2,982	3,140	2,781	3,276
16 Latin America and Caribbean	27,681	24,943	42,049	39,165	33,443	33,539	36,902
17 Asia	7,941	9,392	10,235	12,147	10,018	10,972	10,471
18 Africa	1,421	1,361	1,236	1,170	1,233	1,160	1,105
19 All other[3]	1,286	941	1,484	1,904	1,137	1,572	1,843

1. Reporting banks include all types of depository institutions as well as some brokers and dealers.
2. Maturity is time remaining until maturity.
3. Includes nonmonetary international and regional organizations.

3.21 CLAIMS ON FOREIGN COUNTRIES Held by U.S. and Foreign Offices of U.S. Banks[1]

Billions of dollars, end of period

Area or country	1995	1996	1997			1998				1999	
			June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June[p]
1 **Total**	**551.9**	**645.3**	**678.8**	**711.0**	**719.3**	**739.1**	**749.7**	**738.9**	**714.1**	**678.3**	**667.3**
2 G-10 countries and Switzerland	206.0	228.3	250.0	247.8	242.8	249.0	278.3	268.3	255.8	246.4	255.7
3 Belgium and Luxembourg	13.6	11.7	9.4	11.4	11.0	11.2	16.2	15.1	13.4	14.1	14.8
4 France	19.4	16.6	17.9	20.2	15.4	15.5	20.5	19.9	18.4	19.5	18.4
5 Germany	27.3	29.8	34.1	34.7	28.6	25.5	28.8	28.9	31.1	32.0	29.2
6 Italy	11.5	16.0	20.2	19.3	15.5	19.7	19.5	18.0	11.5	13.2	11.6
7 Netherlands	3.7	4.0	6.4	7.2	6.2	7.3	8.3	8.1	7.9	8.9	10.9
8 Sweden	2.7	2.6	3.6	4.1	3.3	4.8	3.1	2.2	2.3	3.6	2.3
9 Switzerland	6.7	5.3	5.4	4.8	7.2	5.6	6.9	7.5	8.3	7.3	7.8
10 United Kingdom	82.4	104.7	110.6	108.3	113.4	120.1	134.9	130.4	121.5	110.6	122.7
11 Canada	10.3	14.0	15.7	15.1	13.7	13.5	16.5	15.6	16.7	15.7	16.5
12 Japan	28.5	23.7	26.8	22.6	28.6	25.8	23.7	22.8	24.7	21.3	21.6
13 Other industrialized countries	50.2	65.7	71.7	73.8	64.5	74.3	72.1	71.6	68.5	75.8	76.5
14 Austria	.9	1.1	1.5	1.7	1.5	1.7	1.9	2.1	1.4	2.5	2.7
15 Denmark	2.6	1.5	2.8	3.7	2.4	2.0	2.1	2.8	2.2	3.2	2.8
16 Finland	.8	.8	1.4	1.9	1.3	1.5	1.4	1.6	1.5	1.4	.8
17 Greece	5.7	6.7	6.1	6.2	5.1	6.1	5.8	5.8	6.0	6.2	5.7
18 Norway	3.2	8.0	4.7	4.6	3.6	4.0	3.4	3.3	3.2	2.9	2.9
19 Portugal	1.3	.9	1.1	1.4	.9	.7	1.3	1.1	1.3	1.3	1.2
20 Spain	11.6	13.2	15.4	13.9	11.7	16.5	15.2	17.5	13.6	14.3	15.8
21 Turkey	1.9	2.7	3.4	4.4	4.5	4.9	6.5	5.2	4.8	5.0	4.7
22 Other Western Europe	4.7	4.7	5.5	6.1	8.2	9.9	9.6	10.3	10.6	10.1	10.1
23 South Africa	1.2	2.0	1.9	1.9	2.2	3.7	5.0	3.7	3.5	3.4	3.4
24 Australia	16.4	24.0	27.8	28.0	23.1	23.2	20.0	18.2	20.3	25.3	26.5
25 OPEC[2]	22.1	19.7	22.3	22.9	26.0	25.7	25.3	25.9	27.1	26.0	25.9
26 Ecuador	.7	1.1	.9	1.2	1.3	1.3	1.2	1.2	1.2	1.1	1.0
27 Venezuela	2.7	2.4	2.1	2.2	2.5	3.3	3.2	3.1	3.2	3.4	3.1
28 Indonesia	4.8	5.2	5.6	6.5	6.7	5.5	5.1	4.7	4.8	4.5	4.9
29 Middle East countries	13.3	10.7	12.5	11.8	14.4	14.3	15.5	16.1	17.0	16.6	16.4
30 African countries	.6	.4	1.2	1.1	1.2	1.4	.3	.8	1.0	.4	.4
31 Non-OPEC developing countries	112.6	130.3	140.6	137.0	138.7	147.4	141.7	140.6	147.9	143.7	145.3
Latin America											
32 Argentina	12.9	14.3	16.4	17.1	18.4	19.3	20.2	22.3	22.3	23.5	22.0
33 Brazil	13.7	20.7	27.3	26.1	28.6	32.4	27.2	24.9	24.2	23.6	24.7
34 Chile	6.8	7.0	7.6	8.0	8.7	9.0	9.1	9.3	8.3	8.5	8.2
35 Colombia	2.9	4.1	3.3	3.4	3.4	3.3	3.6	3.4	3.2	3.2	3.1
36 Mexico	17.3	16.2	16.6	16.4	17.4	17.7	17.9	18.4	25.3	18.9	18.0
37 Peru	.8	1.6	1.4	1.8	2.0	2.1	2.2	2.2	2.2	2.2	2.1
38 Other	2.8	3.3	3.4	3.6	4.1	4.0	4.4	4.6	5.4	5.4	5.5
Asia											
China											
39 Mainland	1.8	2.5	3.6	4.3	3.2	4.2	3.9	2.8	3.0	5.1	5.3
40 Taiwan	9.4	10.3	10.6	9.7	9.0	11.7	11.3	12.2	12.8	11.7	11.9
41 India	4.4	4.3	5.3	4.9	4.9	5.0	4.9	5.3	5.3	5.5	6.5
42 Israel	.5	.5	.8	1.0	.7	.7	.9	.9	1.1	1.1	2.0
43 Korea (South)	19.1	21.5	16.3	16.2	15.6	16.2	14.5	12.9	13.7	13.3	14.9
44 Malaysia	4.4	6.0	6.4	5.6	5.1	4.5	4.7	5.1	5.7	5.9	5.9
45 Philippines	4.1	5.8	7.0	5.7	5.7	5.0	5.4	4.7	5.1	5.3	5.6
46 Thailand	4.9	5.7	7.3	6.2	5.4	5.5	4.9	5.3	4.6	4.5	4.1
47 Other Asia	4.5	4.1	4.7	4.5	4.3	4.2	3.7	3.1	2.9	3.0	2.8
Africa											
48 Egypt	.4	.7	1.1	.9	.9	1.0	1.5	1.7	1.3	1.4	1.4
49 Morocco	.7	.7	.7	.7	.6	.6	.6	.5	.5	.5	.5
50 Zaire	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
51 Other Africa[3]	.9	.9	.9	.9	.8	1.1	.8	1.1	1.0	1.2	.9
52 Eastern Europe	4.2	6.9	7.1	9.8	9.1	12.0	10.9	6.0	5.2	6.1	5.1
53 Russia[4]	1.0	3.7	4.2	5.1	5.1	7.5	6.8	2.8	2.2	2.2	1.9
54 Other	3.2	3.2	2.9	4.7	4.0	4.6	4.1	3.2	3.1	3.9	3.2
55 Offshore banking centers	99.2	134.7	129.6	138.9	139.0	129.3	125.8	121.9	94.1	83.0	70.6
56 Bahamas	11.0	20.3	16.1	19.8	23.3	29.2	24.7	29.0	33.0	30.2	16.1
57 Bermuda	6.3	4.5	7.9	9.8	9.8	9.0	9.3	10.4	4.6	3.8	5.6
58 Cayman Islands and other British West Indies	32.4	37.2	35.1	45.7	43.4	24.9	34.2	30.6	15.4	6.3	7.0
59 Netherlands Antilles	10.3	26.1	15.8	21.7	14.6	14.0	10.5	6.0	2.6	2.7	1.2
60 Panama[5]	1.4	2.0	2.6	2.1	3.1	3.2	3.3	4.0	3.9	3.9	3.9
61 Lebanon	.1	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1
62 Hong Kong, China	25.0	27.9	35.2	27.2	32.2	33.8	30.0	30.6	23.4	22.8	21.9
63 Singapore	13.1	16.7	16.7	12.7	12.7	15.0	13.5	11.1	11.2	13.1	14.6
64 Other[6]	.1	.1	.3	.1	.1	.1	.2	.2	.2	.2	.1
65 Miscellaneous and unallocated[7]	57.6	59.6	57.6	80.8	99.1	101.3	95.7	104.5	115.5	97.3	88.1

1. The banking offices covered by these data include U.S. offices and foreign branches of U.S. banks, including U.S. banks that are subsidiaries of foreign banks. Offices not covered include U.S. agencies and branches of foreign banks. Beginning March 1994, the data include large foreign subsidiaries of U.S. banks. The data also include other types of U.S. depository institutions as well as some types of brokers and dealers. To eliminate duplication, the data are adjusted to exclude the claims on foreign branches held by a U.S. office or another foreign branch of the same banking institution.

These data are on a gross claims basis and do not necessarily reflect the ultimate country risk or exposure of U.S. banks. More complete data on the country risk exposure of U.S. banks are available in the quarterly Country Exposure Lending Survey published by the Federal Financial Institutions Examination Council.

2. Organization of Petroleum Exporting Countries, shown individually; other members of OPEC (Algeria, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, and United Arab Emirates); and Bahrain and Oman (not formally members of OPEC).
3. Excludes Liberia. Beginning March 1994 includes Namibia.
4. As of December 1992, excludes other republics of the former Soviet Union.
5. Includes Canal Zone.
6. Foreign branch claims only.
7. Includes New Zealand, Liberia, and international and regional organizations.

3.22 LIABILITIES TO UNAFFILIATED FOREIGNERS Reported by Nonbanking Business Enterprises in the United States

Millions of dollars, end of period

Type of liability, and area or country	1995	1996	1997	1998				1999	
				Mar.	June	Sept.	Dec.	Mar.	June[p]
1 **Total**	**46,448**	**61,782**	**57,382**	**55,681**	**51,433**	**49,279**	**46,570**	**46,663**	**49,337**
2 Payable in dollars	33,903	39,542	41,543	41,601	40,026	38,410	36,668	34,030	36,032
3 Payable in foreign currencies	12,545	22,240	15,839	14,080	11,407	10,869	9,902	12,633	13,305
By type									
4 Financial liabilities	24,241	33,049	26,877	25,691	22,322	19,331	19,255	22,458	25,058
5 Payable in dollars	12,903	11,913	12,630	12,911	11,988	9,812	10,371	11,225	13,205
6 Payable in foreign currencies	11,338	21,136	14,247	12,780	10,334	9,519	8,884	11,233	11,853
7 Commercial liabilities	22,207	28,733	30,505	29,990	29,111	29,948	27,315	24,205	24,279
8 Trade payables	11,013	12,720	10,904	10,107	9,537	10,276	10,978	9,999	10,935
9 Advance receipts and other liabilities	11,194	16,013	19,601	19,883	19,574	19,672	16,337	14,206	13,344
10 Payable in dollars	21,000	27,629	28,913	28,690	28,038	28,598	26,297	22,805	22,827
11 Payable in foreign currencies	1,207	1,104	1,592	1,300	1,073	1,350	1,018	1,400	1,452
By area or country									
Financial liabilities									
12 Europe	15,622	23,179	18,027	18,793	15,468	12,905	12,589	16,098	19,578
13 Belgium and Luxembourg	369	632	186	127	75	150	79	50	70
14 France	999	1,091	1,425	1,545	1,699	1,457	1,097	1,178	1,287
15 Germany	1,974	1,834	1,958	2,518	2,441	2,167	2,063	1,906	1,959
16 Netherlands	466	556	494	472	484	417	1,406	1,337	2,104
17 Switzerland	895	699	561	130	189	179	155	141	143
18 United Kingdom	10,138	17,161	11,667	12,185	8,765	6,610	5,980	9,729	13,097
19 Canada	632	1,401	2,374	1,027	539	389	693	781	320
20 Latin America and Caribbean	1,783	1,668	1,386	965	1,320	1,351	1,495	1,528	1,369
21 Bahamas	59	236	141	17	6	1	7	1	1
22 Bermuda	147	50	229	86	49	73	101	78	52
23 Brazil	57	78	143	91	76	154	152	137	131
24 British West Indies	866	1,030	604	517	845	834	957	1,064	944
25 Mexico	12	17	26	21	51	23	59	22	19
26 Venezuela	2	1	1	1	1	1	2	2	1
27 Asia	5,988	6,423	4,387	4,197	4,315	4,005	3,785	3,475	3,217
28 Japan	5,436	5,869	4,102	3,964	3,869	3,754	3,612	3,337	3,035
29 Middle Eastern oil-exporting countries[1]	27	25	27	18	0	0	0	1	2
30 Africa	150	38	60	33	29	31	28	31	29
31 Oil-exporting countries[2]	122	0	0	0	0	0	0	2	0
32 All other[3]	66	340	643	676	651	650	665	545	545
Commercial liabilities									
33 Europe	7,700	9,767	10,228	9,951	9,987	11,010	10,030	8,580	8,718
34 Belgium and Luxembourg	331	479	666	565	557	623	278	229	189
35 France	481	680	764	840	612	740	920	654	656
36 Germany	767	1,002	1,274	1,068	1,219	1,408	1,392	1,088	1,143
37 Netherlands	500	766	439	443	485	440	429	361	432
38 Switzerland	413	624	375	407	349	507	499	535	497
39 United Kingdom	3,568	4,303	4,086	4,041	3,743	4,286	3,697	3,008	2,959
40 Canada	1,040	1,090	1,175	1,347	1,206	1,504	1,390	1,597	1,670
41 Latin America and Caribbean	1,740	2,574	2,176	2,051	2,285	1,840	1,618	1,612	1,674
42 Bahamas	1	63	16	27	14	48	14	11	19
43 Bermuda	205	297	203	174	209	168	198	225	180
44 Brazil	98	196	220	249	246	256	152	107	112
45 British West Indies	56	14	12	5	27	5	10	7	5
46 Mexico	416	665	565	520	557	511	347	437	490
47 Venezuela	221	328	261	219	196	230	202	155	149
48 Asia	10,421	13,422	14,966	14,672	13,611	13,539	12,342	10,428	10,039
49 Japan	3,315	4,614	4,500	4,372	3,995	3,779	3,827	2,715	2,753
50 Middle Eastern oil-exporting countries[1]	1,912	2,168	3,111	3,138	3,194	3,582	2,852	2,479	2,209
51 Africa	619	1,040	874	833	921	810	794	727	832
52 Oil-exporting countries[2]	254	532	408	376	354	372	393	377	392
53 Other[3]	687	840	1,086	1,136	1,101	1,245	1,141	1,261	1,346

1. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).

2. Comprises Algeria, Gabon, Libya, and Nigeria.

3. Includes nonmonetary international and regional organizations.

3.23 CLAIMS ON UNAFFILIATED FOREIGNERS Reported by Nonbanking Business Enterprises in the United States

Millions of dollars, end of period

Type of claim, and area or country	1995	1996	1997	1998 Mar.	1998 June	1998 Sept.	1998 Dec.	1999 Mar.	1999 June[p]
1 **Total**	**52,509**	**65,897**	**68,128**	**71,004**	**63,188**	**67,976**	**77,462**	**68,973**	**63,767**
2 Payable in dollars	48,711	59,156	62,173	65,359	57,587	62,034	72,171	63,988	56,931
3 Payable in foreign currencies	3,798	6,741	5,955	5,645	5,601	5,942	5,291	4,985	6,836
By type									
4 Financial claims	27,398	37,523	36,959	40,301	32,341	37,262	46,260	38,136	31,877
5 Deposits	15,133	21,624	22,909	20,863	14,762	15,406	30,199	18,686	13,350
6 Payable in dollars	14,654	20,852	21,060	19,155	13,084	13,374	28,549	17,101	11,636
7 Payable in foreign currencies	479	772	1,849	1,708	1,678	2,032	1,650	1,585	1,714
8 Other financial claims	12,265	15,899	14,050	19,438	17,579	21,856	16,061	19,450	18,527
9 Payable in dollars	10,976	12,374	11,806	16,981	14,904	19,867	14,049	17,419	14,762
10 Payable in foreign currencies	1,289	3,525	2,244	2,457	2,675	1,989	2,012	2,031	3,765
11 Commercial claims	25,111	28,374	31,169	30,703	30,847	30,714	31,202	30,837	31,890
12 Trade receivables	22,998	25,751	27,536	26,888	26,764	26,330	27,202	26,724	27,754
13 Advance payments and other claims	2,113	2,623	3,633	3,815	4,083	4,384	4,000	4,113	4,136
14 Payable in dollars	23,081	25,930	29,307	29,223	29,599	28,793	29,573	29,468	30,533
15 Payable in foreign currencies	2,030	2,444	1,862	1,480	1,248	1,921	1,629	1,369	1,357
By area or country									
Financial claims									
16 Europe	7,609	11,085	14,999	14,187	14,091	14,473	12,294	12,800	13,898
17 Belgium and Luxembourg	193	185	406	378	518	496	661	469	457
18 France	803	694	1,015	902	796	1,140	864	913	1,368
19 Germany	436	276	427	393	290	359	304	302	367
20 Netherlands	517	493	677	911	975	867	875	955	959
21 Switzerland	498	474	434	401	403	409	414	530	504
22 United Kingdom	4,303	7,922	10,337	9,289	9,639	9,849	7,766	8,357	8,589
23 Canada	2,851	3,442	3,313	4,688	3,020	4,090	2,503	3,111	2,828
24 Latin America and Caribbean	14,500	20,032	15,543	18,207	11,967	15,758	27,714	18,825	11,486
25 Bahamas	1,965	1,553	2,308	1,316	1,306	2,105	403	666	467
26 Bermuda	81	140	108	66	48	63	39	41	39
27 Brazil	830	1,468	1,313	1,408	1,394	710	835	1,112	1,102
28 British West Indies	10,393	15,536	10,462	13,551	7,349	10,960	24,388	14,621	7,393
29 Mexico	554	457	537	967	1,089	1,122	1,245	1,583	1,702
30 Venezuela	32	31	36	47	57	50	55	72	71
31 Asia	1,579	2,221	2,133	2,174	2,376	2,121	3,027	2,648	2,801
32 Japan	871	1,035	823	791	886	928	1,194	942	949
33 Middle Eastern oil-exporting countries[1]	3	22	11	9	12	13	9	8	5
34 Africa	276	174	319	325	155	157	159	174	228
35 Oil-exporting countries[2]	5	14	15	16	15	16	16	26	5
36 All other[3]	583	569	652	720	732	663	563	578	636
Commercial claims									
37 Europe	9,824	10,443	12,120	12,854	12,882	13,029	13,246	12,782	12,958
38 Belgium and Luxembourg	231	226	328	232	216	219	238	281	286
39 France	1,830	1,644	1,796	1,939	1,955	2,098	2,171	2,173	2,092
40 Germany	1,070	1,337	1,614	1,670	1,757	1,502	1,822	1,599	1,660
41 Netherlands	452	562	597	534	492	463	467	415	389
42 Switzerland	520	642	554	476	418	546	483	367	385
43 United Kingdom	2,656	2,946	3,660	4,828	4,664	4,681	4,769	4,529	4,615
44 Canada	1,951	2,165	2,660	2,882	2,779	2,291	2,617	2,983	2,844
45 Latin America and Caribbean	4,364	5,276	5,750	5,481	6,082	5,773	6,296	5,930	6,267
46 Bahamas	30	35	27	13	12	39	24	10	21
47 Bermuda	272	275	244	238	359	173	536	500	583
48 Brazil	898	1,303	1,162	1,128	1,183	1,062	1,024	936	885
49 British West Indies	79	190	109	88	110	91	104	117	127
50 Mexico	993	1,128	1,392	1,302	1,462	1,356	1,545	1,431	1,474
51 Venezuela	285	357	576	441	585	566	401	361	383
52 Asia	7,312	8,376	8,713	7,638	7,367	7,190	7,192	7,080	7,678
53 Japan	1,870	2,003	1,976	1,713	1,757	1,789	1,681	1,486	1,509
54 Middle Eastern oil-exporting countries[1]	974	971	1,107	987	1,127	967	1,135	1,286	1,465
55 Africa	654	746	680	613	657	740	711	685	738
56 Oil-exporting countries[2]	87	166	119	122	116	128	165	116	202
57 Other[3]	1,006	1,368	1,246	1,235	1,080	1,691	1,140	1,377	1,405

1. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
2. Comprises Algeria, Gabon, Libya, and Nigeria.
3. Includes nonmonetary international and regional organizations.

3.24 FOREIGN TRANSACTIONS IN SECURITIES

Millions of dollars

Transaction, and area or country	1997	1998	1999 Jan.– Aug.	1999 Feb.	Mar.	Apr.	May	June	July[r]	Aug.[p]
	U.S. corporate securities									
STOCKS										
1 Foreign purchases	1,097,958	1,574,185	1,450,877	159,759	179,894	223,006	185,819	179,785[r]	188,099	178,334
2 Foreign sales	1,028,361	1,524,189	1,382,053	155,650	177,007	205,493	177,326	167,878[r]	179,783	166,212
3 **Net purchases, or sales (−)**	**69,597**	**49,996**	**68,824**	**4,109**	**2,887**	**17,513**	**8,493**	**11,907[r]**	**8,316**	**12,122**
4 **Foreign countries**	**69,754**	**50,376**	**68,845**	**4,109**	**2,887**	**17,497**	**8,504**	**11,893[r]**	**8,361**	**12,131**
5 Europe	62,688	68,124	59,075	6,403	6,563	11,493	5,260	7,663	6,171	9,474
6 France	6,641	5,672	3,022	−175	1,199	534	−206	919	−55	269
7 Germany	9,059	9,195	7,516	872	480	1,814	971	1,376	−354	1,322
8 Netherlands	3,831	8,249	5,451	956	1,103	417	738	1,181	404	566
9 Switzerland	7,848	5,001	3,995	582	1,551	1,934	481	1,452	−2,822	827
10 United Kingdom	22,478	23,952	27,163	2,833	575	3,758	1,822	1,300	8,498	4,484
11 Canada	−1,406	−4,689	1,915	248	723	−129	−159	401	153	−50
12 Latin America and Caribbean	5,203	760	9,802	−1,279	−1,415	5,516	2,004	2,474[r]	2,935	846
13 Middle East[1]	383	−1,449	293	−733	298	−355	419	64	−273	174
14 Other Asia	2,072	−12,347	−2,448	−630	−3,257	905	574	1,271	−671	1,666
15 Japan	4,787	−1,171	535	−344	−1,925	1,458	464	681	−452	1,269
16 Africa	472	639	351	11	87	37	138	81	14	−39
17 Other countries	342	−662	443	89	−112	30	268	−61	32	60
18 **Nonmonetary international and regional organizations**	**−157**	**−380**	**−21**	**0**	**0**	**16**	**−11**	**14**	**−45**	**−9**
BONDS[2]										
19 Foreign purchases	610,116	905,782	564,688	75,169	77,101	70,044	66,558	67,569	75,778	63,904
20 Foreign sales	475,958	727,044	405,858	56,187	52,331	47,516	49,145	52,197	47,984	46,667
21 **Net purchases, or sales (−)**	**134,158**	**178,738**	**158,830**	**18,982**	**24,770**	**22,528**	**17,413**	**15,372**	**27,794**	**17,237**
22 **Foreign countries**	**133,595**	**179,081**	**158,609**	**18,941**	**24,974**	**22,468**	**17,326**	**15,383**	**27,520**	**17,264**
23 Europe	71,631	130,057	91,075	14,402	12,832	10,527	10,911	9,553	18,196	9,889
24 France	3,300	3,386	1,472	124	22	−36	352	258	447	160
25 Germany	2,742	4,369	4,561	1,268	190	−43	797	321	1,707	−77
26 Netherlands	3,576	3,443	1,748	329	418	106	168	187	336	144
27 Switzerland	187	4,826	2,806	535	272	467	128	−26	705	322
28 United Kingdom	54,134	99,637	68,483	10,803	9,268	8,617	8,310	7,651	13,582	7,641
29 Canada	6,264	6,121	2,394	475	640	319	413	184	−23	286
30 Latin America and Caribbean	34,733	23,938	38,350	2,057	5,203	5,967	3,382	4,603	5,088	5,668
31 Middle East[1]	2,155	4,997	1,741	314	859	364	−717	−114	−182	−219
32 Other Asia	16,996	12,662	23,399	1,439	5,132	4,904	3,224	1,458	4,031	1,179
33 Japan	9,357	8,384	6,687	165	589	1,215	0	310	3,020	827
34 Africa	1,005	190	854	266	261	331	82	−307	122	59
35 Other countries	811	1,116	796	−12	47	56	31	6	288	402
36 **Nonmonetary international and regional organizations**	**563**	**−343**	**221**	**41**	**−204**	**60**	**87**	**−11**	**274**	**−27**
	Foreign securities									
37 Stocks, net purchases, or sales (−)	−40,942	6,227	20,899	3,085	1,845	5,583	2,500	6,220[r]	−2,236	594
38 Foreign purchases	756,015	929,923	727,512	73,948	95,216	98,501	86,179	97,622[r]	106,264	91,851
39 Foreign sales	796,957	923,696	706,613	70,863	93,371	92,918	83,679	91,402[r]	108,500	91,257
40 Bonds, net purchases, or sales (−)	−48,171	−17,350	−2,286	−255	1,710	−5,147	−499	8,969	−4,677	−83
41 Foreign purchases	1,451,704	1,328,281	557,196	66,198	76,129	73,376	72,372	79,013	63,975	70,061
42 Foreign sales	1,499,875	1,345,631	559,482	66,453	74,419	78,523	72,871	70,044	68,652	70,144
43 **Net purchases, or sales (−), of stocks and bonds**	**−89,113**	**−11,123**	**18,613**	**2,830**	**3,555**	**436**	**2,001**	**15,189[r]**	**−6,913**	**511**
44 **Foreign countries**	**−88,921**	**−10,778**	**18,230**	**2,554**	**3,595**	**554**	**2,101**	**15,219[r]**	**−7,004**	**328**
45 Europe	−29,874	12,632	52,068	6,431	14,014	9,710	5,846	16,749	−3,759	2,671
46 Canada	−3,085	−1,901	−1,306	−551	−131	−449	−537	1,202[r]	−1,055	525
47 Latin America and Caribbean	−25,258	−13,798	−9,538	491	−3,586	−4,353	−2,306	−2,785[r]	545	101
48 Asia	−25,123	−3,992	−22,499	−3,344	−7,155	−3,946	−495	194	−3,330	−2,865
49 Japan	−10,001	−1,742	−25,017	−3,390	−7,250	−3,445	−704	−1,241	−4,323	−4,805
50 Africa	−3,293	−1,225	71	−25	−16	20	112	−25	−21	4
51 Other countries	−2,288	−2,494	−566	−448	469	−428	−519	−116	616	−108
52 **Nonmonetary international and regional organizations**	**−192**	**−345**	**383**	**276**	**−40**	**−118**	**−100**	**−30**	**91**	**183**

1. Comprises oil-exporting countries as follows: Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).

2. Includes state and local government securities and securities of U.S. government agencies and corporations. Also includes issues of new debt securities sold abroad by U.S. corporations organized to finance direct investments abroad.

3.25 MARKETABLE U.S. TREASURY BONDS AND NOTES Foreign Transactions[1]

Millions of dollars; net purchases, or sales (−) during period

Area or country	1997	1998	1999 Jan.–Aug.	1999 Feb.	Mar.	Apr.	May	June	July	Aug.[p]
1 **Total estimated**	**184,171**	**49,039**	**−2,622**	**−14,623**	**1,532**	**−3,271**	**5,638**	**−609**	**−6,242[r]**	**19,118**
2 Foreign countries	183,688	46,570	−2,662	−14,182	1,762	−3,257	5,316	−815	−6,226[r]	18,847
3 Europe	144,921	23,797	−32,638	−7,354	1,342	−15,394	−3,997	−5,796	−5,740[r]	1,771
4 Belgium and Luxembourg	3,427	3,805	1,413	204	−54	476	121	753	37	105
5 Germany	22,471	144	2,053	217	428	−653	−290	538	643	1,438
6 Netherlands	1,746	−5,533	1,653	−584	197	−256	797	−77	−1,224	453
7 Sweden	−465	1,486	1,064	−228	386	−462	−21	579	−229	876
8 Switzerland	6,028	5,240	−3,963	47	−1,457	−302	−121	971	−216[r]	−714
9 United Kingdom	98,253	14,384	−17,959	−5,721	1,129	−6,672	−4,528	−7,215	1,385[r]	1,934
10 Other Europe and former U.S.S.R.	13,461	4,271	−16,899	−1,289	713	−7,525	45	−1,345	−6,136	−2,321
11 Canada	−811	615	6,577	1,127	213	1,205	2,580	460	1,382	1,339
12 Latin America and Caribbean	−2,554	−3,662	3,991	−6,037	1,100	5,200	1,364	−1,403	693[r]	8,695
13 Venezuela	655	59	206	463	−445	2	88	−31	131	15
14 Other Latin America and Caribbean	−549	9,523	−1,487	−2,024	−2,570	3,654	−123	−52	−43[r]	1,650
15 Netherlands Antilles	−2,660	−13,244	5,272	−4,476	4,115	1,544	1,399	−1,320	605	7,030
16 Asia	39,567	27,433	19,975	−2,216	−1,714	5,973	5,631	6,489	−2,319[r]	6,832
17 Japan	20,360	13,048	10,614	−1,124	−1,311	6,475	1,284	4,905	−394	2,913
18 Africa	1,524	751	−1,296	−6	−52	−11	−198	−246	−178	−622
19 Other	1,041	−2,364	729	304	873	−230	−64	−319	−64	832
20 Nonmonetary international and regional organizations	483	2,469	40	−441	−230	−14	322	206	−16	271
21 International	621	1,502	−292	−371	−206	15	223	−8	−101	233
22 Latin American regional	170	199	679	1	−5	0	122	192	191	175
MEMO										
23 Foreign countries	183,688	46,570	−2,662	−14,182	1,762	−3,257	5,316	−815	−6,226[r]	18,847
24 Official institutions	43,959	4,123	−9,537	−3,699	−4,845	−6,696	3,223	397	−1,773	2,393
25 Other foreign	139,729	42,447	6,875	−10,483	6,607	3,439	2,093	−1,212	−4,453[r]	16,454
Oil-exporting countries										
26 Middle East[2]	7,636	−16,554	7,211	−618	1,478	65	2,887	238	−38	130
27 Africa[3]	−12	2	1	0	0	0	0	0	0	1

1. Official and private transactions in marketable U.S. Treasury securities having an original maturity of more than one year. Data are based on monthly transactions reports. Excludes nonmarketable U.S. Treasury bonds and notes held by official institutions of foreign countries.
2. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
3. Comprises Algeria, Gabon, Libya, and Nigeria.

3.28 FOREIGN EXCHANGE RATES AND INDEXES OF THE FOREIGN EXCHANGE VALUE OF THE U.S. DOLLAR[1]

Currency units per dollar except as noted

Item	1996	1997	1998	1999 May	1999 June	1999 July	1999 Aug.	1999 Sept.	1999 Oct.
				Exchange Rates					
COUNTRY/CURRENCY UNIT									
1 Australia/dollar[2]	78.28	74.37	62.91	66.28	65.63	65.62	64.46	64.95	65.09
2 Austria/schilling	10.589	12.206	12.379	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3 Belgium/franc	30.97	35.81	36.31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4 Brazil/real	1.0051	1.0779	1.1605	1.6853	1.7669	1.8023	1.8859	1.8987	1.9688
5 Canada/dollar	1.3638	1.3849	1.4836	1.4611	1.4695	1.4890	1.4932	1.4771	1.4776
6 China, P.R./yuan	8.3389	8.3193	8.3008	8.2785	8.2780	8.2776	8.2772	8.2774	8.2775
7 Denmark/krone	5.8003	6.6092	6.7030	6.9925	7.1643	7.1792	7.0144	7.0828	6.9450
8 European Monetary Union/euro[3]	n.a.	n.a.	n.a.	1.0630	1.0377	1.0370	1.0605	1.0497	1.0706
9 Finland/markka	4.5948	5.1956	5.3473	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10 France/franc	5.1158	5.8393	5.8995	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11 Germany/deutsche mark	1.5049	1.7348	1.7597	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12 Greece/drachma	240.82	273.28	295.70	305.96	312.49	313.52	307.84	311.68	307.71
13 Hong Kong/dollar	7.7345	7.7431	7.7467	7.7531	7.7575	7.7603	7.7638	7.7665	7.7696
14 India/rupee	35.51	36.36	41.36	42.86	43.21	43.36	43.50	43.60	43.55
15 Ireland/pound[2]	159.95	151.63	142.48	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16 Italy/lira	1,542.76	1,703.81	1,736.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17 Japan/yen	108.78	121.06	130.99	122.00	120.72	119.33	113.23	106.88	105.97
18 Malaysia/ringgit	2.5154	2.8173	3.9254	3.8000	3.8000	3.8000	3.8000	3.8000	3.8000
19 Mexico/peso	7.600	7.918	9.152	9.396	9.515	9.370	9.398	9.341	9.575
20 Netherlands/guilder	1.6863	1.9525	1.9837	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21 New Zealand/dollar[2]	68.77	66.25	53.61	55.30	53.25	52.61	52.59	52.30	51.42
22 Norway/krone	6.4594	7.0857	7.5521	7.7496	7.8749	7.9029	7.8036	7.8361	7.7402
23 Portugal/escudo	154.28	175.44	180.25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24 Singapore/dollar	1.4100	1.4857	1.6722	1.7122	1.7107	1.6958	1.6787	1.6965	1.6757
25 South Africa/rand	4.3011	4.6072	5.5417	6.1809	6.0880	6.1182	6.1302	6.0563	6.1029
26 South Korea/won	805.00	947.65	1,400.40	1,197.92	1,168.91	1,189.10	1,198.31	1,201.00	1,205.29
27 Spain/peseta	126.68	146.53	149.41	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28 Sri Lanka/rupee	55.289	59.026	65.006	70.581	71.211	71.912	71.868	71.942	71.747
29 Sweden/krona	6.7082	7.6446	7.9522	8.4432	8.5065	8.4431	8.2589	8.2264	8.1492
30 Switzerland/franc	1.2361	1.4514	1.4506	1.5078	1.5374	1.5474	1.5093	1.5262	1.4896
31 Taiwan/dollar	27.468	28.775	33.547	32.791	32.525	32.338	32.076	31.848	31.828
32 Thailand/baht	25.359	31.072	41.262	37.051	36.926	37.143	38.060	40.060	39.416
33 United Kingdom/pound[2]	156.07	163.76	165.73	161.54	159.50	157.51	160.58	162.47	165.72
34 Venezuela/bolivar	417.19	488.39	548.39	596.48	603.29	611.17	615.95	625.41	630.75
				Indexes[4]					
NOMINAL									
35 Broad (January 1997=100)[5]	97.40[r]	104.44[r]	116.48[r]	117.34[r]	117.93[r]	117.97[r]	117.00[r]	116.38[r]	115.88
36 Major currencies (March 1973=100)[6]	84.60[r]	91.24[r]	95.79[r]	95.25[r]	96.07[r]	96.31[r]	94.31[r]	92.92[r]	91.94
37 Other important trading partners (January 1997=100)[7]	98.26[r]	104.67[r]	126.03[r]	128.96[r]	129.03[r]	128.73[r]	129.73[r]	130.60[r]	131.06
REAL									
38 Broad (March 1973=100)[5]	86.72[r]	91.33[r]	99.35[r]	99.12[r]	99.61[r]	99.91[r]	99.04[r]	98.46[r]	97.83
39 Major currencies (March 1973=100)[6]	84.95[r]	92.25[r]	97.25[r]	97.76[r]	98.61[r]	99.19[r]	97.13[r]	95.91[r]	94.87
40 Other important trading partners (March 1973=100)[7]	94.69[r]	95.87[r]	108.50[r]	107.21[r]	107.25[r]	107.18[r]	107.90[r]	108.18[r]	108.14

1. Averages of certified noon buying rates in New York for cable transfers. Data in this table also appear in the Board's G.5 (405) monthly statistical release. For ordering address, see inside front cover.
2. Value in U.S. cents.
3. As of January 1999, the euro is reported in place of the individual euro area currencies. These currency rates can be derived from the euro rate by using the fixed conversion rates (in currencies per euro) as shown below:

Euro equals

13.7603	Austrian schillings	1936.27	Italian lire
40.3399	Belgian francs	40.3399	Luxembourg francs
5.94573	Finnish markkas	2.20371	Netherlands guilders
6.55957	French francs	200.482	Portuguese escudos
1.95583	German marks	166.386	Spanish pesetas
.787564	Irish pounds		

4. The December 1999 Bulletin will contain revised index values resulting from the annual revision to the trade weights. For more information on the indexes of the foreign exchange value of the dollar, see *Federal Reserve Bulletin*, vol. 84 (October 1998), pp. 811–18.
5. Weighted average of the foreign exchange value of the U.S. dollar against the currencies of a broad group of U.S. trading partners. The weight for each currency is computed as an average of U.S. bilateral import shares from and export shares to the issuing country and of a measure of the importance to U.S. exporters of that country's trade in third country markets.
6. Weighted average of the foreign exchange value of the U.S. dollar against a subset of broad index currencies that circulate widely outside the country of issue. The weight for each currency is its broad index weight scaled so that the weights of the subset of currencies in the index sum to one.
7. Weighted average of the foreign exchange value of the U.S. dollar against a subset of broad index currencies that do not circulate widely outside the country of issue. The weight for each currency is its broad index weight scaled so that the weights of the subset of currencies in the index sum to one.

Guide to Statistical Releases and Special Tables

STATISTICAL RELEASES—List Published Semiannually, with Latest Bulletin *Reference*

SPECIAL TABLES—Data Published Irregularly, with Latest Bulletin *Reference*

Index to Statistical Tables

References are to pages A3–A62, although the prefix "A" is omitted in this index

Federal Reserve Board of Governors and Official Staff

ALAN GREENSPAN, *Chairman*
ROGER W. FERGUSON, JR., *Vice Chairman*
EDWARD W. KELLEY, JR.
LAURENCE H. MEYER

OFFICE OF BOARD MEMBERS

LYNN S. FOX, *Assistant to the Board*
DONALD J. WINN, *Assistant to the Board*
WINTHROP P. HAMBLEY, *Deputy Congressional Liaison*
BOB STAHLY MOORE, *Special Assistant to the Board*
DIANE E. WERNEKE, *Special Assistant to the Board*

LEGAL DIVISION

J. VIRGIL MATTINGLY, JR., *General Counsel*
SCOTT G. ALVAREZ, *Associate General Counsel*
RICHARD M. ASHTON, *Associate General Counsel*
OLIVER IRELAND, *Associate General Counsel*
KATHLEEN M. O'DAY, *Associate General Counsel*
KATHERINE H. WHEATLEY, *Assistant General Counsel*

OFFICE OF THE SECRETARY

JENNIFER J. JOHNSON, *Secretary*
ROBERT DEV. FRIERSON, *Associate Secretary*
BARBARA R. LOWREY, *Associate Secretary and Ombudsman*

DIVISION OF BANKING SUPERVISION AND REGULATION

RICHARD SPILLENKOTHEN, *Director*
STEPHEN C. SCHEMERING, *Deputy Director*
HERBERT A. BIERN, *Associate Director*
ROGER T. COLE, *Associate Director*
WILLIAM A. RYBACK, *Associate Director*
GERALD A. EDWARDS, JR., *Deputy Associate Director*
STEPHEN M. HOFFMAN, JR., *Deputy Associate Director*
JAMES V. HOUPT, *Deputy Associate Director*
JACK P. JENNINGS, *Deputy Associate Director*
MICHAEL G. MARTINSON, *Deputy Associate Director*
SIDNEY M. SUSSAN, *Deputy Associate Director*
MOLLY S. WASSOM, *Deputy Associate Director*
HOWARD A. AMER, *Assistant Director*
NORAH M. BARGER, *Assistant Director*
BETSY CROSS, *Assistant Director*
RICHARD A. SMALL, *Assistant Director*
WILLIAM C. SCHNEIDER, JR., *Project Director, National Information Center*

DIVISION OF INTERNATIONAL FINANCE

KAREN H. JOHNSON, *Director*
DAVID H. HOWARD, *Deputy Director*
VINCENT R. REINHART, *Deputy Director*
THOMAS A. CONNORS, *Deputy Director*
DALE W. HENDERSON, *Associate Director*
DONALD B. ADAMS, *Senior Adviser*
RICHARD T. FREEMAN, *Assistant Director*
WILLIAM L. HELKIE, *Assistant Director*
STEVEN B. KAMIN, *Assistant Director*
RALPH W. TRYON, *Assistant Director*

DIVISION OF RESEARCH AND STATISTICS

MICHAEL J. PRELL, *Director*
EDWARD C. ETTIN, *Deputy Director*
DAVID J. STOCKTON, *Deputy Director*
WILLIAM R. JONES, *Associate Director*
MYRON L. KWAST, *Associate Director*
PATRICK M. PARKINSON, *Associate Director*
THOMAS D. SIMPSON, *Associate Director*
LAWRENCE SLIFMAN, *Associate Director*
MARTHA S. SCANLON, *Deputy Associate Director*
STEPHEN D. OLINER, *Assistant Director*
STEPHEN A. RHOADES, *Assistant Director*
JANICE SHACK-MARQUEZ, *Assistant Director*
CHARLES S. STRUCKMEYER, *Assistant Director*
ALICE PATRICIA WHITE, *Assistant Director*
JOYCE K. ZICKLER, *Assistant Director*
GLENN B. CANNER, *Senior Adviser*
DAVID S. JONES, *Senior Adviser*

DIVISION OF MONETARY AFFAIRS

DONALD L. KOHN, *Director*
DAVID E. LINDSEY, *Deputy Director*
BRIAN F. MADIGAN, *Associate Director*
RICHARD D. PORTER, *Deputy Associate Director*
WILLIAM C. WHITESELL, *Assistant Director*
NORMAND R.V. BERNARD, *Special Assistant to the Board*

DIVISION OF CONSUMER AND COMMUNITY AFFAIRS

DOLORES S. SMITH, *Director*
GLENN E. LONEY, *Deputy Director*
SANDRA F. BRAUNSTEIN, *Assistant Director*
MAUREEN P. ENGLISH, *Assistant Director*
ADRIENNE D. HURT, *Assistant Director*
IRENE SHAWN MCNULTY, *Assistant Director*

EDWARD M. GRAMLICH

OFFICE OF STAFF DIRECTOR FOR MANAGEMENT

STEPHEN R. MALPHRUS, *Staff Director*
JOHN R. WEIS, *Adviser*

MANAGEMENT DIVISION

STEPHEN J. CLARK, *Associate Director, Finance Function*
DARRELL R. PAULEY, *Associate Director, Human Resources Function*
SHEILA CLARK, *EEO Programs Director*

DIVISION OF SUPPORT SERVICES

ROBERT E. FRAZIER, *Director*
GEORGE M. LOPEZ, *Assistant Director*
DAVID L. WILLIAMS, *Assistant Director*

DIVISION OF INFORMATION TECHNOLOGY

RICHARD C. STEVENS, *Director*
MARIANNE M. EMERSON, *Deputy Director*
TILLENA G. CLARK, *Assistant Director*
MAUREEN HANNAN, *Assistant Director*
PO KYUNG KIM, *Assistant Director*
RAYMOND H. MASSEY, *Assistant Director*
EDWARD T. MULRENIN, *Assistant Director*
DAY W. RADEBAUGH, JR., *Assistant Director*

DIVISION OF RESERVE BANK OPERATIONS AND PAYMENT SYSTEMS

LOUISE L. ROSEMAN, *Director*
PAUL W. BETTGE, *Assistant Director*
KENNETH D. BUCKLEY, *Assistant Director*
JACK DENNIS, JR., *Assistant Director*
JOSEPH H. HAYES, JR., *Assistant Director*
JEFFREY C. MARQUARDT, *Assistant Director*
MARSHA REIDHILL, *Assistant Director*
JEFF STEHM, *Assistant Director*

OFFICE OF THE INSPECTOR GENERAL

BARRY R. SNYDER, *Inspector General*
DONALD L. ROBINSON, *Deputy Inspector General*

Federal Open Market Committee and Advisory Councils

FEDERAL OPEN MARKET COMMITTEE

MEMBERS

ALAN GREENSPAN, *Chairman*

WILLIAM J. MCDONOUGH, *Vice Chairman*

EDWARD G. BOEHNE
ROGER W. FERGUSON, JR.
EDWARD M. GRAMLICH
EDWARD W. KELLEY, JR.
LAURENCE H. MEYER
ROBERT D. MCTEER, JR.
MICHAEL H. MOSKOW
GARY H. STERN

ALTERNATE MEMBERS

J. ALFRED BROADDUS, JR.
JACK GUYNN
JERRY L. JORDAN
ROBERT T. PARRY
JAMIE B. STEWART, JR.

STAFF

DONALD L. KOHN, *Secretary and Economist*
NORMAND R.V. BERNARD, *Deputy Secretary*
LYNN S. FOX, *Assistant Secretary*
GARY P. GILLUM, *Assistant Secretary*
J. VIRGIL MATTINGLY, JR., *General Counsel*
THOMAS C. BAXTER, JR., *Deputy General Counsel*
KAREN H. JOHNSON, *Economist*
MICHAEL J. PRELL, *Economist*
CHRISTINE M. CUMMING, *Associate Economist*
DAVID H. HOWARD, *Associate Economist*
WILLIAM C. HUNTER, *Associate Economist*
RICHARD W. LANG, *Associate Economist*
DAVID E. LINDSEY, *Associate Economist*
ARTHUR J. ROLNICK, *Associate Economist*
HARVEY ROSENBLUM, *Associate Economist*
LAWRENCE SLIFMAN, *Associate Economist*
DAVID J. STOCKTON, *Associate Economist*

PETER R. FISHER, *Manager, System Open Market Account*

FEDERAL ADVISORY COUNCIL

ROBERT W. GILLESPIE, *President*
KENNETH D. LEWIS, *Vice President*

LAWRENCE K. FISH, First District
DOUGLAS A. WARNER III, Second District
RONALD L. HANKEY, Third District
ROBERT W. GILLESPIE, Fourth District
KENNETH D. LEWIS, Fifth District
STEPHEN A. HANSEL, Sixth District
NORMAN R. BOBINS, Seventh District
KATIE S. WINCHESTER, Eighth District
RICHARD A. ZONA, Ninth District
C. Q. CHANDLER, Tenth District
RICHARD W. EVANS, JR., Eleventh District
WALTER A. DODS, JR., Twelfth District

JAMES ANNABLE, *Co-Secretary*
WILLIAM J. KORSVIK, *Co-Secretary*

CONSUMER ADVISORY COUNCIL

YVONNE S. SPARKS STRAUTHER, St. Louis, Missouri, *Chairman*
DWIGHT GOLANN, Boston, Massachusetts, *Vice Chairman*

LAUREN ANDERSON, New Orleans, Louisiana
WALTER J. BOYER, Garland, Texas
WAYNE-KENT A. BRADSHAW, Los Angeles, California
MALCOLM M. BUSH, Chicago, Illinois
MARY ELLEN DOMEIER, New Ulm, Minnesota
JEREMY D. EISLER, Biloxi, Mississippi
ROBERT F. ELLIOT, Prospect Heights, Illinois
JOHN C. GAMBOA, San Francisco, California
ROSE M. GARCIA, Las Cruces, New Mexico
VINCENT J. GIBLIN, West Caldwell, New Jersey
KARLA S. IRVINE, Cincinnati, Ohio
WILLIE M. JONES, Boston, Massachusetts
JANET C. KOEHLER, Ponte Vedra, Florida
GWENN S. KYZER, Allen, Texas
JOHN C. LAMB, Sacramento, California
ANNE S. LI, Trenton, New Jersey
MARTHA W. MILLER, Greensboro, North Carolina
DANIEL W. MORTON, Columbus, Ohio
CAROL J. PARRY, New York, New York
PHILIP PRICE, JR., Philadelphia, Pennsylvania
MARTA RAMOS, San Juan, Puerto Rico
DAVID L. RAMP, St. Paul, Minnesota
MARILYN ROSS, Omaha, Nebraska
ROBERT G. SCHWEMM, Lexington, Kentucky
DAVID J. SHIRK, Eugene, Oregon
GAIL M. SMALL, Lame Deer, Montana
GARY S. WASHINGTON, Chicago, Illinois
ROBERT L. WYNN, II, Madison, Wisconsin

THRIFT INSTITUTIONS ADVISORY COUNCIL

WILLIAM A. FITZGERALD, Omaha, Nebraska, *President*
F. WELLER MEYER, Falls Church, Virginia, *Vice President*

GAROLD R. BASE, Plano, Texas
JAMES C. BLAINE, Raleigh, North Carolina
DAVID A. BOCHNOWSKI, Munster, Indiana
LAWRENCE L. BOUDREAUX III, New Orleans, Louisiana
RICHARD P. COUGHLIN, Stoneham, Massachusetts
BABETTE E. HEIMBUCH, Santa Monica, California
THOMAS S. JOHNSON, New York, New York
WILLIAM A. LONGBRAKE, Seattle, Washington
KATHLEEN E. MARINANGEL, McHenry, Illinois
ANTHONY J. POPP, Marietta, Ohio

Federal Reserve Board Publications

For ordering assistance, write PUBLICATIONS SERVICES, MS-127, Board of Governors of the Federal Reserve System, Washington, DC 20551, or telephone (202) 452-3244, or FAX (202) 728-5886. *You may also use the publications order form available on the Board's World Wide Web site* (http://www.federalreserve.gov). *When a charge is indicated, payment should accompany request and be made payable to the Board of Governors of the Federal Reserve System or may be ordered via Mastercard, Visa, or American Express. Payment from foreign residents should be drawn on a U.S. bank.*

BOOKS AND MISCELLANEOUS PUBLICATIONS

THE FEDERAL RESERVE SYSTEM—PURPOSES AND FUNCTIONS. 1994. 157 pp.

ANNUAL REPORT, 1998.

ANNUAL REPORT: BUDGET REVIEW, 1999.

FEDERAL RESERVE BULLETIN. Monthly. $25.00 per year or $2.50 each in the United States, its possessions, Canada, and Mexico. Elsewhere, $35.00 per year or $3.00 each.

ANNUAL STATISTICAL DIGEST: period covered, release date, number of pages, and price.

1981	October 1982	239 pp.	$ 6.50
1982	December 1983	266 pp.	$ 7.50
1983	October 1984	264 pp.	$11.50
1984	October 1985	254 pp.	$12.50
1985	October 1986	231 pp.	$15.00
1986	November 1987	288 pp.	$15.00
1987	October 1988	272 pp.	$15.00
1988	November 1989	256 pp.	$25.00
1980–89	March 1991	712 pp.	$25.00
1990	November 1991	185 pp.	$25.00
1991	November 1992	215 pp.	$25.00
1992	December 1993	215 pp.	$25.00
1993	December 1994	281 pp.	$25.00
1994	December 1995	190 pp.	$25.00
1990–95	November 1996	404 pp.	$25.00

SELECTED INTEREST AND EXCHANGE RATES—WEEKLY SERIES OF CHARTS. Weekly. $30.00 per year or $.70 each in the United States, its possessions, Canada, and Mexico. Elsewhere, $35.00 per year or $.80 each.

REGULATIONS OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM.

ANNUAL PERCENTAGE RATE TABLES (Truth in Lending—Regulation Z) *Vol. I* (Regular Transactions). 1969. 100 pp. *Vol. II* (Irregular Transactions). 1969. 116 pp. Each volume $5.00.

GUIDE TO THE FLOW OF FUNDS ACCOUNTS. 672 pp. $8.50 each.

FEDERAL RESERVE REGULATORY SERVICE. Loose-leaf; updated monthly. (Requests must be prepaid.)

Consumer and Community Affairs Handbook. $75.00 per year.

Monetary Policy and Reserve Requirements Handbook. $75.00 per year.

Securities Credit Transactions Handbook. $75.00 per year.

The Payment System Handbook. $75.00 per year.

Federal Reserve Regulatory Service. Four vols. (Contains all four Handbooks plus substantial additional material.) $200.00 per year.

Rates for subscribers outside the United States are as follows and include additional air mail costs:

Federal Reserve Regulatory Service, $250.00 per year.

Each Handbook, $90.00 per year.

FEDERAL RESERVE REGULATORY SERVICE FOR PERSONAL COMPUTERS. CD-ROM; updated monthly.

Standalone PC. $300 per year.

Network, maximum 1 concurrent user. $300 per year.

Network, maximum 10 concurrent users. $750 per year.

Network, maximum 50 concurrent users. $2,000 per year.

Network, maximum 100 concurrent users. $3,000 per year.

Subscribers outside the United States should add $50 to cover additional airmail costs.

THE FEDERAL RESERVE ACT AND OTHER STATUTORY PROVISIONS AFFECTING THE FEDERAL RESERVE SYSTEM, as amended through October 1998. 723 pp. $20.00 each.

THE U.S. ECONOMY IN AN INTERDEPENDENT WORLD: A MULTI-COUNTRY MODEL, May 1984. 590 pp. $14.50 each.

INDUSTRIAL PRODUCTION—1986 EDITION. December 1986. 440 pp. $9.00 each.

FINANCIAL FUTURES AND OPTIONS IN THE U.S. ECONOMY. December 1986. 264 pp. $10.00 each.

FINANCIAL SECTORS IN OPEN ECONOMIES: EMPIRICAL ANALYSIS AND POLICY ISSUES. August 1990. 608 pp. $25.00 each.

RISK MEASUREMENT AND SYSTEMIC RISK: PROCEEDINGS OF A JOINT CENTRAL BANK RESEARCH CONFERENCE. 1996. 578 pp. $25.00 each.

EDUCATION PAMPHLETS

Short pamphlets suitable for classroom use. Multiple copies are available without charge.

Consumer Handbook on Adjustable Rate Mortgages

Consumer Handbook to Credit Protection Laws

A Guide to Business Credit for Women, Minorities, and Small Businesses

Series on the Structure of the Federal Reserve System

The Board of Governors of the Federal Reserve System

The Federal Open Market Committee

Federal Reserve Bank Board of Directors

Federal Reserve Banks

A Consumer's Guide to Mortgage Lock-Ins

A Consumer's Guide to Mortgage Settlement Costs

A Consumer's Guide to Mortgage Refinancings

Home Mortgages: Understanding the Process and Your Right to Fair Lending

How to File a Consumer Complaint about a Bank

Making Sense of Savings

SHOP: The Card You Pick Can Save You Money

Welcome to the Federal Reserve

When Your Home is on the Line: What You Should Know About Home Equity Lines of Credit

Keys to Vehicle Leasing

Looking for the Best Mortgage

STAFF STUDIES: Only Summaries Printed in the BULLETIN

Studies and papers on economic and financial subjects that are of general interest. Requests to obtain single copies of the full text or to be added to the mailing list for the series may be sent to Publications Services.

Staff Studies 1–158, 161, 163, 165, 166, 168, and 169 are out of print.

159. NEW DATA ON THE PERFORMANCE OF NONBANK SUBSIDIARIES OF BANK HOLDING COMPANIES, by Nellie Liang and Donald Savage. February 1990. 12 pp.
160. BANKING MARKETS AND THE USE OF FINANCIAL SERVICES BY SMALL AND MEDIUM-SIZED BUSINESSES, by Gregory E. Elliehausen and John D. Wolken. September 1990. 35 pp.
162. EVIDENCE ON THE SIZE OF BANKING MARKETS FROM MORTGAGE LOAN RATES IN TWENTY CITIES, by Stephen A. Rhoades. February 1992. 11 pp.
164. THE 1989–92 CREDIT CRUNCH FOR REAL ESTATE, by James T. Fergus and John L. Goodman, Jr. July 1993. 20 pp.
167. A SUMMARY OF MERGER PERFORMANCE STUDIES IN BANKING, 1980–93, AND AN ASSESSMENT OF THE "OPERATING PERFORMANCE" AND "EVENT STUDY" METHODOLOGIES, by Stephen A. Rhoades. July 1994. 37 pp.
170. THE COST OF IMPLEMENTING CONSUMER FINANCIAL REGULATIONS: AN ANALYSIS OF EXPERIENCE WITH THE TRUTH IN SAVINGS ACT, by Gregory Elliehausen and Barbara R. Lowrey, December 1997. 17 pp.
171. THE COST OF BANK REGULATION: A REVIEW OF THE EVIDENCE, by Gregory Elliehausen, April 1998. 35 pp.

ANTICIPATED SCHEDULE OF RELEASE DATES FOR PERIODIC RELEASES OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM (PAYMENT MUST ACCOMPANY REQUESTS)

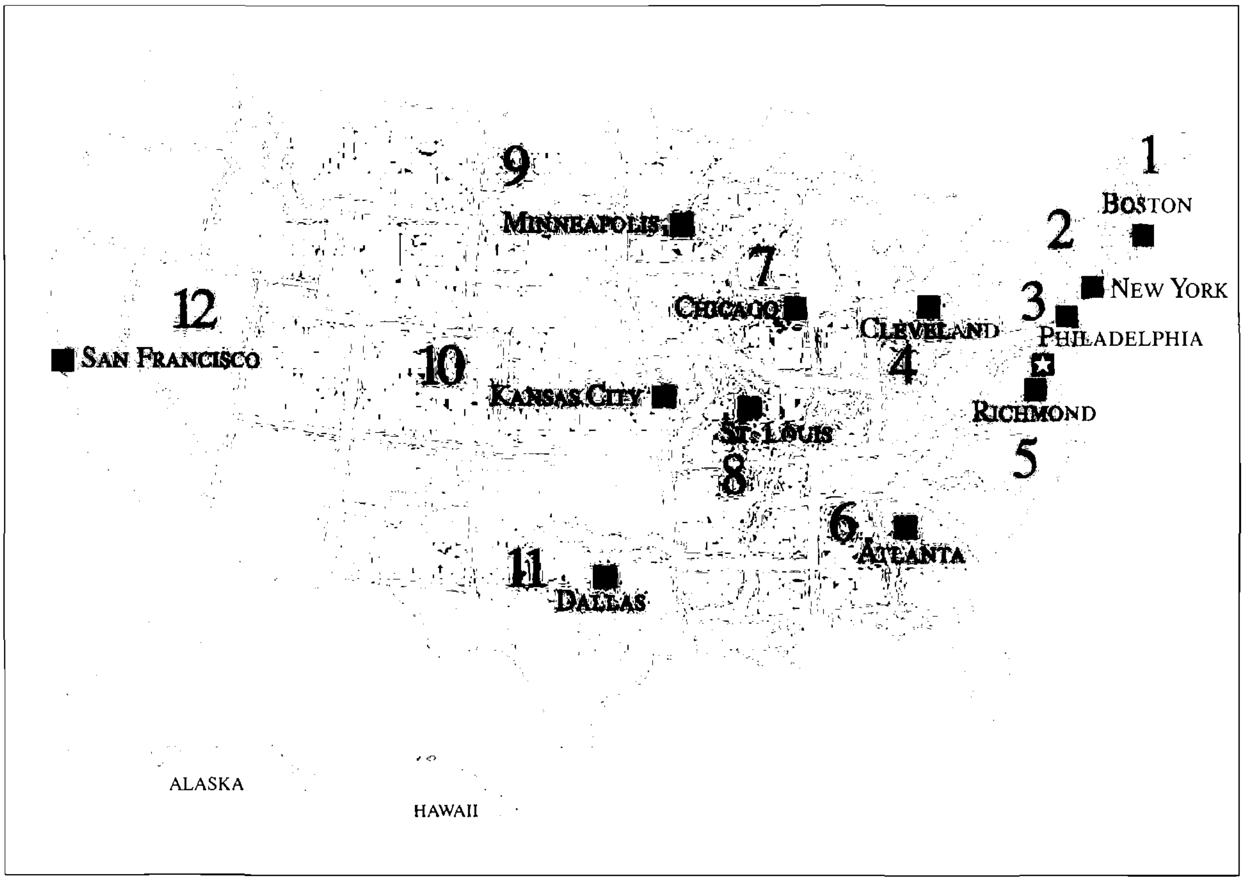
Release number and title		Annual USPS rate	Annual fax rate	Approximate release days[1]	Period or date to which data refer	Corresponding *Bulletin* table numbers[2]
Weekly Releases						
H.2.	Actions of the Board: Applications and Reports Received	$55.00	n.a.	Friday	Week ended previous Saturday	. . .
H.3.	Aggregate Reserves of Depository Institutions and the Monetary Base[3]	$20.00	n.a.	Thursday	Week ended previous Wednesday	1.20
H.4.1.	Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks[3]	$20.00	n.a.	Thursday	Week ended previous Wednesday	1.11, 1.18
H.6.	Money Stock and Debt Measures[3]	$35.00	n.a.	Thursday	Week ended Monday of previous week	1.21
H.8.	Assets and Liabilities of Commercial Banks in the United States[3]	$30.00	n.a.	Friday	Week ended previous Wednesday	1.26A–E
H.10.	Foreign Exchange Rates[3]	$20.00	$20.00	Monday	Week ended previous Friday	3.28
H.15.	Selected Interest Rates[3]	$20.00	$20.00	Monday	Week ended previous Friday	1.35
Monthly Releases						
G.5.	Foreign Exchange Rates[3]	$ 5.00	$ 5.00	First of month	Previous month	3.28
G.13.	Selected Interest Rates	$ 5.00	$ 5.00	First Tuesday of month	Previous month	1.35
G.15.	Research Library—Recent Acquisitions	No charge	n.a.	First of month	Previous month	. . .
G.17.	Industrial Production and Capacity Utilization[3]	$15.00	n.a.	Midmonth	Previous month	2.12, 2.13
G.19.	Consumer Credit[3]	$ 5.00	$ 5.00	Fifth working day of month	Second month previous	1.55, 1.56
G.20.	Finance Companies	$ 5.00	n.a.	End of month	Second month previous	1.51, 1.52

Release number and title		Annual USPS rate	Annual fax rate	Approximate release days[1]	Period or date to which data refer	Corresponding *Bulletin* table numbers[2]
Quarterly Releases						
E.2.	Survey of Terms of Business Lending	$ 5.00	$5.00	Midmonth of March, June, September, and December	February, May, August, and November	4.23
E.7.	List of Foreign Margin Stocks	No charge	n.a.	March and September	March and September	. . .
E.11.	Geographical Distribution of Assets and Liabilities of Major Foreign Branches of U.S. Banks	$ 5.00	n.a.	15th of March, June, September, and December	Previous quarter	. . .
E.15.	Agricultural Finance Databook	$ 5.00	n.a.	End of March, June, September, and December	January, April, July, and October	. . .
E.16.	Country Exposure Lending Survey	$ 5.00	n.a.	January, April, July, and October	Previous quarter	. . .
Z.1.	Flow of Funds Accounts of the United States: Flows and Outstandings[3]	$25.00	n.a.	Second week of March, June, September, and December	Previous quarter	1.57, 1.58, 1.59, 1.60
Annual Release						
C.2.	Aggregate Summaries of Annual Surveys of Securities Credit Extension	$ 5.00	n.a.	February	End of previous June	. . .

1. Please note that for some releases there is normally a certain variability in the release date because of reporting or processing procedures. Moreover, for all series unusual circumstances may, from time to time, result in a release date being later than anticipated.
2. The data in some releases are also reported in the *Bulletin* statistical appendix.
3. These releases are also available on the Board's World Wide Web site (http://www.federalreserve.gov) under **Research and Data,** Statistical Releases and Historical Data.

n.a. Not available.

Maps of the Federal Reserve System



LEGEND

Both pages

■ Federal Reserve Bank city

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

Facing page

• Federal Reserve Branch city

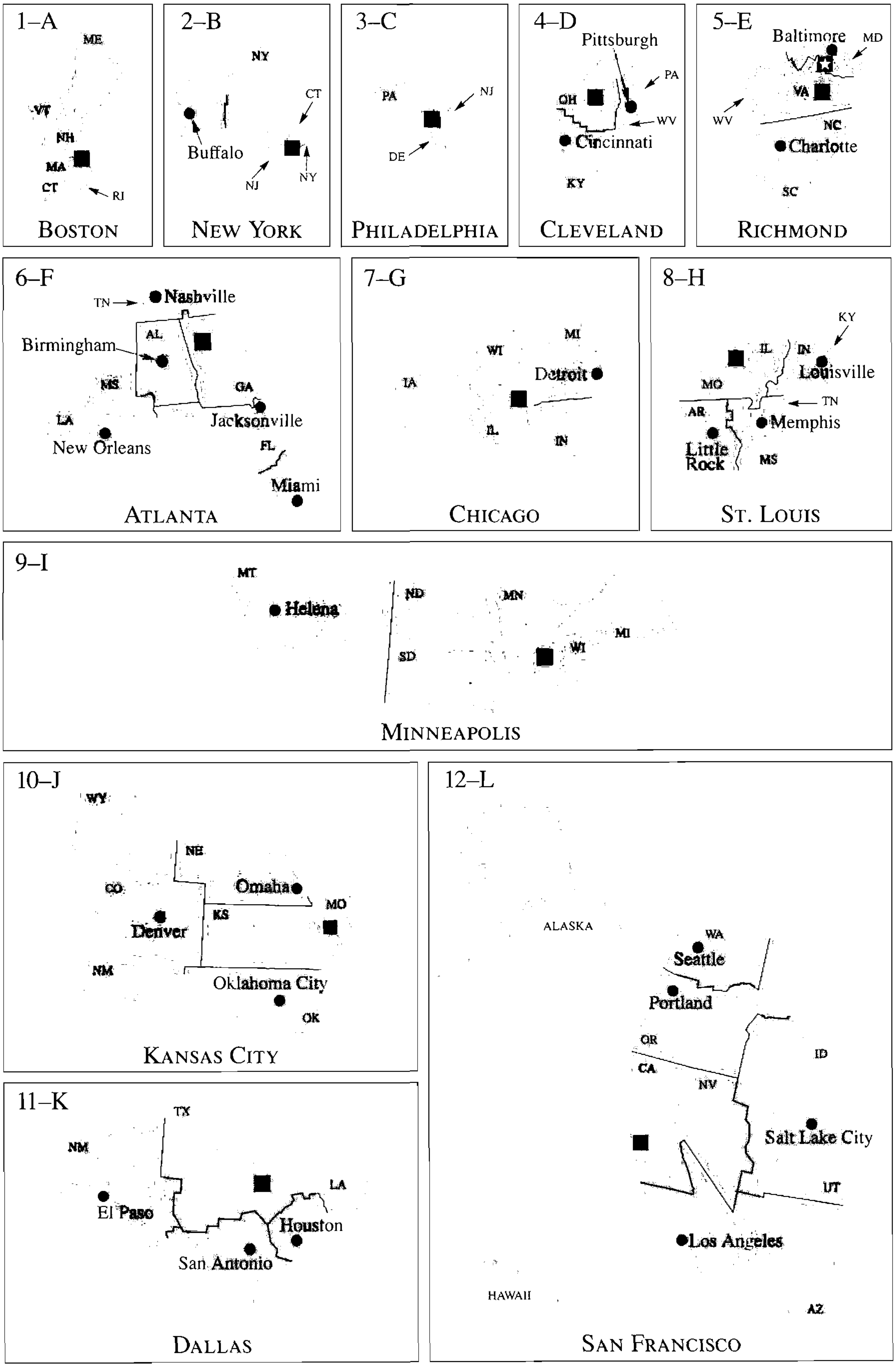
— Branch boundary

NOTE

The Federal Reserve officially identifies Districts by number and Reserve Bank city (shown on both pages) and by letter (shown on the facing page).

In the 12th District, the Seattle Branch serves Alaska, and the San Francisco Bank serves Hawaii.

The System serves commonwealths and territories as follows: the New York Bank serves the Commonwealth of Puerto Rico and the U.S. Virgin Islands; the San Francisco Bank serves American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. The Board of Governors revised the branch boundaries of the System most recently in February 1996.


1–A
ME
VT
NH
MA
CT
RI
BOSTON
2–B
NY
CT
Buffalo
NJ
NY
NEW YORK
3–C
PA
NJ
DE
PHILADELPHIA
4–D
Pittsburgh
PA
OH
WV
Cincinnati
KY
CLEVELAND
5–E
Baltimore
MD
VA
WV
NC
Charlotte
SC
RICHMOND
6–F
TN
Nashville
AL
Birmingham
MS
GA
LA
Jacksonville
New Orleans
FL
Miami
ATLANTA
7–G
MI
WI
IA
Detroit
IL
IN
CHICAGO
8–H
KY
IL
IN
Louisville
MO
TN
AR
Memphis
Little Rock
MS
ST. LOUIS
9–I
MT
Helena
ND
MN
MI
SD
WI
MINNEAPOLIS
10–J
WY
NE
CO
Omaha
MO
KS
Denver
NM
Oklahoma City
OK
KANSAS CITY
11–K
TX
NM
LA
El Paso
Houston
San Antonio
DALLAS
12–L
ALASKA
WA
Seattle
Portland
OR
ID
CA
NV
Salt Lake City
UT
Los Angeles
HAWAII
AZ
SAN FRANCISCO

Federal Reserve Banks, Branches, and Offices

FEDERAL RESERVE BANK branch, or *facility*	Zip	Chairman / Deputy Chairman	President / First Vice President	Vice President in charge of branch
BOSTON*	02106	William C. Brainard	Cathy E. Minehan	
		William O. Taylor	Paul M. Connolly	
NEW YORK*	10045	John C. Whitehead	William J. McDonough	
		Peter G. Peterson	Jamie B. Stewart, Jr.	
Buffalo	14240	Bal Dixit		Carl W. Turnipseed[1]
PHILADELPHIA	19105	Joan Carter	Edward G. Boehne	
		Charisse R. Lillie	William H. Stone, Jr.	
CLEVELAND*	44101	G. Watts Humphrey, Jr.	Jerry L. Jordan	
		David H. Hoag	Sandra Pianalto	
Cincinnati	45201	George C. Juilfs		Barbara B.Henshaw
Pittsburgh	15230	John T. Ryan, III		Robert B. Schaub
RICHMOND*	23219	Claudine B. Malone	J. Alfred Broaddus, Jr.	
		Jeremiah J. Sheehan	Walter A. Varvel	
Baltimore	21203	Daniel R. Baker		William J. Tignanelli[1]
Charlotte	28230	Joan H. Zimmerman		Dan M. Bechter[1]
ATLANTA	30303	John F. Wieland	Jack Guynn	
		Paula Lovell	Patrick K. Barron	James M. McKee
Birmingham	35283	V. Larkin Martin		Andre T. Anderson
Jacksonville	32231	Marsha G. Rydberg		Robert J. Slack
Miami	33152	Mark T. Sodders		James T. Curry III
Nashville	37203	N. Whitney Johns		Melvyn K. Purcell[1]
New Orleans	70161	R. Glenn Pumpelly		Robert J. Musso[1]
CHICAGO*	60690	Lester H. McKeever, Jr.	Michael H. Moskow	
		Arthur C. Martinez	William C. Conrad	
Detroit	48231	Florine Mark		David R. Allardice[1]
ST. LOUIS	63166	Susan S. Elliott	William Poole	
		Charles W. Mueller	W. LeGrande Rives	
Little Rock	72203	Diana T. Hueter		Robert A. Hopkins
Louisville	40232	Roger Reynolds		Thomas A. Boone
Memphis	38101	Mike P. Sturdivant, Jr.		Martha Perine Beard
MINNEAPOLIS	55480	David A. Koch	Gary H. Stern	
		James J. Howard	Colleen K. Strand	
Helena	59601	Thomas O. Markle		Samuel H. Gane
KANSAS CITY	64198	Jo Marie Dancik	Thomas M. Hoenig	
		Terrence P. Dunn	Richard K. Rasdall	
Denver	80217	Kathryn A. Paul		Carl M. Gambs[1]
Oklahoma City	73125	Larry W. Brummett		Kelly J. Dubbert
Omaha	68102	Gladys Styles Johnston		Steven D. Evans
DALLAS	75201	Roger R. Hemminghaus	Robert D. McTeer, Jr.	
		James A. Martin	Helen E. Holcomb	
El Paso	79999	Patricia Z. Holland-Branch		Sammie C. Clay
Houston	77252	Edward O. Gaylord		Robert Smith, III[1]
San Antonio	78295	Patty P. Mueller		James L. Stull[1]
SAN FRANCISCO	94120	Gary G. Michael	Robert T. Parry	
		Nelson C. Rising	John F. Moore	
Los Angeles	90051	Lonnie Kane		Mark L. Mullinix[1]
Portland	97208	Nancy Wilgenbusch		Raymond H. Laurence[1]
Salt Lake City	84125	Barbara L. Wilson		Andrea P. Wolcott
Seattle	98124	Richard R. Sonstelie		Gordon R. G. Werkema[2]

*Additional offices of these Banks are located at Windsor Locks, Connecticut 06096; East Rutherford, New Jersey 07016; Utica at Oriskany, New York 13424; Columbus, Ohio 43216; Columbia, South Carolina 29210; Charleston, West Virginia 25311; Des Moines, Iowa 50306; Indianapolis, Indiana 46204; Milwaukee, Wisconsin 53202; and Peoria, Illinois 61607.

1. Senior Vice President.
2. Executive Vice President

Index to Volume 85

GUIDE TO PAGE REFERENCES IN MONTHLY ISSUES

Issue	*Text*	*"A" Pages*	*Index to tables*	*Issue*	*Text*	*"A" pages*	*Index to tables*
January	1– 80	1–76	66	July	459–528	1–78	66
February	81–146	1–90	76	August	529–598	1–86	76
March	147–216	1–78	64	September	599–654	1–92	80
April	217–286	1–78	64	October	655–708	1–78	66
May	287–368	1–90	76	November	709–784	1–88	76
June	369–458	1–82	64	December	785–838	1–94	64

The "A" pages consist of statistical tables and reference information.

Statistical tables are indexed separately (see p. A64 of this issue).