VOLUME 76 □ NUMBER 12 □ DECEMBER 1990

FEDERAL RESERVE BULLETIN

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, WASHINGTON, D.C.

PUBLICATIONS COMMITTEE

Joseph R. Coyne, *Chairman* □ S. David Frost □ Griffith L. Garwood □ Donald L. Kohn □ J. Virgil Mattingly, Jr. □ Michael J. Prell □ Edwin M. Truman

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 Mendelle T. Berenson, the Graphics Center under the direction of Peter G. Thomas, and Publications Services supervised by Linda C. Kyles.

Table of Contents

The Transmission Channels of Monetary Policy: How Have They Changed?

Eileen Mauskopf of the Board's Division of Research and Statistics prepared this article. *The author acknowledges the research assistance of Sandra Cannon and the advice and assistance of Flint Brayton. Jeffrey Fuhrer and Peter Tinsley wrote the appendix.*

Over the past two decades, important structural changes in the economy—resulting from institutional, regulatory, and technological developments—may have altered the nature and stability of the channels through which monetary policy affects the level of economic activity in the short run. For example, the abandonment of fixed exchange rates in the early 1970s and the integration of world capital markets have increased the scope for monetary policy to affect a growing traded-goods sector. The introduction of adjustable-rate mortgages, the removal of regulatory ceilings on deposit rates, and the development of secondary mortgage markets may have altered the interest sensitivity of residential construction activity. The runup in corporate debt—a consequence of the surge of takeovers and leveraged buyouts in the 1980s—may have altered the response of business capital spending plans to interest rates. And the increased sensitivity to interest rates of household interest income, owing to the removal of deposit rate ceilings, and of household interest payments, owing to the growing share of adjustable-rate financial liabilities, may have had some bearing on consumption behavior. Such developments could greatly affect not only the ways in which monetary policy influences the economy but also the strength of its overall influence.

Assessing the scope and magnitude of possible structural changes in the economy that may have affected the transmission channels of monetary policy is a difficult task.[1] The approach employed in this article is to use the MPS model of the U.S. economy to examine whether the key links between monetary policy and economic activity appear to have changed appreciably over the past decade. The MPS model is a large-scale econometric model of the United States that reflects mainstream macroeconomic theory and standard econometric practice. It was developed in the late 1960s in collaboration with university economists and has been maintained and updated by the staff of the Federal Reserve Board over the past twenty years.[2]

1. Other studies of the implications for monetary policy of the changing structure of the U.S. economy include the following: M.A. Akhtar and Ethan S. Harris, "Monetary Policy Influence on the Economy—An Empirical Analysis," *Quarterly Review*, Federal Reserve Bank of New York, vol. 11 (Winter 1986–87), pp. 19–34; Barry Bosworth, "Institutional Change and the Efficacy of Monetary Policy," *Brookings Papers on Economic Activity, 1:1989*, pp. 77–110; Benjamin M. Friedman, "Changing Effects of Monetary Policy on Real Economic Activity," *Monetary Policy Issues in the 1990s* (Federal Reserve Bank of Kansas City, August 30–September 1, 1989), pp. 55–111; and George A. Kahn, "The Changing Interest Sensitivity of the U.S. Economy," *Economic Review*, Federal Reserve Bank of Kansas City, vol. 74 (November 1989), pp. 13–34. In these studies, conclusions are mixed, with some sectors found to be less sensitive to interest rates over recent years and others to be more sensitive. The papers by Friedman and Kahn, the only ones that include an aggregate assessment, suggest that the net effect of these changes to sectoral interest-rate sensitivities is a reduced sensitivity of aggregate GNP to interest rates.

2. For a detailed description of the MPS model, see Flint Brayton and Eileen Mauskopf, "The Federal Reserve Board MPS quarterly econometric model of the US economy," *Economic Modelling*, vol. 3 (July 1985), pp. 170–292, and "Structure and Uses of the MPS Quarterly Econometric Model of the United States," *Federal Reserve Bulletin*, vol. 73 (February 1987), pp. 93–109. Probably the most important difference between the theory embedded in the MPS model and that espoused by one of the more popular schools of macroeconomic theory since the 1970s is in the modeling of expectations formation. In the MPS model, expected values of future variables are generally assumed to be based on past values of these variables. The alternative view—the rational expectations approach—argues that economic agents are motivated to use all available information in forming expectations, including their knowledge of the structure of the economy. Generally, the implementation of this approach sets expected values of future variables equal to the forecasts generated by the model in which the expectations appear.

The approach taken here is not without its shortcomings. Evidence that the equations in the model have not remained constant over time could reflect either structural changes in the economy or some underlying misspecification of the relationships in the equations. To make the case for structural change rather than misspecification, we augment the results of standard statistical tests with evidence that the properties of the equation are consistent with accepted economic theory and that observed shifts are consistent with the specific hypotheses regarding change. In addition, the simulation and forecasting properties of this model have been well documented and thus provide some perspective on the strengths and weaknesses of the model, which aids in interpreting the tests undertaken for structural change.

The first part of this article describes the three main channels through which monetary policy actions affect real spending in the model—the cost of capital, the value of assets, and the foreign exchange value of the dollar. Model simulations quantify the relative importance of each channel in the current structure of the model, which is estimated using economic data from the past thirty years.

The second and third sections examine, in turn, the effect of monetary policy on financial market variables and the influence of those variables on spending decisions. Specifically, the second section examines whether the relationships underpinning the demand for money, the term structure of interest rates, the value of corporate stock, and the foreign exchange value of the dollar changed appreciably over the 1980s. The third section explores whether the manner in which these financial variables affect consumption and investment has changed in the past ten years. To study the question of structural change, these sections present results of statistical tests aimed at identifying changes in the relationship between economic variables. (For an alternative approach to the issue of identifying structural change, see the appendix.)

In the final section, simulations of two versions of the model are used to examine whether the changes of the past decade have, on net, raised or lowered the sensitivity of output to changes in monetary policy. The two versions represent the distinct responses of financial markets and real spending that have been found to be significantly different over the pre- and post-1980 periods.

The main findings of the article are as follows: The sensitivity of aggregate output to changes in monetary policy is about the same now as it was in the 1960s and 1970s, until about the third or fourth year after a change in short-term interest rates. After the first few years, the interest sensitivity of aggregate output to a change in short-term rates is smaller today than it was in the earlier decades. The changes in the response of aggregate output to changes in interest rates mask some larger, but mostly offsetting, changes in the responses of different sectors. Both residential and nonresidential construction are less sensitive to interest rates. In residential construction, the reduction in sensitivity reflects the absence of disintermediation-induced episodes of credit rationing (disruptions in the supply of credit that occurred when funds dried up during periods of high interest rates); it does not reflect any reduction in the direct effect of interest rates on the demand for housing. The traded goods sector has become more responsive to changes in interest rates because the exchange rate has become more sensitive to the difference between U.S. and foreign interest rates. Monetary policy affects consumption spending and investment in producers' durable equipment much the same as before. In financial markets, long-term interest rates appear to have responded more quickly in the 1980s than they did before to changes in short-term rates.

Overview of Monetary Policy Transmission Channels

In the MPS model, the structure of the monetary transmission mechanism draws on two critical characteristics of the general "Keynesian" paradigm. First, changes in the supply of real money balances affect spending only through changes in interest rates. There is no direct channel from a change in money balances

1. Effects on spending of a reduction of 1 percentage point in the federal funds rate, by spending category[1]

Quarters after reduction	Investment			Consumption	Net exports	Total
	Residential construction	Business fixed	Inventory			
	Billions of 1982 dollars					
4	5.1	1.1	1.5	4.9	2.7	15.3
8	6.9	3.7	1.9	7.3	7.8	27.6
12	9.5	8.5	1.1	13.9	10.2	43.2
16	12.7	14.3	.9	17.3	6.4	51.6
20	13.1	20.7	.7	26.1	2.2	62.8
	Percent of total effect					
4	33	7	10	32	18	100
8	25	13	7	26	28	100
12	22	20	3	32	24	100
16	25	28	2	34	12	100
20	21	33	1	42	4	100

1. These results trace the effect of the changes in the federal funds rate on financial markets and, through financial markets, on final demand categories. Not included are multiplier-accelerator interactions or feedbacks from goods markets to financial markets or prices. The initial conditions are those of 1985:1. Details may not sum to totals because of rounding.

to spending. Second, these changes in interest rates generally imply changes in real rates in the short run because wage and price expectations adjust only sluggishly. This article thus identifies the stance of monetary policy with movements in short-term interest rates—specifically the overnight federal funds rate, which is commonly regarded to be controllable by Federal Reserve actions.

In the MPS model, changes in the central bank's monetary stance affect spending and output directly through three primary channels: the influence of the cost of borrowed funds on business and household investment decisions; the influence of the value of wealth on consumption; and the influence of the exchange rate on the volume of imports and exports. Although these channels are not independent of one another, the direct quantitative importance of each can be gauged by tracing the effects of a 1 percentage point reduction in the federal funds rate on spending when each channel operates alone (tables 1 and 2). To emphasize the interest sensitivity of each component of

2. Effects on spending of a reduction of 1 percentage point in the federal funds rate, by transmission channel[1]

Quarters after reduction	Cost of capital			Wealth	Exchange rate	Total
	Investment[2]	Consumption	Total	Consumption	Net exports	
	Billions of 1982 dollars					
4	7.7	2.8	10.5	2.1	2.7	15.3
8	12.5	1.3	13.8	6.0	7.8	27.6
12	19.1	.6	19.7	13.3	10.2	43.2
16	27.9	.5	28.4	16.8	6.4	51.6
20	34.5	.2	34.7	25.9	2.2	62.8
	Percent of total effect					
4	50	18	68	14	18	100
8	45	5	50	22	28	100
12	45	1	46	31	24	100
16	55	1	56	33	12	100
20	55	*	55	41	4	100
MEMO						
Average percentage	...	...	55	28	17	100

1. See note to table 1.
2. Includes residential construction, business fixed investment, and inventory investment. See table 1 for details.
* Less than 0.5 percent.

spending, no feedback is allowed from one sector's spending to another sector's spending. In addition, wages and prices are held fixed so that the change in the federal funds rate is a change of the same magnitude in the real rate of interest.

The influence of the federal funds rate on the cost of capital and through the cost of capital on consumption and investment is the largest of the three channels and accounts, on average, for about 55 percent of the total direct effect. The cost of capital is a measure of the rate of return on an investment that is necessary to cover the costs of financing, depreciation, and taxes. Financing costs, in turn, consist of the interest paid on bank loans or marketable debt and the costs of raising funds in the equity market. In some instances, such as inventory investment, spending behavior appears to be sensitive to movements in short-term interest rates. For longer-lived investment, such as business fixed investment or residential construction, long-term interest rates are more relevant to the investment decision.

Variations in the cost of capital alter the desired proportions of capital and labor in production, the desired stock of housing relative to income, and the desired stock of consumer durables relative to income. A decline in the cost of capital increases the desired stock of capital, and spending consequently increases relative to a baseline of higher interest rates—initially to obtain the additional capital and then to offset the depreciation on the larger stock of capital. The cost of capital has its largest effects on business fixed investment and residential construction activity. The pattern of cost-of-capital effects over time reflects the lag between a change in the federal funds rate and changes in long-term interest rates and also between changes in these interest rates and changes in investment.

In terms of the direct effect over five years, a change in the stock of wealth is next in importance in transmitting changes in the federal funds rate to changes in spending: It contributes on average 28 percent of the total direct effects. In the MPS model, a change in wealth directly affects only consumption spending. The timing of the effect of changes in wealth on consumption shown in table 2 takes into account the lag between changes in the federal funds rate and changes in the corporate bond rate, the yield on equity, and the price of land.[3]

Finally, a decline in U.S. interest rates leads to a depreciation of the dollar, which boosts net exports as domestically produced goods become more competitive. This channel contributes, on average, 17 percent of the total direct effects. The magnitude and the timing of the response of net exports reflect the estimated lag between changes in the exchange rate and changes in import and export prices and between changes in these prices and changes in the demand for imports and exports. The calculated contribution of this channel is based on the assumption that foreign interest rates do not respond to the decline in U.S. interest rates, and thus it tends to overstate the exchange rate influence should foreign monetary authorities correspondingly reduce foreign interest rates.

Comparing the estimates in tables 1 and 2 with calculations DeLeeuw and Gramlich made more than twenty years ago using an early version of the MPS model provides an interesting historical perspective.[4] As they are in the current structure of the model, the cost of capital and the value of wealth were of greatest importance for the transmission of monetary policy. But the link between credit rationing and residential construction, rather than variations in the exchange rate, was identified as the third channel of transmission. This difference

3. Because equity and land values are the capitalized values of the income flow expected from the respective assets, the precise effect of a change in the federal funds rate on wealth depends on the level from which the interest rate is assumed to be reduced. For example, if the interest rate fell from 5.0 percent to 4.0 percent, the market value of wealth would rise 20 percent, given a sufficient length of time. If, instead, the interest rate were 9.0 percent, the percentage increase in wealth would be approximately 11 percent for the same 1 percentage point reduction. In tables 1 and 2, the federal funds rate averaged 7.7 percent in the base run so that the effective decline in the interest rate in tables 1 and 2 is 13 percent.

4. Frank de Leeuw and Edward M. Gramlich, "The Channels of Monetary Policy: A Further Report on the Federal Reserve–MIT Econometric Model," *Federal Reserve Bulletin*, vol. 55 (June 1969), pp. 472–91.

3. Effects of changes in monetary policy on selected economic variables[1]

Variable	Quarters after change						
	1	2	4	8	12	16	20
	Partial model: Reduction of 1 percentage point in the federal funds rate						
Real GNP (billions of dollars)	3.10	6.50	15.30	27.60	43.20	51.60	62.80
(percent)	.10	.20	.40	.70	1.10	1.30	1.50
Federal funds rate (percentage points)	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Corporate bond rate (percentage points)	-.19	-.21	-.28	-.38	-.68	-.92	-.98
Dividend-price ratio (percentage points)	-.04	-.07	-.12	-.17	-.31	-.43	-.50
Exchange rate (percent)	-1.80	-1.90	-2.30	-1.40	-.70	.30	-.60
M2 (percent)	.30	.70	1.40	2.30	1.90	1.30	.70
	Full model: Phased increase of 1.5 percent in level of M2						
Real GNP (percent)	.10	.10	.40	.90	1.40	1.20	-.50
GNP implicit price deflator (percent)	.00	.00	.10	.40	.90	1.80	2.70
Federal funds rate (percentage points)	-.92	-.43	-.63	-.15	.50	1.98	.71
M2 (percent)	.25	.50	1.00	1.50	1.50	1.50	1.50

1. The top panel corresponds to the simulation reported in tables 1 and 2, which does not allow for multiplier-accelerator interactions or feedbacks from the goods market to financial markets and prices.

reflects some of the structural changes described at the beginning of this article. In the 1960s, variations in the exchange rate were infrequent because exchange rates were, for the most part, fixed under the Bretton Woods agreement. And mortgage credit and, consequently, housing activity were at times constrained by the regulation of interest rates on savings deposits and the absence of readily available alternative sources of mortgage funds.

Although the results presented in tables 1 and 2 suggest that monetary policy exerts a powerful influence on real output, the simulation exaggerates the actual influence on the sustainable level of real output because it abstracts from two critical aspects of the economy. First, the simulation holds wages and prices constant and thus creates the impression that the supply of labor and the production of output adjust fully to the increase in demand generated by the decline in interest rates. In fact, wages and prices appear to be sufficiently flexible—albeit with some lag—so that, as aggregate demand increases and labor markets tighten, the burden of the adjustment will shift to wages and prices. In the long run, changes in the level of the money stock cause changes only in the price level and are neutral with respect to the level of real production, which is constrained by the quantities of labor and capital available, the production technology, and the rate of technological progress.

A second, related simplification is the assumption that monetary policy can peg the rate of interest for an extended period. An attempt to conduct monetary policy by permanently lowering the nominal rate of interest could eventually lead to an unstable path for real output and prices. Lowering the nominal rate of interest lowers real interest rates initially by a similar amount and leads to an increase in output, a reduction in unemployment, and an increase in inflation. But this last effect further reduces real interest rates and consequently raises output and inflation further. By holding prices fixed, the simulation reported in tables 1 and 2 hides the potential instability created by a policy that pegs nominal interest rates.

The lower panel of table 3 presents a simulation of the full model, which drops both of the simplifying assumptions made earlier.[5] A comparison of the upper and lower panels illustrates the transitory effects on real output of a change

5. In this simulation, monetary policy is characterized by a phased increase in the level of M2 of 1½ percent, rather than a once-and-for-all decrease in the federal funds rate. The 1½ percent increase in M2 is the average increase that results under the assumptions made in the top panel about prices and the federal funds rate.

in the stance of monetary policy when wages and prices are allowed to respond fully. The easing of the monetary stance stimulates demand pressures that cause a small rise in prices within one year and larger increases subsequently. The simulated path of real output is cyclical, but the effect on activity is negligible in the long run.

The Link between Money, Financial Markets, and Asset Prices

In general, the equations of the MPS model have been estimated under the assumption that, aside from the absence after 1980 of credit-rationing constraints on housing expenditures, no significant shifts have occurred in economic behavior over the estimation period of nearly thirty years. By examining in more detail the links among money, interest rates, and asset values and applying statistical tests aimed at identifying shifts in these relationships during the past ten years, this section weighs the validity of that assumption.

From Money to Short-Term Interest Rates: The Demand for Money

A stable empirical relationship between money and market interest rates has been difficult to pin down since the early 1970s. In hindsight, most of this instability can be accounted for either by innovations in financial practices designed to raise the effective rate of return on money balances or by the subsequent removal of regulations that constrained the rate of return on deposits. The creation of new depository instruments further weakened the reliability of the relation between money and interest rates.

The link between money and short-term interest rates is usually based on some theory of the transactions demand for money. For a long time, a simple model of the demand for money—popularized by William J. Baumol and James Tobin and based on models of optimal inventory behavior—was used in the MPS model and many of the other large-scale macroeconomic models to describe the behavior of M1 demand. The model tended to fit the data quite well. According to this theory, the optimal level of money balances was determined by offsetting the interest forgone in the holding of non-interest-bearing money, instead of interest-bearing but less liquid assets, with the lower transaction costs resulting from less frequent switching between money and interest-bearing assets. The specification led to an inverse relation between the short-term market rate of interest and the quantity of money demanded, and to a positive relation between the level of nominal income and the quantity of money demanded.

By 1974, the fit of these equations began to deteriorate. The actual level of M1 (specifically, the demand deposit component of M1) fell far short of the quantity predicted by the equation. It is now clear that the shortfall in money growth was related to various innovations in financial markets, some designed to reduce the transactions costs of switching between money and an interest-bearing asset and others to reduce the variance and uncertainty of cash flow. The introduction and growing use of many of these techniques (for example, overdraft accounts, repurchase agreements, and remote disbursement of checks) was apparently related to the spread of computer technology in the banking industry starting in the mid-1970s. These innovations ultimately reduced the demand for the traditional medium of exchange. (For more information on this subject and others discussed in this article, see the selected reading list at the end of the article.)

At the same time, changes in regulations expanded the range of instruments that could serve as a medium of exchange, one of the more far-reaching of which was an interest-bearing checkable account for households, state and local governments, and nonprofit institutions. The increasing use of these accounts led the Federal Reserve in 1980 to distinguish M1, naming it M1A, from a slightly broader aggregate, M1B, which included these other checkable deposits (OCDs). Although the aim in creating M1B (now referred to as M1) was to construct an aggregate with a predictable and stable relationship to income and interest rates, the empirical stability of M1B was short-lived.

The demand deposit component of M1B became increasingly difficult to explain. Moreover, the emergence of two instruments that were close substitutes for the OCD component of M1B—money market mutual funds in the late 1970s and money market deposit accounts in 1982—argued for emphasizing a larger aggregate that encompassed them. Thus, over the past several years, attention has shifted to M2, where some success has been achieved in modeling aggregate M2 as a function of nominal income or consumption and the opportunity cost, defined as the excess of market rates of interest over the rates paid on M2 components. Because most M2 components bear interest rates that respond gradually to the return on market instruments such as Treasury bills, M2 is more responsive in the short run than in the long run to movements in market interest rates. Modeling the sluggish behavior of M2 rates appears to be important in specifying a stable equation for M2 demand.

The behavior of the monetary aggregates since the mid-1970s points to changes in and greater uncertainty about the relations between money and income and between money and the rate of interest. It thus has reduced the indicator value of money in gauging the present state of the economy and diminished the usefulness of money as an intermediate target in the presence of uncertainties about the economy.[6] From the perspective of the model, however, uncertainty about the demand for money is of limited practical import. The monetary authority remains capable of influencing output in the short run as long as it can directly influence the short-term interest rate. The instability of the money demand function just makes more difficult the task of estimating the change in the monetary aggregate that would accompany any given change in the short-term interest rate.

From Short-Term to Long-Term Interest Rates: The Term Structure

In the model, short-term interest rates—for example, the commercial paper rate—are important in explaining inventory behavior and expenditures on consumer durables. They are less important in explaining residential construction and business fixed investment, which are assumed to be more sensitive to longer-term rates of interest. Long-term interest rates are also important in the transmission process because of their role in explaining variations in wealth, itself a key determinant of consumption.

A standard view of the determination of long-term interest rates is that arbitrage between short-term and long-term debt instruments should equalize expected returns over common holding periods, except possibly for risk premiums. This view implies that the yield on a long-term asset, such as a corporate bond, should be a weighted average of the current and expected future short-term rates over the life of the asset. In the MPS equation, the determinants of the expected path of future short-term interest rates are assumed to be past values of the commercial paper rate and of the inflation rate. This specification, based on the work of Franco Modigliani and Robert J. Shiller, assumes that changes in the commercial paper rate ultimately are reflected in entirety in changes in the bond rate and changes in the inflation rate have only a transitory effect on the bond rate.[7] The pattern of lag coefficients is permitted to vary with the level of recent short-term rates to reflect the dependence of the duration of coupon bonds, such as corporate bonds, on the interest rate.[8]

---

6. Nevertheless, empirical evidence of a stable long-run relationship between M2 and nominal GNP supports a role for M2 as a nominal anchor for monetary policy. See Jeffrey J. Hallman, Richard D. Porter, and David H. Small, *M2 per Unit of Potential GNP as an Anchor for the Price Level*, Staff Studies 157 (Board of Governors of the Federal Reserve System, 1989).

7. Franco Modigliani and Robert J. Shiller, "Inflation, Rational Expectations and the Term Structure of Interest Rates," *Economica*, vol. 40 (February 1973), pp. 12–43. Of course, long-term interest rates do respond permanently to changes in the inflation rate to the extent that changes in the inflation rate are reflected in the commercial paper rate.

8. The higher the current short-term rate, the greater is the contribution of near-term coupon payments to the present value of the bond, and thus the shorter the duration of the bond. The hypothesis is that the duration of a bond will influence the manner in which past values of interest rates affect expected values. Specifically, for a bond of long duration, the behavior of interest rates over a long period of

4. Tests for structural stability in MPS equations

Equation and component tested for change	Probability of no structural change[1]	Nature of change in interest rate sensitivity
1. Corporate bond rate: Interest rate	.02	Faster passthrough of changes in short-term interest rate.
2. Dividend-price ratio: Interest rate	<.01	Slower passthrough of changes in long-term interest rate.
3. Exchange rate	...	Greater sensitivity to short-term interest rate based on other evidence.
4. Residential construction: Cost of capital	.99	No significant change in cost-of-capital sensitivity of desired stock,
5. Residential construction: Cost of capital and intercept	.44	but reduction in overall interest sensitivity of construction.
6. Nonresidential construction: All variables	<.01	Reduction in cost-of-capital sensitivity after 1985.
7. Producers' durable equipment: All variables	.03	No change in cost-of-capital sensitivity according to other evidence.
8. Nondurable consumption: Wealth and property income	.72	No significant change.
9. Consumer purchases of motor vehicles: Cost of capital	.86	No significant change.
10. Consumer purchases of motor vehicles: Cost of capital and intercept	.23	No significant change.
11. Other consumer durable purchases: Cost of capital	.63	No significant change.
12. Other consumer durable purchases: Cost of capital and intercept	.64	No significant change.
13. Nondurable inventory investment: Cost of capital	.58	No significant change.
14. Retail durable inventory investment: Cost of capital	.90	No significant change.
15. Nonretail durable inventory investment: Cost of capital	.16	Slight increase in sensitivity, but hypothesis of no change acceptable at usual significance levels.

1. Based on standard F test. The tests are done by estimating each equation over the full sample period, which usually begins in the 1960s and extends through 1988:4. The same equation is estimated a second time, now allowing the coefficients in question to differ pre- and post-1980. The residuals from the first and second estimations are compared. The smaller the residuals from the second regression relative to those from the first—corrected for the number of coefficients permitted to change—the less probable is the hypothesis that there has been no structural change. The usual convention in statistical work of this sort is to accept the hypothesis of no change if the F statistic is 5 percent or greater.

The institutional changes noted earlier—in foreign exchange markets, in housing finance, and in household and corporate balance sheets—did not in themselves necessitate any change in the behavior of the corporate bond rate in the 1980s. Nevertheless, the relation between the bond rate and its determinants may have changed because the assumptions underlying the formation of expectations of future short-term interest rates—that they are based on past short-term interest rates and inflation rates—might not be appropriate in all circumstances. A popular alternative view of the expectations process—particularly compelling in the description of financial markets—emphasizes the forward-looking nature of expectations, in which informed judgments about the future course of events are based on knowledge of the structure of the economy, including the process whereby economic policy is formed. Although such "rational" expectations may at times be consistent with using past values of a particular variable to forecast its future values, the conditions under which this procedure is optimal are relatively restrictive.

history is important in forming expectations about future rates; for a bond of shorter duration, the more recent pattern of interest rates is important for the formation of expectations.

The MPS equation for the corporate bond rate is subjected to a standard statistical test to determine whether the relation between the corporate bond rate and past short-term interest rates has remained constant over time. This test allows the pattern of coefficients on the paper rate to vary between the 1960s and 1970s as compared with the 1980s but preserves the long-run properties of the equation. Thus, changes in the commercial paper rate are ultimately reflected in entirety in the bond rate.

The result of this test suggests that the behavior of the bond rate in relation to its determinants has changed over the 1980s and that the change has been in the direction of shortening the lag between changes in the short-term interest rate and changes in the bond rate (table 4, line 1). In the 1960s and 1970s, a rise of 1 percentage point in the commercial paper rate raises the bond rate by 0.21 percentage point in the same quarter and by 0.36 percentage point within one year; in the 1980s, the corresponding responses are 0.32 percentage point in the same quarter and 0.46 within the year.[9] These results are consistent with the hypothesis that investors believe the current short-term rate to be a better predictor of future short-term rates than it was earlier and therefore link the long-term rate to the current short-term rate more quickly than previously. Although the faster passthrough of a change in the short-term rate to a change in the long-term rate is significant statistically, the change is too small to have much effect on output in the short run.

From Long-Term Interest Rates to the Return on Equity

The relation between the return on equity and the return on debt also is based on the assumption that arbitrage equalizes the expected real rates of return on the two, apart from a possible risk premium. Arbitrage implies that the price of equity is based on investors' expectations about the stream of future dividends payable to shareholders and on the rate of return to investments that are alternatives to equity.

In the MPS equation, the real rate of return on equity is represented by the dividend–price ratio, and the expected real rate of return on long-term debt is represented by recent rates of return on corporate bonds less the inflation rate averaged over a long period.[10] A priori, the estimated coefficients on the bond rate should sum to 1.0, and the estimated coefficients on the inflation rate should sum to -1.0, so that a rise in the nominal interest rate due to an increase in the rate of inflation is correctly perceived to leave the real rate of return on bonds unchanged.

The estimated coefficients in the current version of the equation satisfy these a priori values.[11] However, the current version was estimated using data only through 1973, and extensions of the estimation period through the 1970s or 1980s result in very different estimates for the coefficients on the inflation rate. As Franco Modigliani and Richard A. Cohn first noted, the coefficient sum on the inflation rate falls dramatically over longer sample periods and is not statistically different from zero.[12] Thus, equations estimated through the 1970s or 1980s that show the sum of coefficients on the bond rate remaining close to 1.0 suggest that investors equate the real return on equity with the nominal return on debt.[13]

The test for structural shift is reported with the caveat that there is some risk of mistaking structural change for misspecification in this case because the estimated equation over the extended period does not appear to be consistent with rational behavior (see table 4, line 2).[14] The test results suggest rejecting the hypothesis that, at standard statistical significance levels, the response of the return on equity to changes in the bond rate is the same in the 1980s as it was in the 1960s and 1970s. Although the estimated coefficient sums on the bond rate are

9. Because the distributed lag weights on the commercial paper rate are a function of the level of recent commercial paper rates, an assumption must be made about the level of the paper rate in order to compute the distributed lag weights. We assumed that the commercial paper rate averaged 10 percent in both subperiods. The exact relation between the distributed lag weights and the level of the commercial paper rate appears, however, to have changed between the two subperiods.

10. The earnings–price ratio is commonly used as a measure of the real rate of return on equity. Because it is highly cyclical, it is probably not a good measure of the long-run expected return on equity. The dividend–price ratio is far less cyclical. Thus, the equation uses the product of the dividend–price ratio with an estimated inverse of the average payout ratio as a proxy for the long-run earnings–price ratio.

11. Freely estimated through 1973, the coefficient sum on the bond rate is not statistically different from 1.0; thus it is constrained to 1.0 in the version of this equation used in the MPS model. With this constraint, the coefficient sum on the inflation rate is estimated to be -0.89.

12. Franco Modigliani and Richard A. Cohn, "Inflation, Rational Valuation, and the Market," *Financial Analysts Journal*, vol. 35 (March/April 1979), pp. 24–44.

13. Over the estimation period 1963:2–1988:4, the coefficient sum on the bond rate is 0.74 and the sum on the inflation rate is 0.15. Over the period ending in 1979:4, these sums are 0.95 and 0.28 respectively; over the 1980s, these sums are 1.08 and -0.14 respectively.

14. Attempts to improve the properties of the equation have been unsuccessful. For instance, when we try different proxies for expected inflation, the estimated long-run coefficient on expected inflation is statistically different from minus one and is often not statistically different from zero. If the long-run coefficient is constrained to minus one, the equation produces large errors. Although the possibility exists that our specification of the risk premium is incorrect, that possibility is unlikely to explain why the inflation coefficient, when freely estimated, is close to zero.

similar across periods, the individual coefficients indicate some slowing in the response of the dividend-price ratio to the bond rate over the 1980s. For the 1980s, the contemporaneous coefficient on the bond rate is 0.38, compared with 0.52 for the estimation period ending in 1979.[15] Other things being equal, this result would reduce the effect of monetary policy in the very short run. However, as was true for the behavior of the corporate bond rate, the size of the change is such that its effect on spending would be negligible in the short run. And the overall response suggests that changes in bond rates continue to influence the return in the equity market in a critical way.

From Interest Rates to Exchange Rates

Models of the determination of the exchange rate unfortunately have not been particularly successful in explaining movements of exchange rates since the floating of the dollar in 1973. Equations that fit well over some estimation period often perform poorly over the postestimation period. Given the rapid change in the integration of international capital markets, this lack of success may not be surprising.

In the MPS model, the determination of exchange rates is based on the portfolio balance theory. According to this theory, demands of investors for assets denominated in different currencies depend, aside from possible risk premiums, on differences in expected returns. Comparing returns on such assets requires that one of the assets be converted to the currency of the other. Thus, to compare dollar- and yen-denominated assets, for example, an investor must know the rates of return offered on each and must have some expectation of the change in the dollar–yen exchange rate over the holding period. In the special case in which investors consider assets denominated in different currencies to be perfect substitutes, that is, investors are indifferent to risk, expected holding-period returns—converted to a common currency—are equalized.

The extent to which domestic monetary policy affects exchange rates—and through exchange rates, the volume of imports and exports—depends on how sensitive investors' desired portfolio allocations are to the difference between expected holding-period yields. The greater is the sensitivity of demands—that is, the more perfect the substitution between foreign and domestic assets—the greater will be the change in the spot value of the domestic currency for a given change in the domestic interest rate, other things being equal.

To see this, consider what happens to the demand for domestic currency in the foreign exchange market after an increase in the domestic interest rate. For given values of foreign interest rates, exchange rates, and expected future exchange rates, domestic assets are now more attractive than they were before the rise in the domestic interest rate, and the demand for assets denominated in the domestic currency increases as holders of foreign assets try to switch into domestic assets. But if trade in goods and services is unresponsive in the short run to movements in spot exchange rates, the supply of domestic-currency assets in the foreign exchange market does not increase, and the prices of domestic currency in terms of foreign currencies (exchange rates) must rise to reestablish equilibrium in the foreign exchange market. The more responsive asset demands are to interest rate differentials, the greater will be the initial increase in the demand for domestic currency and the larger the consequent appreciation of domestic currency that is needed to equilibrate demand and supply of foreign exchange. From the perspective of asset holders, the appreciation of the domestic currency sets up the expectation of a future depreciation of domestic currency (because the expected level of exchange rates is so far unchanged) and has the effect of raising the expected return on foreign assets or, equivalently, of reducing the expected return on domestic assets.

15. In another test, which permits coefficients on all explanatory variables to differ across the two subperiods, there is an even sharper decline in the coefficient on the contemporaneous value of the bond rate—from 0.78 in the early period to 0.42 in the later period.

The two equations in the MPS model explaining the U.S. demand for foreign assets and the foreign demand for U.S. assets were estimated using data through the mid-1970s and are fairly conventional: Demands for assets are related to the size of the economy, to the domestic interest rate, to a trade-weighted average of foreign interest rates, and to various proxies for the expected change in a trade-weighted average of the foreign exchange value of the dollar. A sense of the nature of any structural change can be gained from examining the exchange rate errors produced by these equations.[16] These errors indicate a sizable underprediction of both the level and the variability of the exchange rate over the 1980s. The positive correlation of the errors (defined as the actual exchange rate less the predicted exchange rate) with the size of the interest rate differential (defined as the domestic interest rate less the foreign interest rate) suggests that the asset equations may understate the interest sensitivity of asset demands, especially over the 1980s. One way of attempting to quantify the structural change is to raise the coefficients in the asset demand equations that represent the sensitivity of asset demands to the interest differential by enough to eliminate the correlation between the exchange rate errors and the interest differential.[17] The resulting coefficients on the interest rate differential are 60 percent larger over the 1980s than over the 1970s. Thus, the sensitivity of exchange rates to interest rates appears to have increased significantly in the 1980s, a finding that is consistent with views that world capital markets have become more closely integrated. For any given change to the differential between U.S. and foreign interest rates, the change to spot exchange rates necessary to reequilibrate the balance of payments is larger compared with that in the 1970s.

The Link between Financial Markets and Spending

The efficacy of the monetary transmission mechanism requires not only that short-term interest rates influence long-term rates and asset prices but also that subsequent changes in the returns on financial assets, in turn, influence spending. Whereas the preceding section examined the behavior of financial markets and asset prices and identified, among other things, an increased interest sensitivity of the exchange rate over recent years, this section examines the relation between rates of return on financial assets and spending. In so doing, it shows that the sensitivity of spending to financial variables appears to have decreased somewhat over recent years.

Residential Construction

The component of aggregate demand most commonly perceived to have undergone major regulatory and structural changes over the past decade is expenditure for residential construction. These changes are frequently cited as having reduced the interest sensitivity of housing expenditure and, therefore, the likelihood that this sector will bear a disproportionate share of the effect on real spending of monetary tightening. First, several innovations and regulatory changes have mitigated the tendency for financial intermediaries to experience deposit outflows during a period of high interest rates. In 1978, six-month money market certificates

---

16. To derive the exchange rate errors made by the model equations, the equations for asset demands are simulated given historical values for the current account, asset holdings (private and official), and interest rates. The simulated value of the exchange rate is that which is consistent with equality of the current account balance and the change in the net asset position.

17. This section presents a change in method. Rather than estimating the equations over the different subperiods and applying the standard F test to confirm the significance of any change, the prediction errors are analyzed to indicate the nature of behavioral shifts. We make this change because of the uncertainty about the reliability of the asset data, especially the breakdown of the net foreign asset position into U.S. holdings of foreign assets and foreign holdings of U.S. assets. When we simulate the two equations for asset demands, the errors tend to be offsetting so that the errors for the net position or, consequently, the errors in the exchange rate, are considerably smaller in percentage terms than those of the individual asset demand equations. Under these circumstances, applying the standard F tests to the two asset demand equations is unlikely to yield meaningful results.

with rates tied to Treasury bill yields were authorized; and in 1979, small-saver certificates with no minimum denomination and with yields based on Treasury securities were introduced. Beginning in 1980 and continuing for several years, a sequence of regulatory acts lowered withdrawal penalties on time deposits and phased out ceilings on deposit rates.

Along with these changes came the growth in the market for mortgage-backed securities, whereby mortgage-originating institutions pooled and resold their mortgages to third parties. As a share of residential mortgage debt outstanding, mortgage pools backing securities grew from 1 percent in 1970 to 12 percent in 1980 and to 35 percent in 1989.[18] By broadening the base of potential credit suppliers, the securitization of mortgages weakened the link between deposit growth at savings institutions and the availability of new mortgages. This development, with the regulatory changes affecting deposit rates, reduced nonprice constraints on the supply of mortgage funds, which had been associated with disintermediation at thrift institutions.

A third development in the mortgage market—the emergence and increased use of adjustable-rate mortgages (ARMs)—may have further altered the sensitivity of expenditures on residential construction to changes in interest rates. Two factors are often cited in support of this argument. First, home buyers who might have postponed purchases when they thought fixed-rate mortgage terms were unusually high relative to short-term interest rates would now be less likely to do so because ARMs are typically indexed to short-term interest rates. In fact, this factor may have little effect on the long-run interest sensitivity of housing demand, although it may reduce the effect in the short run. Second, compared with a fixed-rate mortgage, an ARM may offer a significant reduction in financing costs for those buyers whose intended holding period is relatively short, because of the common practices of offering an initial-year discount and capping the size of yearly changes permitted in the ARM rate.

Tests of the hypothesis that the interest sensitivity of housing demand has changed are carried out with the MPS equation for residential construction. This equation relates the desired stock of housing to a proxy for permanent income and to the cost of capital for housing and explains actual construction expenditures as adjusting with some lag to the desired housing stock.[19] Estimates indicate that expenditures also depend on the change in the unemployment rate and have been constrained at various times by credit rationing in the mortgage market.[20]

The residential construction equation is reestimated so as to permit the intercept and the sensitivity of the desired housing stock to the cost of capital to differ between the 1960s and 1970s on the one hand and the 1980s on the other hand.[21] Although the estimated coefficient on the cost of capital is smaller over the 1980s than over the previous two decades, the difference is not statistically significant (table 4, line 5).[22]

18. See *Federal Reserve Bulletin*, various issues, table 1.54 (Mortgage Debt Outstanding). These figures include the principal balances of mortgage pools backing securities that are insured or guaranteed by the Government National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, and the Federal Housing Administration, as well as the principal balances of private pools.

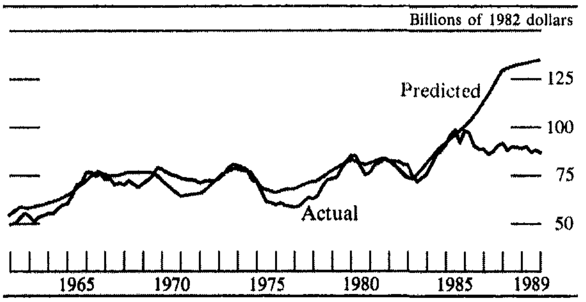
19. Changes in the overall sensitivity of this sector to monetary policy also depend on changes in the behavior of the mortgage rate. In the MPS model, the mortgage rate is linked tightly to the corporate bond rate. As described in the preceding section, the corporate bond rate appears to have reflected changes in short-term interest rates more quickly in the 1980s than in earlier decades. The same is therefore true for the mortgage rate.

20. The effects of credit rationing on expenditures are captured by a second-degree distributed lag on a dummy-shift variable. The dummy-shift variable takes on a nonzero value during periods when credit appears to have been constrained, based on deposit flows at thrift institutions and on the institutional and regulatory structure in place. The periods of credit constraints are 1966:3–4, 1969:3–1970:3, and 1974:1–1975:1.

21. The intercept is permitted to differ in the two subperiods because the introduction of ARMs may have enlarged the pool of potential home buyers besides possibly altering the interest sensitivity of home buyers. The intercept would capture the former effect.

22. The estimated coefficients indicate that an increase of 1 percentage point in the mortgage rate directly reduces residential construction expenditures 16 percent in the early period and 9 percent in the later period, in each case within one year of the initial rise in the rate. The difference is not statistically significant. In a second test to detect change in

1. Predicted and actual values for nonresidential construction, equation estimated through 1979[1]



1. The autocorrelation component of the predicted values is set to zero for the simulation.

Although the demand for housing appears to have been no less sensitive to the cost of capital over the 1980s, expenditures on residential construction may nevertheless have been less interest sensitive because disintermediation-induced episodes of credit rationing were absent during the 1980s. To quantify the total effect of interest rates on housing expenditures—including that occurring through credit rationing in the 1960s and 1970s—the equation is reestimated without the proxies for credit rationing, while the estimated intercepts and coefficients on the cost of capital are still allowed to differ for the two subperiods. Because of the positive association between credit rationing and interest rates, the estimated sensitivity to the cost of capital over the earlier subperiod increases without these proxies. When credit availability proxies are excluded, the effect on housing expenditures in the first year after a change of 1 percentage point in the cost of capital (due, say, to a change of 1 percentage point in the after-tax mortgage rate) increases from 16 percent to 21 percent.[23] By contrast, the estimated response of residential construction over the 1980s to the same change in the cost of capital is about 9 percent.[24]

Nonresidential Construction Expenditures

Despite significant changes during the first half of the 1980s both in the real rate of interest and in aspects of the tax code pertaining to structures, the MPS equation successfully explains construction spending through 1985.[25] The form of the equation follows the neoclassical theory of investment, which is that capital is substitutable to some degree for labor, so that the desired capital intensity of production is inversely related to the cost of capital relative to the cost of labor. The higher are the real financing costs—either the rate of interest on debt or the rate of return on equity—the lower will be the desired stock of capital relative to output. In the current version of the model equation, the long-run degree (or elasticity) of substitution is 0.5, so that a 1.0 percent change in the wage rate relative to the cost of capital will change the long-run ratio of capital to output by 0.5 percent.[26]

A breakdown occurs after 1985 in the relation between investment and its determinants; it is highlighted by the plots in chart 1 of actual and predicted values of construction expenditures where the predicted values are based on an

the sensitivity of the desired housing stock to the cost of capital (table 4, line 4), the intercept is constrained to be unchanged over the entire period. The probability that the response to the cost of capital is unchanged over the entire period rises to 99 percent.

23. These calculations are an upper estimate of the importance of credit rationing for the overall interest sensitivity of housing expenditures. When the equation is estimated allowing only the cost-of-capital coefficient to differ over the two subperiods, the estimated coefficient on the cost of capital is less sensitive to the presence or absence of an explicit representation of disintermediation. However, because the introduction of ARMs may have led to a shift in the intercept (that is, to a larger pool of buyers), the specification that allows the intercept to change between the two subperiods is preferred.

24. Although the estimate of a 9 percent response is obtained both when the credit proxies are included and when they are excluded, no built-in constraint guaranteed this result. Because the equation is estimated over the entire sample period, all coefficient estimates could in practice be sensitive to the inclusion or exclusion of the credit proxies. For instance, eliminating the proxies for credit rationing might have changed the estimated income elasticity of housing (depending on the correlation between credit rationing and aggregate income) and this, in turn, might have affected the estimated coefficient on the cost of capital (depending on the correlation between income and the cost of capital) even over the later subperiod.

25. The focus here is on the subset of construction spending that excludes expenditures on petroleum and mining, which are modeled separately, and public utility investment other than telephone and telegraph investment, which is exogenous in the model.

26. The short- and intermediate-run elasticities depend on the estimated lag structure. These estimates are such that these elasticities tend to exceed their long-run values.

equation estimated through 1979. The estimated equation captures the movements in construction spending quite well through 1985. After 1985, when construction spending stagnates, the predictive performance of the equation deteriorates, and overprediction errors occur—of almost 18 percent in 1986 and of about 48 percent in 1988.

Tests for changes in the short- and intermediate-run interest sensitivity of construction are not definitive when applied to this equation because the interest rate does not enter independently of output: The explanatory variables are specified as the product of output and the capital–output ratio (which, in turn, depends on the rate of interest). Thus, a test for possible structural shift since 1986 in the sensitivity of construction to interest rates cannot be performed independently of a test for structural shift in the sensitivity to output. Applying the conventional test without distinguishing between shifts in these sensitivities generates a probability less than 1 percent that the response of nonresidential construction expenditures to changes in output or in the cost of capital is the same after 1985 as before (table 4, line 6).[27]

The behavior of construction expenditures after 1985 suggests a reduced sensitivity to the cost of capital and a faster adjustment to changes in output. Two pieces of evidence support this observation. First, for equations estimated through 1985, the post-1985 prediction errors are smallest when the relative cost of capital is held constant at its 1985 value. Holding the relative cost of capital constant is essentially equivalent to assuming that capital and labor are not substitutes for one another in production. Second, to explain the behavior of construction only over the period from 1986 to 1989, one does best by modeling investment as adjusting in proportion to the change in output and as not responding at all to changes in the relative cost of capital. Moreover, if the 1986–89 estimated speed at which investment adjusts to output is compared with the pre-1986 estimate, one finds that the adjustment speed has increased although it may be imprecisely estimated given the short estimation period.

Several reasons have been offered for the apparent lessening of the importance of the cost of capital for post-1985 investment behavior. These reasons are based on a more eclectic view of the determinants of investment than that inherent in the standard neoclassical approach. One argument attributes the investment collapse to high vacancy rates. High vacancy rates could matter if, by signaling losses in the construction industry, they provide information on expected output or the cost of capital not captured by simple distributed lags on these terms. However, high vacancy rates do not provide a clear-cut signal: Although they may suggest an untenable position in the long run, they may not mean that the owners of the buildings are losing money in the short run.[28]

Another explanation of investment behavior after 1985 is associated with lending institutions' eagerness through the middle of the decade to support construction activity and their declining interest in providing these funds more recently. The pattern of errors from the model equation does not support this explanation: Actual construction expenditures should have exceeded predicted expenditures when funds were readily available, but they did not. However, the absence of underprediction errors in the earlier part of the 1980s could reflect offsetting errors in the model specification. Similarly, because actual construction during this period was not signifi-

27. If one tests for structural shift before and after 1980, as we do for most cases, then the probability of no change in adjustment speed is higher. But this finding reflects the stability of the equation through 1985 and ignores the obvious problem of the fit since 1986.

28. For instance, the shorter lives for tax depreciation introduced by the Economic Recovery Tax Act in 1981 reduced the cost of capital. In response, construction activity increased. Unless the owner of the buiding lowered the rents, the demand for space would not increase with the supply of space. However, the consequent rise in vacancy rates and reduction in aggregate rent per building would not mean that the owner was then incurring a loss on the building: The change in the tax law implies that the rent on the building that is necessary to cover the costs would fall. The lower break-even rent could be obtained by higher vacancy rates and unchanged rent per unit occupied or by unchanged vacancy rates and lower rent per unit occupied (or some combination of the two). However, the boom in construction subsequently set off a wave of rent reductions as each owner tried to find clients for the vacant office space. Ultimately, the combination of lower rents per unit occupied and higher vacancy rates reduced rents per building below break-even levels.

Credit Rationing and the Transmission Channels

The discussion of the transmission channels of monetary policy focuses on the link between interest rates, asset prices, and real spending. The implicit assumption in the MPS model, as in much macroeconomic literature, has been that the financial system functions so efficiently that, except for the occasional disturbance due to institutional or regulatory factors—such as the episodes of disintermediation under Regulation Q—interactions between real and financial variables can be reduced and simplified to interactions between real variables and interest rates.

During the past decade, economists have influenced the debate about the transmission mechanism by their attention to the issue of information and, in particular, to the implications of imperfect information for the functioning of the financial system. An important proposition of this research is that using the interest rate to allocate credit may not be optimal when creditors have imperfect or incomplete information about debtors. This proposition seems most relevant in explaining investment decisions and suggests that for these decisions credit availability and cash flow may be more important, and the cost of capital may be less important, than the MPS model acknowledges. The alleged retrenchment of bank loans vis-à-vis the demand for business credit over the past year would fit this broadened view of the transmission mechanism. By emphasizing the role of financial variables other than interest rates, this approach has rejuvenated the interest in the connection between real activity and financial intermediation central to the work of John Gurley and Edward Shaw in the 1950s and important in the work of Irving Fisher and John Maynard Keynes in the 1930s (see the reading list at the end of the article).

Despite the theoretical plausibility of these new arguments for a more general view of the monetary transmission mechanism, and despite a series of studies using data from individual firms that have documented the importance of non-interest-rate credit rationing, empirical support for this view has yet to be found in the aggregate data. It is not clear whether this lack of support is due to problems of aggregation more severe than usual in applied work or to the relatively idiosyncratic occurrence of such rationing.

cantly stronger than predicted construction, the equation errors also fail to support theories that foreign money was more readily available or that business sentiment was more bullish earlier in the decade.

The standard view of investment spending—that the parameters of the production process along with the relative costs of capital and labor determine the optimal capital stock—may be basically correct. Even so, the poor performance of the equation after 1985 may reflect misspecification in the cost of capital either because the model does not use an appropriate proxy for expectations of the real return on debt and equity or because it does not accurately calculate the effects of the change in the tax law. In any case, the bottom line suggests either serious misspecification in the cost of capital or the presence of some factor that reduced the apparent sensitivity of construction spending to the cost of capital. If the latter is true, this factor has not yet been identified (see box).

Investment in Producers' Durable Equipment

Outlays for capital equipment are typically considered one of the areas of spending most sensitive to changes in interest rates. This belief appears to rest on the notion that a high degree of substitution between capital and labor is possible in production. In the MPS equation for investment in equipment and machinery, the estimated long-run elasticity of substitution is not significantly different from 1.0, so that a 1 percent increase in the cost of capital relative to the cost of labor ultimately leads to a 1 percent decline in the ratio of equipment to output. In this regard, the stock of equipment may be thought to be more interest sensitive than is the stock of structures. Nevertheless, changes in interest rates have a smaller effect on the cost of short-lived capital, such as equipment, than they do on the cost of long-lived capital. For instance, when the life span of capital is five years (a 20 percent depreciation rate), an increase in the real financing costs from 3 to 4 percentage points raises the cost of capital from 23 percent to 24 percent. By contrast, when the lifespan is twenty years (a 5 percent depreciation rate), the same rise in the real financing costs raises the cost of capital from 8 percent to 9 percent—a much larger increase in percentage terms.

The importance of the life span of capital in determining capital's sensitivity to interest rates has been cited as a potential source of change in the interest sensitivity of investment because the growing share of equipment accounted for by computers and high-technology equipment has reduced the expected life span of this aggregate. In 1970, the depreciation rate for the stock of equipment was 12.5 percent a year (assuming an exponential pattern of depreciation); in 1990, it was over 15 percent a year. Moreover, investment in computers may be more sensitive to product cycles than to financing costs or to expected output. In contrast to these factors, an increase in the interest sensitivity of aggregate investment might be expected if higher leverage ratios increased the interest sensitivity of a firm's cash flow.

Neither of these developments lends itself to a definitive test for changes in interest sensitivity, given the specification of the MPS equation for investment. In the first instance, the model ties down a priori the long-run response of investment to a change in the real rate of interest: The capital stock and, consequently, long-run investment rise by 1 percent for a 1 percent decline in the cost of capital (based on an estimated elasticity of substitution equal to one); and the percentage decline in the cost of capital for a given percentage decline in the rate of interest varies inversely with the depreciation rate of capital. Thus, as the life span of the aggregate capital stock declines (the depreciation rate rises), the elasticity of long-run investment with respect to the rate of interest declines.[29] Although the appropriateness of a long-run unitary elasticity of substitution for computers in the production process theoretically can be tested, it is not tested because the technique used to estimate this elasticity is imprecise and because the estimate may be influenced by the high growth rate of computer investment. The test for structural change thus allows only for a change in the short- and intermediate-run sensitivity of investment to the rate of interest.

However, as was true for nonresidential structures, a test for structural change, based on the MPS equation, cannot distinguish between change in the short- and intermediate-run sensitivity to interest rates and change in the sensitivity to output. The test requires that the determinants of spending enter independently of one another, a condition not satisfied by the equation specification. Testing for a shift in the overall response of investment to its determinants—the cost of capital and output—suggests only a 3 percent probability that there has been no significant change (table 4, line 7).

Whereas the statistical evidence favors change, other evidence suggests that the implied change is marginal, especially as it affects the interest sensitivity of investment. First, the post-1980 predictions from an equation estimated from 1961 through 1979 are almost identical to the predictions from an equation estimated from 1961 through 1987. Second, when the equations for the two periods are simulated after a change in interest rates, the patterns of investment are similar. For a 1 percentage point change in the interest rate, the maximum difference at any time between the two predicted paths is \$1 billion. That is, for approximately a 5 percent change in the desired capital stock at current rates of interest and depreciation, the maximum difference is about 8 percent of the long-run response. Third, more sizable differences occur between the patterns of investment

29. The more technical reader will want to distinguish between the elasticity of long-run investment with respect to the interest rate and the absolute change in long-run investment with respect to the interest rate—and, in particular, the effect of a shortening lifespan for equipment on both of these. In the long run, investment may be expressed as $X(g+\delta)/(r+\delta)$ where X is the level of output, g is the growth rate of real output, δ is the rate of depreciation of capital, and r is the real rate of interest. In this expression, we assume that the elasticity of substitution between capital and labor is unity, so that $X/(r+\delta)$ is the optimal capital stock. The interest elasticity of long-run investment equals the interest elasticity of the optimal capital stock. This elasticity is negative but is less negative the shorter the lifespan of capital is. By contrast, the dollar response of long-run investment to a percentage point increase in the interest rate is negative, but shortening the lifespan of capital does not always reduce the size of this effect. The response depends on the relations among the growth rate of the economy, the real rate of interest, and the rate of depreciation. The intuition is that although a rise in the real rate of interest causes a smaller reduction in the stock of short-lived capital than in the stock of long-lived capital, replacement investment associated with a unit of short-lived capital is greater than that associated with a unit of long-lived capital. For normal ranges of real interest rates, growth rates, and equipment depreciation rates, the response of investment to a change in the interest rate declines as the life span of equipment shortens.

in response to a change in output. These three results suggest that a shift in the response of investment to output, rather than in the response to interest rates, explains the low statistical probability of an unchanged response of investment to its determinants.

Consumption of Nondurable Goods and Services

Household expenditures for services and nondurable goods form the largest component of final demand. Thus, any change in the sensitivity of consumption to monetary policy will have important repercussions for the sensitivity of aggregate output to interest rates.

One argument for a change in the interest sensitivity of consumption is rooted in the idea that, since the deregulation of deposit rates, household interest income has been linked more closely to movements in interest rates. If households make spending decisions based on current income because, say, they are unable to borrow against future income (that is, they are liquidity constrained), greater interest sensitivity of income will induce greater interest sensitivity of consumption (where a rise in rates causes a rise in consumption). If spending depends on average income rather than on current income, however, the increase in the interest sensitivity of consumption will be more moderate.

Another argument for a changed interest sensitivity of consumption is that the growth in the share of adjustable-rate mortgages and home equity loans in mortgage debt raises the probability that households will incur liquidity problems when interest rates rise. In this case, however, a rise in interest rates will reduce consumption. An implicit assumption in this scenario is that households with adjustable-rate debt do not have rate-sensitive assets with rising returns to offset the increase in debt-servicing costs.

The MPS equation for consumption of nondurable goods and services was used to identify changes in consumption behavior that might reflect the aforementioned changes in the interest sensitivity of household cash flow. The equation is based on the life-cycle model of consumption—which assumes that households may borrow against future income and thus consume in excess of current income and wealth; still, the specification could support an important role for liquidity constraints depending on the estimated coefficients on current and recent income relative to those on more distant income and wealth. Estimates for both subperiods, while statistically significant for current and recent income, suggest that distant income and wealth are also important in determining consumption behavior. Thus, even if household interest income or household interest payments are more interest sensitive now than they were earlier, the quantitative effect on the interest sensitivity of consumption may be small.[30]

The influence of monetary policy on consumption can change also if the relation of consumption to wealth and property income has changed. These are the determinants of consumption most closely linked to changes in interest rates.[31] In the estimation of the consumption equation, when the response to these determinants is allowed to change, the data strongly support the existence of a stable relation over time (table 4, line 8).

Given these findings—that the wealth channel has been stable over time and that households appear not to be unduly liquidity constrained—any change in the relation between short-term interest rates and consumption rests upon a change in the effect that short-term rates have on the market values of corporate equity and of noncorporate land. (In the MPS model, the market values of other components of household wealth—bonds, consumer durables, and

30. Even if households are liquidity constrained, the effect on consumption of the incremental stock of adjustable-rate debt (measured as the average stock of adjustable-rate debt over the 1980s relative to that over the 1970s) is small. Under the extreme assumption that debt-servicing costs are met one for one by a reduction in consumption spending, the rise in debt-servicing costs for a 1.0 percentage point rise in interest rates is estimated to reduce consumption spending in the 1980s by 0.2 percentage point more than it did before 1980.

31. In the life-cycle model, the propensity to consume out of income and wealth depends on the rate of interest. If the relationship between the rate of interest and the propensity to consume out of wealth is assumed to be linear, then separate variables for property income (which is the product of the interest rate and the stock of wealth) and wealth belong in the equation.

housing—are not tied directly to changes in interest rates.) But changes in the relation between short-term interest rates and corporate equity are small because of offsetting changes in the speeds at which short-term rates pass through to long-term rates and at which long-term rates pass through to equity prices. Also, changes in the relation between short-term interest rates and noncorporate land values are quantitatively insignificant because of the slowness with which land values are estimated to adjust to changes in interest rates.

Consumer Durable Expenditure

In the MPS model, the determinants of the desired stock of consumer durables are income, consumption of nondurable goods and services (a proxy for permanent income), and the cost of durable goods relative to that of nondurable goods. The cost of a durable good takes into account the financing and depreciation expenses associated with the use of the good and is, in this sense, akin to the cost of business capital. Variations in interest rates affect the relative cost of consumer durables and therefore the demand for them. By measuring the responsiveness of purchases of durable goods to changes in the relative cost of durables, one can determine whether or not this particular channel for monetary policy has changed.[32] The equations relating consumer purchases of motor vehicles and other durables were reestimated allowing the response to the relative cost of durable goods to differ over the pre- and post-1980 periods. The results strongly favor the hypothesis that the response of purchases to the cost of capital for consumer durables has been stable over time (table 4, lines 9–12).

32. As was hypothesized for nondurable consumption, one can argue that the effect of monetary policy on durables purchases may have changed because income has become more interest sensitive. To the extent that permanent income is more important than current income in explaining durables purchases, this effect is moderated.

Business Inventory Investment

As with consumer purchases of durables, monetary policy and inventory investment are directly linked through the cost of capital. The higher are the costs of financing inventories, the lower will be the desired stock of inventories relative to sales. In estimation, the sensitivity of the inventory–sales ratio to the cost of capital is generally small but statistically significant. When the behavior of inventories is examined over the pre- and post-1980 periods, the response to variations in the cost of capital generally appears to be stable (table 4, lines 13–15). The estimated sensitivity of nonretail durable inventories to the cost of capital has increased a bit, although the increase is not statistically significant at the normal levels of significance.

The Net Effect of Change in the Transmission Channels

The preceding two sections have detailed the particular changes in the interest rate sensitivity of asset prices and spending components that have occurred since 1980. In this section, the MPS model is used to quantify the net effect on the economy of the changes found in the response of asset prices to short-term interest rates and in the response of spending to interest rates and asset prices. Changes in the behavior of financial markets and asset prices are most notable in the increased sensitivity of exchange rates to the differential between yields on domestic assets and those on foreign assets. The short-run efficacy of monetary policy is diminished slightly by the slower passthrough of changes in bond rates to the yield on equity, but this diminution is largely offset by a faster passthrough of changes in short-term rates to long-term rates.

Significant changes to the interest sensitivity of spending have occurred in residential and nonresidential construction expenditures. In both cases, the interest sensitivity has fallen. Institutional and regulatory changes beginning in the late 1970s have eliminated the episodes of credit

5. Effects on spending of a reduction of 1 percentage point in the federal funds rate, by transmission channel[1]
Percent of total effect, except as noted

Channel	Quarters after reduction					Average[2]
	4	8	12	16	20	
Cost of capital						
Pre-1980s	67	49	45	55	56	54
1980s	52	32	27	40	50	40
Wealth						
Pre-1980s	12	20	27	31	40	26
1980s	12	15	19	25	42	23
Exchange rate						
Pre-1980s	21	31	27	14	4	19
1980s	37	53	54	35	8	37
All channels (billions of dollars)						
Pre-1980s	22.4	41.9	63.2	74.5	81.5	...
1980s	22.3	43.8	55.0	48.9	50.5	...

1. See note to table 1.
2. Average of values at 4, 8, 12, 16, and 20 quarters.

rationing that constrained housing construction during times of high interest rates in the 1960s and 1970s. No satisfactory explanation has been offered for the apparent insensitivity of nonresidential construction to the cost of capital since around 1986.

To quantify the net effect of these changes on the ways in which monetary policy influences the economy and to assess the overall effect, the partial and full model simulations presented in tables 1 and 2 are repeated. With the same baseline, the simulations first use the equations that best represent the pre-1980s behavior of asset prices and spending and then use the equations that best represent post-1980s behavior. The equations for asset prices and for spending differ in the two versions of the model only when their estimated sensitivity to interest rates has changed significantly over time.[33]

33. The two versions of the model differ in the following ways: (1) The short-term interest rate affects the long-term rate more quickly in the post-1980s version; (2) the bond rate affects the return on equity more slowly in the post-1980s version; (3) preferences for assets denominated in specific currencies are more sensitive to interest rate differentials in the post-1980s version; the foreign interest rate is exogenized in both versions; (4) the sensitivity of residential construction expenditures to the cost of capital is smaller in the post-1980s version; and (5) nonresidential investment does not respond to the cost of capital in the post-1980s version.

Table 5 presents the effect on real spending in the two versions of the model of a 1 percentage point reduction in the federal funds rate, when multiplier and accelerator feedbacks to spending, and output feedbacks to interest rates and prices, are suppressed. As was done in tables 1 and 2, the separate contributions of the three principal channels for monetary policy are quantified.

The results suggest that the direct effects of changes in the federal funds rate on real spending are about the same before and after 1980 for the first two to three years but are somewhat smaller after 1980 during the fourth and fifth years. The principal reason for the apparent reduction over the 1980s in the direct effect of interest rates on spending in the intermediate run is the absence of credit rationing. Previously, the effect that credit

6. Effects of a phased increase of 1.5 percent in the level of M2: Full model
Percent

Level	Quarters after monetary action				
	4	8	12	16	20
Real GNP					
Pre-1980s	.5	1.0	1.2	.5	−.8
1980s	.5	1.2	.9	.1	−1.0
GNP deflator					
Pre-1980s	.1	.5	1.1	1.8	2.3
1980s	.2	.6	1.2	1.8	2.1

rationing had on residential expenditure was equated with a doubling of the sensitivity of the desired housing stock to the cost of capital. That is, in the first year after an increase of 1 percentage point in the mortgage rate, residential construction would decline about 9 percent after 1980 and about 21 percent before 1980. At 1990 levels of residential construction, this difference is about $20 billion dollars, a sizable portion of the difference in aggregate output generated by the two versions of the model. Of secondary importance to the diminished response to interest rates is the failure of nonresidential construction spending to respond to variations in the cost of capital after 1985. Table 5 also highlights the increase in the importance of the exchange rate channel for the transmission of monetary policy in the post-1980 world as represented by the MPS model. The changes to the asset demand equations are such that the relative contribution of the exchange rate channel has doubled on average since 1980. The relative importance of the wealth channel is about the same in the pre- and post-1980s versions of the model.

Both versions of the model are simulated again, allowing all sectors of the model to respond and assuming a phased increase of 1½ percent in the level of M2 (table 6). As in the partial model simulations, the effects on real GNP are similar in the two versions for the first few years. But, in contrast with the direct effects on spending as demonstrated by the partial simulations of table 5, the difference between the two versions in the effect on aggregate output diminishes over time because in both versions of the model long-run output depends only on the production technology and the supply of capital and labor. In the long run, the level of money has no effect on output.

Appendix: Continuous versus One-Time Changes in Policy Transmission Channels

Structural change, whether due to changing markets, altered institutions, or technological innovations, is difficult to capture in macroeconomic models. The approach discussed in the body of this article is to test for one-time shifts in coefficients of the MPS model. The assumptions of the one-time-shift analysis are that selected coefficients of the model may have shifted around 1980 and that these shifts will persist indefinitely.[34]

An alternative method of analyzing structural change, outlined in this appendix, permits model coefficients to vary continuously over time. The time-varying-coefficient analysis employs the less-restrictive assumptions that the timing of structural change is generally unpredictable and that structural change may be intrinsically evolutionary, with some coefficients subject to continuous changes and others to infrequent changes. This analysis assumes also that coefficient changes may be partly transient and may provide only partial predictions of future values of the model coefficients.

Under these more general assumptions, the time-varying-coefficient analysis can provide additional evidence on the following three issues regarding structural change. First, what proportion of the total variation in variables explained by model equations can be ascribed to estimated changes in model coefficients, especially those coefficients associated with key channels of policy transmission? Second, are the estimated changes in model coefficients larger in the 1980s than in earlier periods? Third, to what extent are changes in model coefficients persistent or transitory?

In brief, the results of the time-varying-coefficient analysis suggest the following:

1. The coefficients of several representative policy-sensitive equations in the MPS model have exhibited continuous movements over the past three decades. These movements in coefficients are a significant source of the total variation of important economic aggregates.

---

34. One interpretation of a one-time shift in structural coefficients is that it is a special case of random walk coefficients in which all unpredictable changes in the coefficients are confined to a preselected historical interval. In general, the timing of the shift will be unknown to the modeler. A one-time-shift analysis will more reliably detect a permanent shift if the preselected location of the estimated break is close to the true break and there are sufficient observations before and after the true break.

2. Even though continuous change in the model structure appears in all sample periods, *the movements in key policy channels are larger in the 1980s*. The sizable changes in the responses of the bond rate and a trade-weighted exchange rate to movements in the short-term interest rate in the 1980s support the focus in the body of the article on more recent structural changes.

3. The evidence does not support the simplifying assumptions that structural changes are wholly permanent or that the unpredictable changes are confined to a given historical interval. Unpredictable structural change occurs throughout the postwar sample. Indeed, in the 1980s, the proportion of variation due to unpredictable structural changes has increased for the effects of wealth on consumption and for the effects of the short-term interest rate on the bond rate and the exchange rate.

Why would one expect changes in economic structure to be continuous? Traditional econometric models assume that coefficients are fixed. In a macroeconomic context, fixed-coefficient models may be rationalized by the simplifying assumption that all economic agents are identical. However, it is more likely that the estimated coefficients of macroeconomic relationships are averages of the disparate responses of heterogeneous agents. For example, the aggregate response of consumption to income is an average over all households of the unique spending responses of each household. The aggregate response may be expected to vary over time because of changes in the cross-section distributions of household preferences or incomes.

The traditional fixed-coefficient model assumes also that the only sources of structural uncertainty are the intercepts of the estimated equations.[35] To continue with the example of aggregate consumption, only the subsistence level of consumption (represented by the intercept) is partially unpredictable under a standard fixed-coefficient specification. By contrast, the time-varying analysis allows the intercepts and the coefficients of explanatory variables, such as the slope multiplier of household income, to vary both predictably and unpredictably over time.[36] Predictable movements in the slope coefficients of explanatory variables are based on the estimated persistence of past coefficient changes and may include, as a special limiting case, the one-time slope-coefficient shifts specified in the body of this article. Unpredictable changes in slope coefficients, ruled out by assumption in fixed-coefficient analysis, provide a measure of the reliability of the estimated effects of explanatory variables.

Table A.1 presents data-based evidence on the relative importance of continuous movements in the estimated structure of four key macroeconomic relationships in the MPS model. In each instance, the total variation of the dependent variable (household consumption, residential construction, the corporate bond rate, and a multilat-

---

35. An example of a fixed-coefficient equation is the simplified Keynesian consumption function

$$C(t) = a(t) + bY(t),$$

where consumption in period t, $C(t)$, is a linear function of a time-varying intercept, $a(t)$, and the product of a fixed slope coefficient, b, times the explanatory income variable, $Y(t)$. By contrast, a time-varying coefficient formulation of the Keynesian consumption function is

$$C(t) = a(t) + b(t)Y(t),$$

where the slope coefficient, $b(t)$, is now allowed to vary over time. In the time-varying specification, the slope and intercept include both fixed (a,b) and time-varying $[u(t), v(t)]$ components

$$a(t) = a + u(t)$$
$$b(t) = b + v(t) ,$$

whereas $v(t)$ is set to zero in fixed-coefficient analysis. In fixed-coefficient models, the time-varying intercept contains a component that is predictable from past observed behavior and a component that is not. For example, a specification used widely in the MPS model is

$$u(t) = \rho u(t-1) + e(t),$$

where $u(t-1)$ denotes last period's error term, and $e(t)$ is the unpredictable portion of the current time-varying intercept. In time-varying coefficient models, a similar decomposition into predictable and unpredictable elements is extended to the time-varying component of the slope coefficient, $v(t)$.

36. The method of volatility allocation is based on the regression estimator developed by P.A.V.B. Swamy and P.A. Tinsley, "Linear Prediction and Estimation Methods for Regression Models with Stationary Stochastic Coefficients," *Journal of Econometrics*, vol. 12 (1980), pp. 103–42.

A.1. Allocations of predictable and unpredictable variability for selected economic variables

Dependent variable	Span of sample, quarters	Fixed structure		Time-varying structure					Total	
		Slope effects		Intercept effects		Slope effects				
		Pred.	Unpred.	Pred.	Unpred.	Pred.	Unpred.	Dominant source of slope variability	Pred.	Unpred.
Consumption	1960:1–88:4	.96	. . .	.00	−.01	.02	.03	Household wealth	.98	.02
	1960:1–79:4	.95	. . .	−.01	−.02	.03	.05		.97	.03
	1980:1–88:4	.82	. . .	−.01	−.05	.08	.16		.89	.11
Residential construction	1960:1–88:4	.69	. . .	.10	.00	.17	.04	Per capita consumption	.96	.04
	1960:1–79:4	.67	. . .	.12	.00	.16	.05		.95	.05
	1980:1–88:4	.78	. . .	.07	.00	.13	.02		.98	.02
Corporate bond rate ..	1960:1–88:4	.95	. . .	−.01	.00	.04	.02	Short-term interest rate	.98	.02
	1960:1–79:4	.94	. . .	.01	.00	.03	.02		.98	.02
	1980:1–88:4	.77	. . .	−.08	.00	.21	.10		.90	.10
Exchange rate	1972:2–88:4	.07	. . .	.09	.56	.24	.04	Spread between U.S. and foreign interest rates	.40	.60
	1972:2–79:4	.12	. . .	.10	.75	.18	−.15		.40	.60
	1980:1–88:4	.04	. . .	.09	.53	.24	.10		.37	.63

eral exchange rate) is attributed either to the fixed portion or to the continuously varying portion of the model structure. The fixed portion of the model structure is defined by the fixed coefficients originally estimated for the MPS model. Under the simplifying assumption that the explanatory variables are known, all fluctuations of the dependent variables described by the fixed portion of the model structure are predictable. The variation associated with the time-varying portion of the model structure is further disaggregated into variation due to the intercept and variation due to the slope coefficients. In contrast to the wholly predictable effects of the fixed portion of the model structure, the continuous movements in the intercept and slope coefficients are only partially predictable from past behavior. Under the convention that "predictable" denotes forecasts for one period ahead, table A.1 presents an exhaustive allocation of the variation in a dependent variable to one of five factors: the fixed structure embodied in the MPS model, predictable movements in the intercept, unpredictable movements in the intercept, predictable movements in the slope coefficients, and unpredictable movements in the slope coefficients.[37]

The first three rows in table A.1 examine allocations of the variation of household consumption in different periods. Over the full sample period (1960–88, line 1), the MPS fixed-structure rendering of the relationship among consumption, wealth, and income explains a sizable portion—96 percent—of the total variation in consumption, where much of the predictable variation in the level of consumption expenditures may be attributed to common trends in consumption and income. The remainder of the first row indicates that an additional 2 percent of the variation in aggregate consumption may be attributed to predictable changes in the time-varying influence of wealth and income, with no variation in consumption attributed to predictable movements in the intercept. Only 2 percent

37. The allocations of unpredictable volatility in table A.1 apply only to forecasts of economic activity over the near term (one quarter). Uncertainty about near-term forecasts is usually less than uncertainty about long-term forecasts because the predictable components of the slope and the intercept generally become less important as the forecast horizon lengthens. Diminishing predictability is a natural consequence of the decreasing dependence of today's outcome on outcomes in the more distant past. With certain exceptions, such as near-random-walk coefficients, the allocations to "predictable" variations in table A.1 become wholly unpredictable in lengthy forecast horizons.

Given the assumption that the explanatory variables of each model relationship are known, forecast errors are allocated only over unpredictable changes in the slope coefficients or over unpredictable movements in the intercept. These movements may be correlated because of common influences on the slope coefficients and on omitted variables captured by the moving intercept. In this case, one-half of the estimated co-movement is allocated to each. If the co-movement is negative and large, the net volatility contribution may be negative for either the time-varying slope coefficients or the intercept.

of the variation of total consumption is unpredictable, primarily because of unpredictable changes in the time-varying structural effects of wealth and income. As table A.1 indicates, the dominant source of slope variation in the consumption equation is associated with the coefficients of wealth. Thus, much of the structural variation of this equation includes a primary policy-transmission channel to consumption expenditures—the effect of movements in wealth induced by changes in interest rates.

The next two rows of the table contrast allocations of total variation of consumption in the 1980s and in earlier decades. The variation in consumption explained by the fixed MPS structure falls from 95 percent in the 1960s and 1970s to 82 percent in the 1980s. This decrease is partially offset by an increase in variation due to predictable changes in the time-varying coefficients of wealth and income. As the right-hand "total" columns show, total predictable variation in consumption falls to about 89 percent in the 1980s. The increase in net unpredictable variation of consumption is due mostly to substantially larger unpredictable movements in the time-varying effects of wealth. Because wealth is the dominant source of structural variability, the policy-transmission channel associated with interest rate effects on household wealth is more unpredictable in the 1980s. However, increased unpredictable variation in the response of consumption to wealth is not inconsistent with stable fixed-coefficient effects of wealth on consumption.

The next three rows in table A.1 present allocations of variability for residential construction: The proportion of total variation explained by the MPS fixed structure increased from 67 percent in the pre-1980s sample to 78 percent in the 1980s. The residential construction equation used for the table incorporates no adjustments for the disintermediation effects of bank deposit rate ceilings in the 1960s and 1970s. Consequently, the sizable reduction in the 1980s of the intercept variation indicates that the effects of disintermediation in the earlier decades were largely captured by intercept shifts rather than by movements in the structural slope coefficients. Also, as shown by the allocations of variation associated with the intercept, quarter-to-quarter changes in the intercept were highly predictable in all sample periods, including the disintermediation effects embedded in intercept movements in the pre-1980 period. Whereas time-varying movements in slope coefficients account for a portion of the variation in total residential construction, variations in the slope coefficients of the cost of capital were not the dominant source of structural change, as table A.1 shows. Thus, the results of the time-varying specification appear to be similar to the results reported in text table 4, line 5; that line gives little evidence of time-varying changes in the effects of the cost of capital on residential construction if the disintermediation periods are represented by time-varying shifts in the intercept.[38]

As the next three rows of table A.1 show, the explanatory power of the MPS fixed structure in describing the behavior of corporate bond rates deteriorated in the 1980s. This deterioration has been accompanied by larger movements in the slope coefficients. Even if one accounts for the estimated persistence of past changes of the slope coefficients, the estimated response of long-term interest rates to movements in short-term interest rates apparently was not as predictable in the 1980s as in earlier decades. In fact, unpredictable changes in the slope-coefficient effects of short-term interest rates are virtually the sole source of uncertainty in the equation for corporate bond rates throughout the sample.

Finally, the last three rows of table A.1 show the allocations of variation for the MPS exchange rate. As discussed in the body of this

38. The disintermediation episodes in the 1960s and 1970s were triggered when market interest rates breached the deposit rate ceilings imposed by Regulation Q. However, the effects of disintermediation episodes are captured in the time-varying case by movements in the intercept, not by movements in the coefficients of the cost of capital. Thus, although the timing of disintermediation episodes may surely be attributed to positive spreads between market rates and the Regulation Q ceilings, the subsequent effects of disintermediations were not systematically related to the size of the rate spreads. Whether disintermediation is more appropriately modeled as changes in the slope coefficients of the cost of capital or as changes in the intercept remains an open issue, but either characterization is consistent with shifts in the conventional transmission channels of interest rates during the historical intervals of deposit disintermediation.

article, the dependent variable in this case is the exchange rate error produced by the MPS demand equations for foreign and domestic assets. This formulation removes the fixed-coefficient contribution of explanatory variables, including those interest rate variables embedded in the MPS specifications. To the extent that the spread between U.S. and foreign interest rates is correlated with excluded explanatory variables, the results in table A.1 cannot distinguish between structural change associated with the rate spread and structural change associated with excluded explanatory variables.

The overall predictability of the multilateral exchange rate was relatively stable from the 1970s to the 1980s, but the composition of predictable and unpredictable movements in the exchange rate underwent a sizable shift in the 1980s. The small fraction of predictable variation in the exchange rate that can be accounted for by the fixed-coefficient structure appears to have decreased in the 1980s. Partially offsetting this effect is an increase in variation associated with predictable changes in the slope coefficients of the interest rate spread, which is similar to the effect of the coefficient shift discussed in the article. In addition, however, the source of unpredictable variation in the exchange rate appears to have shifted in the 1980s from the intercept to the slope coefficients of the spread between U.S. and foreign interest rates. Thus, as with the long-term corporate bond rate, responses of the multilateral exchange rate to changes in the short-term interest rate appear to be less predictable in the 1980s.

SELECTED READING

Money Demand

Enzler, Jared, Lewis Johnson, and John Paulus. "Some Problems of Money Demand," *Brookings Papers on Economic Activity, 1:1976*, pp. 261–80.

Moore, George R., Richard D. Porter, and David H. Small. "Modeling the Disaggregated Demands for M2 and M1: The U.S. Experience in the 1980s," in Board of Governors of the Federal Reserve System, *Financial Sectors in Open Economies: Empirical Analysis and Policy Issues*. Washington: Board of Governors, 1990.

Porter, Richard D., Thomas D. Simpson, and Eileen Mauskopf, "Financial Innovation and the Monetary Aggregates," *Brookings Papers on Economic Activity, 1:1979*, pp. 213–29.

Exchange Rates

Meese, Richard. "Currency Fluctuations in the Post-Bretton Woods Era," *Journal of Economic Perspectives*, vol. 4 (Winter 1990), pp. 117–34.

Meese, Richard, and Kenneth Rogoff, "Empirical Exchange Rate Models of the Seventies: Do They Fit out of Sample?" *Journal of International Economics*, vol. 14 (February 1983), pp. 3–24.

The "New" Credit Rationing

Jaffee, Dwight M., and Thomas Russell. "Imperfect Information, Uncertainty, and Credit Rationing," *Quarterly Journal of Economics*, vol. 90 (November 1976), pp. 651–66.

Stiglitz, Joseph E., and Andrew Weiss. "Credit Rationing in Markets with Imperfect Information," *American Economic Review*, vol. 71 (June 1981), pp. 393–410.

Financial Variables and Real Activity

Fisher, Irving. "The Debt-Deflation Theory of Great Depressions," *Econometrica*, vol. 1 (October 1933), pp. 337–57.

Gurley, John G., and Edward S. Shaw. *Money in a Theory of Finance*. Washington: The Brookings Institution, 1960.

Keynes, John Maynard. *The General Theory of Employment, Interest and Money*, Chapter 12. New York: Harcourt, Brace, 1936.

The Current Fiscal Situation in State and Local Governments

This article was prepared by Laura S. Rubin of the Board's Division of Research and Statistics. Catherine B. Wood provided research assistance.

The fiscal position of state and local governments has deteriorated markedly during the past several years, with many governments confronting potential shortfalls in their operating accounts. Budgetary problems have been most severe in New England, New York, and New Jersey, partly as a consequence of slumping real estate markets and weakness in the defense, finance, and high-technology industries; but fiscal problems have been widespread.

The last half of the 1980s has seen the financial resources of the states pressured by several concerns: the quality of education and rising school enrollment, the deterioration of the public infrastructure, and mandates to improve the health care of the needy and to upgrade correctional facilities. Over the same period, revenue sources have dwindled; early in the 1980s, the federal government cut back its aid to the sector, and some states subsequently reduced their grants to localities. State and local governments made up some of the difference through tax policy, but tax collections have been lower than expected, particularly in 1988 and 1990.

This article describes the accounts of the state and local sector, discusses the recent spending requirements and revenue shortfalls that have precipitated the current budget woes, and gives a brief perspective on the outlook.

THE FISCAL ACCOUNTS OF STATE AND LOCAL GOVERNMENTS

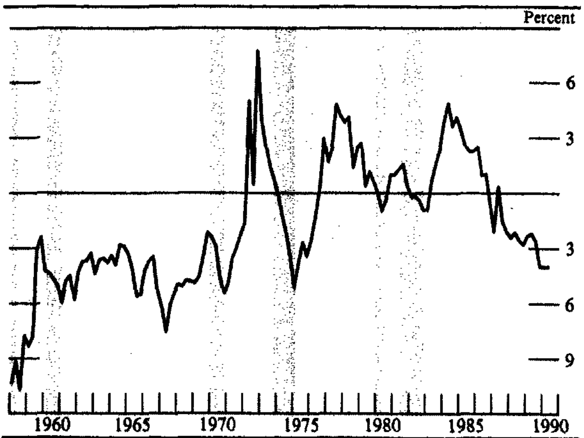
Three fiscal accounts are important to a full understanding of the state and local budget situation—the relevant portions of the national income and product accounts (NIPA), the general fund accounts of the governments, and the accounts of the governments' social insurance funds covering their employees. A description of these accounts should help clarify the factors influencing the budgetary picture and avert potential misconceptions about, for example, balanced general fund accounts and social insurance funds.

Operating and Capital Accounts in NIPA

The combined operating and capital accounts of state and local governments as reported in NIPA (prepared by the Bureau of Economic Analysis in the U.S. Department of Commerce) give a broad view of the fiscal condition of the sector. These accounts cover all expenditures and revenues of the current fiscal year (proceeds of bond issues are excluded, although interest on state and local debt is part of outlays); NIPA operating and capital accounts exclude the social insurance funds, which consist of the funds for state and local retirement systems plus, in some cases, those for worker's compensation and disability. The aggregate operating account for the sector is not calculated separately from the aggregate capital account.

As reported in NIPA, the deficit of state and local governments grew from $3 billion at the end of 1986 to $30 billion in the first half of 1990. When scaled by state and local government expenditures, the current deficit is in the range last seen during the 1974 recession (chart 1). Deficits of a similar magnitude, relative to expenditures, were chronic in the 1950s and 1960s, when construction spending for roads, schools, and other infrastructure—which is partly financed through the capital markets—made up about one-fourth of state and local outlays. In contrast, the rise in

1. Budget surpluses and deficits of the state and local sector as a proportion of sector expenditures[1]

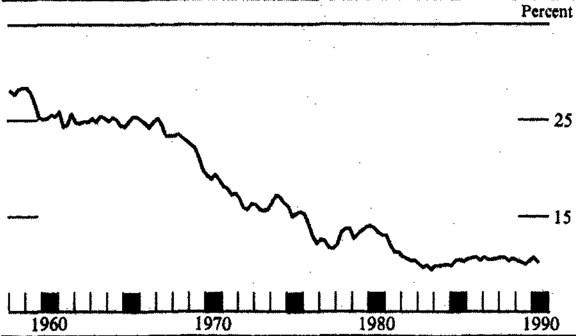


1. Quarterly data; operating and capital accounts excluding social insurance funds.
SOURCE. National income and product accounts.

the deficit during the second half of the 1980s has not reflected a disproportionate surge in public capital spending. Even when building activity advanced in the mid-1980s, outlays for construction remained around 10 percent of expenditures (chart 2).

The sector's deficits in the last few years have been the first since 1967 to worsen in the absence of a general economic downturn (chart 1). As spending on infrastructure became less important in the late 1960s and early 1970s, the sector began to experience budgetary surpluses, except when recessions eroded tax bases and expanded the demand for resources. However, the recent deficits evolved during a period of economic expansion, which suggests

2. Construction spending by the state and local sector as a proportion of sector expenditures[1]



1. Quarterly data; excludes social insurance funds.
SOURCE. National income and product accounts.

that the imbalance between revenue collections and spending priorities ultimately will have to be corrected through tax increases or reductions in expenditures.

The General Fund Budgets

The general fund budgets of state and local governments—their main operating accounts—also have shown deterioration over the last several years. Among the states, general fund budgets represent an average of 60 percent of total outlays (excluding social insurance funds). The composition of the state general fund budgets varies considerably.[1] On the expenditure side, the budgets include compensation for employees as well as outlays for nondurable goods, other services, and interest expenses; but they typically exclude most spending for construction, which is usually reported in a separate capital account. (In contrast, cities and other local governments often include construction in their general fund budgets.)

In every state except Vermont, the general fund budget is required constitutionally or statutorily to be balanced, either within each fiscal year or over a two-year period. Typically, a balanced budget requires that revenues be at least as large as outlays, but states may use surpluses from the preceding fiscal year to achieve balance in the current year. If a shortfall is anticipated during the planning stages of a budget, which occur during the legislative session preceding a given fiscal year, state governments usually cut spending and increase taxes, fees, and charges. Proceeds of short-term debt offerings, and occasionally bonds, have been used by some states to cover shortfalls and "balance" their general fund budgets. Balancing techniques employed when shortfalls appear toward the end of the fiscal year include the postponement of certain payments until after the end of the year or the acceleration of

1. State general fund budgets are reported and analyzed each year by the National Association of State Budget Officers of the National Governors' Association (Washington, D.C.) in *Fiscal Survey of the States* and by the National Conference of State Legislatures (Denver and Washington, D.C.) in *State Budget and Tax Actions*.

some receipts into the year. In addition, certain functions may be moved outside the realm of the general fund budget. Thus, although a simple comparison of expected outlays and receipts from current resources may imply a deficit, considerable fiscal maneuvering can produce a "balance," maneuvering that has been characterized as "the twilight zone of state fiscal procedures."[2]

Even without a legal mandate for a balanced budget, important considerations push state and local governments to enact general fund budgets that show a balance or slight surplus. For state and local governments, the long-run cost of fiscal weakness is the higher interest rates that are required to sell debt when budgetary pressures affect perceptions of investors, whether or not such pressures have been formally captured in bond ratings. The higher interest rates put further pressure on already strained budgets. Often, just the possibility of higher rates may choke off bond issuances. In 1989, when the credit rating of the state of Massachusetts was being downgraded, local governments in the state postponed debt offerings until the situation stabilized. More recently, in September 1990, Philadelphia was unable to sell short-term securities because of its below-investment-grade debt rating and still worsening fiscal situation. Although the fiscal position of a state or municipality is not the only factor considered by credit rating agencies, it is an important one. For example, in the recent downgrading of the general obligation debt of New Haven, Connecticut, Moody's Investors Service noted the city's weakening fiscal health, the projected city budget deficit, the slowing regional economy, and large capital needs.

Although financing costs and balanced budget requirements tend to move state and local budgets toward surplus, political considerations usually do not allow large surpluses to persist. In 1978, after several years of significant state surpluses, voters in California approved Proposition 13, a state constitutional amendment designed to reduce property taxes collected by local governments. Within a few years, many other states had enacted legislation to reduce taxes or limit the growth of government. Currently, twenty-one states have either constitutional or statutory limits on spending or taxes.[3]

A state's difficulties with its general fund account often spill over into its capital spending. For example, in the energy-producing states of Colorado, Louisiana, Oklahoma, and Wyoming, construction spending was either cut or postponed during the mid- to late-1980s, with the funds diverted to current operations to help ease the effect of revenue shortfalls associated with the drop in the price of crude oil. In 1988, the state of New York used $600 million, previously intended for housing and repairs to roads and bridges, to help close a gap in the general fund budget. The deferred capital projects were built eventually but were funded from different sources—in the case of housing, from current revenues. More recent fiscal problems in its general fund budget have caused the state of New York actually to cut back its construction programs. Moreover, unlike earlier years, when current revenues in the general fund were high enough to support about 30 percent of capital expenditures, now virtually all such spending is financed through the debt markets.

Fiscal tightness is damping construction spending by cities, as well. To cope with budgetary pressures in 1990, nearly 40 percent of cities surveyed by the National League of Cities reduced the actual level of capital spending.[4]

All but three states ended fiscal year 1990 with balanced general fund budgets, according to the National Association of State Budget Officers. However, when resources available from the preceding year are excluded, expenditures exceeded revenue in thirty-three states. The exclusion of surpluses from the preceding year creates a budget concept somewhat closer

2. "Fiscal Notes," *State Budget and Tax News*, July 31, 1990, p. 11.

3. Scott Mackey, "Tax and Spending Limitations on the November Ballot," *The Fiscal Letter* (National Conference of State Legislatures), Sept./Oct. 1990, pp. 5–6.

4. Douglas D. Peterson, *City Fiscal Conditions in 1990* (Washington: National League of Cities, 1990), p. iv.

to that of NIPA, which includes only current outlays and current receipts; these surpluses are the source of some of the inconsistency between the fiscal balance reported in the general fund data and the fiscal erosion evident in NIPA. An additional source of this disparity is the exclusion of most capital accounts from state general fund accounts: The capital accounts may well have been in deficit in recent years as construction spending began to rise in the mid-1980s. Moreover, NIPA includes all local governments, which are responsible for about half of the sector's total expenditures and many of which also have been experiencing fiscal distress in recent years.

Social Insurance Funds

Separate from operating and capital accounts are the accounts of the state and local social insurance funds. For the sector as a whole, the surplus of the retirement systems constitutes 90 percent to 95 percent of the surplus of all the social insurance funds, which in some states also include worker's compensation and disability insurance. Roughly 90 percent of all state and local government workers are covered by about 10 percent of the approximately 6,000 pension funds in the sector.

Inflows to the insurance funds accrue from contributions by employers and personnel as well as from interest earnings. Offsetting these revenues are transfer payments to beneficiaries and administrative expenses. Surpluses of state and local social insurance funds are a source of saving that is available each year to the rest of the economy via the credit and equity markets; the surpluses have grown steadily in recent years and stood near $70 billion at an annual rate in the second quarter of 1990.

Almost all state and local pension funds are based on defined benefits. Government employees contribute a set percentage of their wages and salaries and the employing state or local government contributes the differential required to meet a calculated benefit. The funds are managed like private pension funds in that the assets of the funds are held against future claims by annuitants. Fund assets are invested mainly in U.S. government securities and in corporate bonds and stock.

The assets of these funds are considered to be outside the general fund and capital accounts of the state and local governments and are rarely touched even in the event of severe fiscal deterioration. However, public employers sometimes reduce their contributions in response to budgetary distress—the state governments of Texas, Oklahoma, Louisiana, and New York have been examples over the past few years. To facilitate this type of adjustment, some accounting device is typically used to decrease contributions or to lengthen the period of amortization of unfunded liabilities. New York State, for example, raised the interest rate assumption on which the earnings were based, leaving it room to cut its payments into the fund.

An important distinction exists between the state's contributions and the corpus, or assets, of the trust itself, and for states to borrow money directly from the corpus of their pension funds is extremely rare. Their fiduciary responsibility requires the administrators of pension funds to guard the corpus and earn the highest return possible; hence, investing in state bonds, for example, would not be prudent because they pay a relatively low, tax-exempt rate, and the pension systems are exempt from taxation. And a transfer from a pension fund to an operating account would be out of the question; interfund transfers are usually carried out only among dedicated funds that are under government control, like the state highway trust fund or the conservation fund.

The fundamental distinction between the social insurance funds and the fiscal accounts of state and local governments can be better appreciated if the insurance funds are viewed as private pension balances. Much of the long-run growth in social insurance funds can be attributed to the growth of public sector employment. If this employment growth had occurred in the private sector instead of the public sector—for example, through greater dependence on private schools or privately operated services—then, other things equal, public pension fund balances would have been lower and private pension fund balances would have been higher.

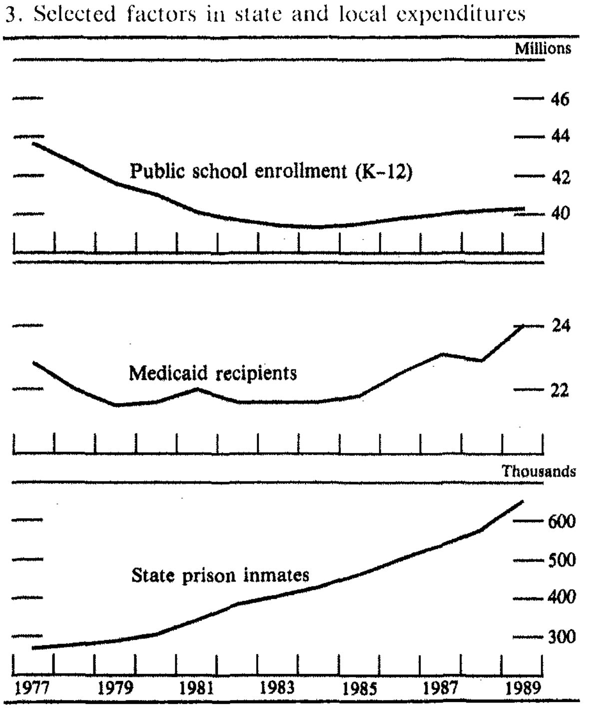
THE CURRENT FISCAL SITUATION

The deteriorating fiscal position of state and local governments stems from gathering pressures for more spending on facilities and services combined with weakened revenues. This section describes these problems and discusses the current fiscal policies of states and localities in dealing with them.

Expenditures

In recent years, fundamentals in several areas have necessitated greater spending than expected by budget planners. Currently, nearly two-thirds of state general fund budgets are dedicated to education, medicaid, and corrections; and current population trends point to further increases in these areas in the coming years (chart 3). Court orders in many states and federal mandates have also added to state spending requirements, and the repair and expansion of the public infrastructure has become an important goal in many states and localities.

3. Selected factors in state and local expenditures



SOURCE. U.S. Department of Education; Department of Health and Human Services; U.S. Department of Justice.

Education. Outlays on public education account for 50 percent of state general fund budgets, more than 40 percent of all purchases of goods and services by state and local governments, and more than 5 percent of gross national product. Such spending is likely to grow substantially over the next decade, both to improve the quality of education and to accommodate the rising number of school-age children.

To improve the quality of education, schools have imposed stricter course guidelines and required new competency tests for teachers and students, two relatively low-cost strategies. However, many school systems have added more significantly to costs by starting or expanding special education programs over the past two decades, especially those for handicapped children: In 1973, the Congress passed the Rehabilitation Act which, among other things, prohibited discrimination against the handicapped; and two years later, by adopting the Education of the Handicapped Act, the Congress required public school systems to make available to all handicapped children a free education appropriate to their needs. Since the passage of these bills, the handicapped have been educated increasingly through the public school system. In addition, programs for gifted, learning-disabled, and bilingual children have been expanded. These programs likely contributed not only to a lowering in the student-teacher ratio but also to the hiring of additional support personnel and the purchase of special equipment and supplies.

The quest for better schools received a boost in 1983 with the publication of a special study, *A Nation At Risk,* that was commissioned by Secretary of Education T.H. Bell in response to his concern about "the widespread public perception that something is seriously remiss in our educational system."[5] Weaknesses identified in the study centered on the curriculum, expectations about the level of knowledge that should be acquired, the time spent by American students on schoolwork as compared with the time spent

5. The National Commission on Excellence in Education, *A Nation at Risk: The Imperative for Educational Reform* (Government Printing Office, 1983), p. 1.

by children in other countries, and the relative attractiveness of the teaching profession. In response, some states adopted quality standards that eventually were viewed by local governments as commitments. Growth in real operational outlays for education accelerated during the mid-1980s, a response facilitated by the healthy fiscal position of state and local governments in the early years of the current economic expansion. A report published by the U.S. Department of Education in 1988, *American Education: Making it Work,* found that substantial progress had been made. For example, more students were studying basic subjects than earlier in the decade, and the performance of schools was judged to be generally improved. However, the study concluded that a considerable gap still existed between the current status of the educational system and the objectives.

Adding to the pressures on school budgets has been the current rise in the number of school children. After falling for twenty years, births nationwide began to increase during the mid-1970s, resulting in a corresponding rise in public elementary school enrollment in 1982. The number of elementary school teachers also started to increase that year, and real construction spending on educational facilities began to rise in 1985. At the secondary level, enrollment has continued to decline; however, the number of students in public high schools is expected to start increasing in 1991.

Projections by the Department of Education call for total public school enrollment to rise about 3 million by 1997 and for real expenditures to increase—by 2½ percent to 3 percent per year over the next decade; these estimates build-in both a sizable rise in the number of teachers and some increase in their real salaries. Spending on school construction is likely to rise, both to create space for the expanding population of school children and, in many school systems, to perform long-delayed repairs and maintenance. Clearly, keeping up with rising enrollments as well as quality goals could prove to be a formidable task for any government, but particularly for one plagued by revenue shortfalls.

Medicaid. Medicaid provides specific medical services to most recipients of federal cash assistance programs (Aid to Families with Dependent Children and Supplemental Security Income) and to others meeting a separate test of financial need. The program is administered by the states and funded by both the states and the federal government. States choosing not to participate in the national program must offer their own program; Arizona is the only state not participating. States may have broader programs than required, and their policies on reimbursement and administration differ; as a result, the medicaid program varies considerably from state to state.

Each state's federal payment for medicaid is dependent on its per capita income; currently, the federal government's share ranges from 50 percent to 78 percent. In addition, the medicaid program in some states includes recipients that are not eligible for federal matching funds; hence, those states receive no federal contribution for the care of such individuals.

Between 1987 and 1990, outlays for medicaid rose as a share of state expenditures from 10 percent to 12 percent. About half of the increase in medicaid costs during the mid-1980s appears to be attributable to inflation, about one-fourth to intensity of use (more services used per individual), and about one-fourth to an increase in the number of recipients—enrollment has grown 15 percent since 1980. Much of the increase in enrollment and intensity of use stems from federal mandates requiring states to cover individuals at higher levels of income or to include previously optional services. For instance, as of April 1, states were required to cover infants and pregnant women whose income is up to 133 percent of the poverty line and children up to age six; previously, only those whose incomes fell below poverty and children up to age one had to be covered. In addition, the October 1990 federal budget agreement further expanded coverage for children.

In fiscal year 1990, medicaid spending nationwide totalled $61 billion, with state governments paying for 42 percent of the total and about 25 million people receiving benefits. The 18 percent advance in state medicaid spending that year strained state general fund budgets that were written in anticipation of a 10 percent increase.[6]

Correctional Facilities. Corrections spending, which covers outlays for the construction and operation of state prisons, for probation and parole programs, and for juvenile justice systems, has been one of the fastest growing components of state general fund budgets since the mid-1980s. In the fiscal year just ended, spending on corrections grew 17 percent, compared with a 9.5 percent rise in total general fund outlays. Spending for corrections currently accounts for 5 percent of general fund budgets. Much of the increase in recent years arises from growth of the inmate population and from court orders addressing various aspects of the corrections system.

The number of inmates in state prisons had remained fairly steady in the postwar period until the late 1970s, when it began a rapid increase that has been attributed, in part, to the rise of illegal drug use. During the 1980s the number of inmates in state prisons more than doubled, to about 650,000, or about 60 percent of all inmates in the United States. (In 1989, another 35 percent were held at local jails, and 5 percent were in federal prisons.)

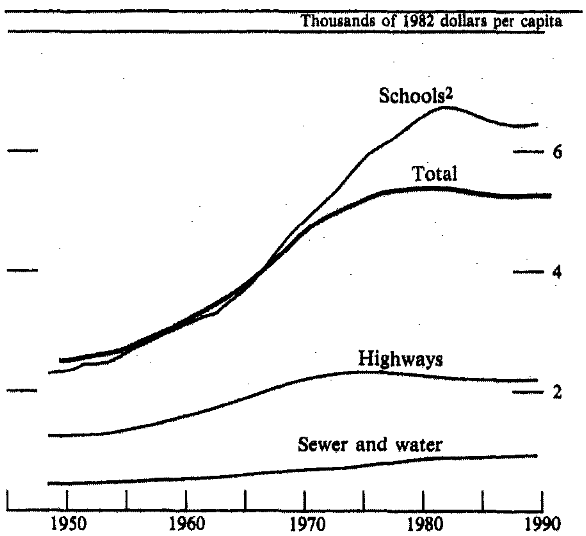
Numerous court orders to improve state prison systems in various ways have also added to costs. For example, as of January 1989, guidelines stipulating population limits had been set in twenty-seven states; orders covering other conditions in prisons had been handed down in thirty-one states; and the courts had appointed a variety of monitors and other overseers in fifteen states. In addition, health care costs have been rising, in part because of the growing incidence of AIDS among inmates in recent years.

Infrastructure. Throughout the past decade the nation has become increasingly aware of the deterioration of its public infrastructure, which broadly speaking includes roads and bridges, water supply and treatment facilities, prisons, schools, hospitals, and parks. In response to this concern, and with the support of an improved fiscal posture, state and local construction spending began to advance in 1984. By far the largest increase was in school building, which makes up about one-fifth of state and local construction spending. In addition, real outlays for highways, bridges, and sewer and water facilities increased considerably. Indeed, by the third quarter of 1990, the level of real construction spending was 50 percent above its low at the end of 1983.

Despite this rise in outlays, construction activity remained low relative to total state and local government expenditures throughout the 1980s. And further examination shows that the state and local stock of structures, net of depreciation and measured in real terms, while still quite high, has been little changed per capita since the mid-1970s—falling a bit during the early 1980s and then edging up in recent years when outlays for construction began to rise; it currently stands 2 percent below the high, recorded in 1979 (chart 4).

Among the major components of infrastructure, the per capita stock of highways and streets fell steadily from its peak in 1974 and then increased in 1987 and 1988. The stock of educational facilities, measured against the number of school-age children, edged up in the late 1980s, after falling for six years. However, the per

4. Stock of structures and of selected components in the state and local sector[1]



1. All values are net of depreciation.
2. Per school-age child.
SOURCE. U.S. Department of Commerce, Bureau of Economic Analysis.

6. Corina L. Eckl, Anthony M. Hutchison, and Ronald K. Snell, *State Budget and Tax Actions 1990*, Legislative Finance Paper 74 (Denver and Washington: National Conference of State Legislatures, September 1990).

The Stock of Public Capital and Productivity

The growth in both the stock of public capital and in productivity slowed in the 1970s and 1980s. Some analysts, notably David Alan Aschauer, have argued that a strong, contemporaneous, causal link exists between investment in public capital and growth in productivity (see his "Is Public Expenditure Productive?" *Journal of Monetary Economics*, vol. 23, March 1989, pp. 177–200). Adding to the public capital stock, these analysts say, would bolster potential output in the economy: Adequate public capital lowers private costs, and close associations can be made, for example, between growth in the nation's output and the construction of the interstate highway system.

A number of contrary arguments, however, raise questions about the strength of the association between spending on public works and productivity gains—especially in the short run. Even in the case of roads and bridges, much repair and modernizing would not enhance productivity in the short run. For example, most of the numerous bridges about which authorities currently worry are still used each day and could perhaps remain serviceable for quite a few more years. Educational facilities may also have direct links to productivity; but many years must pass before today's grade schoolers can enter the work force, so any connection between improved educational facilities and increased output per hour would not be contemporaneous. Also, although the connection between productivity and the community well-being that is promoted by spending on correctional facilities, hospitals, and parks is intuitive, it is unlikely to be strong, especially in the short run. Thus, while modern societies are dependent on a sound infrastructure, as the foregoing examples suggest, the qualitative notion that an infusion of capital spending, on the margin, will spur increases in output per factor input is not clear.

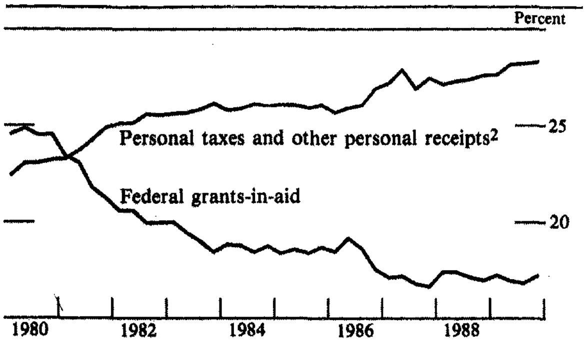
An analysis using the same framework as that of Aschauer suggests that the relationship between growth in multifactor productivity and growth in the public capital stock (nonmilitary federal, state, and local equipment and structures) is significant but inelastic. Of the total stock of public capital, state and local structures have the greatest effect on productivity; neither the stock of federal structures nor that of total equipment is significantly related to multifactor productivity. The amount of "core" infrastructure—roads, bridges, sewers, and water supply systems—has the strongest statistical relation to productivity, with an elasticity slightly higher than that for total state and local structures. Educational facilities are also significant, but have an elasticity lower than that for the total. The remaining category, which includes hospitals, office buildings, and all other structures, is not statistically significant. Also, on a more disaggregate basis, only one of twelve industries studied—the petroleum industry—showed a statistically significant relationship between its productivity and the level of core infrastructure.

Most economists think that a multitude of factors contributed to the productivity slowdown during the 1970s. Although the slowing in the growth of the public capital stock may be one of these factors, conventional growth accounting also casts doubts on assigning it a central role, as does most work by others that is based on microeconomic or regional data. Maintenance of the nation's infrastructure is important, and new facilities must be provided for growing neighborhoods and businesses. But given the current evidence, we should not expect infrastructure investment, by itself, to have a strong effect on productivity growth in the short run.

capita stock of water supply and treatment systems has continued to trend up throughout the postwar period as has the per capita stock of miscellaneous capital, which includes correctional facilities, hospitals, and other governmental buildings and structures.

Further spending to expand and upgrade the infrastructure is expected to remain an important priority among state and local governments in the years ahead, as state and local structures account for 80 percent of the nondefense public capital stock. Aging highways, bridges, and water systems will need to be repaired or replaced, and increased school and prison populations, noted above, will require more building. Some federal aid is available, particularly for highways and

5. Selected collections as a proportion of state and local receipts[1]



1. *Quarterly data; excludes contributions for social insurance.*
2. See text note 7.
SOURCE. National income and product accounts.

mass transit, but financing the bulk of the spending will be up to state and local governments.

Revenue

The postwar growth of federal aid to state and local governments ended in the 1980s. During that decade, federal aid fell as a share of state and local revenues—excluding social insurance funds—from 25 percent to 17 percent (chart 5). Indeed, at the outset of the period, support was actually reduced in nominal terms, from nearly $89 billion in 1980 to less than $84 billion just two years later. In addition, tax collections fell below expected levels as growth in most tax bases slowed late in the decade and corporate profits declined.

With the decline of federal aid, state and local governments became more dependent on personal receipts—taxes, fees, and charges—to fund their budgets; during the 1980s, the proportion of revenue derived from these sources grew from 23 percent to 28 percent (chart 5). In addition, many states raised excise tax rates during the 1980s, especially on gasoline and cigarettes.[7]

In fiscal 1990, twenty-six state legislatures enacted tax hikes, some of them unusually large. According to the National Association of State Budget Officers, the 1990 increases will add $10.3 billion to fiscal 1991 receipts, the largest nominal increase on record; the additional revenue is expected to be concentrated in New Jersey, New York, California, Massachusetts, and Florida. For fiscal 1991, more than half the rise is expected to come from increases in general sales taxes and personal income taxes.

Local governments also have come under considerable budgetary pressure this past fiscal year. A survey by the National League of Cities reported that, despite tax hikes and spending reductions, expenditures would outstrip receipts in fiscal 1990 in 54 percent of cities; over the preceding six years, the proportion of such cities ranged between 24 and 40 percent.[8] Further increases in local taxes may be inevitable as state governments, along with the federal government, cut back aid. Massachusetts and North Carolina reduced their grants to local government this year, and Virginia is expected to follow suit. Some states have cleared the way for local tax hikes by authorizing such increases—for example, higher sales taxes in Arizona and South Carolina and a "local-option" gasoline tax in Florida. Some states increased the amount of property taxes that localities must raise in order to qualify for state aid. In a few states, a change in school-aid formulas could shift some state funds out of more affluent communities and force them to raise local taxes to maintain their school budgets; likewise, however, the rise in overall state tax collections and the shift in aid formulas could result in some property tax relief in other communities.

Many local jurisdictions have increased property taxes even as several states are experiencing tax revolts and granting some relief. A survey of municipalities revealed that 41 percent raised property tax rates in fiscal year

7. Personal levies, reported collectively as personal tax and nontax receipts, comprise income taxes; estate, gift, and personal property taxes; tuition at state and local universities; hospital and other health-related charges; and fines and other fees. In contrast to these revenues, total sales taxes, which include excise taxes, have risen only slightly as a share of the sector's total revenue over the decade; excise taxes are set at a fixed amount per unit sold, whereas general sales taxes are levied as a proportion of the dollar amount sold.

8. Peterson, *City Fiscal Conditions*, pp. 8–9.

1990, while 43 percent created new fees, and 76 percent raised the level of fees and charges.[9] Moreover, for the year ending in the second quarter of 1990, property tax collections rose faster than the NIPA measure of total state and local tax receipts. Many of the local governments that have not raised property tax rates have seen their collections bolstered by the increase in assessed values that reflected price advances during the late 1980s; however, prospects for further increases in assessed values are less favorable, given more recent price developments.

About one-third of local government receipts comes from property taxes, with a smaller share coming from fees and charges; both types of levies are a logical source of additional revenue for these governments during periods of budgetary tightness. State governments also have been raising fees and charges in recent years. But local governments are more dependent on fees and charges than are state governments, and as local governments are pinched by falling federal and state aid, they can be expected to place even greater reliance on such income.

9. Peterson, *City Fiscal Conditions*, p. iv.

The Outlook

The combined operating and capital account of the state and local government sector has been in deficit now for nearly four years and probably will remain so for several years more. Nonetheless, the deficits are likely to diminish. Tax hikes among states were large and numerous in 1990, and local governments raised property taxes and fees and charges. On the spending side, some cuts from earlier plans have been made on the education front, and other spending compromises can be expected. Overall, with rising revenues and some constraint on spending, one might expect to see better fiscal health in the years ahead.

This outlook is predicated on the assumption of continued growth in the economy as a whole. Tax collections depend not only on tax rates but also on incomes and sales. If the economy weakens in the year ahead, state and local governments will have more difficulty bringing revenues and expenditures into alignment.

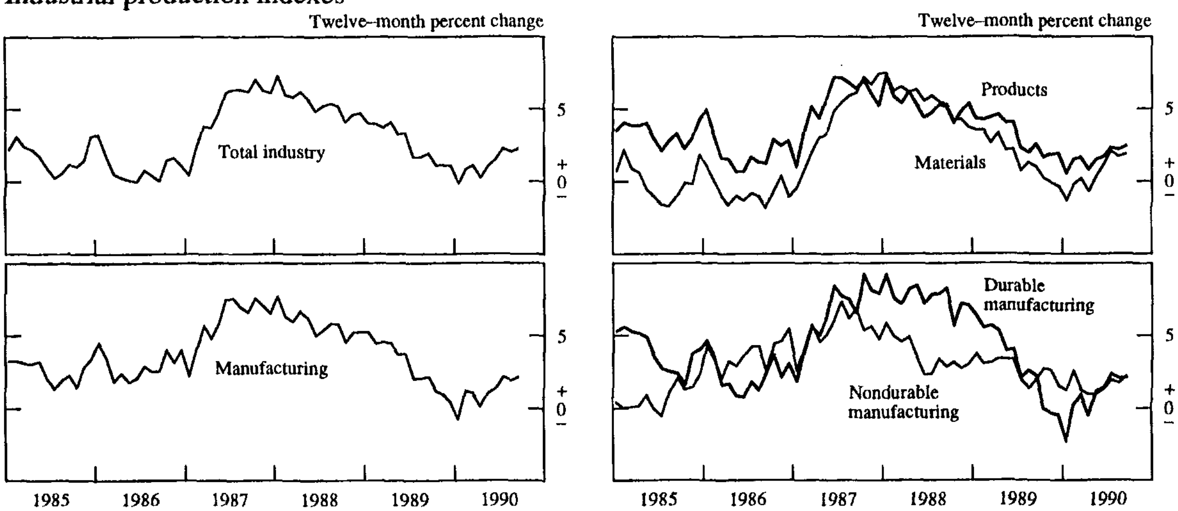
Industrial Production and Capacity Utilization

Released for publication on October 17

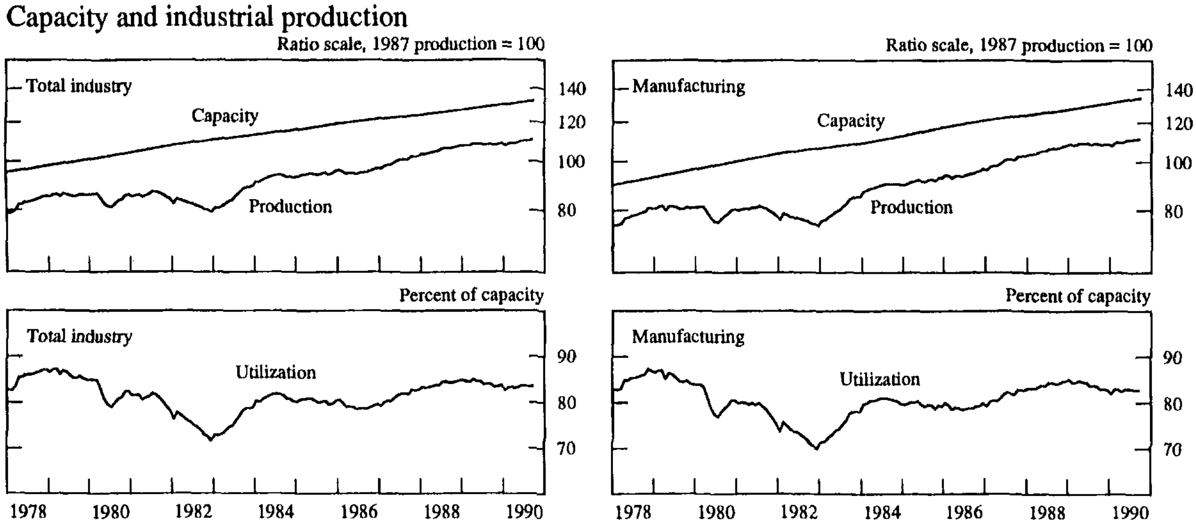
Industrial production increased 0.2 percent in September; because upward revisions were made to estimates for earlier months, the index now shows increases of 0.1 percent in August and 0.2 percent in July. On a quarterly average basis, industrial production in the third quarter grew at nearly the same pace as in the second quarter; however, the average monthly gain during the summer was about one-half of that posted during the preceding quarter. Industrial capacity utilization was unchanged in September at 83.6 percent.

In September, the output of motor vehicles and parts rose 7.5 percent, boosting the indexes for both consumer goods and business equipment. With production of motor vehicles and parts excluded, industrial output edged down in

Industrial production indexes



Capacity and industrial production



All series are seasonally adjusted. Latest series, September.

Industrial production	1987 = 100				Percentage change from preceding month				Percentage change, Sept. 1989 to Sept. 1990
	1990				1990				
	June[r]	July[r]	Aug.[r]	Sept.[p]	June[r]	July[r]	Aug.[r]	Sept.[p]	
Total index	**110.1**	**110.3**	**110.4**	**110.7**	**.6**	**.2**	**.1**	**.2**	**2.2**
Previous estimates	110.0	110.0	109.8	...	.5	.0	−.2	...	...
Major market groups									
Products, total	**110.9**	**110.8**	**110.9**	**111.5**	**.3**	**−.1**	**.1**	**.5**	**2.4**
Consumer goods	107.8	107.3	107.8	109.1	.3	−.4	.5	1.2	2.7
Business equipment	124.4	124.6	124.8	125.6	.7	.1	.2	.6	4.1
Construction supplies	106.0	106.4	105.9	104.9	.5	.3	−.5	−.9	−.3
Materials	108.8	109.5	109.7	109.4	1.0	.7	.1	−.2	1.9
Major industry groups									
Manufacturing	110.8	111.0	111.2	111.4	.5	.1	.2	.2	2.1
Durable	113.4	113.2	113.6	113.8	.7	−.1	.3	.2	2.1
Nondurable	107.6	108.1	108.1	108.3	.2	.5	−.1	.2	2.2
Mining	102.2	103.5	101.8	102.1	.0	1.3	−1.7	.4	.6
Utilities	109.7	109.4	110.8	111.8	2.5	−.4	1.3	.9	5.6

Capacity utilization	Percent of capacity								Capacity growth, Sept. 1989 to Sept. 1990
	Average, 1967–89	Low, 1982	High, 1988–89	1989	1990				
				Sept.	June	July	Aug.	Sept.[p]	
Total industry	**82.2**	**71.8**	**85.0**	**83.9**	**83.7**	**83.7**	**83.6**	**83.6**	**2.6**
Manufacturing	81.5	70.0	85.1	83.6	83.0	82.9	82.8	82.8	3.1
Advanced processing	81.1	71.4	83.6	82.5	81.9	81.6	81.5	81.7	3.4
Primary processing	82.3	66.8	89.0	86.1	85.5	86.0	86.0	85.4	2.5
Mining	87.3	80.6	87.2	87.2	88.8	90.0	88.6	89.0	−1.5
Utilities	86.8	76.2	92.3	84.3	86.8	86.4	87.4	88.1	1.0

r Revised.
p Preliminary.

NOTE. Indexes are seasonally adjusted.

September: Output of consumer nondurable goods and energy materials rose sharply, but production in most other major market categories declined in September. During the past year, total industrial output has risen 2.2 percent to 110.7 percent of its 1987 annual average.

In market groups, production of consumer goods other than autos and trucks increased 0.5 percent in September. Nondurables, particularly foods, posted noticeable gains, but output of appliances and other goods for the home remained sluggish. Excluding motor vehicles, production of business equipment declined 0.3 percent, reflecting not only a decrease in industrial equipment but also a slowing in information processing and related equipment. Both of these equipment sectors had posted large production gains earlier in the summer. Output of construction supplies fell sharply in August and September after rising a bit in the prior two months; since the beginning of the year, production in this market category has fallen nearly 3 percent. Output of both durable and nondurable materials declined in September. Among durables, the largest drop occurred in the production of basic metals, in part because steel output, which had surged in August, dropped back. Output of nondurables declined in the past two months, retracing the sizable gains made in June and July; the production of textiles has been particularly weak. The rise in output of energy materials reflected another jump in electricity generation and a rebound in coal mining.

In industry groups, manufacturing output edged up 0.2 percent in September, leaving the factory operating rate unchanged at 82.8 percent—about the same level of utilization that has prevailed throughout most of this year. Apart from the sharp rise in motor vehicle assemblies, manufacturing output dropped 0.2 percent, with declines widespread among all primary processing industries except petroleum.

Even though the operating rates for both steel and nonferrous metals dropped back in September, they were still well above levels seen earlier in the year. Only construction-related industries have experienced a noticeable decline in their operating rates since the beginning of this year.

Other advanced processing industries that posted gains in September included food, chemical products, and miscellaneous manufacturing. In contrast, the production of nonelectrical machinery declined in September, bringing down the utilization rate, which by August had come close to its 1988–89 high.

The rise in the output in mining and at utilities moved the operating rate up for both sectors. The utilization rate for mining has changed little, on balance, since last spring, while the rate for utilities has risen sharply.

Statements to the Congress

Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Subcommittee on Commerce, Consumer, and Monetary Affairs of the Committee on Government Operations, U.S. House of Representatives October 3, 1990.

I am pleased to appear before the committee to discuss deposit insurance reform. The issue has increasingly come to the attention of the Congress and the media as the cost of resolution of failed thrift institutions becomes more apparent and as various government and private reports focus on the potential liabilities facing the Bank Insurance Fund. Last year the Congress mandated a study of the issues by the Treasury. This study, in which the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency (OCC), the Office of Thrift Supervision (OTS), and other agencies will be active participants, will be published later this year or early next. But hearings on the issues now by this and several other committees of the Congress will, I hope, sharpen the focus on the need for legislation promptly after the release of the Treasury report.

Your letter of invitation, Mr. Chairman, focuses on the issues associated with the feasibility, benefits, and risks of some reduction in insurance coverage and the associated potential for enhanced depositor discipline. The Board has considered these highly complex and important questions on several occasions. My statement today will summarize our views on this approach to the problem, but the Board believes it is important for the Congress to review options other than reduced insurance coverage to address the root cause of the taxpayer exposure and the potential financial market distortions associated with our present deposit insurance and supervisory approaches.

As you know, Mr. Chairman, the Board also believes that deposit insurance reform is intimately related to the pressing need to modernize our banking system in other ways. The erosion of the domestic and international competitive position of U.S. banks must be addressed by expanded permissible activities and wider geographical branching powers, and we believe that legislation in this area should be joined with deposit insurance reform. I have presented the Board's proposals on these subjects before the Senate and House Banking committees this summer. Given the narrower focus of the hearings today, and the additional witnesses this morning, I have omitted a detailed delineation of the Board's modernization proposals, but I nevertheless want to underline their importance, with the strong endorsement that these issues should, in the Board's view, be considered jointly with deposit insurance reform by this committee and by both Houses of the Congress.

The fundamental problems with our current deposit insurance program are clearly understood and are, I believe, subject to little debate among those with drastically different prescriptions for reform. The safety net—deposit insurance, as well as the discount window—has so lowered the risks perceived by depositors as to make them relatively indifferent to the soundness of the depository recipients of their funds, except in unusual circumstances. With depositors exercising insufficient discipline through the risk premium they demand on the interest rate they receive on their deposits, the incentive of some banks' owners to control risktaking has been blunted. Profits associated with risktaking accrue to owners, while losses in excess of bank capital that would otherwise fall on depositors are absorbed by the FDIC.

Weak depositor discipline and this moral hazard of deposit insurance have two important implications. First, the implicit deposit insurance subsidy has encouraged banks to enhance their profitability by increasing their reliance on deposits rather than capital to fund their assets. In effect, the deposit insurance funds have been increasingly substituted for private capital as the cushion between the asset portfolios of insured institutions and their liabilities to depositors. A hundred years ago, the average ratio of equity capital to assets of U.S. banks was almost 25 percent, approximately four times the current level. Much of the decline over the past century no doubt reflects the growing efficiency of our financial system. But it is difficult to believe that many of the banks operating over recent decades would have been able to expand their assets so much, with so little additional investment by their owners, were it not for the depositors' perception that, despite the relatively small capital buffer, their risks were minimal. Regulatory efforts over the past ten to fifteen years have stabilized and partially reversed the sharp decline in ratios of bank equity to capital assets. This has occurred despite the sizable write-off of loans and the substantial buildup in loan-loss reserves in the last three years or so. But the capital ratios of many banks are still too low.

Second, government assurances of the liquidity and availability of deposits have enabled some banks with declining capital ratios to fund riskier asset portfolios at a lower cost and on a much larger scale, with governmental regulations and supervision, rather than market processes, the major constraint on risktaking. As a result, more resources have been allocated to finance risky projects than would have been dictated by economic efficiency.

In brief, the subsidy implicit in our current deposit insurance system has stimulated the growth of banks and thrift institutions. In the process the safety net has distorted market signals to depositors and bankers about the economics of the underlying transactions. This distortion has led depositors to be less cautious in choosing among institutions and has induced some owners and their managers to take excessive risk. In turn, the expanded lending to risky ventures has required increased effort and resources by supervisors and regulators to monitor and modify behavior.

But in reviewing the list of deficiencies of the deposit insurance system, particularly if an increased role for depositor discipline is contemplated, we should not lose sight of the contribution that deposit insurance has made to macroeconomic stability. The existence and use of the safety net have shielded the broader financial system and the real economy from instabilities in banking markets. More specifically, it has protected the economy from the risk of deposit runs, especially the risk of such runs spreading from bank to bank, disrupting credit and payment flows and the level of trade and commerce. Confidence in the stability of the banking and payments system has been the major reason why the United States has not suffered a financial panic or systemic bank run in the last half century.

There are thus important reasons to take care as we modify our deposit insurance system. Reform is required. So is caution. The ideal is an institutional framework that, to the extent possible, induces banks both to hold more capital and to be managed as if there were no safety net, while at the same time shielding unsophisticated depositors and minimizing disruptions to credit and payment flows.

The congressional increase in the deposit insurance level in 1980 from \$40,000 to \$100,000 was intended to permit depository institutions to have access to deposits not subject to the rate ceilings then in force. Disintermediation especially suggested the need to facilitate the access of thrift institutions to funds that would substitute for the retail deposits that were at the time bleeding off to higher-yielding market instruments at rates that thrift portfolios would not permit them to match. Large time deposits—defined by the regulators as those of more than \$100,000—were exempt from rate ceilings on the thought that their size—more than twice the then-insured level—implied sophisticated holders familiar with market instruments and the evaluation of financial assets. It was argued that an increase in deposit insurance coverage to the level that would exempt such deposits from rate ceilings would open up access by smaller and weaker depository institutions to large-denomination time deposits that previously had been limited to a smaller set of depositories for whom the market was willing to provide significant uninsured funding. Such funding at market rates, it was contemplated, would not require raising yields for the retail depositors willing to remain at lower rates. The extension of deposit insurance was thus an increase in a subsidy in lieu of the removal of regulations that were phased out some time later by the Depository Institutions Deregulation Act. But, as in virtually all other cases, the subsidy remained.

If we were starting from scratch, the Board believes it would be difficult to make the case that deposit insurance coverage should be as high as its current $100,000 level. However, whatever the merits of the 1980 increase in the deposit insurance level from $40,000 to $100,000, it is clear that the higher level of depositor protection has been in place long enough to be fully capitalized in the market value of depository institutions and embedded in the financial decisions of millions of households. The associated scale and cost of funding have been incorporated into a wide variety of bank and thrift decisions, including portfolio choices, staffing, branch structure, and marketing strategy. Consequently, a return to lower deposit insurance coverage—like any tightening of the safety net—would reduce insured depository market values and involve significant transition costs. It is one thing initially to offer and then to maintain a smaller degree of insurance coverage, and quite another to reimpose on the existing system a lower level of insurance, with its associated readjustment and unwinding costs. This is why the granting of subsidies by the Congress should be considered so carefully: They not only distort the allocation of resources but also are extremely difficult to eliminate, imposing substantial transition costs on the direct and indirect beneficiaries. For such reasons, the Board has concluded that, should the Congress decide to lower deposit insurance limits, a meaningful transition period would be needed.

Another relevant factor that should be considered in evaluating the $100,000 insurance limit is the distribution of deposit holders by size of account. Unfortunately, data to analyze this issue by individual account holder do not exist. However, we have been able to use data collected on an individual household basis in our 1983 Survey of Consumer Finances to estimate the distribution of account holders. While these data are seven years old, they are the best available until results from our 1989 Survey of Consumer Finances become available this fall. I have attached as an appendix to this statement summary tables and descriptive text of the 1983 survey results.[1] Briefly, the survey suggests that in 1983 between 1.0 and 1.5 percent of U.S. households held deposit balances in excess of $100,000. The demographic characteristics of these account holders suggest that they are mainly older, retired citizens with most of their financial assets in insured accounts. These characteristics of heads of households owning deposits are remarkably stable as the size of deposits declines to $50,000.

A 1988 survey of small and medium-sized businesses—described in the second appendix to this statement—suggests that 7.1 percent of such businesses had at least one account in excess of $100,000. These firms are generally of modest size: Those with uninsured deposits had median sales of $3.2 million, had less than fifty employees, and more than 10 percent of these entities were proprietorships or partnerships. The 1988 small business survey suggests a sharp drop-off in the size of firms as the maximum deposit declines to, say, $50,000.

Some have suggested a reduction of deposit insurance to that level, and the available evidence suggests that persons and small businesses with $50,000 of deposits would probably be as capable as current depositors with more than $100,000 of assessing the health of their banks or thrift institutions. As I noted, the demographics of the two household groups are similar, although the business units with balances between $50,000 and $100,000 have significantly smaller scale than those with balances of more than $100,000. In addition, it is arguable that, should the insured deposit limit be reduced to $50,000, and policies adopted that make losses by uninsured depositors much more likely than they are today, uninsured depositors with a strong preference for safety would be able to purchase evaluations of banks and thrift institutions from professional analysts. Such depositors would also have access

1. The attachments to this statement are available upon request from Publications Services, mail stop 138, Board of Governors of the Federal Reserve System, Washington, D.C. 20051.

to alternative safe investments, especially Treasury securities.

Nevertheless, the characteristics of households and small businesses with deposits between $50,000 and $100,000 do not suggest that they, compared with many other market participants, have the most resources and greatest abilities to bring market discipline to bear on depository institutions. Thus it seems reasonable to question whether such depositors should be assigned a key role in deposit insurance reform. Moreover, as discussed above, the benefits of lowering deposit insurance coverage at this time must be balanced against the readjustment and unwinding costs imposed on individuals, institutions, and markets that have adapted to the $100,000 deposit insurance level.

A decision by the Congress to leave the $100,000 limit unchanged, however, should not preclude other reforms that would reduce current inequities in, and abuses of, the deposit insurance system, often thwarting its purpose. Serious study should be devoted to the cost and effectiveness of policing the $100,000 limit so that multiple accounts are not used to obtain more protection for individual depositors than the Congress intends. We at the Federal Reserve believe that it is administratively feasible—but not costless—to establish controls on the number and dollar value of insured accounts per individual at one depository institution, at all institutions in the same holding company, and perhaps—at sharply rising cost and complexity—even across unrelated depositories. But we are concerned about the cost and administrative complexity of such schemes and would urge the careful weighing of benefits and costs before adopting any specific plan.

The same study could consider the desirability of limiting pass-through deposit insurance—under which up to $100,000 of insurance protection is now explicitly extended to each of the multiple beneficiaries of some large and otherwise uninsured deposits. Brokered accounts of less than $100,000 also have been used to abuse deposit insurance protection, particularly by undercapitalized institutions. However, the study should keep in mind the power that the Congress has already provided the agencies to constrain misuse of brokered accounts.

No matter what the Congress decides on deposit insurance limits, we must be cautious of our treatment of uninsured depositors—whether defined as those in excess of $50,000 or $100,000. Such depositors should be expected to assess the quality of their bank deposits just as they are expected to evaluate any other financial asset they purchase. Earlier I noted that our goal should be for banks to operate as much as possible as if there were no safety net. In fact, runs of uninsured deposits from banks under stress have become commonplace.

So far, the pressure transmitted from such episodes to other banks whose strength may be in doubt has been minimal. Nevertheless, the clear response pattern of uninsured depositors to protect themselves by withdrawing their deposits from a bank under pressure raises the very real risk that in a stressful environment the flight to quality could precipitate wider financial market and payments distortions. These systemic effects could easily feed back to the real economy, no matter how open the discount window and how expansive open market operations. Thus, while deposits in excess of insurance limits should not be protected by the safety net at any bank, reforms designed to rely mainly on increased market discipline by uninsured depositors raise serious stability concerns.

An example of one such approach is depositor coinsurance or a deductible under which a depositor at a failed institution receives most, but not all, of his or her deposit in excess of a reduced (or the current) insurance limit. This option has some attractions, coupling depositor market discipline with relatively modest possible losses to depositors. The Board believes, however, that an explicit policy that requires imposition of uninsured depositor loss—no matter how small—is likely to increase the risk of depositor runs and to exacerbate the depositor response to rumors.

Another option to rely more on private-market incentives without necessarily reducing the size of insurance coverage is the use of private deposit insurance as a replacement for FDIC insurance. This option would require, of course, that all relevant supervisory information—much of which is now held confidential—be shared with private insurers who would be obligated to use that information only to evaluate the risk of depositor insurance and not for the purposes of adjusting any of their own portfolio options. In addition, it is clearly unreasonable to impose on private insurers any macrostability responsibilities in their commercial underwriting of deposit insurance. Private insurers' withdrawal of coverage in a weakening economy, or their unwillingness to forebear in such circumstances would be understandable but counterproductive. Private insurers' inability to meet their obligations after an underwriting error would be disruptive at best and involve taxpayer responsibility at worst. Private insurance and public responsibility unfortunately are not always compatible. Many of these concerns are mitigated if private insurance is used as a supplement to FDIC insurance, say to cover a coinsurance portion above some minimum. However, we would remain concerned about mutual assurance among groups of banks who would seek to evaluate each other's risk exposure and discipline overly risky entities by expulsion from their mutual guarantee syndicate. In addition, a system of mutual guarantees by banks could raise serious anticompetitive issues.

There has also been support for the increased use of subordinated debentures in the capital structure of banking organizations. Intriguing attractions of this option are the thoughts that nonrunnable, but serially maturing, debt would provide both enhanced market discipline and a periodic market evaluation of the bank. The Board continues to support the use of subordinated debt for these reasons, as well as the fact that it provides supplementary capital to act as an additional buffer to the FDIC over and above that provided by the owners' equity capital. But, in our view, subordinated debentures can only be supporting players and cannot be awarded the central role in reform. This is a limited source of capital and one that may prove difficult and expensive to obtain when advertised as having limited returns like debt, but whose holders are expected to absorb losses for the FDIC like equity. Adding features to make it more attractive adds complications that perhaps are best met directly by additional pure equity and other reforms.

A promising approach that seeks to simulate market discipline with minimal stability implications is the application of risk-based deposit insurance premiums by the FDIC. The idea is to make the price of insurance a function of the bank's risk, reducing the subsidy to risktaking and spreading the cost of insurance more fairly across depository institutions. In principle, this approach has many attractive characteristics, and could be designed to augment risk-based capital. For example, banks with high risk-based capital ratios might be charged lower insurance premiums. But the range of premiums necessary to induce genuine behavioral changes in portfolio management might well be many multiples of the existing premium, thereby raising practical concerns about its application. Risk-based premiums also would have to be designed with some degree of complexity if they are to be fair and if unintended incentives are to be avoided. In any event, the potential additional benefits on top of an internationally negotiated risk-based capital system, while positive, require further evaluation.

Another approach that has induced increasing interest is the insured narrow bank. Such an institution would invest only in high quality, short-maturity, liquid investments, recovering its costs for checking accounts and wire transfers from user fees. The narrow bank would thus require drastic institutional changes, especially for thousands of our smaller banks and for virtually all households using checking accounts. Movement from the present structure for delivery of many bank services would be difficult and costly, placing U.S. banks at a disadvantage internationally. In addition, this approach might shift and possibly focus systemic risk on larger banks. Banking organizations would have to locate their business and household credit operations in nonbank affiliates funded by uninsured deposits and borrowings raised in money and capital markets. Only larger organizations could fund in this way, and these units, unless financed longer term than banks today, would, even with the likely higher capital ratio imposed on them by the market, be subject to the same risks of creditor runs that face uninsured banks, with all of the associated systemic implications. If this were the case, we might end up with the same set of challenges we face today, refocused on a different set of institutions. We at the Board believe that while the notion of a narrow bank to insulate the insurance fund is intriguing, in our judgment further study of these systemic and operational implications is required.

If, in fact, proposals that rely on uninsured depositor discipline, private insurance, subordinated debentures, risk-based premiums, and structural changes in the delivery of bank services raise significant difficulties, reform should then look to other ways to curb banks' risk appetites, and to limit the likelihood that the deposit insurance fund, and possibly the taxpayer, will be called on to protect depositors. The Board believes that the most promising approach is to reform both bank capital and supervisory policies. This would build upon the groundwork laid in the Financial Institution Reform, Recovery, and Enforcement Act of 1989 (FIRREA), in which the Congress recognized as key components of a sound banking system the essentiality of strong capital plus effective supervisory controls. Both would be designed to reduce the value of the insurance subsidy. Neither would rule out either concurrent or subsequent additions to deposit insurance reform, such as the changes discussed previously, other proposals, or new approaches that may emerge in the years ahead. In fact, higher capital, by reducing the need for, and thereby the value of, deposit insurance would make subsequent reform easier. There would be less at stake for the participants in the system.

At the end of this year, the phase-in to the International Capital Standards under the Basle Accord will begin. This risk-based capital approach provides a framework for incorporating portfolio and off-balance-sheet risk into capital calculations. Most U.S. banks have already made the adjustment required for the fully phased-in standard that will be effective at the end of 1992. However, the prospect of an increasingly competitive environment suggests that the minimum level of capital called for by the 1992 requirements may not be adequate, especially for institutions that want to take on additional activities. As a result of the safety net, too many banking organizations, in our judgment, have traveled too far down the road of operating with modest capital levels. It may well be necessary to retrace our steps and begin purposefully to move to capital requirements that would, over time, be more consistent with what the market would require if the safety net were more modest. The argument for more capital is strengthened by the necessity to provide banking organizations with a wider range of service options in an increasingly competitive world. Indeed, projections of the competitive pressures only intensify the view that if our financial institutions are to be among the strongest in the world, let alone avoid an extension of the taxpayers' obligation to even more institutions, we must increase capital requirements. Our international agreements under the Basle Accord permit us to do so.

There are three objectives of a higher capital requirement. First, higher capital would strengthen the incentives of bank owners and managers to evaluate more prudently the risks and benefits of portfolio choices because more of their money would be at risk. In effect, the moral hazard risk of deposit insurance would be reduced. Second, higher capital levels would create a larger buffer between the mistakes of bank owners and managers and the need to draw on the deposit insurance fund. For too many institutions, that buffer has been too low in recent years. The key to creating incentives to behave as the market would dictate, and at the same time creating these buffers or shock absorbers, is to require that those who would profit from an institution's success have the appropriate amount of their own capital at risk. Third, requiring higher capital imposes on bank managers an additional market test. They must convince investors that the expected returns justify the commitment of risk capital. Those banks unable to do so would not be able to expand.

We are in the process in the Federal Reserve System of developing more specific capital proposals, including appropriate transition arrangements designed to minimize disruptions. However, at the outset I would like to anticipate several criticisms. For many banks, raising significant new capital will be neither easy nor cheap. Maintaining return on equity will be more difficult, and those foreign banks that only adhere to the Basle minimums may have lower capital costs relative to some U.S. banks. Higher capital requirements also will tend to accelerate the move toward bank consolidation and slow bank asset growth. However, these concerns must be balanced against the increasing need for reform now, the difficulties with all the other options, and both the desire of and necessity for banking organizations to broaden their scope of activities to operate successfully.

More generally, many of the arguments about the competitive disadvantages of higher capital requirements are shortsighted. Highly leveraged banks are less able to respond to rapidly changing situations. In fact, well-capitalized banks are the ones best positioned to be successful in the establishment of domestic and foreign long-term relationships, to be the most attractive counterparties for a large number of financial transactions and guarantees, and to expand their business activities to meet new opportunities and changing circumstances. Indeed, many successful U.S. and foreign institutions would today meet substantially increased risk-based capital standards. In addition, the evidence of recent years suggests that U.S. banks can raise sizable equity. The dollar volume of new stock issues by banking organizations has grown at a greater rate since the late 1970s than the total dollar volume of new issues by all domestic corporate firms. The recent declines in bank stock prices, reflecting market concerns about the quality of bank assets, will make the capital building process more difficult and costly. However, over time, banks with sound management policies will be able to continue to build their capital base.

Higher capital standards should go a long way toward inducing marketlike behavior by banks. However, the Board believes that, so long as a significant safety net exists, additional inducements will be needed through an intensification of supervisory efforts to deter banks from maintaining return on equity by acquiring riskier assets. When it is not already the practice, full in-bank supervisory reviews—focusing on asset portfolios and off-balance-sheet commitments—should occur at least annually, and the results of such examinations should promptly be shared with the board of directors of the bank and used to evaluate the adequacy of the bank's capital. The examiner should be convinced after a rigorous and deliberate review that the loan-loss reserves are consistent with the quality of the portfolio. If they are not, the examiner should insist that additional reserves be created with an associated reduction in the earnings or equity capital of the bank.

This method of adjusting and measuring capital by reliance on examiner loan evaluations does not depend on market value accounting to adjust the quality of the assets. Some day, perhaps, we may be able to apply generally accepted market value accounting precepts to both the assets and liabilities of a financial going concern with a wide spectrum of financial assets and liabilities. But the Board is not comfortable with the process as it has developed so far, either regarding the ability of market value accounting to reflect accurately market values over reasonable periods or to avoid being overly sensitive to short-run events. For most banks, loans are the predominant asset, assets that do not have ready secondary markets but that the examiners can evaluate in each of the proposed annual in-bank supervisory reviews. We at the Federal Reserve believe that the examiners' classification of loan quality should, as I noted, be fully reflected in the banks' loan-loss reserves by a diversion of earnings or a reduction in capital. If the resultant capital is not consistent with minimum capital standards, the board of directors and the bank's regulators should begin the process of requiring the bank either to reduce those assets or to rebuild equity capital.

If credible capital-raising commitments are not forthcoming, and if those commitments are not promptly met, the authorities should pursue such responses as lowered dividends, slower asset growth or perhaps even asset contraction, restrictions on the use of insured brokered deposits, if any, and divestiture of affiliates with the resources used to recapitalize the bank. What is important is that the supervisory responses occur promptly and firmly and that they be anticipated by the bank. This progressive discipline or prompt corrective action of a bank with inadequate capital builds on our current bank supervisory procedures and is designed to simulate market pressures from risktaking—to link more closely excessive risktaking with its costs—without creating market disruptions. It is also intended to help preserve the franchise value of a going concern by acting early and quickly to restore a depository to financial health. In this way, the precipitous drop in value that normally occurs when a firm is placed in conservatorship or receivership would, for the large majority of cases, be avoided.

While some flexibility is certainly required in this approach, the Board believes that there must be a prescribed set of responses and a presumption that these responses will be applied unless the regulator determines that the circumstances do not warrant them. Even though prompt corrective action implies some limit on the discretion of supervisors to delay for reasons that they perceive to be in the public interest, the Board is of the opinion that it would be a mistake to eliminate completely the discretion of the regulator.

Accordingly, the Board believes that a system that combined a statutorily prescribed course of action with an allowance for regulatory flexibility would result in meaningful prompt resolution. For example, if a depository institution failed to meet minimum capital requirements established by its primary regulatory agency, the agency might be required by statute to take certain remedial action unless it determined on the basis of particular circumstances that such action was not required. The presumption would thus be shifted toward supervisory action, and delay would require an affirmative act by the regulatory agency.

The prescribed remedial action required in a given case would be dependent upon the adequacy of the institution's capital. As the capital fell below established levels, the supervisor could be required, for example, to order the institution to formulate a capital plan, limit its growth, limit or eliminate dividends, or divest certain nonbank affiliates. If capital were seriously depleted, the supervisor could require a merger, sale, conservatorship, or liquidation.

In adopting such a statutory framework, the Congress should consider designing the system so that forced mergers, divestitures, and, when necessary, conservatorships could be required while there is still positive equity capital in the depository institution. While existing stockholders should be given a reasonable period of time to correct deteriorating capital positions, the Congress should specifically provide the bank regulators with the clear authority, and therefore explicit support, to act well before technical insolvency to minimize the ultimate resolution costs. The presence of positive equity capital, even if at low levels, when combined with any tier 2 capital, would limit reorganization and liquidation costs.

In the Board's view, most of the remedial actions discussed above can be taken, and have been taken, by bank regulators under the current legal framework. Under current law, however, action is discretionary and dependent upon a showing of unsafe or unsound conditions or a violation of law, and implementation of a supervisory remedial action can be extended over a protracted period of time when the depository institution contests the regulator's determination. What is needed is legislation that would permit a systematic program of progressive action based on the capital of the institution, instead of requiring the regulator to determine on a case-by-case basis, as a precondition to remedial action, that an unsafe or unsound practice exists. This program would introduce a greater level of consistency of treatment into the supervisory process, place investors and managers on notice regarding the expected supervisory response to falling capital levels, and reduce the likelihood of protracted administrative actions challenging the regulator's actions.

The Board is in the process of developing the parameters, processes, and procedures for prompt corrective action. One of the principles guiding our efforts is the need to balance rules with discretion. In addition, as is the case for higher capital standards, the Board is mindful of the need for an appropriate transition period before fully implementing such a change in supervisory policy.

Higher capital and prompt corrective action would increase the cost and reduce the availability of credit from insured institutions to riskier borrowers. In effect, our proposal would reduce the incentive some banks currently have to overinvest in risky credits at loan rates that do not fully reflect the risks involved. This implies that the organizers of speculative and riskier ventures will have to restructure their borrowing plans, including possibly paying more for their credit, or seek financing from noninsured entities. Some borrowers may find their proposals no longer viable. However, it is just such financing by some insured institutions that has caused so many of the current difficulties, and it is one of the objectives of our proposals to cause depositories to reconsider the economics of such credits. As insured institutions reevaluate the risk-return tradeoff, they are likely to be more interested in credit extensions to less risky borrowers, increasing the economic efficiency of our resource allocation.

Despite their tendency to raise the average level of bank asset quality, higher capital requirements and prompt corrective action will not eliminate bank failures. An insurance fund will still be needed, but we believe that, with a fund of reasonable size, the risk to taxpayers should be reduced substantially. As I have noted, higher capital requirements and prompt corrective action imply greater caution in bank asset choices and a higher cushion to the FDIC to absorb bank losses. In addition, an enhanced supervisory approach will not permit deteriorating positions to accumulate.

But until these procedures have been adopted and the banking system has adjusted to them, circumstances could put the existing insurance fund under severe pressure. As Chairman Seidman has indicated, the fund is already operating under stress, as its reserves have declined in recent years and now stand, as a percentage of insured deposits, at their lowest level in history. At the same time, there remain all too many problems in the banking system, problems that have been growing of late as many banks, including many larger banks, have been experiencing a deterioration in the quality of their loan portfolios, particularly real estate loans. It thus seems clear that the insurance fund likely will remain under stress for some time to come. Moreover, pressures would intensify if real estate market conditions were to weaken further or a recession were to develop in the general economy.

It should, however, be clearly underlined that the size or adequacy of the insurance fund does not change the quality of the deposit insurance guarantee made by the federal government; it does allocate the cost of meeting any guarantee between the banking industry, which pays the insurance premiums, and the taxpayers as a whole. It should, in our view, be the policy of the government to minimize the risk to taxpayers of the deposit insurance guarantee, and we believe that our proposal does that. While some increase in insurance premiums is in all likelihood necessary, we must be concerned that attempts to accomplish this end by substantially higher insurance premiums may well end up—especially if accompanied by higher capital requirements—simply making deposits so unattractive that banks are unable to compete. Indeed, the Board is concerned that the levels of premiums contemplated in some quarters will exacerbate both the short- and the long-run problem by reducing the profitability of banks, and hence their ability to attract capital. Avoiding taxpayer costs and maintaining a competitive banking system are just two more reasons why basic deposit insurance reform is so urgent.

Among the deposit insurance reforms that might be considered on the basis of both strengthening the insurance fund and fairness to smaller and regional banks is the assessment of insurance premiums on the foreign branch deposits of U.S. banks. A substantial proportion of the deposits of the largest U.S. banks are booked at branches outside the United States, including offshore centers in the Caribbean. Assessing such deposits could yield significant revenue for the FDIC. However, foreign deposits may be quite sensitive to a small decline in their yields. Thus imposing premiums on them could lead to deposit withdrawals and funding problems at some U.S. banking organizations and possibly inhibit the ability of these organizations to raise capital.

Even if no adjustment is made in the insurance assessment on foreign deposits, held almost solely by large banks, other deposit insurance reforms should be equally applicable to banks of all sizes. No observer is comfortable with the inequities and adverse incentives of an explicit or implicit program that penalizes depositors, creditors, and owners of smaller banks more than those of larger ones. The Board believes that no bank should assume that its scale insulates it from market discipline, nor should any depositor with deposits in excess of the insurance limit at the largest of U.S. banks assume that he or she faces no loss should their bank fail.

Nevertheless, it is clear that there may be some banks, at some particular times, whose collapse and liquidation would be excessively disruptive to the financial system. But it is only under the very special conditions, which should be relatively rare, of significant and unavoidable risk to the financial system that our policies for resolving failed or failing institutions should be relaxed. The benefits from the avoidance of a contagious loss of confidence in the financial system accrue to us all. But included in the cost of such action is the loss of market discipline that would result if large banks and their customers presume a kind of exemption from loss of their funds. The Board's policies of prompt corrective action and higher capital are designed to minimize these costs. Under these policies, the presumption should always be that prompt and predictable supervisory action will be taken. For no bank is ever too large or too small to escape the application of the same prompt corrective action standards applied to other banks. Any bank can be required to rebuild its capital to adequate levels and, if it does not, be required to contract its assets, divest affiliates, cut its dividends, change its management, sell or close offices, and the resultant smaller entity can be merged or sold to another institution with the resources to recapitalize it. If this is not possible, the entity can be placed in conservatorship until it is.

It is, by the way, the largest U.S. banks that would be required under our proposals to raise the most additional capital, both absolutely and proportionally. Most banks with assets of less than $1 billion already meet capital requirements considerably above the fully phased-in Basle Capital Accord minimums. Also, it bears emphasizing that no deposit insurance reform that truly reduces the subsidy existing in the current system will be costless for banks. The issue really is one of achieving maximum benefit from reform at minimum cost. We believe that our proposals achieve this goal.

In summary, events have made it clear that we ought not to permit banks, because of their access to the safety net, to take excessive risk with inadequate capital. Even if we were to ignore the potential taxpayer costs, we ought not to permit a system that is so inconsistent with efficient market behavior. In the process of reform, however, we should be certain we consider carefully the implications for macroeconomic stability. The Board believes that higher capital and prompt corrective action by supervisors to resolve problems will go a long way to eliminate excessive risktaking by insured institutions, and would not preclude additional deposit insurance reform, now or later. Finally, in considering all proposals, we should remind ourselves that our objective is a strong and stable financial system that can deliver the best services at the lowest cost and compete around the world without taxpayer support. This requires the modernization of our financial system and the weaning of some institutions from the unintended benefits that accompany the safety net. Higher capital requirements may well mean a relatively leaner and more efficient banking system, and they will certainly mean one with reduced inclinations toward risk.

As I noted in my opening remarks, the Board believes that these reforms should be coupled with the modernization of our financial system. As we address reductions in the subsidy to banks from deposit insurance, we should also authorize wider activities for well-capitalized banking organizations and eliminate the outdated statutes that prohibit banks from delivering interstate services in the most cost-effective way—through branching. These combined reforms will go a long way toward ensuring a safer and more efficient financial system and lay the groundwork for other modifications in the safety net in the years ahead. □

Additional statement follows.

Statement by William Taylor, Staff Director, Division of Banking Supervision and Regulation, Board of Governors of the Federal Reserve System, before the Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives, October 16, 1990.

I appreciate the opportunity to testify on the role of the Federal Reserve in the supervision of foreign banks operating in the United States. The testimony of the Federal Reserve Bank of Atlanta discusses in some detail the actions taken by the Federal Reserve to deal with the problems at the Atlanta agency of Banca Nazionale del Lavoro (BNL). Therefore, I will focus more generally on the Federal Reserve's role in supervising the U.S. operations of foreign banks, referring to the BNL case to show how this authority was actually used in a particular situation.

The Federal Reserve's authority and responsibility for supervising the U.S. operations of foreign banks are derived primarily from two statutes, the Bank Holding Company Act and the International Banking Act of 1978 (IBA). Any foreign bank that owns a U.S. bank is subject to the Bank Holding Company Act. The IBA for the first time established federal jurisdiction over the U.S. operations of foreign banks that have branches or agencies in the United States but do not own a U.S. bank and applied certain provisions of the Bank Holding Company Act to these organizations. Thus, the IBA established an overall framework for regulating the full range of activities of foreign banks in the United States and provided for a federal role in the supervision of branches and agencies of foreign banks. Before the passage of the IBA, the operations of U.S. branches and agencies of foreign banks were licensed and supervised solely by state banking authorities.

Since I have been asked to focus on the supervision of branches and agencies, I will discuss principally the Board's responsibilities under the IBA. However, the two acts need to be looked at in tandem. For example, besides operating branches and agencies in the United States, BNL was a large issuer of commercial paper through a U.S. nonbank subsidiary. In the case of this company, the Federal Reserve's supervisory authority arose from the application by the IBA of part of the Bank Holding Company Act to BNL.

With the enactment of the IBA, the Congress established a federal role in the licensing and supervision of branches and agencies of foreign banks that paralleled the federal government's role in the dual banking system. Foreign banks were given the option of establishing a banking office in the United States by obtaining either a federal license from the Office of the Comptroller of the Currency (OCC) or a license from one of the various states. The IBA permits multiple offices to be established using either state or federal licenses or both.

Federally licensed offices are supervised by the OCC and state-licensed offices by the states. As is the case with banks, state-licensed offices are also subject to some federal supervision, by the Federal Deposit Insurance Corporation (FDIC), if the branches have insured deposits, or the Federal Reserve for uninsured state-licensed offices. It should be noted, however, that unlike banks, the vast majority of branches and agencies of foreign banks, including those of BNL, are not insured by the FDIC and do not accept consumer deposits.

The Congress recognized at the time of enactment of the IBA that many foreign banks already operated branches or agencies in a number of states and that the trend of operating under a number of different licenses could be expected to continue. Therefore, the Congress determined that there should be one agency responsible for overseeing the totality of a foreign bank's operations in the United States. The Federal Reserve was given this umbrella supervisory authority. To carry out this responsibility, the Federal Reserve was given residual examination authority over all U.S. branches and agencies and the authority to obtain information from the foreign parent. The Federal Reserve also has the authority to undertake necessary supervisory actions against the foreign banking organization and its various U.S. offices.

The Congress, nevertheless, instructed the Board to rely to the maximum extent possible upon the examinations conducted by the appropriate licensing authority and the FDIC. The Federal Reserve has made extensive use of the examination reports of other supervisors, and there is a high degree of cooperation and consultation among the various supervisory agencies at both the state and federal levels.

The Federal Reserve has exercised its authority by establishing a regular reporting system that covers all of the U.S. banking operations of foreign banks, working with the other supervisors to set examination standards, reviewing all examination reports of branches and agencies, obtaining information on the condition of the parent bank, meeting on a regular basis with the foreign banks operating in the United States, and taking enforcement actions when necessary. The Federal Reserve has also worked with the other federal bank regulatory agencies and the various states to establish a common examination format and with their cooperation has sought to assure that each foreign branch or agency is examined at least once every eighteen months, a schedule that is basically being followed.

The Federal Reserve receives and reviews all examination reports conducted by the other federal and state bank supervisors. It collects and analyzes quarterly reports of condition and reports on foreign credit exposure from all branches and agencies of foreign banks. Through these and other means, the Federal Reserve tracks the condition of all U.S. offices of a foreign bank to assess the foreign bank's performance on a nationwide basis. The Federal Reserve also monitors the actions taken by other supervisors to require foreign banks to correct problems in particular offices, and undertakes enforcement or other corrective actions of its own when appropriate. In some cases, the Federal Reserve conducts examinations itself or participates in examinations conducted by other supervisory agencies. In the case of BNL, our practice had been to assign an examiner to the examinations conducted by the State of Georgia.

The Federal Reserve's direct role in the examination process varies from state to state. Its role depends on such factors as the importance of foreign banks in a particular state, the examination resources of the states, and the experience of the states in this area. For example, in California the Federal Reserve Bank of San Francisco and the state banking authority share the examination work load by each conducting examinations of particular offices in alternate years. In New York, on the other hand, the examinations are currently conducted almost exclusively by the State of New York. In Texas the Federal Reserve Bank of Dallas conducts joint examinations with the state. Similarly, in other states various arrangements have been made depending on the circumstances. In some states with a very small foreign presence there is currently no direct Federal Reserve participation in the examination process.

The Federal Reserve also directly supervises the U.S. nonbank financial operations of foreign banks. Such activities require Board approval under the Bank Holding Company Act. In acting on such applications the Board reviews the condition of the foreign bank to make certain that it can be a source of strength to its U.S.operations. In addition, the Board reviews all of the existing U.S. operations of the foreign bank in an effort to assure that the overall operations of the foreign bank in the United States are in satisfactory condition.

The Federal Reserve staff meets on a regular basis with the management of foreign banks operating in this country to discuss overall operations and to address problem areas. In addition, the Federal Reserve discusses problems with the home country supervisors.

It is important to keep in mind that branches and agencies are not U.S. banks. A branch or agency is an integral part of a foreign bank. The operations of the U.S. branches and agencies directly affect the condition of the whole bank and in turn are affected by developments at the head office and other branches. The Basle Concordat on supervising international banks recognizes this interdependence and emphasizes the responsibility of the home country authority to supervise the foreign branches and agencies of its banks. The home country regulator is the authority most capable of supervising the overall solvency and activities of the foreign bank.

To summarize, in the BNL Atlanta case, the State of Georgia examined the Atlanta agency of BNL, with participation by the Federal Reserve. The Federal Reserve was further responsible for supervising the overall U.S. activities of BNL; and the bank of Italy provided BNL with worldwide supervision.

I would now like to discuss how the Federal Reserve used its umbrella oversight authority in resolving the BNL problem in an orderly manner, and how it interacted with other supervisory authorities.[1] Let me say at the outset that once we became aware of the possible size of the illicit operations at BNL Atlanta, we recognized the potential for a significant disruption of banking markets. Therefore, cooperation among the authorities, both here and abroad, was essential in dealing effectively with this case.

As to the origin and growth of the illicit operations in BNL Atlanta, this was a situation that involved massive fraud in which a large number of employees acted together to conceal the operation and deceive auditors and examiners. Books and records concerning the illicit operations were removed from the office by employees during examinations and audits. Much of the work associated with these transactions was conducted from employees' homes, and, of course, the office did not report the illicit activities on reports filed with the supervisory agencies.

The physical segregation of records, together with the concerted efforts of key employees, makes it extremely difficult for examiners to uncover this type of illicit and fraudulent activity. Examiners also rely to a considerable extent on internal and external auditors. In the BNL Atlanta case, neither the internal auditors nor the large U.S. accounting firm conducting the external audit uncovered the large off-book lending and funding operation, although a 1988 audit report by the New York branch of BNL did criticize procedures at the Atlanta office.

Once the Federal Reserve became aware of the problem in BNL Atlanta, it initiated actions to determine the full scope of the problem, to assist federal law enforcement personnel, and to ensure that the problem did not disrupt the financial system. After discussions with law enforcement personnel, a decision was made to have the Federal Bureau of Investigation (FBI) seize the records of the Atlanta office late in the day on Friday, August 4, 1989. The FBI agents were accompanied by Federal Reserve examiners who acted as technical advisors to the agents. The Federal Reserve also began an examination of the Atlanta agency on that date. At approximately the same time, Federal Reserve examiners began examinations of the other U.S. offices of BNL and its commercial paper operation. State regulatory agencies were informed that these examinations had commenced and that there were problems in the Atlanta office of BNL.

Earlier in the week, the Federal Reserve informed the Bank of Italy that there was an urgent matter that the Federal Reserve needed to discuss. Senior Federal Reserve officials were dispatched to Rome to meet with officials of the Bank of Italy. The Bank of Italy was notified that it was likely that the Atlanta office of BNL had a large unreported business and that federal authorities were going to intervene on Friday, August 4. The Federal Reserve also advised the Bank of Italy of its concern that events might affect the dollar liquidity of BNL. The need for secrecy was emphasized so as not to jeopardize the seizure of the records by law enforcement personnel.

The Bank of Italy immediately undertook measures to make certain that the head office of BNL took appropriate actions once the seizure of the records was completed. The BNL official in charge of operations for the whole bank was sent to Atlanta and arrived on Sunday, August 6. Other BNL personnel from Italy and New York were also immediately dispatched to Atlanta. BNL began marshalling dollar liquidity and transferring liquid dollar assets to the New York branch to meet any funding contingencies that might arise. The Bank of Italy closely supervised BNL's actions and dispatched its senior examination officers to Atlanta immediately.

To summarize, the Federal Reserve was able to use the supervisory authority conferred by the IBA to conduct simultaneous nationwide examinations of BNL's branches and agencies and to inspect its commercial paper subsidiary. These actions were taken on short notice and in a manner consistent with the need to maintain the secrecy necessary for the criminal investigation. The Federal Reserve was able to discuss the specific supervisory problem and its systemic implications with the Bank of Italy in order for Italian officials to make certain that BNL had

1. The committee has requested information on the examination of U.S. offices of BNL and the Federal Reserve's role in those examinations. Since 1985, there have been twenty-five examinations of BNL's offices in the United States. Eight of these are Federal Reserve reports (including a joint report with the State of New York) and seventeen are state reports. Before the discovery of the recent fraud, the Atlanta office was examined every year by the State of Georgia with limited participation by the Federal Reserve Bank of Atlanta.

sufficient dollar liquidity to service all of its dollar liabilities. I might note that no Federal Reserve funds were advanced to BNL. Through the Bank of Italy, the Federal Reserve was able to ensure that BNL acted promptly to place new management in the Atlanta office and to contain the problem.

Once initial actions were taken, the Board worked with the Bank of Italy and state examination agencies to document the full scope of the problem and to identify the weaknesses in BNL's internal controls that enabled the illicit operations to develop undetected. In cooperation with the Bank of Italy and state supervisory authorities, corrective actions for BNL's U.S. offices were identified and implemented. The Federal Reserve has also continued to provide assistance to federal law enforcement personnel when requested.

You have asked what additional authority the Federal Reserve might need in this area. As the actions described above illustrate, the IBA and other statutes provide the Federal Reserve with the broad authority needed to supervise the U.S. operations of foreign banks and to respond to potential crises. No further authority seems necessary in this area.

While audit and internal control standards can be improved as the result of lessons learned from the BNL experience, the operation of BNL Atlanta involved massive fraud accompanied by false entries on the agency's books and false reporting to the federal authorities. Good controls can generally defend against this type of fraud by a single individual or a few individuals, but when a number of people within an organization conspire to "cook the books" it becomes much more problematic. More intensive monitoring and audits will help, but it is also important to deter this type of activity by successful prosecution and punishment of those involved.

In this regard it has come to our attention that some of the federal laws related to fraudulent actions in banks of the type involved in this case are not applicable to uninsured state licensed branches and agencies of foreign banks. The Federal Reserve believes that this situation should be corrected and has already furnished your committee with proposed legislation in this area. I would urge that such legislation be promptly adopted.

This is not to say, however, that examination procedures can remain static. Over the past few years the Federal Reserve has been increasing its role in the supervision of branches and agencies as these entities have become more important factors in the U.S. banking market. The testimony of the Federal Reserve Bank of Atlanta describes how that Reserve Bank has increased its examination efforts in Florida and Georgia, two states in which the presence of branches and agencies of foreign banks has grown rapidly. The Federal Reserve Bank of New York is increasing its examination resources to enable it to expand its role as well. In addition, state authorities have taken actions to increase their ability to supervise branches and agencies of foreign banks. A special committee has been established under the auspices of the Conference of State Bank Supervisors to review state policies and to increase cooperation in this area among supervisors. The Federal Reserve has met with members of this committee to discuss examination matters of mutual interest. There are plans next year to have concurrent examinations of all of the U.S. branches and agencies of a select group of large foreign banks to determine if there are significant benefits to be derived from this type of examination format. In the international context, the Basle Committee on Banking Supervision has discussed the BNL case and its implications for the supervision of banks operating internationally.

The Federal Reserve intends to monitor closely the effectiveness of all of these efforts in view of the growing presence of foreign banks in U.S. financial markets. Historically, as you are no doubt aware, the principal focus of U.S. regulators has been on insured U.S. institutions given the presence of the federal safety net and the potential liability represented by the existence of federal deposit insurance. As the role of foreign banks in our markets evolves, however, we need to continually review the adequacy of the resources devoted to supervising these entities. The Federal Reserve will continue to work closely with the other federal and state regulators to ensure an adequate supervisory framework for foreign banks in this country. If necessary and appropriate, we will not hesitate to propose and adopt further steps to strengthen federal oversight of the U.S. activities of foreign banks. □

Announcements

Meeting of Consumer Advisory Council

The Federal Reserve Board announced that its Consumer Advisory Council met on October 25. The Council's function is to advise the Board on the exercise of its responsibilities under the Consumer Credit Protection Act and on other matters on which the Board seeks its advice.

Fee Schedules for Services Provided by Federal Reserve Banks

The Federal Reserve Board announced on November 1, 1990, the 1991 fee schedules for services provided by the Reserve Banks. The majority of the 1991 fees are the same as those currently imposed, and they generally become effective January 1, 1991.

The fee schedules apply to check collection, automated clearinghouse activities, wire transfers of funds and net settlement, definitive safekeeping, noncash collection, book-entry securities, and to electronic connections to the Federal Reserve. The 1991 fee schedules are available from the Reserve Banks.

The 1991 total costs for priced services, including float and the private sector adjustment factor (PSAF), are projected to be $771.7 million. Total revenue is estimated at $777.2 million, resulting in a 100.7 percent recovery rate. The fees for 1991 are based on total costs, including the PSAF, but excluding special project costs.

At the same time, the Board approved the 1991 PSAF for Reserve Bank priced services of $85.8 million, an increase of $6.4 million or 8.1 percent from the $79.4 million targeted for 1990.

The PSAF is an allowance for the taxes that would have been paid and the return on capital that would have been provided had the Federal Reserve's priced services been furnished by a private business firm.

Notification of Receipt of Third-Party Funds on Fedwire

The Federal Reserve Board has adopted a requirement that Reserve Banks notify by telephone all "off-line banks" of the receipt of incoming third-party funds transfers on Fedwire. An off-line bank is an institution that does not have electronic access to Fedwire.

The majority of transfers to off-line banks are currently not subject to telephone notice. Without telephone notice, the off-line receiving bank is unable to credit its customer's account on the day of the transfer.

About 45 percent of the institutions using Fedwire receive off-line transfers, but these transfers account for less than 1 percent of total Fedwire volume.

The required notice would also be provided for settlement transfers and related nonvalue messages if the off-line receiving bank has notified its Reserve Bank that it acts on behalf of a respondent institution. An off-line bank that does not maintain an account for another depository institution will not be required to receive telephone notice of incoming settlement transfers but could request such notice as an optional service.

The off-line receiving bank will be assessed a per-transfer surcharge (currently $4) for each transfer for which the Reserve Bank attempted to provide telephone notice. The new service will become effective January 1, 1991.

Regulation J: Revision

The Federal Reserve Board approved on October 1, 1990, a comprehensive revision to Subpart B of Regulation J (Collection of Checks and Other Items and Wire Transfers of Funds), governing funds transfers through Fedwire. The revision will make Regulation J consistent with the new Article 4A of the Uniform Commercial Code, which governs the rights, responsibilities, and liabilities of parties to wholesale funds transfers.

The revision to Subpart B becomes effective January 1, 1991, and will accomplish the following:

- Provide a more comprehensive set of rules for funds transfers involving Federal Reserve Banks than is currently provided by Subpart B.
- Make Subpart B consistent with state laws applicable to funds transfers as states adopt Article 4A.
- Help to ensure that, subject to their central banking responsibilities, Federal Reserve Banks compete on an equitable basis with private-sector providers of funds-transfer services.

PROPOSED ACTIONS

The Federal Reserve Board issued for public comment on October 12, 1990, certain clarifications, modifications, and technical changes to the Board's risk-based capital guidelines. Comment is requested by December 17, 1990.

The Federal Reserve Board on October 5, 1990, extended the period to receive comments on its proposed change to the pricing structure for the Federal Reserve's Interdistrict Transportation Service. Comment must now be received by January 18, 1991, instead of October 19, 1990.

PUBLICATION OF NEW REPORT 1983 Survey of Consumer Finances: Design and Methods

The Federal Reserve Board has published an account of the consumer finance survey it cosponsored in 1983 with several other federal agencies. The report, entitled *1983 Survey of Consumer Finances: Design and Methods*, covers the procedures used for editing the raw survey responses, the statistical methods used for imputing missing data, the construction of new variables from the original variables, and the addition of variables that have been created by matching information from other data sources. It also presents technical material on the survey's design and weights and discusses the comparability of other surveys with the 1983 work.

The narrative was previously available only from the National Technical Information Service as part of the *1983 Tech Manual and Codebook*, which also lists the set of survey variables developed at the Federal Reserve Board.

The twenty-five-page report is available upon request from the Board's Publications Services, mail stop 138, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

Record of Policy Actions of the Federal Open Market Committee

MEETING HELD ON AUGUST 21, 1990

Domestic Policy Directive

The information reviewed at this meeting suggested that economic activity was continuing to expand at a relatively slow pace. Growth in exports and some expansion in consumer spending were supporting final demands. At the same time, business capital spending appeared sluggish, and the demand for new housing had weakened further. Labor demand had softened on balance since the spring and the unemployment rate had risen recently, but labor costs showed no sign of decelerating. Underlying trends in inflation appeared to be little changed.

Total nonfarm payroll employment registered a large decline in July after having risen considerably over the two previous months. Much of the July drop resulted from layoffs of temporary census workers; however, payrolls shrank in manufacturing, construction, and business services, and hiring remained slow elsewhere. The civilian unemployment rate rose to 5.5 percent in July, just above the narrow range that had prevailed for an extended period. In contrast to the employment data, hours worked by production and nonsupervisory workers edged up in July, and initial claims for unemployment insurance continued to fluctuate narrowly around the average pace of the first half of the year.

After rising appreciably in the second quarter, industrial production was unchanged in July. Output of goods other than motor vehicles rose at about the moderate pace evident thus far this year. Total industrial capacity utilization retraced its June rise but remained somewhat above its level at the start of the year. The operating rate in manufacturing also slipped in July, though it stayed in the narrow range that had prevailed this year after an appreciable reduction in 1989.

After declining in earlier months, nominal retail sales rose considerably on balance over June and July. There were substantial upward revisions to sales for both May and June; nevertheless, for the second quarter as a whole, gains in total personal consumption expenditures appeared to have been relatively limited. In July, housing starts fell for the sixth straight month. Most of the decline was in multifamily units, but starts in the single-family segment of the market edged lower as sales of new homes continued sluggish and inventories of unsold homes remained relatively large.

Shipments of nondefense capital goods rose sharply in June after a decline, on balance, in April and May; most of the gain in June reflected higher outlays for aircraft and for office and computing equipment. Over the past four quarters, however, equipment outlays had changed little as increases in spending on computers had been offset by reduced purchases of industrial equipment and motor vehicles. A net decline in the nominal value of orders for nondefense capital goods in recent months pointed to sluggishness in equipment spending in the near term. Nonresidential construction activity strengthened in June, especially for office buildings, but the downtrend in permits and contracts for new construction suggested continued softness in this sector. Business inventory investment had been moderate in the second quarter, and there was no general indication of inventory imbalances in relation to sales. At manufacturing and wholesale establishments, inventories fell appreciably in June, and the ratio of inventories to shipments edged lower. At the retail level, nonauto stocks climbed somewhat further in June, but with recent gains in sales, inventory–sales ratios dropped back after widespread increases in the two previous months.

The nominal deficit in U.S. merchandise trade narrowed sharply in June. The value of exports rose substantially from the May level, with most of the increase occurring in civilian aircraft and parts, consumer goods, and agricultural products. The value of imports was down somewhat; about half of the decrease resulted from declines in the price and quantity of oil imports. The trade deficit for the second quarter was substantially reduced from its first-quarter rate and was the lowest quarterly average since 1983. Measures of economic activity for the second quarter suggested that growth had remained robust in Japan and West Germany but had slowed somewhat in other major foreign industrial countries. Measured inflation rates were unchanged or had declined slightly in major industrial nations other than the United Kingdom, although the recent rise in oil prices, among other factors, raised concerns about renewed inflationary pressures.

Crude oil prices had risen sharply in spot markets in the weeks before the Committee meeting, largely in response to the Iraqi invasion of Kuwait. Available aggregate measures of producer and consumer prices predated the increase in oil prices, and these data suggested persisting price pressures outside the food and energy categories. Producer prices of finished goods were little changed on balance in June and July as declines in the prices of food and energy products offset a further rise in the prices of other finished goods. Consumer prices rose appreciably further in July, reflecting an acceleration in prices of nonfood, non-energy items. The latest data on total labor costs indicated that hourly compensation for private industry workers had increased more rapidly in the twelve months ended in June than in the year-earlier period.

At its meeting on July 2–3, 1990, the Committee adopted a directive that called for maintaining the existing degree of pressure on reserve positions for at least a short period after the meeting and that provided for some slight easing subsequently unless incoming data on the monetary aggregates and the economy evidenced greater strength. Accordingly, slightly greater reserve restraint might be acceptable or somewhat lesser reserve restraint would be acceptable during the intermeeting period, depending on progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets. In the circumstances, M2 and M3 were expected to grow at annual rates of about 3 and 1 percent respectively over the period from June through September.

After the Committee meeting, open market operations were directed initially at maintaining unchanged reserve conditions. Later, in mid-July, pressures on reserve positions were eased slightly as restrictions on credit supplies at banks, signaled in part by lagging money growth, suggested that credit conditions were tighter than appropriate at a time when the economy already was growing very slowly. Adjustment plus seasonal borrowing averaged about \$500 million in the three reserve maintenance periods completed since the July meeting. In late July and early August, technical adjustments were made to assumed levels of such borrowing to reflect the continued upswing in seasonal borrowing. The federal funds rate averaged about 8¼ percent at the time of the July meeting but, after the easing of reserve conditions in mid-July, federal funds traded around the 8 percent level. Most other short-term interest rates had dropped somewhat since the July meeting, largely in reaction to easier reserve conditions but also to some extent in reflection of expectations of some further easing in light of additional indications of a relatively sluggish economy. Bond yields had remained unchanged on balance through the end of July, but the invasion of Kuwait at the beginning of August and the associated rise in energy prices propelled long-term rates upward. Broad measures of stock prices, some of which had reached record highs earlier in the intermeeting interval, were off substantially on net over the period.

The trade-weighted foreign exchange value of the dollar in terms of the other G-10 currencies declined considerably over the intermeeting period. Tighter monetary conditions in Japan and West Germany and some easing of short-term interest rates in the United States, along with market perceptions that these divergent trends might continue, contributed to downward pressures on the dollar. The dollar declined more sharply against the German mark than the Japanese yen. Late in the intermeeting period, uncertainty associated with the Iraqi invasion of Kuwait provided a short-lived boost for the dollar.

M2 grew slowly in June and July, while M3 changed little; available data for August suggested that growth of both aggregates was rebounding. Growth of M2 and especially of M3 had been damped by the continuing contraction of deposits at thrift institutions resulting from the restructuring of the thrift industry. Through July, expansion of both M2 and M3 was estimated to be in the lower portions of their respective ranges for 1990. Expansion of total domestic nonfinancial debt appeared to have been near the midpoint of the Committee's monitoring range.

The staff projection prepared for this meeting recognized that the recent steep rise in oil prices could have important adverse effects on economic activity and inflation. It was not possible, though, to determine with any confidence how oil prices might evolve over time, and this was clouding further an already uncertain economic outlook. Under a variety of plausible assumptions about oil prices, economic activity was likely to expand over the balance of the year, but at a weaker pace than had been forecast earlier. The retarding effects of higher energy prices on the growth of disposable incomes were expected to damp consumer purchases of goods, notably consumer durables, over the quarters immediately ahead. If the price of oil were to fall back somewhat next year, a strengthening of disposable incomes would tend to boost economic growth toward a pace that was closer to the economy's long-run potential by the latter part of next year. If oil prices were to stay at high levels, however, the recovery in consumer spending and economic growth would be delayed for several quarters. In either event, the staff anticipated considerable growth in exports over the next several quarters in conjunction with continuing economic expansion in some major foreign industrial nations and the depreciation that had already occurred in the foreign exchange value of the dollar. Business capital spending was projected to remain relatively sluggish in the quarters ahead, though expenditures on producers durable equipment could strengthen were oil prices to drop back and retail sales to improve. Moderate restraint in expenditures at all levels of government was assumed. The rise in oil prices was expected to boost price inflation to an appreciable degree for the next few quarters; the extent and duration of these effects would depend on the future behavior of oil prices, but the adverse effect on inflation expectations and on wage and price inflation over the longer run would be limited by reduced pressures on resources.

In its discussion of the economic situation and outlook, the Committee focused on both the state of the economy before the increase in oil prices and the likely consequences for real output and inflation of that rise. Available data, which pertained to business conditions prior to the invasion of Kuwait, pointed to continuing slow economic growth, even though business activity was slipping in various sectors of the economy and some regions of the country. At the same time, broad measures of prices and labor costs suggested that the underlying rate of inflation—abstracting from swings in food and energy costs—had not turned down despite slow monetary expansion and the apparent growth of the economy at a pace below potential over the past several quarters. For some members, these data pointed to a relatively even balance, prior to the surge in oil prices, between the risks of a weakening economy and rising inflation. For others, a deterioration in consumer and business attitudes even before the Iraqi invasion of Kuwait and the indications of continuing restrictions on credit availability at banks, among other factors, suggested that the risks had been tilted toward some potential further weakening of the economy.

The steep rise in oil prices was expected to have a retarding effect on economic activity during the months immediately ahead and to exacerbate inflationary pressures. The increase in oil prices also added greatly to the uncertainties about the prospects for economic activity and inflation over time, because the outcomes would depend on the response of consumers to reductions in real disposable incomes, the reaction of businesses to potentially lower sales, and the extent of acceptance by workers of declines in their real wages associated with a higher price of oil. Nonetheless, in the absence of more pronounced or long-lasting disturbances from events in the Middle East, the members generally felt that limited growth in economic activity remained a reasonable expectation, and in the circumstances they would anticipate some decline in the rate of inflation, though progress was likely to occur only after a nearer-term setback.

In their review of business conditions in specific sectors of the economy and regions of the country, members observed that continuing expansion in consumer spending and further growth in net exports appeared likely to sustain at least limited expansion in overall economic activity. Revised data suggested that total retail sales had been reasonably well maintained in recent months despite mixed reports from different parts of the country. However, as evidenced by surveys conducted immediately after the Iraqi invasion of Kuwait, consumer sentiment could deteriorate rapidly. Apparently, consumer attitudes already had been adversely affected by the softening in home prices and worsening of employment prospects in many parts of the country; moreover, higher costs for energy were likely to limit any increase in discretionary spending. With regard to the prospects for foreign trade, a number of members expressed some optimism that the nation's trade balance would continue to improve, given the outlook for further economic growth in a number of major industrial countries. The report of a substantial decline in the trade deficit for the second quarter was viewed as an encouraging sign, and contacts in many parts of the country indicated that export demand was helping to sustain manufacturing activity at many firms. Higher oil prices would adversely affect foreign economies, but many other countries had trimmed their energy consumption considerably, and the reduction in oil supplies, if it persisted, should not disrupt in a major way the upward momentum of their expansion.

On the other hand, the prospects for business capital spending were less favorable, at least in the absence of faster growth in final demand than the members now anticipated. Business sentiment seemed to have deteriorated in several parts of the country. Commercial construction activity continued to be depressed by high vacancy rates in many areas and appeared to be softening in some others where previously it had been relatively well maintained. Housing construction in the view of some members might weaken somewhat further before it began to stabilize. With regard to the outlook for fiscal policy, members were concerned that the prospects for a political compromise leading to a substantial reduction in the federal budget deficit had deteriorated as a consequence of the invasion of Kuwait. It might prove more difficult to curb spending or to raise taxes in a period of weak economic expansion or in conjunction with any surge in military expenditures. At the state and local level, by contrast, the worsening budgetary situation in many jurisdictions seemed likely to induce spending curbs and higher taxes.

In the course of the Committee's discussion, members commented on continuing indications of tightened credit standards. The results of a survey showed that credit availability had been reduced since the spring, but some members sensed that lending institutions as a group had not tightened credit terms further in recent weeks. Many lenders reported that they were making credit readily available to good credit risks, and it was clear that a sizable portion of the weakness in lending could be attributed to reduced loan demand on the part of borrowers, including consumers, rather than to a curtailed supply of loans. Nonetheless, contacts in many areas indicated that some business borrowers, notably builders, were continuing to experience serious problems in obtaining credit and that riskier borrowers were facing more stringent standards at banks at a time when markets for securities of less than investment grade had virtually disappeared. Members remained concerned about the exposure of many financial institutions and of heavily indebted business firms and individuals to adverse economic developments.

Turning to the outlook for inflation, the members continued to express disappointment over the lack of evidence of a decline in the core rate of inflation; of particular concern was the failure of increases in labor costs to moderate. By some measures, inflation could be judged to have worsened marginally even before the recent surge in oil prices. The future course of oil prices was highly uncertain, but the recent rise in these prices would undoubtedly raise the measured inflation rate in the period ahead. Moreover, the depreciation of the dollar over the course of previous months would exert upward pressures on prices. Whether these pressures from oil prices and the dollar would be translated into higher inflation rates over longer periods of time would depend not only on their near-term pass-through into prices and wages but more fundamentally on their influence on inflation expectations. In this regard, the slack that seemed to be developing in resource utilization, while regrettable in some respects, would help to forestall a more permanent increase in wage and price inflation.

In the Committee's discussion of policy for the weeks ahead, members commented that the heightened uncertainties and the prospectively less satisfactory performance of the economy stemming from events in the Middle East had greatly complicated the formulation of an effective monetary policy. Uncertainties about the developments in the Middle East made it difficult to judge an appropriate policy stance, and those uncertainties had been reflected in unusually volatile financial markets. More fundamentally, with the surge in oil prices tending to weaken economic activity while also intensifying inflationary pressures, an easing in policy would incur the risk of overcompensating for potential weakness in the economy at the expense of greater inflation, while a tightening move to counter inflation might stall an already weak economic expansion. In these circumstances, the members generally concluded that the Federal Reserve could best contribute to the nation's economic goals by fostering a stable policy environment. The prospective performance of the economy was very likely to be dominated by events that were outside the Committee's control, including not only developments in the Middle East but decisions to be made with regard to the federal budget deficit.

While acknowledging the current uncertainties and policy limitations that the Committee was facing, several members underscored the need to avoid any paralysis of policy as conditions evolved in the weeks and months ahead and circumstances permitted an effective policy response. In the opinion of several members, events appeared likely to unfold in a direction that would require an easing of policy at some point to counter weakening tendencies in the economy that had been in train before the oil price increase. The timing and circumstances of any such easing would have to be weighed carefully, however, to avoid an unfavorable impact on inflationary attitudes and associated upward pressure on long-term interest rates, especially since the dollar had been under downward pressure in the foreign exchange markets. A number of other members viewed the risks to the economy as more evenly balanced. These members saw a substantial risk of some intensification in inflationary pressures, particularly in the context of higher energy prices. The downward movement of the dollar since the fall of 1989, flat or even mildly rising commodity prices, and the now upward sloping yield curve argued for a relatively restrictive monetary policy, pending further developments. For the present, all the members indicated that they could support a steady policy, given the current uncertainties and the possibility of unsettlement in foreign exchange and domestic financial markets.

In the course of the discussion, the members took account of a staff analysis, which suggested that, on the assumption of an unchanged degree of reserve restraint, growth in M2 and M3 was likely to pick up to some extent from the pace in recent months, in part because of a narrowing in the opportunity costs of holding assets included in those monetary measures. Members noted that the very recent strengthening of the monetary aggregates tended to reinforce the staff assessment and to diminish the case for any near-term easing of reserve conditions, though it also was recognized that some of the strength represented a greater preference for liquidity in an uncertain environment. Given the particular difficulty of charting an appropriate course for monetary policy in current circumstances, some members suggested that the behavior of the monetary aggregates needed to be monitored with special care and that greater-than-usual emphasis should be given to fostering desired rates of monetary growth.

While all the members could support an unchanged policy stance for at least some initial period after today's meeting, their somewhat differing assessments of the most likely course for monetary policy were associated with some differences in their views with regard to the possible need to adjust reserve conditions later during the intermeeting period. A majority indicated a preference for a directive that was tilted toward potential easing. Some of these members indicated that they had been leaning toward an easing move prior to the events in the Middle East, and they now felt that reserve conditions should be eased promptly if conditions in domestic financial and foreign exchange markets provided an appropriate opportunity. Tightening would be especially inappropriate in this view, given the current indications of weaknesses in the economy and the vulnerability of many financial institutions and heavily indebted borrowers to higher interest costs. Other members acknowledged the threat of a deteriorating economy, but because they also saw a considerable risk that underlying inflationary pressures might worsen, they preferred a symmetrical directive that gave equal weight to possible intermeeting adjustments in either direction. A few members would not rule out the possibility of some tightening, which might foster some decline in long-term interest rates by having quite beneficial effects on inflation expectations and by reinforcing the public's perception of the Committee's commitment to its price-stability objective.

At the conclusion of the Committee's discussion, all the members indicated that they favored or could accept a directive that called for maintaining unchanged conditions of reserve availability, at least initially, in the intermeeting period ahead and that provided for giving emphasis to potential developments that might require some easing during the intermeeting period. Accordingly, slightly greater reserve restraint might be acceptable during the intermeeting period, while some easing of reserve pressure would be acceptable, depending on progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets. The reserve conditions contemplated by the Committee were expected to be consistent with somewhat faster near-term growth in money than the members had anticipated earlier, including growth in M2 and M3 at annual rates of about 4 and 2½ percent respectively over the three-month period from June to September. The intermeeting range for the federal funds rate, which provides one mechanism for initiating consultation of the Committee when its boundaries are persistently exceeded, was left unchanged at 6 to 10 percent.

At the conclusion of the meeting, the following domestic policy directive was issued to the Federal Reserve Bank of New York:

The information reviewed at this meeting suggests that economic activity is continuing to expand at a relatively slow pace. After a sizable rise in May and June, total nonfarm payroll employment registered a large decline in July, much but not all of which reflected layoffs of temporary census workers. The civilian unemployment rate rose to 5.5 percent in July, just above the narrow range that had prevailed for an extended period. Industrial production was unchanged in July after rising appreciably in the second quarter. Retail sales rose considerably on balance over June and July after declines in earlier months. Available indicators point to a sluggish trend in business capital spending. Residential construction weakened further in July. The nominal U.S. merchandise trade deficit narrowed sharply in June; for the second quarter, the trade deficit was substantially reduced from its first-quarter rate. Consumer prices rose appreciably further in June and July, while producer prices were about unchanged over the two months. The latest data on labor costs suggest no improvement in underlying trends. Crude oil prices have risen sharply over the last several weeks.

Short-term interest rates have fallen somewhat since the Committee meeting on July 2–3, while rates in bond markets have risen appreciably, as oil prices have increased. The trade-weighted foreign exchange value of the dollar in terms of the other G-10 currencies declined considerably over the intermeeting period.

M2 grew slowly in June and July, while M3 was little changed; available data for August suggest a partial rebound in both aggregates. Growth of M2 and especially of M3 has been damped by the continuing contraction of deposits at thrift institutions resulting from the restructuring of the thrift industry. Through July, expansion of both M2 and M3 was estimated to be in the lower portions of their respective ranges for 1990. Expansion of total domestic nonfinancial debt appears to have been near the midpoint of its monitoring range.

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability, promote growth in output on a sustainable basis, and contribute to an improved pattern of international transactions. In furtherance of these objectives, the Committee at its meeting in July reaffirmed the range it had established in February for M2 growth of 3 to 7 percent, measured from the fourth quarter of 1989 to the fourth quarter of 1990. The Committee in July also retained the monitoring range of 5 to 9 percent for the year that it had set for growth of total domestic nonfinancial debt. With regard to M3, the Committee recognized that the ongoing restructuring of thrift depository institutions had depressed its growth relative to spending and total credit more than anticipated. Taking account of the unexpectedly strong M3 velocity, the Committee decided in July to reduce the 1990 range to 1 to 5 percent. For 1991, the Committee agreed on provisional ranges for monetary growth, measured from the fourth quarter of 1990 to the fourth quarter of 1991, of 2½ to 6½ percent for M2 and 1 to 5 percent for M3. The Committee tentatively set the associated monitoring range for growth of total domestic nonfinancial debt at 4½ to 8½ percent for 1991. The behavior of the monetary aggregates will continue to be evaluated in the light of progress toward price level stability, movements in their velocities, and developments in the economy and financial markets.

In the implementation of policy for the immediate future, the Committee seeks to maintain the existing degree of pressure on reserve positions. Taking account of progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets, slightly greater reserve restraint might or somewhat lesser reserve restraint would be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth of M2 and M3 over the period from June through September at annual rates of about 4 and 2½ percent respectively. The Chairman may call for Committee consultation if it appears to the Manager for Domestic Operations that reserve conditions during the period before the next meeting are likely to be associated with a federal funds rate persistently outside a range of 6 to 10 percent.

Votes for this action: Messrs. Greenspan, Corrigan, Angell, Boehne, Boykin, Hoskins, Kelley, LaWare, Mullins, Ms. Seger, and Mr. Stern. Votes against this action: None.

Legal Developments

FINAL RULE—AMENDMENT TO REGULATIONS G, T, U AND X

The Board of Governors is amending 12 C.F.R. Parts 207, 220, 221, and 224, its Securities Credit Transactions; List of Marginable OTC Stocks. The List of Marginable OTC Stocks (OTC List) is comprised of stocks traded over-the-counter (OTC) in the United States that have been determined by the Board of Governors of the Federal Reserve System to be subject to the margin requirements under certain Federal Reserve regulations. The List of Foreign Margin Stocks (Foreign List) represents all foreign equity securities that have met the Board's eligibility criteria under Regulation T. The OTC List and the Foreign List are published four times a year by the Board. This document sets forth additions to or deletions from the OTC List and additions to the Foreign List previously published and effective on August 13, 1990.

Effective November 13, 1990, accordingly, pursuant to the authority of sections 7 and 23 of the Securities Exchange Act of 1934, as amended (15 U.S.C. §§ 78g and 78w), and in accordance with 12 C.F.R. §§ 207.2(k) and 207.6(c) (Regulation G), 12 C.F.R. §§ 220.2(u) and 220.17(c) (Regulation T), and 12 C.F.R. §§ 221.2(j) and 221.7(c) (Regulation U), there is set forth below a listing of deletions from and additions to the OTC List; and the additions to the Foreign List.

Deletions From the List of Marginable OTC Stocks

Stocks Removed for Failing Continued Listing Requirements

Action Auto Stores, Inc.: No par common
Airship Industries Limited: American Depositary Receipts representing 80 ordinary shares
Al Copeland Enterprises, Inc.: Series 1, 17.5% exchangeable preferred
Altus Bank, A Federal Savings Bank (Alabama): $.01 par common
American Film Technologies, Inc.: Warrants (expire 06-30-93)
Anthony, Michael Jewelers, Inc.: $.001 par common
Astec Industries, Inc.: Warrants (expire 12-29-91)

Banc One Corporation: Series B, no par convertible preferred
Beauty Labs, Inc.: $.01 par common
Brookfield Bancshares Corporation: $1.00 par common
Brooklyn Savings Bank, The: $1.00 par common

Capitol Bancorporation: $.55-5/9 par common
Care Plus, Inc.: Class A, warrants (expire 08-13-90)
CCAIR, Inc.: $.01 par common
Chemfix Technologies, Inc.: Warrants (expire 12-15-90)
Codenoll Technology Corporation: Warrants (expire 09-10-90)
Community Financial Corporation: $.01 par common
Coral Gold Corporation: No par common
Cosmo Communications Corporation: $.01 par common
Country Wide Transport Services, Inc.: $.01 par common
CPT Corporation: $.05 par common, 10% convertible subordinated debentures

DST Systems, Inc.: $.01 par common

Eliot Savings Bank (Massachusetts): $.10 par common

First Citizens Bancshares, Inc.: Class B, $1.00 par common
First Executive Corporation: Warrants (expire 11-15-90)
First Savings Bank, F.S.B. (New Mexico): $1.00 par common
Fleet Aerospace, Inc.: $.01 par common
Fulton Federal Savings Bank: $1.00 par common

General Building Products Corporation: $.05 par common

HEI Corporation: $.10 par common
Heritage Financial Corporation: $.90 par cumulative convertible preferred

Independence Federal Savings Bank: $.01 par common
Institute of Clinical Pharmacology, PLC: American

Depositary Receipts for non-restricted B shares (nominal value FIN 20)

Jesup Group Inc., The: $.01 par common

Microwave Laboratories, Inc.: $.01 par common

Novell, Inc.: 7-¼% convertible subordinated debentures

OSICOM Technologies, Inc.: $.01 par common

Pacesetter Homes, Inc.: $.01 par common

QUESTECH, Inc.: $.05 par common

Retailing Corporation of America: $1.00 par common

S.P.I.-Suspension and Parts Industries Limited: Ordinary Shares, IS 250 par value
SFE Technologies: $1.00 par common
Structofab, Inc.: $.02 par common
SUNF, Inc.: $.50 par common
Symbion, Inc.: $.01 par common
Syntech International, Inc.: $.10 par common

Tele-Optics, Inc.: $.01 par common

United Savings Bank (Virginia): $5.00 par common

Vikonics, Inc.: $.02 par common
Vinland Property Trust: No par shares of beneficial interest
Vista Organization Partnership, L.P., The: Depositary units of limited partnership interest

Walker Telecommunications Corporation: $.01 par common
Wall to Wall Sound and Video, Inc.: $.01 par common
Washington Bancorporation (Washington, D.C.): $2.50 par common
Western Microwave, Inc.: $.10 par common
Williams, A.L., Corporation: 7.25% convertible subordinated debentures
World-Wide Technology, Inc.: $.01 par common

Stocks Removed For Listing On A National Securities Exchange Or Being Involved In An Acquisition

Altos Computer Systems: No par common

Bio-Medicus, Inc.: $.01 par common
Biotech Research Laboratories, Inc.: $.01 par common

Bogert Oil Company: $.10 par common

Cadence Design Systems, Inc.: $.01 par common
Carolina Bancorp, Inc.: $1.00 par common
Church & Swight Co., Inc.: $1.00 par common
CII Financial, Inc.: No par common

Diagnostek, Inc.: $.01 par common
DYCOM Industries, Inc.: $.33-⅓ par common

Epsilon Data Management, Inc.: $.01 par common

Fidelity Federal Savings Bank (Indiana): $.01 par common
Finnigan Corporation: $.01 par common
First Home Federal Savings and Loan Association (Florida): $1.00 par common
Florida Public Utilities Company: $1.50 par common

Greenery Rehabilitation Group, Inc.: $.01 par common

Henley International, Inc.: $.001 par common

Integon Corporation: $1.00 par common
Intellicall, Inc.: $.01 par common
International Lease Finance Corp.: $.10 par common, Warrants (expire 1994)

JMB Realty Trust: No par shares of beneficial

Mack Trucks, Inc.: $1.00 par common
Martin Lawrence Limited Editions: $.001 par common
Mid-America Bancorp: No par common
Mountain West Savings Bank, F.S.B.: $1.00 par common
Mutual Federal Savings and Loan Association (North Carolina): $1.00 par common
Mutual Federal Savings Bank, A Stock Corp. (Ohio): $1.00 par common

National Media Corporation: $.10 par common
North-West Telecommunications, Inc.: $5.00 par common

Old Republic International Corp.: $1.00 par common

Pennview Savings Association: $1.00 par common
Pharmacia AB: American Depositary Receipts for non-restricted B shares (par value Skr 10)
Primebank, Federal Savings Bank (Michigan): $1.00 par common

Shelby Federal Savings Bank (Indiana): $1.00 par common

Stockholder Systems, Inc.: Class A, $.05 par common
Subaru of America, Inc.: $.01 par common
Summa Medical Corporation: $.01 par common

Tecogen, Inc.: $.10 par common

UTL Corporation: $.25 par common

Webster Clothes, Inc., $.01 par common

Additions to the List of Marginable OTC Stocks

Advanced Logic Research, Inc.: $.01 par common
Allied Clinical Laboratories, Inc.: $.01 par common
American Business Computers Corporation: $.01 par common
Arcus, Inc.: $.01 par common
Astrocom Corporation: $.10 par common

Bird Medical Technologies, Inc.: $.01 par common

Canyon Resources Corporation: Warrants (expire 12-31-94)
Capitol Bancorp Ltd.: No par common
Circuit Systems, Inc.: No par common
CMS/Data Corporation: $.01 par common
COHO Resources, Inc.: $.01 par common

Deprenyl Research Limited: No par common
Dreco Energy Services Ltd.: Class A, no par common
DVI Financial Corporation: $.005 par common

Easel Corporation: $.01 par common
ESB Bancorp, Inc.: $1.00 par common

Failure Group, Inc., The: $.001 par common

Gerrity Oil & Gas Corporation: $.01 par common
Grant-Norpac, Inc.: $.002 par common

Helix Biocore, Inc.: $.01 par common
High Plains Corporation: $.10 par common

IKOS Systems, Inc.: $.01 par common
Illinois Central Corporation: $.001 par common
In-Store Advertising, Inc.: $.01 par common

Keene Corporation: $.0001 par common

London International Group PLC: American Depositary Receipts
Lunar Corporation: $.01 par common

MARCAM Corporation: $.01 par common
Matrix Service Company: $.01 par common
MECA Software, Inc.: $.01 par common
Medical Management of America, Inc.: $.01 par common
Micrografx, Inc.: $.01 par common
Modtech, Inc.: $.01 par common
Molex Incorporated: Class A, $.05 par common

NDE Environmental Corporation: $.0001 par common
Nord Pacific Limited: $.01 par common

O'Charley's Inc.: No par common
Orthopedic Services, Inc.: $.01 par common

Park National Corporation: $6.25 par common
Pinnacle Banc Group, Inc.: $6.25 par common

Radius Inc.: No par common
Republic Health Corporation: $.01 par common
Republic Waste Industries, Inc.: $.01 par common
Rocky Mountain Helicopters, Inc.: $.02 par common

Security Savings Bank, FSB: $1.00 par common
Southmark Corporation: $.01 par common, Class A, $.01 par convertible preferred
Suburbank Bankshares, Inc. (Florida): Class A, $.10 par common
Sylvan Foods Holdings, Inc.: $.001 par common

Tinsley Laboratories, Inc.: No par common
Trimble Navigation Limited: No par common

Uranium Resources, Inc.: $.001 par common, Warrants (expire 02-26-94)

Vanguard Real Estate Fund II: No par shares of beneficial interest
VISX, Incorporated: No par common
Vital Signs, Inc.: No par common

Warrantech Corporation: $.0007 par common
Westwood One, Inc.: Warrants (expire 09-04-97)

Additions to the List of Foreign Margin Stocks

Abbey National PLC: Ordinary shares, par value 10 p
All Nippon Airways Co., LTD.: ¥50 par common
Allied Lyons PLC: Common, par value 25 p
ARGYL Group PLC: Ordinary shares, par value 25 p
Asahi Breweries: ¥50 par common
Asahi Chemical Industry: ¥50 par common
Asahi Glass Co., LTD.: ¥50 par common

ASDA Group PLC: Ordinary shares, par value 25 p
Associated British Foods PLC: Ordinary shares, par value 5 p

B.A.T. Industries LTD. PLC: Ordinary shares 25 p
Barclays Bank PLC: Common, par value 100 p
Bass PLC: Ordinary shares, par value 25 p
BET PLC: Common, par value 25 p
BICC PLC: Ordinary shares, par value 50 p
Blue Circle Industries PLC: Common, par value 50 p
BOC Group PLC: Common, par value 25 p
Boots Company PLC, The: Common, par value 25 p
BPB Industries PLC: Ordinary shares, par value 50 p
Bridgestone Corporation: ¥50 par common
British Airways PLC: Ordinary shares, par value 25 p
British Petroleum Company PLC: Ordinary shares, par value 25 p
British Steel PLC: Common, par value 50 p
British Telecommunications PLC: Common, par value 25 p
BTR PLC: Common, par value 25 p
Burmah Oil PLC, The: Common, par value 100 p

C. Itoh Fuel Company LTD.: ¥50 par common
Cable & Wireless PLC: Ordinary shares, par value 50 p
Cadbury Schweppes PLC: Ordinary shares, par value 25 p
Carlton Communications PLC: Common, par value 5 p
Commercial Union Assurance Company PLC: Ordinary shares, par value 25 p
Courtaulds PLC: Common, par value 25 p

DAI Nippon Printing: ¥50 par common
DAI-Ichi Kangyo Bank LTD.: ¥50 par common
Denki Kagaku Kogyo: ¥50 par common
Dowa Mining: ¥50 par common

Ebara Corporation: ¥50 par common
Enterprise Oil PLC: Ordinary shares, par value 25 p
Fiaona PLC: Common, par value 25 p
Fuji Bank LTD.: ¥50 par common
Fuji Electric Company LTD.: ¥50 par common
Fujita Corporation: ¥50 par common
Fujitsu LTD.: ¥50 par common
Furukawa: ¥50 par common
Furukawa Electric Company LTD.: ¥50 par common

General Accident Fire & Life Assurance Corp. PLC: Common, par value 25 p
GKN PLC: Common, par value 100 p
Glaxo Holdings PLC: Common, par value 50 p
Great Universal Stores PLC: "A" Ordinary shares (non-voting), par value 25 p
Guardian Royal Exchange PLC: Ordinary shares, par value 5 p

Hammerson Property Investment AND Development Corp. PLC: Common, par value 25 p
Hanson PLC: Ordinary shares, par value 25 p
Harrisons And Crosfield PLC: Common, par value 25 p
Hawker Sisseley Group PLC: Common, par value 25 p
Hillsdown Holdings PLC: Ordinary shares, par value 10 p
Hino Motors LTD.: ¥50 par common
Honda Motor Company LTD.: ¥50 par common

Imperial Chemical Industries PLC: Common, par value 100 p
Ishikawajima-Harima Heavy Industries Company LTD.: ¥50 par common
Isuzu Motors LTD.: ¥50 par common

Japan Steel Works: ¥50 par common
Jujo Paper Company LTD.: ¥50 par common

Kajima Corporation: ¥50 par common
Kanebo LTD.: ¥50 par common
Kansai Electric Power Company Inc.: ¥500 par common
Kawasaki Heavy Industries LTD.: ¥50 par common
Kawasaki Kisen: ¥50 par common
Kawasaki Steel Corporation: ¥50 par common
Keihin Electric Express Railway: ¥50 par common
Keio Teito Electric Railway: ¥50 par common
Keisei Electric Railway: ¥50 par common
Kikkoman: ¥50 par common
Kingfisher PLC: Ordinary shares, par value 25 p
Kirin Brewery Company LTD.: ¥50 par common
Kobe Steel: ¥50 par common
Konica Corporation: ¥50 par common
Koyo Seiko: ¥50 par common
Kubota Corporation LTD.: ¥50 par common
Kuraray Company LTD.: ¥50 par common
Kyowa Hakko Kogyo Company LTD.: ¥50 par common

Ladbroke Group PLC: Ordinary shares, par value 10 p
Land Securities PLC: Common, par value 100 p
Lamo PLC: Common, par value 25 p
Legal and General Group PLC: Common, par value 25 p
Lloyds Bank PLC: Common, par value 100 p
Lonrho LTD. PLC: Ordinary shares, par value 25 p

Lucas Industries PLC: Ordinary shares, par value 100 p

Marks & Spencer PLC: Ordinary shares, par value 25 p
Marubeni Corporation: ¥50 par common
Matsuzakaya: ¥50 par common
Maxwell Communication Corporation PLC: Ordinary shares, par value 25 p
Mazda Motor Corporation: ¥50 par common
Meidensha Electric: ¥50 par common
Meiji Milk Products: ¥50 par common
Meiji Seika Kaisha LTD: ¥50 par common
MEPC PLC: Common, par value 25 p
Midland Bank PLC: Ordinary shares, par value 100 p
Mitsubishi Corporation: ¥50 par common
Mitsubishi Electric Corporation: ¥50 par common
Mitsubishi Estate Company LTD.: ¥50 par common
Mitsubishi Heavy Industry LTD.: ¥50 par common
Mitsubishi Kaisei Corporation: ¥50 par common
Mitsubishi Metal Corporation: ¥50 par common
Mitsubishi Oil Company LTD.: ¥50 par common
Mitsubishi Paper Mills: ¥50 par common
Mitsubishi Rayon Company LTD.: ¥50 par common
Mitsubishi Steel Manufacturing: ¥50 par common
Mitsubishi Trust & Banking Corporation: ¥50 par common
Mitsubishi Warehouse & Transportation: ¥50 par common
Mitsui & Co. LTD.: ¥50 par common
Mitsui Mining & Smelting Company LTD.: ¥50 par common
Mitsui Osk Lines LTD.: ¥50 par common
Mitsui Real Estate Development Company LTD.: ¥50 par common
Mitsui Taiyo Kobe Bank: ¥50 par common
Mitsui Toatsu Chemicals: ¥50 par common
Mitsui Trust And Banking Company LTD.: ¥50 par common
Moromaga and Company: ¥50 par common

Nachi-Fujikoshi: ¥50 par common
National Westminister Bank PLC: Common, par value 100 p
Navix Line: ¥50 par common
NGK Insulators: ¥50 par common
Nichirei Corporation: ¥50 par common
Nihon Cement: ¥50 par common
Niigata Engineering: ¥50 par common
Nikko Securities Company LTD.: ¥50 par common
Nikon Corporation: ¥50 par common
Nippon Beet Sugar Manufacturing: ¥50 par common
Nippon Denso: ¥50 par common
Nippon Kayaku Company LTD.: ¥50 par common
Nippon Light Metal Company LTD.: ¥50 par common
Nippon Mining Company LTD.: ¥50 par common
Nippon Oil & Fats: ¥50 par common
Nippon Oil Company LTD.: ¥50 par common
Nippon Seiko: ¥50 par common
Nippon Sharyo Seizo: ¥50 par common
Nippon Sheet Glass Company LTD.: ¥50 par common
Nippon Shinpan Company LTD.: ¥50 par common
Nippon Steel Corporation: ¥50 par common
Nippon Suisan: ¥50 par common
Nippon Yusen: ¥50 par common
Nissan Motors: ¥50 par common
Nisshin Flour Milling Company LTD.: ¥50 par common
Nisshin Oil Mills: ¥50 par common
NKK Corporation: ¥50 par common
Noritake: ¥50 par common
NTN Toyo Bearing Company LTD.: ¥50 par common

Obayashi: ¥50 par common
Odakyu Electric Railway: ¥50 par common
Oji Paper Company LTD.: ¥50 par common
Oki Electric Industry Company Inc.: ¥50 par common
Okuma Machinery Works LTD.: ¥50 par common
Onoda Cement Company LTD.: ¥50 par common
Osaka Gas Company LTD.: ¥50 par common

Pearson PLC: Ordinary shares, par value 25 p
Peninsular and Oriental Steam Navigation Company: (Deferred Stock) Ordinary shares, par value 100 p
Pilkington PLC: Common, par value 50 p
Prudential Corporation PLC: Common, par value 5 p

Rank Organization PLC: Ordinary shares, par value 25 p
Ranks Hovis McDougall PLC: Common, par value 25 p
Reckitt and Colman PLC: Ordinary shares, par value 25 p
Redland PLC: Common, par value 25 p
Reed International PLC: Common, par value 25 p
Reuters Holdings PLC: Common, par value 10 p
RMC Group PLC: Common, par value 25 p
Rolls Royce PLC: Ordinary shares, par value 20 p
Rothmans International PLC: Common, par value 12-½ p
Royal Bank of Scotland Group PLC: Ordinary shares, par value 25 p
Royal Insurance PLC: Common, par value 25 p
RTZ Corporation, The: Common, par value 10 p

Sainsbury, J. PLC: Ordinary shares, par value 25 p
Sankyo Company LTD.: ¥50 par common
Sanyo Electric Company: ¥50 par common
Sanyo-Kokusaku Pulp: ¥50 par common

Sapporo Breweries: ¥50 par common
Sato Kogy Company LTD.: ¥50 par common
Scottish Newcastle Breweries PLC: Ordinary shares, par value 20 p
Sears Holdings PLC: Ordinary shares, par value 25 p
Sharp Corporation: ¥50 par common
Shell Transport & Trading Company PLC: Ordinary shares, par value 25 p
Shimizu Corporation: ¥50 par common
Shinetsu Chemical Company, LTD.: ¥50 par common
Shochiku: ¥50 par common
Showa Denko K.K.: ¥50 par common
Showa Electric Wire: ¥50 par common
Showa Line LTD.: ¥50 par common
Showa Shell Oil: ¥50 par common
Smith & Nephew Associated Company PLC: Ordinary shares, par value 10 p
Smithkline Beecham PLC: "A" Ordinary shares, par value 25 p
Standard Chartered Group PLC: Ordinary shares, par value 100 p
STC PLC: Common, par value 25 p
Sumitomo Bank LTD.: ¥50 par common
Sumitomo Cement Company Ltd.: ¥50 par common
Sumitomo Chemical Company LTD.: ¥50 par common
Sumitomo Corporation: ¥50 par common
Sumitomo Electric Industries LTD.: ¥50 par common
Sumitomo Metal Industries: ¥50 par common
Sumitomo Metal Mining Company LTD.: ¥50 par common
Sun Alliance Group PLC: Ordinary shares, par value 25 p
Suzuki Motor Company LTD.: ¥50 par common

Taisho Marine & Fire Insurance Company LTD.: ¥50 par common
Takara Shuzo: ¥50 par common
Takashimaya Company LTD.: ¥50 par common
Takeda Chemical Industries LTD.: ¥50 par common
Tarmac PLC: Common, par value 50 p
Taylor Woodrow PLC: Common, par value 25 p
Teijin LTD.: ¥50 par common
Teikoku Oil: ¥50 par common
Tekken Construction: ¥50 par common
Tesco PLC: Ordinary shares, par value 5 p
Thames Water PLC: Ordinary shares, par value 100 p
Thorn Emi PLC: Common, par value 25 p
Tobu Railway Company LTD.: ¥50 par common
Tokio Marine & Fire Insurance Company LTD.: ¥50 par common
Tokyo Department Store: ¥50 par common
Tokyo Electric Power Company Incorporated: ¥500 par common
Tokyo Gas Company LTD.: ¥50 par common
Tonen Corporation: ¥50 par common
Toray Industries, Inc.: ¥50 par common
Toshiba Corporation: ¥50 par common
Tosoh Corporation: ¥50 par common
Toto LTD.: ¥50 par common
Toyo Seikan: ¥50 par common
Totobo Company LTD.: ¥50 par common
Trafalgar House PLC: Common, par value 20 p
Trusthouse Forte PLC: Common, par value 25 p
TSB Group PLC: Common, par value 25 p

UBE Industries: ¥50 par common
Ultramar PLC: Ordinary shares, par value 25 p
Unilever PLC: Ordinary shares, par value 5 p
United Biscuits Holdings PLC: Ordinary shares, par value 25 p
Unitika: ¥50 par common

Whitbread & COMPANY PLC: Common, par value 25 p

Yasuda Fire & Marine Insurance Company LTD.: ¥50 par common
Yokogawa Electric Corporation: ¥50 par common
Yokohama Rubber Company LTD.: ¥50 par common
Yuasa Battery: ¥50 par common

Final Rule—Amendment to Rules Regarding Delegation of Authority

The Secretary of the Board, in accordance with 12 C.F.R. Part 265, has approved a technical amendment to the Board's Rules Regarding Delegation of Authority to conform a reference to the Board's Rules Regarding Availability of Information (12 C.F.R. Part 261) to the revised version of that part that became effective in 1988.

Effective October 3, 1990, 12 C.F.R. Part 265 is amended as follows:

Part 265—Rules Regarding Delegation of Authority

1. The authority citation for Part 265 continues to read as follows:

Authority: Section 11(k), 38 Stat. 261 and 80 Stat. 1314; 12 U.S.C. § 248(k).

2. In section 265.2(c)(20), the reference "§ 261.6(a)(2) and (3)" is revised to read "§ 261.8(a)(2) and (3)."

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

Orders Issued Under Section 3 of the Bank Holding Company Act

First Bank System, Inc. Minneapolis, Minnesota

Order Approving Merger of Bank Holding Companies

First Bank System, Inc., Minneapolis, Minnesota ("FBS"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied for the Board's approval under section 3 of the BHC Act (12 U.S.C. § 1842) to merge with Northern Cities Bancorporation, Inc., Anoka, Minnesota ("Northern Cities"), and thereby acquire Northern Bank, Anoka, Minnesota, and Northern National Bank, Forest Lake, Minnesota.

Notice of the application, affording interested persons an opportunity to submit comments, has been published (55 *Federal Register* 31,232 (1990)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the factors set forth in section 3(c) of the BHC Act.

FBS, with total deposits of approximately $15.0 billion, is the largest commercial banking organization in the state of Minnesota, controlling 26 subsidiary banks, representing approximately 26.2 percent of total deposits in commercial banking organizations in the state.[1] Northern Cities controls two subsidiary banks with deposits of $91.9 million and is the 46th largest commercial banking organization in the state, controlling 0.2 percent of total deposits in commercial banking organizations in the state. Upon consummation of this proposal, FBS would remain the largest commercial banking organization in the state, controlling 26.4 percent of total deposits in commercial banking organizations in the state. Consummation of the proposal would not result in significantly adverse effects on the concentration of banking resources in Minnesota.

Both FBS and Northern Cities compete in the Minneapolis-St. Paul banking market.[2] FBS is the largest commercial banking organization in the market with $9.6 billion in deposits, representing approximately 37 percent of total deposits in commercial banking organizations in the market. Northern Cities is the 23rd largest commercial banking organization in the market, controlling deposits of $89.8 million, representing 0.4 percent of total deposits in commercial banking organizations in the market. The Minneapolis-St. Paul banking market is highly concentrated.[3] Upon consummation of this proposal, FBS's share of commercial banking deposits would increase to 37.4 percent. The Herfindahl–Hirschman Index ("HHI") would increase by 26 points to 2377. If 50 percent of the deposits controlled by thrift institutions were included in the calculation of market concentration, FBS and Northern Cities would control 34.1 percent and 0.3 percent of total thrift-adjusted market deposits, respectively. The HHI would increase by 22 points to 2034 upon consummation of this proposal.[4]

The two largest banking organizations in the Minneapolis-St. Paul banking market together control approximately 61.7 percent of total thrift-adjusted market deposits. The third largest depository institution in the market controls approximately 6 percent of market deposits. During the past two years, the number of commercial banks in the market has declined, although there are still numerous competitors in the market.

The Board has previously indicated that, in the context of the structure of the Minneapolis-St. Paul banking market, the acquisition of any depository institution in the market by either of the two largest firms in the market requires close scrutiny.[5] The Board has indicated that, under the conditions in the Minneapolis-St. Paul banking market, the acquisition by

1. Market data are as of June 30, 1989. State banking data are as of December 31, 1989.

2. The Minneapolis-St. Paul banking market is approximated by the Anoka, Hennepin, Ramsey, Washington, Carver, Scott and Dakota Counties; Lent, Chisago Lake, Shafer, Wyoming and Franconia Townships in Chisago County; Blue Hill, Baldwin, Orrock, Livonia and Big Lake Townships and the City of Elk River in Sherburne County; Monticello, Otsego, Buffalo, Frankfort, Rockford and Franklin Townships in Wright County; Lanesburgh Township in Le Sueur County, Minnesota; and the Town of Hudson in St. Croix County, Wisconsin.

3. Under the revised Department of Justice Merger Guidelines, 49 *Federal Register* 26,823 (June 2, 1984), any market in which the post-merger HHI is over 1800 is considered highly concentrated, and the Justice Department is likely to challenge a merger that increases the HHI by more than 50 points unless other factors indicated that the merger will not substantially lessen competition. The Justice Department has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI is at least 1800 and the merger increases the HHI by at least 200 points. The Justice Department has stated that the higher than normal HHI thresholds for screening bank mergers for anticompetitive effects implicitly recognizes the competitive effects of limited-purpose lenders and other non-depository financial entities.

4. The Board previously has indicated that thrift institutions have become, or have the potential to become, major competitors of commercial banks. *National City Corporation*, 70 *Federal Reserve Bulletin* 743 (1984); *NCNB Bancorporation*, 70 *Federal Reserve Bulletin* 225 (1984); *General Bancshares Corporation*, 69 *Federal Reserve Bulletin* 802 (1983); and *First Tennessee National Corporation*, 69 *Federal Reserve Bulletin* 298 (1983).

5. *Norwest Corporation*, 76 *Federal Reserve Bulletin* 873 (1990).

these two banking organizations of a series of depository organizations with relatively small market shares could, on a cumulative basis, lead to significant anticompetitive effects.

The Board recognizes in this case that Northern Cities is ranked 23rd in the Minneapolis-St. Paul banking market in market share and controls less than one-half of one percent of the market deposits. As noted above, consummation of this proposal would cause the thrift-adjusted HHI for this market to increase by approximately 22 points. If viewed in the context of other acquisitions recently made by FBS in the Minneapolis-St. Paul banking market, the effect of Applicant's acquisitions, including this proposal, would be to increase the thrift-adjusted HHI by an amount less than the level that would likely give rise to a challenge of a bank acquisition on competitive grounds under the Department of Justice Merger Guidelines.

In light of all the facts in this case, including the number of competitors remaining in the market, the size and location of Northern Cities and other facts of record, the Board does not believe that the effect of the proposed acquisition on competition in the Minneapolis-St. Paul banking market, viewed either as an individual acquisition or in the context of other recent acquisitions by Applicant, would be so significantly adverse as to warrant denial of this proposal.

Section 3(c) of the BHC Act requires in every case that the Board consider the financial resources of the applicant and the banking organization to be acquired. In evaluating this application, the Board has carefully considered the financial resources of FBS and the effect on those resources of the proposed acquisition. The Board has previously stated that it expects banking organizations contemplating expansion proposals to maintain strong capital levels substantially above the minimum levels specified in the Board's Capital Adequacy Guidelines, without significant reliance on intangibles, particularly goodwill. The Board carefully analyzes the effect of expansion proposals on the preservation or achievement of strong capital levels and has adopted a policy that there should be no significant diminution of financial strength below those levels for the purpose of effecting major expansion.[6]

The Board notes that FBS has recently raised approximately $172 million in additional equity capital, and that its primary capital ratio is in conformance with the capital guidelines established by the Board for bank holding companies. FBS has proposed to acquire Northern Cities through an exchange of stock and will not incur additional debt. In addition, Northern Cities represents a relatively small acquisition that had been arranged by prior management of FBS before recent improvements initiated by FBS. Consummation of this proposal would not have a material effect on the tangible capital ratios of FBS.

In view of these and other facts of record, the Board has determined that financial factors of this proposal are consistent with approval of the application. The Board expects FBS to make further progress in improving its financial position before seeking to make any future expansion proposals.

The managerial resources and future prospects of FBS and Northern Cities are consistent with approval. The Board has also determined that considerations relating to the convenience and needs of the communities to be served are consistent with approval of this application.

Based on the foregoing and other facts of record, the Board has determined that the application should be, and hereby is, approved. The transaction shall not be consummated before the thirtieth calendar day following the effective date of this Order, or later than three months after the effective date of this Order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Minneapolis, acting pursuant to delegated authority.

By order of the Board of Governors, effective October 10, 1990.

Voting for this action: Chairman Greenspan, and Governors Kelley and Mullins. Voting against this action: Governors Angell and LaWare. Absent and not voting: Governor Seger.

JENNIFER J. JOHNSON
Associate Secretary of the Board

Concurring Statement of Governor Kelley

While voting in favor of this application, I do so by the narrowest of margins.

On the competitive issue, I believe this proposal merits approval because it does not create significant additional concentration in the relevant banking market. The increase in market concentration resulting from this proposal, viewed in context with other recent acquisitions by Applicant in this market, would be well below the level specified in the Department of Justice Merger Guidelines. However, the proposal does marginally add to already existing concentration in this market, and, as a consequence, I will view with

6. Thus, for example, the Board has generally approved proposals involving a decline in capital only where the applicants have promptly restored their capital to pre-acquisition levels following consummation of the proposals and have implemented programs of capital improvement to raise capital significantly above minimum levels. *See, e.g., Citicorp*, 72 *Federal Reserve Bulletin* 726 (1986); *Security Pacific Corporation*, 72 *Federal Reserve Bulletin* 800 (1986).

ever greater scrutiny any further combinations that will exacerbate this condition.

On the financial issue, I concur with Governors Angell and LaWare that Applicant must continue to address its announced problems. However, Applicant has taken aggressive steps to strengthen itself and, in my view, this relatively small stock-for-stock merger does not warrant rejection on financial grounds.

October 10, 1990

Dissenting Statement of Governors Angell and LaWare

We disagree with the Board's action in this case. The Board requires bank holding companies seeking to expand through acquisition to be in overall strong financial condition. FBS has recently taken a number of important steps towards addressing publicly known financial problems at the organization. However, we believe that FBS must continue to address its announced problems and make additional progress towards improving its financial condition prior to seeking to expand by acquisition. Accordingly, we do not believe that financial factors favor approval of this proposal at this time. While we have also expressed concerns about the competitive effects of acquisitions in the St. Paul-Minneapolis banking market by the two largest banking organizations, we need not reach a decision on that aspect of this case.

October 10, 1990

U.S. Bancorp
Portland, Oregon

Order Approving Acquisition of a Bank

U.S. Bancorp, Portland, Oregon ("Bancorp"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied for the Board's approval under section 3(a)(3) of the BHC Act (12 U.S.C. § 1842(a)(3)) to acquire 100 percent of the voting shares of U.S. Bank, National Association, Beaverton, Oregon ("U.S. Bank"), a *de novo* bank. In connection with this application, Bancorp has applied to acquire U.S. Bancorp Financial Services, Inc., Portland, Oregon ("Bancorp Financial"), which has applied for the Board's approval under section 3(a)(1) of the BHC Act (12 U.S.C. § 1842(a)(1)) to become a bank holding company by acquiring 100 percent of the voting shares of U.S. Bank.

Notice of the applications, affording interested persons an opportunity to submit comments, has been published (55 *Federal Register* 31,232 (1990)). The time for filing comments has expired, and the Board has considered the applications and all comments received in light of the factors set forth in section 3(c) of the BHC Act.

Bancorp is the largest commercial banking organization in Oregon, controlling two banks in Oregon with total deposits of $7.6 billion, representing 42.7 percent of the total deposits in commercial banking organizations in the state.[1] Bancorp also operates subsidiary banks in Washington, Utah and California.

U.S. Bank, a *de novo* institution, is being organized as a national bank. The bank will be an FDIC-insured commercial bank and will place primary emphasis on providing credit cards and other consumer financial services and products to members of various affinity groups and customers in the Portland RMSA. In view of the *de novo* status of U.S. Bank and based upon the facts of record, the Board concludes that the proposed transaction would have no significantly adverse effects on existing or probable future competition, and would not significantly increase the concentration of resources in any relevant market. Thus, competitive considerations are consistent with approval of the application. In addition, the financial and managerial resources of U.S. Bank, Bancorp, and Bancorp Financial are consistent with approval of these applications.

In considering the convenience and needs of the community to be served, the Board has taken into account the record of Bancorp's subsidiary banks under the Community Reinvestment Act ("CRA") (12 U.S.C. § 2901 *et seq.*). The CRA requires the federal financial supervisory agencies to encourage financial institutions to help meet the credit needs of the local communities in which they operate, consistent with the safe and sound operation of such institutions. To accomplish this end, the CRA requires the appropriate federal supervisory authority to assess the institution's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods, consistent with the safe and sound operation of the institution, and to take this record into account in its evaluation of bank holding company applications.[2]

In this regard, the Board has received a comment filed by the Portland Organizing Project[3] ("Protestant") critical of the CRA performance of the U.S. National Bank of Oregon ("USBO"), Bancorp's largest subsidiary in Oregon, in the Portland, Oregon

1. State banking data are as of June 30, 1990.
2. 12 U.S.C. § 2903.
3. The Portland Organizing Project is a coalition of churches representing 5,000 families in working class, low- and moderate-income neighborhoods.

area.[4] Protestant states that it has been meeting with USBO since January 1990, to put together a national demonstration project to target mortgage loans in lower-income neighborhoods in Portland, Oregon. Protestant alleges that it has urged USBO to reduce closing costs and interest rates on loans targeted to inner-city neighborhoods and market such loans, but Protestant's efforts have been unproductive. In addition, Protestant states that in general USBO's marketing strategy to low- and moderate-income neighborhoods is insufficient. Protestant alleges that USBO made very few loans to minority areas of Portland during the period 1987 through 1989 compared to the higher-income suburbs.[5] Protestant also alleges that USBO charges higher loan fees for loans under $50,000 than for loans over that amount. Bancorp has submitted a detailed response to the comments made by Protestant.[6]

The Board has carefully reviewed the CRA performance record of USBO, as well as Protestant's comments and Bancorp's response to those comments, in light of the CRA, the Board's regulations and the Statement of the Federal Financial Supervisory Agencies Regarding the Community Reinvestment Act ("Agency CRA Statement").[7] The Agency CRA Statement provides guidance regarding the types of policies and procedures that the supervisory agencies believe financial institutions should have in place in order to fulfill their responsibilities under the CRA on an ongoing basis and the procedures that the supervisory agencies will use during the application process to review an institution's CRA compliance and performance. The Agency CRA Statement also indicates that decisions by agencies to allow financial institutions to expand will be made pursuant to an analysis of the institution's overall CRA performance, and will be based on the actual record of performance of the institution.[8]

Initially, the Board notes in this case that Bancorp's subsidiary banks—including USBO—have each received a satisfactory rating from their primary regulators in the most recent examinations of their CRA performance. The Agency CRA Statement provides that, although CRA examination reports do not provide conclusive evidence of an institution's CRA record, these reports will be given great weight in the applications process.[9]

In addition, Bancorp and USBO have put in place various elements outlined in the Agency CRA Statement that contribute to an effective CRA program. Specifically, Bancorp has established a program for reviewing and supervising the CRA programs of its subsidiary banks that is led by an executive director. In 1990, Bancorp established a CRA/Social Responsibility Task Force, a committee that includes five executive vice presidents of the bank subsidiaries of Bancorp. The committee is an overview committee whose purpose is to provide high-level support for the company's CRA effort. Each committee member has corporate-wide responsibility for a single aspect of CRA, including: training, product development, government programs, documentation, mortgage programs, investment programs, regulatory compliance and marketing. Each committee member reports his or her activities to the committee, which meets at least bimonthly. Through the committee members, Bancorp provides information to subsidiary banks regarding evolving areas of emphasis under the CRA, and suggests guidelines to assure that subsidiary banks are meeting their responsibilities to the community under the CRA.

The Chair of the CRA/Social Responsibility Committee reports not only to the Corporate Policy Committee of Bancorp, but to the Corporate Policy Committee of USBO and to the board of directors of USBO through the USBO Social Responsibility Committee. This committee reviews and evaluates the CRA program of USBO. The USBO Social Responsibility Committee reviews the bank's CRA performance and CRA statement at least two times per year. USBO's board of directors reviews the CRA statement annually. USBO's CRA effort is also led by a CRA director

4. Protestant contends that the application is deficient because it does not include a complete record of USBO's CRA activities. While the application did not contain a complete record of USBO's CRA activities the record has been developed over the course of the application process, and the Board has thoroughly reviewed USBO's CRA activities in conjunction with this application.

5. As evidence to support this allegation, Protestant has submitted a study that appeared in *The Oregonian* in September 1990, suggesting that, in recent years, there has been a significant disparity in the home mortgage loans made by Portland lenders to high-income and white residents as opposed to low- and moderate-income and minority residents in Portland. In the "Report on Loan Discrimination" submitted to Congress by the Board on October 13, 1989, pursuant to section 1220 of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (the "Report"), the Board generally reviewed various public studies of mortgage lending in Atlanta, Cleveland, Detroit and Boston. The Report noted that, while these studies appeared to indicate that disparities existed in home mortgage lending between minority and non-minority areas, they did not provide a basis for definitive conclusions about the existence or extent of racial discrimination in mortgage lending and did not account for certain factors other than discrimination in lending that might account for these disparities—including differences in demand for mortgage loans, differences in the types of mortgage products offered by depository and nondepository institutions, and the tendency of nondepository lenders to dominate the minority mortgage loan market.

6. USBO has met with Protestant in an effort to clarify the issues presented under the CRA.

7. 54 *Federal Register* 13,742 (1989).

8. *Id.*

9. 54 *Federal Register* at 13,745.

who reports both to the Bancorp CRA director and to the president of USBO.

USBO and USBMC use a variety of means to market their products and services to low- and moderate-income individuals. USBO and USBMC employ a wide variety of media, including advertisements in print media, radio, television, billboards, fliers and placards in branches, and fliers distributed by neighborhood coalition groups. The print media advertising includes not only the traditional city newspapers, but also minority-related media, free newspapers, and neighborhood newspapers. USBO and USBMC conducts many seminars in low- and moderate-income areas to acquaint the public with the loan products, programs and services that are of special interest to low- and moderate-income individuals. In response to its market research study, USBO and USBMC have been marketing their products through sales calls to realtors. For example, the East Portland office of USBMC, located in a low- and moderate-income census tract, has regular contact with 40 realty companies. Moreover, with respect to Protestant's specific complaint about the marketing of the Portland Organizing Project/Home Affordability Program loans, USBO has agreed in principle to market these loans by working with realtors, conducting first-time home buyer seminars, educating its employees about the program, and publicly announcing program changes.

Since early 1990, USBO has conducted formal research studies to identify additional community credit needs. USBO prepared a comparison of its loan penetration statistics to the state average loan penetration statistics, for all loans in general and for specific product types. Using these results and other information, USBO rated its performance throughout the state and identified ten geographic areas in need of special attention. USBO then conducted field research in these areas, arranging meetings between bank managers and officers and local community leaders to discuss community needs and the best ways to meet the needs. The product and service managers use the information collected in this way to develop new products, programs and services, as well as enhancements to existing products, programs and services. As the result of this study, USBO created a community liaison position for one area and test-markets products by obtaining input from community leaders.

USBO offers other products and services to benefit low- and moderate-income customers. Thirty-five percent of USBO's checking accounts are low fee or no fee checking accounts, including special accounts for students, senior citizens, and community organizations. USBO participates in a program providing low-rate weatherization loans to homeowners whose homes are heated with fuel oil. USBO has developed a creditline product making revolving credit readily available to small businesses and farms to fund operating costs and capital improvements, as well as participating in the FmHA and SBA loan programs. USBO also has been active in lending to farmers, public finance, and nonprofit organizations. In 1970, USBO implemented the Opportunity Loan Program for both consumer and commercial loans to benefit low-income, minority or elderly individuals, people with physical, educational or economic disadvantages, minority businesses and non-profit groups. The program provides flexibility in collateral requirements, the term of a loan and the risk-rating of the borrower, so that those not eligible for conventional financing may be eligible for an opportunity loan. Under this program, USBO currently has 194 borrowers with $6.1 million in original loan commitments outstanding. In addition, USBO is one of five Oregon banks who have committed to lend $3 million to minority-owned businesses for start-up and short-term capital.

Bancorp and USBO also actively participate in community development activities. USBO conducts educational seminars for those interested in purchasing homes, for small businesses, and for nonprofit organizations seeking assistance in obtaining funding from grant-makers or foundations. Bancorp's Public Finance Department assists cities, counties, the state, school districts and other nonprofit entities in Oregon to finance capital improvement. In 1988, USBO provided construction financing, permanent financing and short-term loans to REACH Community Development, Inc. to acquire and renovate 253 units of inner city, low-income housing in Portland. USBO will be participating in several other community development programs, including one to build or rehabilitate 250 homes in Portland.

The Board notes that there have been some disparities in the HMDA data for USBO's and USBMC's home mortgage lending to borrowers in low- and moderate-income versus high-income census tracts and minority versus non-minority census tracts.[10] As noted above, USBO does little home mortgage lending generally. However, a significant number of USBO's home improvement loans are in low- and moderate-income neighborhoods. In 1988, USBO made 26 percent of its home improvement loans in low- and moderate-income census tracts. More recently, as discussed above, USBO has implemented many additional programs and agreed to changes in the Portland Organizing Project/Home Affordability Program to

10. Although some disparities appear in the HMDA data of USBO, its affiliate, USBMC, is the second largest FHA and VA lender in minority and low- and moderate-income census tracts.

make its loans more attractive to low- and moderate-income individuals.

Because USBO is not active in home mortgage lending generally, USBO refers virtually all of its home mortgage lending to U.S. Bancorp Mortgage Company ("USBMC"), a subsidiary of Bancorp, that participates in VA, FHA and other governmentally-insured and guaranteed lending programs. USBMC is the most active lender participating in the Oregon State Bond Program, which offers lower-than-market interest rates to home buyers in targeted low-income areas and to first-time home buyers in non-targeted areas. USBMC also is the second most active lender participating in the Mortgage Credit Certificate Program which makes home purchases more affordable to first-time home buyers or those buying in target neighborhoods. Furthermore, USBMC participates in the Portland Organizing Project's Home Affordability Program, which offers modified underwriting guidelines to home buyers with incomes below the median income in the county in which they live. USBMC has closed more loans under this program than any other lender.

In 1990, USBMC began participating in a joint program with the General Electric Mortgage Insurance Company to make home purchases possible for buyers with less than the median income in the county in which they live. Pursuant to a program sponsored by the Federal National Mortgage Association, USBMC has agreed to lend up to $10 million to senior citizens for a variety of real estate transactions. Finally, USBMC is developing a mortgage program even more flexible in its requirements than those programs in which it is currently participating. In this program the underwriting fee will be waived, and the closing costs may be financed.

Moreover, USBO has taken steps to address many of the concerns raised by Protestant. USBO has been working with Protestant in an effort to resolve the issue of closing costs and interest rates for the mortgage loans that will be offered pursuant to the national demonstration project and to modify the Portland Organizing Project/Home Affordability Program to make it more attractive to low- and moderate-income individuals. In response to Protestant's assertion regarding loan fees on small loans, USBO has ended the practice of charging higher fees for loans with a small principal amount.

In addition, Bancorp intends to serve the credit needs of low- and moderate-income persons through the proposed bank. In light of these and all of the other facts of record, the Board believes that the CRA record of Bancorp and USBO is consistent with approval of this application. For the foregoing reasons, and based upon the overall CRA record of Bancorp and USBO and other facts of record, the Board concludes that convenience and needs considerations, including the record of performance under the CRA of Bancorp, USBO and Bancorp's other subsidiary banks, are consistent with approval of this application.

Based on the foregoing and other facts of record, the Board has determined that the applications are in the public interest and should be, and hereby are, approved. The transaction shall not be consummated before the thirtieth calendar day following the effective date of this Order, or later than three months after the effective date of this Order, and U.S. Bank shall be opened for business not later than six months after the effective date of this Order. The latter two periods may be extended for good cause by the Board or the Federal Reserve Bank of San Francisco pursuant to delegated authority.

By order of the Board of Governors, effective October 19, 1990.

Voting for this action: Chairman Greenspan and Governors Seger, Angell, LaWare, and Mullins. Absent and not voting: Governor Kelley.

JENNIFER J. JOHNSON
Associate Secretary of the Board

Orders Issued Under Section 4 of the Bank Holding Company Act

Hy-Vee Food Stores, Inc. Chariton, Iowa

Order Approving Exemption of Nonbanking Activities of Bank Holding Company

Hy-Vee Food Stores, Inc., Chariton, Iowa ("Hy-Vee"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied for the Board's approval under section 4(d) of the BHC Act for an exemption from the prohibitions of section 4 of the BHC Act (relating to nonbanking activities and acquisitions). Hy-Vee, which owns approximately 96.6 percent of the voting shares of the National Bank and Trust Company of Chariton, Chariton, Iowa ("Bank"), has been exempt from the nonbanking provisions of the BHC Act on the basis of grandfather rights granted under section 4(a)(2) of the BHC Act, which permit Hy-Vee to continue to engage in those nonbanking activities it has engaged in since June 30, 1968. Hy-Vee proposes to acquire certain going concerns, which would cause it to lose its grandfather rights under section 4(a)(2). Hy-Vee seeks an exemption under section 4(d) in order to retain ownership of Bank.

Notice of the application, affording interested persons an opportunity to submit comments, has been published (55 *Federal Register* 34,347 (1990)). The time for filing comments has expired, and the Board has considered the application and all the comments received in light of the factors set forth in section 4(d) of the BHC Act.

Section 4(d) of the BHC Act provides that to the extent such action would not be substantially at variance with the purposes of the BHC Act and subject to such conditions as the Board considers necessary to protect the public interest, the Board may grant an exemption from the provisions of section 4 of the BHC Act to a bank holding company that controlled one bank prior to July 1, 1968, and has not thereafter acquired control of any other bank, in order:

(1) to avoid disrupting business relationships that have existed over a long period of years without adversely affecting the banks or communities involved;

(2) to avoid forced sales of small locally owned banks to purchasers not similarly representative of community interests; or

(3) to allow retention of banks that are so small in relation to the holding company's total interests and so small in relation to the banking market to be served as to minimize the likelihood that the bank's powers to grant or deny credit may be influenced by a desire to further the holding company's other interests.

Hy-Vee has applied under the first two grounds. In 1972, the Board had denied an application by Hy-Vee for an exemption under section 4(d). (58 *Federal Reserve Bulletin* 677 (1972)).

Hy-Vee, an employee-owned company headquartered at Chariton, Iowa, owns and operates 153 supermarkets in Iowa, Missouri, Minnesota, South Dakota, Nebraska, Kansas, and Illinois, and 20 retail drug stores, all in Iowa. Hy-Vee originally obtained control of Bank in 1963 through Hy-Vee's employee profit-sharing trust.

Hy-Vee has controlled Bank for 27 years, and has not acquired any additional banks during that period. However, Hy-Vee has made several substantial capital contributions to Bank. Hy-Vee has never borrowed from Bank, but uses Bank for deposit and other services. As a result, Bank benefits from a relatively high volume of lower cost deposits and receives fee income that would otherwise not be obtainable by a bank of such a relatively small size. Hy-Vee has shared its expertise by providing personnel services to Bank without charge. Hy-Vee has never caused Bank to pay dividends, and Hy-Vee has reimbursed Bank for Hy-Vee's tax savings through its association with Bank.[1]

In addition, Bank has been able to offer its products and services to approximately 24,000 Hy-Vee employees and family members. Approximately 30 percent of Bank's loan and deposit customers are Hy-Vee employees. Finally, during the period of the farm crisis from 1983 through 1986, when Bank was in less than satisfactory financial condition, the Comptroller of the Currency permitted Bank to make a substantial financial contribution to a community center in Chariton, Iowa, due to Hy-Vee's underlying financial commitment to Bank.

Currently, Bank appears to be in satisfactory financial condition, and the record contains nothing to suggest that Hy-Vee has abused its relationship with Bank or misused Bank's resources for the benefit of Hy-Vee's other interests. The record does not indicate that permitting Hy-Vee's relationship with Bank to continue would adversely affect Bank or the community involved.

Hy-Vee argues that a forced sale of Bank could result in loss of local control of Bank. Hy-Vee commissioned a consultant for the purpose of determining opportunities for the sale of Bank, and was advised that such opportunities for Bank were virtually nonexistent at this time. In 1982, Hy-Vee received an offer to acquire Bank, but the offer was withdrawn due to the financial condition of Bank at that time. Hy-Vee has provided substantial evidence that any potential buyer for Bank would be less representative of the community's interests than Hy-Vee. In this regard, Hy-Vee is uniquely representative of the Chariton community. Hy-Vee is an employee-owned company that employs an estimated 40 percent of the workforce of Chariton, Iowa, where it is headquartered, and 20 percent of the workforce of Lucas County, Iowa.

In light of the unique circumstances of this case, including Hy-Vee's substantial capital contributions to and consistent support of Bank, Bank's location in a small rural market, the likely effects of not granting an exemption on the local community, and other considerations reflected in the record, the Board has concluded that granting an exemption to Hy-Vee would not be substantially at variance with the purposes of the BHC Act nor adverse to the public interest. Accordingly, an exemption pursuant to section 4(d) of the BHC Act is hereby granted subject to the condition that this determination may be revoked if the facts upon which it is based change in any material respect. Further, the provision of any credit, property, or

1. Hy-Vee has annually reimbursed to Bank the income tax savings resulting from Hy-Vee's use of Bank's net operating loss.

service by Hy-Vee or any subsidiary thereof shall not be subject to any condition which, if imposed by a bank, would constitute an unlawful tie-in arrangement under section 106 of the Bank Holding Company Act Amendments of 1970. The determination herein is subject to the Board's authority to require modification or termination of the activities of Hy-Vee or any of its nonbanking subsidiaries as the Board finds necessary to assure compliance with the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder, or to prevent evasions thereof.

By order of the Board of Governors, effective October 11, 1990.

Voting for this action: Chairman Greenspan and Governors Seger, Angell, Kelley, and Mullins. Absent and not voting: Governor LaWare.

JENNIFER J. JOHNSON
Associate Secretary of the Board

Norwest Corporation
Minneapolis, Minnesota

Order Approving the Acquisition of a Title Insurance Agency

Norwest Corporation, Minneapolis, Minnesota ("Norwest"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied under section 4(c)(8) of the BHC Act (12 U.S.C. § 1843(c)(8)) and section 225.23(a) of the Board's Regulation Y (12 C.F.R. 225.23(a)) for the Board's approval to acquire all the outstanding shares of American Land Title Co., Inc., Omaha, Nebraska ("American Land Title"), and through American Land Title, engage in title insurance agency and real estate settlement activities in Nebraska.[1]

Notice of the application, affording interested persons an opportunity to submit comments, has been duly published (55 *Federal Register* 35,184 (1990)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the public interest factors set forth in section 4(c)(8) of the BHC Act.

Norwest, with total consolidated assets of $26.8 billion, is the second largest banking organization in Minnesota.[2] Applicant controls 34 banking subsidiaries in ten states in the Midwest and owns a number of subsidiaries engaged in nonbanking activities.

The Board has previously determined that title insurance agency activities are permissible under section 4(c)(8)(G) of the BHC Act ("exemption G"), which authorizes bank holding companies that engaged in insurance agency activities, with Board approval, prior to 1971, to engage, or control a company engaged, in general insurance agency activities.[3] Norwest qualifies for exemption G rights.[4]

American Land Title also provides the following real estate settlement services:

(1) reviewing the status of the title in the title commitment, resolving any exceptions to the title, and reviewing the purchase agreement to identify any requirements in it in order to ensure compliance with them;

(2) verifying payoffs on existing loans secured by the real estate and verifying the amount of and then calculating the prorating of special assessments and taxes on the property;

(3) obtaining an updated title insurance commitment to the date of closing, preparing the required checks, deeds, affidavits, and obtaining any authorization letters needed;

(4) establishing a time and place for the closing, conducting the closing, and ensuring that all parties properly execute all appropriate documents and meet all commitments;

(5) collecting and disbursing funds for the parties, holding funds in escrow pending satisfaction of certain commitments, preparing the HUD settlement statement, the deed of trust, mortgage notes, the Truth-in-Lending statement, and purchaser's affidavits; and

(6) recording all these documents as required under law.

In order to approve an application submitted under section 4(c)(8) of the BHC Act, the Board is required to determine that the proposed activity is "so closely related to banking as to be a proper incident thereto." 12 U.S.C. § 1843(c)(8). In considering whether a proposed activity would be a proper incident to banking, the Board is required to determine that the performance of the proposed activity can reasonably be

1. American Land Title also performs title abstracting activities, including title searches of real estate. The Board believes that title abstracting is incidental to conducting title insurance agency activities, because it provides necessary information needed to authorize the sale of a title insurance policy.

2. Asset data are as of June 30, 1990.

3. *See First Wisconsin Corporation*, 75 *Federal Reserve Bulletin* 31 (1989); affirmed in *American Land Title Association v. Board of Governors*, 892 F.2d 1059 (D.C. Cir. 1989).

4. In 1959, Norwest received Board approval to retain its general insurance agency subsidiaries and, accordingly, is a grandfathered bank holding company for purposes of exemption G. *Northwest Bancorporation*, 45 *Federal Reserve Bulletin* 963 (1959); *Norwest Corporation*, 70 *Federal Reserve Bulletin* 470 and 235 (1984).

expected to produce benefits to the public that outweigh possible adverse effects. *Id.*

Based on guidelines established in the *National Courier* case, a particular activity may be found to be "closely related to banking" for purposes of section 4(c)(8) of the BHC Act if:

(i) banks generally do in fact conduct the proposed activity;

(ii) banks generally provide services that are operationally or functionally so similar to the proposed activity as to equip them particularly well to provide the proposed activity; or

(iii) banks generally provide services that are so integrally related to the proposed service as to require their provision in a specialized form.[5]

In this regard, real estate settlement services are, in fact, provided by Norwest's bank subsidiaries in connection with their origination of mortgage loans, and banks in Nebraska are generally permitted to conduct real estate settlement activities.[6] Moreover, bank holding companies and banks have been authorized to provide real estate services that are operationally or functionally so similar to the proposed services as to equip them particularly well to provide real estate settlement services. The Board has approved the provision of escrow and distribution services by bank holding companies under land installment sales contracts.[7] In addition, banks routinely prepare collateral security agreements and other documentation required to close loans in accordance with federal and state lending requirements as part of the general lending activities authorized under the Board's Regulation Y.

The Board also believes that aspects of the proposed real estate settlement activities are directly linked to permissible title insurance agency activities by bank holding companies.[8] These activities can directly affect the risks insured against under a title insurance policy, and title insurance agents have special experience in assessing potential title defects that may arise at a real estate settlement. Accordingly, title insurance agents have the expertise to generally engage in real estate settlements.

5. *National Courier Ass'n v. Board of Governors*, 516 F.2d 1229, 1237 (D.C. Cir. 1975). The Board may also consider any other factor that demonstrates a reasonable or close connection or relationship of the activity to banking. 49 *Federal Register* 794, 806 (1984); *Securities Industry Ass'n v. Board of Governors*, 104 S. Ct. 3003, 3005–06 n.5 (1984).

6. Bank commissioners in Nebraska, Kansas, Colorado, Iowa, Wyoming, and South Dakota have indicated that banks are generally permitted to conduct real estate settlements.

7. *See Wells Fargo & Co. (Grayco Land Escrow, Ltd.)*, 59 *Federal Reserve Bulletin* 122 (1973); 59 *Federal Register* 1236 (1973).

8. For example, the Board has approved the preparation of a title insurance binder in performing title insurance agency activities. *See First Wisconsin Corporation, supra.*

For these reasons, the proposed real estate settlement activities conducted through a permissible title insurance agency are closely related to banking for purposes of section 4(c)(8) of the BHC Act.

In order to approve this application, the Board is required to determine that the performance of the proposed activities by Norwest is a proper incident to banking and "can reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." 12 U.S.C. § 1843(c)(8).

Consummation of the proposal can reasonably be expected to result in public benefits that outweigh adverse effects. Norwest's proposal may be expected to result in increased convenience resulting from the offering of additional services to customers.[9] In addition, the activities of American Land Title represent a small share of the total market for these services, and there are numerous competitors in the title insurance agency and real estate settlement markets. Accordingly, the Board believes that the proposed activities are a proper incident to banking.

There is also no evidence in the record to indicate that consummation of this proposal is likely to result in any significant adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices. Accordingly, the Board has determined that the balance of public interest factors it must consider under section 4(c)(8) of the BHC Act is favorable and consistent with approval.

Based upon the foregoing and all the other facts of record, the Board has determined that the proposed application should be, and hereby is, approved. This determination is subject to all of the conditions set forth in the Board's Regulation Y, including sections 225.4(d) and 225.23, and the Board's authority to require such modification or termination of the activities of a holding company or any of its subsidiaries as the Board finds necessary to assure compliance with, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder.

The transaction shall be consummated not later than three months after the effective date of this Order,

9. Norwest has committed to advise its customers that they are not required to purchase its real estate settlement services in connection with the purchase of title insurance in a real estate transaction. In addition, section 106 of the Bank Holding Company Act Amendments of 1970 would generally prohibit Norwest from tying extensions of credit to the purchase of services from American Land Title.

unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Minneapolis, pursuant to delegated authority.

By order of the Board of Governors, effective October 15, 1990.

Voting for this action: Chairman Greenspan and Governors Seger, LaWare, and Mullins. Absent and not voting: Governors Angell and Kelly.

JENNIFER J. JOHNSON
Associate Secretary of the Board

South Carolina National Corporation Columbia, South Carolina

Order Approving the Acquisition of a Savings Association

South Carolina National Corporation, Columbia, South Carolina ("SCNC"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied pursuant to section 4(c)(8) of the BHC Act (12 U.S.C. § 1843(c)(8)) and section 225.23(a) of the Board's Regulation Y (12 C.F.R. 225.23(a)), to acquire Atlantic Savings Bank, FSB, Hilton Head Island, South Carolina ("Atlantic"), a savings association. SCNC has also applied for Board approval under these same sections to acquire indirectly Atlantic Mortgage Corporation of South Carolina, Inc., Hilton Head Island, South Carolina, and thereby engage in mortgage banking activities permissible under the Board's Regulation Y. 12 C.F.R. 225.25(b)(1).

Notice of the application, affording interested persons an opportunity to submit comments, has been published (55 *Federal Register* 26,507 (1990)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the public interest factors set forth in section 4(c)(8) of the BHC Act.

The Board has determined that the operation of a savings association is closely related to banking and permissible for bank holding companies. 12 C.F.R. 225.25(b)(9). In making this determination, the Board required that savings associations acquired by bank holding companies conform their direct and indirect activities to those permissible for bank holding companies under section 4 of the BHC Act. SCNC has committed to conform all activities of Atlantic to the requirements of section 4 and Regulation Y. In order to approve the application, the Board also is required by section 4(c)(8) of the BHC Act to determine that the ownership and operation of Atlantic by SCNC "can reasonably be expected to produce benefits to the public . . . that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." 12 U.S.C. § 1843(c)(8).

SCNC, which operates one subsidiary bank, is the largest depository organization in South Carolina, controlling deposits of $4.7 billion, representing 26.7 percent of the total deposits in the state.[1] SCNC also engages through several subsidiaries in permissible nonbanking activities. Atlantic, which operates two offices, both in Hilton Head Island, South Carolina, is the 28th largest depository organization in South Carolina, controlling deposits of $63.6 million. After consummation of the proposed acquisition, SCNC would remain the largest depository organization in South Carolina with aggregate deposits of $4.7 billion, representing 27 percent of the total deposits in the state. In the Board's view, consummation of the proposal would not have a significantly adverse effect on the concentration of resources in depository institutions in South Carolina.

SCNC and Atlantic compete directly in one banking market in South Carolina. In the Beaufort County banking market,[2] SCNC is the second largest of eleven depository institutions, controlling $155.9 million in deposits, representing 23.7 percent of deposits of banks and thrift institutions in the market ("market deposits"). Atlantic is the seventh largest depository institution, controlling $55.1 million in deposits, representing 4.2 percent of market deposits. Upon consummation of this proposal, SCNC would become the largest depository organization in the Beaufort County market, with 30.7 percent of market deposits.[3] The Beaufort County banking market is considered moderately concentrated, with the three largest depository institutions currently controlling 67.2 percent of the market deposits. After consummation of the proposal, the market would be highly concentrated, and the Herfindahl–Hirschman Index ("HHI") would increase by 279 points, to a level of 1977.[4]

1. State deposit data are as of December 31, 1989. Market data are as of June 30, 1989.

2. The Beaufort County banking market consists of Beaufort County, South Carolina.

3. The pre-consummation market share statistics are based on calculations in which the deposits of Atlantic and all other savings associations are included at 50 percent. Upon consummation, Atlantic will be merged with a commercial banking organization, thus, on a *pro forma* basis, the deposits of Atlantic are included at 100 percent, while the deposits of other savings associations continue to be included at 50 percent unless otherwise indicated.

4. Under the revised Department of Justice Merger Guidelines, 49 *Federal Register* 26,823 (1984), a market in which the post-merger HHI is between 1000 and 1800 is considered moderately concentrated. In such markets, the Justice Department is unlikely to challenge a merger if an increase in the HHI is less than 100 points. Any market in which the post-merger HHI is over 1800 is considered highly concentrated, and the Justice Department is likely to challenge a

Although this proposal would eliminate some existing competition in the Beaufort County banking market, the Board believes that a number of factors mitigate the potential anticompetitive effects of this proposal. The savings associations in the market actively compete with commercial banks in the market, and have increased their share of market deposits from 19.3 percent in 1984 to 25.5 percent in 1989. Each of the remaining thrifts offers a full range of time and demand deposit services, and has been active in making commercial loans.[5]

Based on the size, market share, and activities of Atlantic in this market, the Board has concluded that thrifts exert a significant competitive influence that mitigates the anticompetitive effects of the proposal.[6] In addition, the Board notes that ten depository institutions would remain as competitors upon consummation of the proposal, and that the Beaufort County market is attractive for entry by new banking competitors.[7]

In light of the above considerations, and based on all the facts of record, the Board has determined that consummation of this proposal is not likely to result in any other significantly adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interest, or unsound banking practices. The financial and managerial resources and future prospects of SCNC, its bank subsidiary, and Atlantic are consistent with approval. Upon consummation of this proposal, SCNC, its bank subsidiary, and Atlantic would meet applicable capital requirements. Accordingly, based on consideration of all the facts of record, the Board has determined that the balance of the public interest factors that it is required to consider under section 4(c)(8) of the BHC Act is favorable and consistent with approval of SCNC's application to acquire Atlantic.

Accordingly, the Board has determined that the proposed application pursuant to section 4(c)(8) of the BHC Act should be, and hereby is, approved. This determination is subject to all of the conditions set forth in the Board's Regulation Y, including sections 225.4(d) and 225.23(b)(3), and to the Board's authority to require such modification or termination of the activities of a bank holding company or any of its subsidiaries as the Board finds necessary to assure compliance with, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder.

The transactions approved in this Order shall be made not later than three months after the effective date of this Order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Richmond, pursuant to delegated authority.

By order of the Board of Governors, effective October 15, 1990.

Voting for this action: Chairman Greenspan and Governors Seger, LaWare and Mullins. Absent and not voting: Governors Angell and Kelley.

JENNIFER J. JOHNSON
Associate Secretary of the Board

merger that increases the HHI by more than 50 points unless other factors indicate that the merger will not substantially lessen competition. The Justice Department has informed the Board that a bank merger or acquisition generally will not be challenged (in the absence of other factors indicating anticompetitive effects) unless the post-merger HHI market is at least 1800 and the merger increases the HHI by at least 200 points. The Justice Department has stated that the higher than normal HHI thresholds for screening bank mergers for anticompetitive effects implicitly recognizes the competitive effect of limited-purpose lenders and other non-depository financial entities.

5. Nationwide, thrift institutions hold, on average, 4.5 percent of their assets in consumer loans and 2.8 percent in commercial loans. On average, consumer loans represent 8.4 percent of the assets of the thrifts remaining in this market, and commercial and industrial loans represent 6.9 percent of assets in these thrifts.

6. If 100 percent of thrift deposits are included in the calculation of market concentration, SCNC would control 28 percent of the market deposits upon consummation. The HHI would increase by 302 points from 1421 to 1723. The Board previously has indicated that it may be appropriate in light of market factors in a specific market to include thrift deposits at a level greater than 50 percent when analyzing the competitive effects of a proposal. *See, e.g., Fleet Financial Group, Inc.*, 74 *Federal Reserve Bulletin* 62, 64 (1988); *Hartford National Corporation*, 73 *Federal Reserve Bulletin* 720, 721 (1987).

7. The Beaufort County market consists of Beaufort County and is an area in which population growth, *per capita* personal income, deposits per banking office, and the rate of deposit growth exceed the comparable averages of similar South Carolina banking markets.

Orders Issued Under Sections 3 and 4 of the Bank Holding Company Act

STICHTING PRIORITEIT ABN AMRO HOLDING
Amsterdam, The Netherlands

Stichting Administratiekantoor ABN AMRO HOLDING
Amsterdam, The Netherlands

ABN AMRO Holding N.V.
Amsterdam, The Netherlands

Order Approving Acquisition of Two Bank Holding Companies

STICHTING PRIORITEIT ABN AMRO HOLDING, Stichting Administratiekantoor ABN AMRO HOLDING, and their subsidiary, ABN AMRO Holding N.V. (collectively, "ABN Holdings"), all of Amsterdam, The Netherlands, foreign banking organizations subject to the Bank Holding Company Act ("BHC Act"), have applied for the Board's approval under section 3(a)(1) of the BHC Act (12 U.S.C. § 1842(a)(1)) to become bank holding companies by acquiring 100 percent of the voting shares of Algemene Bank Nederland N.V. ("Algemene") and Amsterdam Rotterdam Bank N.V. ("Amro"), both of Amsterdam, The Netherlands, both of which are bank holding companies with respect to U.S. banks.

ABN Holdings has also applied for the Board's approval under section 4(c)(8) of the BHC Act (12 U.S.C. § 1843(c)(8)) to acquire certain nonbanking subsidiaries of Algemene and Amro.[1] ABN Holdings has also provided notice of its intention to acquire indirectly EAB Finance N.V., Amsterdam, The Netherlands, under section 4(c)(13) of the BHC Act (12 U.S.C. § 1843(c)(13)). In addition, ABN Holdings has applied to acquire ABN Bank International USA Inc., Chicago, Illinois, a corporation chartered pursuant to section 25(a) of the Federal Reserve Act (the "Edge Act") (12 U.S.C. §§ 611–613).

Notice of the applications, affording interested persons an opportunity to submit comments, has been duly published (55 *Federal Register* 25,882 (1990)). The time for filing comments has expired, and the Board has considered the applications and all comments received in light of the factors set forth in section 3(c) of the BHC Act, the considerations specified in section 4(c) of the BHC Act, and the purposes of the Edge Act.

Algemene and Amro, both large Dutch banks, have entered into an agreement to form ABN Holdings to acquire both of these banks. The agreement has been approved by the Central Bank of The Netherlands. An application is required under the BHC Act because Algemene and Amro each own banks in the United States. Algemene owns ten banks in Illinois and Amro owns one bank in New York.[2]

Section 3(d) of the BHC Act, the Douglas Amendment, prohibits the Board from approving an application by a bank holding company to acquire control of any bank located outside of the bank holding company's home state, unless such acquisition is "specifically authorized by the statute laws of the State in which bank is located, by language to that effect and not merely by implication."[3] For purposes of the Douglas Amendment, ABN Holdings's principal state of operation will be Illinois, where all of Algemene's subsidiary banks are located.[4] Amro is a bank holding company located in New York.

New York interstate banking law expressly provides that out-of-state bank holding companies may acquire banks located in New York upon the prior approval of the New York superintendent of banks.[5] The New York superintendent of banks has reviewed this proposal and determined to approve it. In granting approval of an interstate acquisition of a New York bank, the superintendent is generally required to find that the laws of the state where the out-of-state holding company is located permit the acquisition of banks in that state by New York bank holding companies on a reciprocal basis.[6] Illinois will permit interstate acquisitions on a nationwide basis effective December 1, 1990.[7]

While the Illinois nationwide reciprocal banking statute is not yet effective, the New York state banking code provides that the New York banking board may waive or vary any requirement of New York banking law if the board finds that such variation is "necessary because of the existence of unusual and extraordinary circumstances."[8] In this case, the New York banking board has determined to waive the reciprocity finding that the superintendent ordinarily must make to approve the transaction. In determining to waive this finding, the New York banking board considered the predominately foreign nature of the proposed transaction; the fact that Illinois has enacted a law providing for reciprocal banking acquisitions with New York that will become effective in December of this year; and the potential adverse effects on Algemene and Amro of delaying until December consummation of the proposed transaction.

Because the statute laws of New York authorize the interstate acquisition of New York banks in any case in which the New York superintendent's approval has been given and the New York superintendent has given that approval in this case after the New York

1. A list of the nonbanking subsidiaries that ABN Holdings has proposed to acquire pursuant to section 4(c)(8) of the BHC Act is set forth in the Appendix.

2. Upon consummation of the proposed transaction, Applicants will acquire the following bank holding companies and bank subsidiaries of Amroon, Chicago, Illinois, and thereby indirectly acquire LaSalle Bank Lake View, Chicago, Illinois; LaSalle Bank of Lisle, Lisle, Illinois; LaSalle National Bank, Chicago, Illinois; LaSalle Bank Northbrook, Northbrook, Illinois; LaSalle Northwest National Bank, Chicago, Illinois; LaSalle Bank Westmont, Westmont, Illinois; and Exchange Bancorp, Inc., Chicago, Ilange Bank of DuPage, Oak Brook, Illinois; Exchange Bank of River Oaks, Calumet City, Illinois; Exchange Bank of Lake County, Vernon Hills, Illinois; and European American Bancorp, New York, New York, and thereby indirectly acquire European American Bank, New York, New York.

3. 12 U.S.C. § 1842(d).

4. A bank holding company's principal state of operation for purposes of the Douglas Amendment is that state in which the operations of the bank holding company's banking subsidiaries were principally conducted (based on deposits) on July 1, 1966, or the date on which the company became a bank holding company, whichever is later.

5. N.Y. Banking Law, § 142–b.1. (McKinney 1990).

6. *Id.*

7. Ill. Rev. Stat. ch. 17, para. 2510.01 (Smith–Hurd Supp. 1989), effective December 1, 1990.

8. N.Y. Banking Law § 14.1.(p) (McKinney 1990).

banking board lawfully waived the requirement that the New York superintendent make a finding regarding the reciprocity of the Illinois statute, the Board concludes that the proposed transaction is "specifically authorized" under New York law. Accordingly, the Board's approval of this proposal is not barred by the Douglas Amendment.

Algemene, with consolidated assets equivalent to approximately $90.7 billion, is the 47th largest banking organization in the world and the third largest banking organization in The Netherlands.[9] In the United States, Algemene maintains, in addition to its ten subsidiary banks, branches in Chicago, New York and Pittsburgh; limited branches in Boston and Seattle; agencies in Atlanta, Houston, Miami, Los Angeles and San Francisco; and an Edge corporation, ABN Bank International USA Inc., Chicago, Illinois, with a branch in Houston.

Amro, with consolidated assets equivalent to approximately $94.1 billion, is the 48th largest banking organization in the world and the second largest banking organization in The Netherlands. In the United States, Amro maintains, in addition to European American Bank, Uniondale, New York, a branch in New York, and representative offices in Chicago, Houston, and Los Angeles. ABN Holdings will conform the deposit-taking activities of Amro's New York branch to those of an Edge corporation under section 25(a) of the Federal Reserve Act (12 U.S.C. § 611 *et seq.*).[10]

The subsidiary banks of Algemene and Amro do not currently compete directly in any state or in any banking market. The New York branch of Algemene, however, currently competes in the Metropolitan New York-New Jersey banking market[11] with Amro's subsidiary bank holding company, European American Bancorp, Uniondale, New York ("EAB"), and its subsidiary bank, European American Bank, as well as Amro's New York branch.

Algemene's New York branch controls less than one percent of the total deposits in commercial banking organizations in the Metropolitan New York-New Jersey banking market. Amro's New York branch controls less than one percent of the total deposits in commercial banking organizations in the market, and EAB controls less than two percent of the total deposits in commercial banking organizations in the market. Upon consummation of the proposed transaction, ABN Holdings would control less than four percent of the total deposits in commercial banking organizations in the market and the market would remain unconcentrated. On the basis of the facts of record, the Board concludes that consummation of this proposal would not have a significantly adverse effect on competition in the Metropolitan New York-New Jersey banking market.

Section 3(c) of the BHC Act requires in every case that the Board consider the financial resources of the applicant organization. In this case, the Board notes that the primary capital of ABN Holdings, after making certain adjustments to reflect differences in accounting practice, would be approximately at the minimum capital level for U.S. multinational bank holding companies set forth in the Board's Capital Adequacy Guidelines. The Board has also considered that the *pro forma* risk-based capital ratios of ABN Holdings exceed the 1992 minimum standards adopted by the Basle Committee. In addition, this proposal represents a consolidation of two foreign banking organizations and does not result in the expansion of banking or nonbanking activities in the United States. In view of these and other facts of record, the Board has determined that financial factors are consistent with approval of the applications.

The managerial resources and future prospects of ABN Holdings are consistent with approval. The

9. Banking data are as of December 31, 1989. Worldwide ranking is as of December 31, 1988.

10. ABN Holdings has indicated that it intends to designate Illinois as its home state for purposes of the International Banking Act ("IBA") (12 U.S.C. § 3101 *et seq.*). Illinois is currently the home state of Algemene. Section 5 of the IBA generally provides that no foreign bank may establish a state branch outside of its home state unless the establishment of such branch is specifically authorized by state law and the foreign bank agrees to limit the deposit-taking activities of such branch to those permissible for an Edge corporation. Foreign banks may also retain branches established before July 27, 1978.

The Board has previously determined that in an acquisition or merger of foreign banking organizations, only the surviving organization may retain its out-of-home state branches as full-service branches. *Lloyds Bank Plc*, 72 *Federal Reserve Bulletin* 841 (1986); *The Mitsui Bank, Limited*, 76 *Federal Reserve Bulletin* 381 (1990). In fact, the proposed transaction has the same effect in the United States as a merger in which Algemene is the surviving company since Algemene has a larger presence in the United States than Amro in terms of controlled U.S. deposits, and ABN Holdings has indicated that it will for purposes of the IBA retain Illinois, Algemene's current home state, as ABN Holdings's home state following consummation of the proposed transaction. ABN Holdings has also represented that Algemene and Amro will merge sometime in the near future. ABN Holdings's retention of Algemene's grandfathered branches will not increase the number of foreign banks possessing grandfather rights nor will it increase the number of Algemene's grandfathered branches. Accordingly, the Board has determined that ABN Holdings may succeed to Algemene's grandfathered branches. Since Amro's branch is located outside of ABN Holdings's home state, ABN Holdings has agreed to conform within six months the deposit-taking activities of Amro's New York branch to those of an Edge corporation, consistent with previous Board decisions.

11. The Metropolitan New York-New Jersey banking market includes New York City; Nassau, Orange, Putnam, Rockland, Suffolk, Sullivan, and Westchester Counties in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren Counties in New Jersey; and parts of Fairfield County in Connecticut. Under the revised Department of Justice Merger Guidelines, 49 *Federal Register* 26,823 (1984), this market is considered unconcentrated.

Board has also determined that considerations relating to the convenience and needs of the community to be served are consistent with approval.

ABN Holdings has also applied, pursuant to section 4(c)(8) of the BHC Act, to acquire certain nonbanking subsidiaries of Algemene and Amro. The Board has determined by regulation or order that each of these activities is permissible for bank holding companies under section 4(c)(8) of the BHC Act, and ABN Holdings proposes to conduct these activities in accordance with the Board's regulations and orders. The nonbanking activities in which both Algemene and Amro compete are conducted in geographic markets that are regional or national in scope. These markets are served by numerous competitors, and neither Algemene nor Amro has a significant market share. Accordingly, the Board concludes that consummation of this proposal would not have any significantly adverse effect on competition in the provision of these services in any relevant market. Furthermore, there is no evidence in the record to indicate that consummation of this proposal will result in undue concentration of resources, decreased or unfair competition, conflicts of interests, unsound banking practices, or any other significantly adverse effects. Accordingly, the Board has determined that the balance of public interest factors it must consider under section 4(c)(8) of the BHC Act is favorable and consistent with approval of ABN Holdings's application to acquire the nonbanking subsidiaries of Algemene and Amro.

The financial and managerial resources of ABN Holdings are consistent with approval of its indirect acquisition of ABN Bank International USA Inc. The acquisition would result in the continuation of the international services currently provided, and would be in the public interest. Accordingly, the Board finds that the continued operation of ABN Bank International USA Inc. upon acquisition by ABN Holdings is consistent with the purposes of the Edge Act.

Based on the foregoing and other facts of record, the Board has determined that consummation of the proposed transaction would be consistent with the public interest. Accordingly, the Board has determined that the applications under sections 3 and 4 of the BHC Act and under the Edge Act should be, and hereby are, approved. The bank acquisitions shall not be consummated before the thirtieth calendar day following the effective date of this Order, and the proposed bank and nonbank acquisitions shall not be consummated later than three months after the effective date of this Order, unless such period is extended for good cause by the Board or by the Federal Reserve Bank of Chicago, acting pursuant to delegated authority. The determinations as to the nonbanking activities are subject to all of the conditions contained in the Board's Regulation Y, including those in sections 225.4(d) and 225.23(b)(3) (12 C.F.R. 225.4(d) and 225.23(b)(3)), and to the Board's authority to require such modification or termination of the activities of a holding company or any of its subsidiaries as the Board finds necessary to assure compliance with, or prevent evasions of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder.

By order of the Board of Governors, effective July 23, 1990.

Voting for this action: Chairman Greenspan and Governors Seger, Angell, Kelley, LaWare, and Mullins. Absent and not voting: Governor Johnson.

JENNIFER J. JOHNSON
Associate Secretary of the Board

Appendix

Nonbanking Subsidiaries To Be Acquired

Pierson Capital Management Inc., Philadelphia, Pennsylvania, which engages in investment advisory and discretionary portfolio management activities for high net worth individuals, pension funds, trusts and other institutional clients; The Private Bank & Trust, N.A., Miami, Florida, which engages in trust and investment advisory services and discretionary management of financial assets primarily for wealthy individuals living outside the United States; Amsterdam Pacific Corporation, San Francisco, California, which engages in portfolio investment advisory services for investment partnerships, feasibility studies for corporations, and valuation services; Amro Securities, Inc., New York, New York, which engages in underwriting and dealing in bank eligible securities and to a limited extent in bank ineligible securities, private placement and riskless principal activities, full-service brokerage activities, and various investment advisory related activities; Pierson Heldring & Pierson Investment Finance (U.S.) Inc., New York, New York, which engages in private placement and riskless principal activities, full-service brokerage activities, and various investment advisory related activities; DBI Holding, Inc., New York, New York, which engages in full-service brokerage activities and riskless principal activities; Henry Krieger/DBI, L.P., New York, New York, which engages in full-service brokerage activities and riskless principal activities; Exchange Securities Corp., Hallandale, Florida, which engages in providing a secondary market for certificates of deposits issued by the subsidiary banks of Exchange Bancorp, Inc., underwriting and dealing in government obligations and money market instruments, and brokerage activities; LaSalle National Services Co., Inc., Chicago, Illinois, which engages in providing data processing and courier services; LaSalle National Mortgage Co., Inc., Chicago, Illinois, which engages in mortgage banking; ABN Capital Markets Corp., New York, New York, which engages in providing investment advisory, brokerage services and underwriting and dealing in government obligations; Lease Plan & Holding U.S.A., Atlanta, Georgia, which engages in providing lease financing; ABN Credit Corporation, Chicago, Illinois, which engages in providing financing; LaSalle National Trust Company, N.A., Chicago, Illinois, which engages in fiduciary services. The Board has determined that these activities are closely related to banking and permissible for bank holding companies. 12 C.F.R. § 225.25(b)(1), (3), (4), (5), (7), (10), (15), (16) and the Board's Orders dated October 1, 1984; May 23, 1986; July 30, 1987; May 10, 1988; November 30, 1989; and June 4, 1990.

This Order corrects an Order issued on July 23, 1990.

Orders Issued Under the Financial Institutions Reform, Recovery, and Enforcement Act ("FIRREA Orders")

Recent orders have been issued by the Staff Director of the Division of Banking Supervision and Regulation and the General Counsel 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.

Bank Holding Company	Acquired Thrift	Surviving Bank(s)	Approval Date
Bank Shares Incorporated, Minneapolis, Minnesota	Midwest Savings Association, F.A., Minneapolis, Minnesota (Apache Plaza and Knollwood Branches)	Marquette Bank Minneapolis, N.A., Minneapolis, Minnesota	October 5, 1990
First Citizens BancShares, Inc., Raleigh, North Carolina	Heritage Federal Savings and Loan Association, Monroe, North Carolina	First Citizens Bank & Trust Company, Raleigh, North Carolina	October 3, 1990
Jacob Schmidt Company, St. Paul, Minnesota American Bancorporation, Inc., St. Paul, Minnesota	Midwest Savings Association, F.A., Minneapolis, Minnesota (Midway and Maplewood Branches)	American National Bank and Trust Company, St. Paul, Minnesota	October 5, 1990
Jacob Schmidt Company, St. Paul, Minnesota American Bancorporation, Inc., St. Paul, Minnesota	Midwest Savings Association, F.A., Minneapolis, Minnesota (Cedar Street Branch)	Commercial State Bank, St. Paul, Minnesota	October 5, 1990
The Lauritzen Corporation, Omaha, Nebraska	FirsTier Savings Bank, F.S.B., Omaha, Nebraska (Hartington Branch)	Farmers and Merchants State Bank, Bloomfield, Nebraska	October 5, 1990

FIRREA Orders—Continued

Bank Holding Company	Acquired Thrift	Surviving Bank(s)	Approval Date
SunTrust Banks, Inc., Atlanta, Georgia Trust Company of Georgia, Atlanta, Georgia	Anchor Savings Bank F.S.B., Hewlett, New York (Fulton, DeKalb, and Douglas County, Georgia Branches)(13 branches)	Trust Company Bank, Atlanta, Georgia	October 22, 1990
SunTrust Banks, Inc., Atlanta, Georgia Trust Company of Georgia, Atlanta, Georgia	Anchor Savings Bank F.S.B., Hewlett, New York (Cobb County, Georgia Branches)(3 branches)	Trust Company Bank of Cobb County, N.A., Atlanta, Georgia	October 22, 1990
SunTrust Banks, Inc., Atlanta, Georgia Trust Company of Georgia, Atlanta, Georgia	Anchor Savings Bank F.S.B., Hewlett, New York (Gwinnett County, Georgia Branch)	Trust Company Bank of Gwinnett County, Lawrenceville, Georgia	October 22, 1990
SunTrust Banks, Inc., Atlanta, Georgia Trust Company of Georgia, Atlanta, Georgia	Anchor Savings Bank F.S.B., Hewlett, New York (Chatham County, Georgia Branch)	Trust Company Bank of Savannah, N.A., Savannah, Georgia	October 22, 1990

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
Boyle Bancorp, Inc., Danville, Kentucky	Citizens Bank and Trust Company, Burgin, Kentucky	October 26, 1990
FirsTier Financial, Inc., Omaha, Nebraska	Guaranty Corporation, Denver, Colorado	October 9, 1990

Section 4

Applicant(s)	Bank(s)	Effective date
C&S/Sovran Corporation (formerly Avantor Financial Corporation), Atlanta, Georgia Bank South Corporation, Atlanta, Georgia Barnett Banks, Inc., Jacksonville, Florida The Citizens and Southern Corporation, Atlanta, Georgia First Florida Banks, Inc., Tampa, Florida Southeast Banking Corporation, Miami, Florida SunTrust Banks, Inc., Atlanta, Georgia Synovus Financial Corporation, Columbus, Georgia TB&C Bancshares, Inc., Columbus, Georgia BB&T Financial Corporation, Wilson, North Carolina First Union Corporation, Charlotte, North Carolina First Wachovia Corporation, Winston-Salem, North Carolina NCNB Corporation, Charlotte, North Carolina South Carolina National Corporation, Columbia, South Carolina Southern National Corporation, Lumberton, North Carolina Sovran Financial Corporation, Norfolk, Virginia	Southeast Switch, Inc., Maitland, Florida	October 22, 1990
KeyCorp, Albany, New York Key Bancshares of New York, Inc., Albany, New York	American Pioneer Federal Savings Bank, Orlando, Florida	October 11, 1990

Section 4—Continued

Applicant(s)	Bank(s)	Effective date
SunTrust Banks, Inc., Atlanta, Georgia	SunTrust/Atlanta Interim Savings Bank, Atlanta, Georgia SunTrust/Cobb Interim Savings Bank, Atlanta, Georgia SunTrust/Gwinnett Interim Savings Bank, Lawrenceville, Georgia SunTrust/Savannah Interim Savings Bank, Savannah, Georgia	October 22, 1990

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
Trust Company Bank, Atlanta, Georgia	SunTrust/Atlanta Interim Savings Bank, Atlanta, Georgia	October 22, 1990

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
7L Corporation, Tampa, Florida	First Florida Banks, Inc., Tampa, Florida	Atlanta	September 28, 1990
Alpine Banks of Colorado, Glenwood Springs, Colorado	Alpine Bank, Clifton, Clifton, Colorado	Kansas City	October 23, 1990
Blue Ridge Bancshares, Inc., Kansas City, Missouri	Blue Ridge Bank and Trust Company, Kansas City, Missouri	Kansas City	October 17, 1990

Section 3—Continued

Applicant(s)	Bank(s)	Reserve Bank	Effective date
Bruning Bancshares, Inc., Bruning, Nebraska	Bruning State Bank, Bruning, Nebraska	Kansas City	October 4, 1990
First Bancorp of Kansas, Wichita, Kansas	Valley Center Bancshares, Inc., Valley Center, Kansas	Kansas City	October 16, 1990
First Blanchester Bancshares, Inc., Blanchester, Ohio	The First National Bank of Blanchester, Blanchester, Ohio	Cleveland	October 1, 1990
First Citizens Financial Corp., Charles City, Iowa	Osage Bank Services, Inc., Osage, Iowa	Chicago	September 28, 1990
First Dakota Financial Corporation, Bismarck, North Dakota	Security State Bank, Beulah, North Dakota	Minneapolis	October 16, 1990
First Farmers Financial Corp., Converse, Indiana	Union State Bank, Windfall, Indiana	Chicago	October 24, 1990
First Financial Corporation, Terre Haute, Indiana	First Citizens of Paris, Inc., Paris, Illinois	Chicago	October 25, 1990
Garwin Bancorporation, Garwin, Iowa	Farmers State Bank, Garwin, Iowa	Chicago	October 16, 1990
High Plains Bancshares, Inc., Muleshoe, Texas	Muleshoe State Bank, Muleshoe, Texas	Dallas	October 24, 1990
Landmark/Community Bancorp, Inc., Hartford, Connecticut	SBT Corp., Old Saybrook, Connecticut	Boston	September 26, 1990
Marshall & Ilsley Corporation, Milwaukee, Wisconsin	Rosendale Bancshares, Inc., Rosendale, Wisconsin	Chicago	October 24, 1990
Monmouth Financial Services, Inc., Minneapolis, Minnesota	Texas Financial Bancorporation, Inc., Minneapolis, Minnesota	Chicago	September 28, 1990
National City Bancshares, Inc., Evansville, Indiana	Farmers Bancorp of Sturgis, Inc., Sturgis, Kentucky	St. Louis	September 28, 1990
New East Bancorp, Raleigh, North Carolina	New East Bank of New Bern, New Bern, North Carolina	Richmond	October 10, 1990
Northern Trust Corporation, Chicago, Illinois	Heritage Merger Company, Chicago, Illinois Fiduciary Services, Inc., Houston, Texas	Chicago	September 28, 1990
Oklahoma Bancorporation, Inc., Clinton, Oklahoma Lowry Facilities, Inc., Clinton, Oklahoma	Custer County State Bank, Arapaho, Oklahoma	Kansas City	September 28, 1990
Old National Bancorp, Evansville, Indiana	Farmers Bank & Trust Company, Henderson, Kentucky	St. Louis	September 28, 1990
PBC Bancshares, Inc., Pelham, Georgia	Pelham Banking Company, Pelham, Georgia	Atlanta	October 3, 1990
Pocahontas Bankstock, Inc., Pocahontas, Arkansas	Bank of Pocahontas, Pocahontas, Arkansas	St. Louis	September 25, 1990

Section 3—Continued

Applicant(s)	Bank(s)	Reserve Bank	Effective date
PrivateBancorp, Inc., Chicago, Illinois	The PrivateBank and Trust Company, Chicago, Illinois	Chicago	September 28, 1990
Rocky Mountain Bancorporation, Inc., Billings, Montana	Whitehall Bancorporation, Inc., Billings, Montana The Harlem Corporation, Billings, Montana	Minneapolis	October 12, 1990
State First Financial Corporation, Texarkana, Arkansas	Atlanta National Bank, Atlanta, Texas	St. Louis	October 19, 1990
Texas Financial Bancorporation, Inc., Minneapolis, Minnesota	First Bancorp, Inc., Denton, Texas First State Bank of Denton, Denton, Texas	Dallas	September 28, 1990
West Point Bancorp, Inc., West Point, Nebraska	Farmers & Merchants State Bank, Wayne, Nebraska	Kansas City	September 28, 1990
WNB Bancshares, Inc., Odessa, Texas	Kermit Financial Corporation, Kermit, Texas First National Bank of Kermit, Kermit, Texas	Dallas	October 10, 1990

Section 4

Applicant(s)	Nonbanking Activity/Company	Reserve Bank	Effective date
Bourbon Bancshares, Inc., Paris, Kentucky	Kentucky Bank, F.S.B., Georgetown, Kentucky	Cleveland	October 12, 1990
Carlson Bancshares, Inc., West Memphis, Arkansas	Southern Life Insurance, Limited, West Memphis, Arkansas	St. Louis	September 26, 1990
CS Holding, Zurich, Switzerland Credit Suisse, Zurich, Switzerland	Winter Partners Inc., New York, New York	New York	October 12, 1990
First Financial Bancorp, Monroe, Ohio	The Fayette Federal Savings Bank, Connersville, Indiana	Cleveland	October 17, 1990
First Western Bancorp, Inc., New Castle, Pennsylvania	First Federal of Western Pennsylvania, Sharon, Pennsylvania	Cleveland	September 28, 1990
Norwest Corporation, Minneapolis, Minnesota	Gilco Leasing, Inc., Omaha, Nebraska	Minneapolis	October 25, 1990

Section 4—Continued

Applicant(s)	Nonbanking Activity/Company	Reserve Bank	Effective date
Tri-County Bancorp, Roachdale, Indiana The North Salem State Bancorporation, North Salem, Indiana Bright Financial Services, Inc., Flora, Indiana Cloverdale Bank Corporation, Cloverdale, Indiana	engage in underwriting of credit life, health and accident insurance	Chicago	October 23, 1990
United Bank Corporation, Barnesville, Georgia	First Federal Savings and Loan Association of Griffin, Griffin, Georgia	Atlanta	September 26, 1990

Applications Approved Under Bank Merger 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.

Applicant(s)	Bank(s)	Reserve Bank	Effective date
Chemical Bank, New York, New York	The Greater New York Savings Bank, New York, New York	New York	September 28, 1990
North Shore Bank of Commerce, Duluth, Minnesota	Airport State Bank, Hermantown, Minnesota	Minneapolis	October 11, 1990
UniSouth Banking Corporation, Columbus, Mississippi	Eastover Bank for Savings, Jackson, Mississippi	St. Louis	October 2, 1990

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.

Citicorp v. Board of Governors, No. 90–4124 (2d Circuit, filed October 4, 1990). Petition for review of Board order requiring Citicorp to terminate certain insurance activities conducted pursuant to Delaware law by an indirect nonbank subsidiary. Insurance trade associations, the Delaware Bankers Association, and the State of Delaware have moved to intervene in the action.

Stanley v. Board of Governors, No. 90–3183 (7th Circuit, filed October 3, 1990). Petition for review of Board order imposing civil money penalties on five former bank holding company directors.

Kuhns v. Board of Governors, No. 90–1398 (D.C. Cir., filed July 30, 1990). Petition for review of Board order denying request for attorney's fees pursuant to Equal Access to Justice Act. Oral argument is scheduled for February 15, 1991.

Laufman v. State of California, et al., No. CIVS-89-1755 EJM-EM (E.D. California, filed April 2, 1990). Action to require bank regulatory agencies to examine or bring enforcement action against bank. Dismissed on July 25, 1990.

May v. Board of Governors, No. 90-1316 (D.C. Cir., filed July 27, 1990). Appeal of District Court order dismissing plaintiff's action under Freedom of Information and Privacy Acts. Board's motion for summary affirmance filed October 12, 1990.

Burke v. Board of Governors, No. 90-9509 (10th Circuit, filed February 27, 1990). Petition for review of Board orders assessing civil money penalties and issuing orders of prohibition.

BancTEXAS Group, Inc. v. Board of Governors, No. CA 3-90-0236-R (N.D. Texas, filed February 2, 1990). Suit for preliminary injunction enjoining the Board from enforcing a temporary order to cease and desist requiring injection of capital into plaintiff's subsidiary banks under the Board's source of strength doctrine. District court granted preliminary injunction on June 5, 1990, in light of 5th Circuit's decision in *MCorp v. Board of Governors*.

Rutledge v. Board of Governors, No. 90-7599 (11th Cir., filed August 21, 1990). Appeal of district court grant of summary judgment for defendants in tort suit challenging Board and Reserve Bank supervisory actions.

Kaimowitz v. Board of Governors, No. 90-3067 (11th Cir., filed January 23, 1990). Petition for review of Board order dated December 22, 1989, approving application by First Union Corporation to acquire Florida National Banks. Petitioner objects to approval on Community Reinvestment Act grounds.

Babcock and Brown Holdings, Inc. v. Board of Governors, No. 89-70518 (9th Cir., filed November 22, 1989). Petition for review of Board determination that a company would control a proposed insured bank for purposes of the Bank Holding Company Act. Awaiting scheduling of oral argument.

Consumers Union of U.S., Inc. v. Board of Governors, No. 90-5186 (D.C. Cir., filed June 29, 1990). Appeal of District Court decision upholding amendments to Regulation Z implementing the Home Equity Loan Consumer Protection Act. Oral argument scheduled for February 20, 1991.

Synovus Financial Corp. v. Board of Governors, No. 89-1394 (D.C. Cir., filed June 21, 1989). Petition for review of Board order permitting relocation of a bank holding company's national bank subsidiary from Alabama to Georgia. Oral argument was held on October 11, 1990. On October 15, the court ordered the Office of the Comptroller of the Currency to submit a brief regarding an issue in the case.

MCorp v. Board of Governors, No. 89-2816 (5th Cir., filed May 2, pending and future enforcement actions against a bank holding company now in bankruptcy. On May 15, 1990, the Fifth Circuit vacated the district court's order enjoining the Board from proceeding with enforcement actions based on section 23A of the Federal Reserve Act, but upheld the district court's order enjoining such actions based on the Board's source-of-strength doctrine. The Board's petition for rehearing was denied on August 5, 1990. On August 29, the Fifth Circuit denied the plaintiff's motion for a stay pending petition for *certiorari*.

Independent Insurance Agents of America v. Board of Governors, No. 89-4030 (2d Cir., filed March 9, 1989). Petition for review of Board order ruling that the non-banking restrictions of section 4 of the Bank Holding Company Act apply only to non-bank subsidiaries of bank holding companies. The Board's order was upheld on November 29, 1989. Petition for *certiorari* was denied on October 1, 1990.

MCorp v. Board of Governors, No. CA3-88-2693 (N.D. Tex., filed October 10, 1988). Application for injuction to set aside temporary cease and desist orders. Stayed pending outcome of *MCorp v. Board of Governors* in Fifth Circuit.

White v. Board of Governors, No. CU-S-88-623-RDF (D. Nev., filed July 29, 1988). Age discrimination complaint. Board's motion to dismiss or for summary judgment pending.

FINAL ENFORCEMENT ORDERS ISSUED BY THE BOARD OF GOVERNORS

C.M. Newton, Jr. and C.M. Newton, III
Officers and Directors of
First Bank and Trust Company
Dawson, Texas

The Federal Reserve Board announced on October 26, 1990, the issuance of Orders of Assessment of Civil Money Penalty against C.M. Newton, Jr. and C.M. Newton, III, officers and directors of the First Bank and Trust Company, Dawson, Texas.

Financial and Business Statistics

NOTE. *The following tables may have some discontinuities in historical data for some series beginning with the December 1989 issue: 1.12, 1.33, 1.44, 1.52, 1.57–1.60, 2.10, 2.12, 2.13, 3.10, 3.11, 3.15–3.20, 3.22–3.25, 3.27, 3.28, and 4.30. For a more detailed explanation of the changes, see the announcement on page 16 of the January 1990* BULLETIN.

CONTENTS

Domestic Financial Statistics

MONEY STOCK AND BANK CREDIT

POLICY INSTRUMENTS

FEDERAL RESERVE BANKS

MONETARY AND CREDIT AGGREGATES

COMMERCIAL BANKING INSTITUTIONS

WEEKLY REPORTING COMMERCIAL BANKS

FINANCIAL MARKETS

FEDERAL FINANCE

1.10 RESERVES, MONEY STOCK, LIQUID ASSETS, AND DEBT MEASURES

Annual rates of change, seasonally adjusted in percent[1]

Monetary and credit aggregates	1989	1990			1990				
	Q4	Q1	Q2	Q3	May	June	July	Aug.r	Sept.
Reserves of depository institutions[2]									
1 Total	5.1	2.4	-1.4	-1.4	-9.8	-1.0	8.2	8.6	6.7
2 Required	5.0	2.5	-.9	-1.5	-11.3	2.8	-10.1	8.6	5.9
3 Nonborrowed	7.2	-3.9	-1.0	2.0	-4.1	8.3	-5.8	5.2	12.9
4 Monetary base[3]	4.0	8.5	7.0	8.8	3.5	7.6	6.4	13.1	14.6
Concepts of money, liquid assets, and debt[4]									
5 M1	5.1	4.8	3.5	4.3	-2.8	6.0	-.3	10.4	9.7
6 M2	7.1	6.4	2.8r	3.1	-2.3r	2.8r	2.0r	6.6	5.7
7 M3	2.0	2.9r	.8	1.5	-2.3r	1.2r	1.2r	4.5	.9
8 L	3.1	2.7r	.8r	n.a.	-7.2r	4.8r	2.8r	3.1	n.a.
9 Debt	7.3	6.1	6.8r	7.1	5.2r	6.6r	7.3r	8.7	n.a.
Nontransaction components									
10 In M2[5]	7.7	6.9	2.6	2.7	2.2r	1.8r	2.7r	5.3	4.5
11 In M3 only[6]	-16.6	-10.3r	-7.3r	-5.1	-2.3r	-5.3r	2.0r	-4.1	-19.2
Time and savings deposits									
Commercial banks									
12 Savings	7.2	9.5	5.1	4.0	-1.9	9.3	4.3r	.6	4.9
13 MMDAs	12.3	9.1	10.6	9.4	9.9	9.5	8.8	12.0	4.5
14 Small-denomination time[7]	11.3	7.8	12.0	15.5	20.6r	18.7r	18.9	6.8	9.5
15 Large-denomination time[8,9]	2.7	-1.1	-2.7r	-.8	5.8r	2.4	5.4r	-9.9	-13.9
Thrift institutions									
16 Savings	.2	1.3	.5	-2.4	-2.7	-3.8	-.5	-1.6	6.5
17 MMDAs	4.7	5.7	2.6	-10.5	-16.7	-15.1	-12.6	-5.5	.9
18 Small-denomination time[7]	-2.5	-3.3	-8.0	-13.3	-16.0	-20.9	-15.7	-3.9	7.5
19 Large-denomination time[8]	-28.6	-24.7	-30.3r	-31.6	-40.3	-29.5r	-36.5	-28.4	-26.3
Money market mutual funds									
20 General purpose and broker-dealer	29.1	19.8	-.7	12.8	-19.9	5.6	11.9	32.1	22.6
21 Institution-only	3.3	10.2	11.7	21.9	5.6	.0	17.9	56.2	22.1
Debt components[4]									
22 Federal	10.2	6.8	9.5	14.1	7.2	14.3	13.6r	19.1	n.a.
23 Nonfederal	6.4	5.9	5.9	5.0	4.5	4.2r	5.4	5.5	n.a.

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

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

3. 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.

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

M1: (1) currency outside the 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 due 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 (OCD), 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.

M2: M1 plus overnight (and continuing contract) repurchase agreements (RPs) issued by all depository institutions and overnight Eurodollars issued to U.S. residents by foreign branches of U.S. banks worldwide, money market deposit accounts (MMDAs), savings and small-denomination time deposits (time deposits—including retail RPs—in amounts of less than $100,000), and balances in both taxable and tax-exempt general purpose and broker-dealer money market mutual funds. Excludes individual retirement accounts (IRA) and Keogh balances at depository institutions and money market funds. Also excludes all balances held by U.S. commercial banks, money market funds (general purpose and broker-dealer), foreign governments and commercial banks, and the U.S. government.

M3: M2 plus large-denomination time deposits and term RP liabilities (in amounts of $100,000 or more) issued by all depository institutions, term Eurodollars held by U.S. residents at foreign branches of U.S. banks worldwide and at all banking offices in the United Kingdom and Canada, and balances in both taxable and tax-exempt, institution-only money market mutual funds. Excludes amounts held by depository institutions, the U.S. government, money market funds, and foreign banks and official institutions. Also subtracted is the estimated amount of overnight RPs and Eurodollars held by institution-only money market mutual funds.

L: M3 plus the nonbank public holdings of U.S. savings bonds, short-term Treasury securities, commercial paper and bankers acceptances, net of money market mutual fund holdings of these assets.

Debt: Debt of domestic nonfinancial sectors consists of outstanding credit market debt of the U.S. government, state and local governments, and private nonfinancial sectors. Private debt consists of corporate bonds, mortgages, consumer credit (including bank loans), other bank loans, commercial paper, bankers acceptances, and other debt instruments. Data are derived from the Federal Reserve Board's flow of funds accounts. Data on debt of domestic nonfinancial sectors are monthly averages, derived by averaging adjacent month-end levels. Growth rates for debt reflect adjustments for discontinuities over time in the levels of debt presented in other tables.

5. Sum of overnight RPs and Eurodollars, money market fund balances (general purpose and broker-dealer), MMDAs, and savings and small time deposits.

6. Sum of large time deposits, term RPs, term Eurodollars of U.S. residents, and money market fund balances (institution-only), less a consolidation adjustment that represents the estimated amount of overnight RPs and Eurodollars held by institution-only money market mutual funds.

7. Small-denomination time deposits—including retail RPs—are those issued in amounts of less than $100,000. All IRA and Keogh accounts at commercial banks and thrifts are subtracted from small time deposits.

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

9. Large-denomination time deposits at commercial banks less those held by money market mutual funds, depository institutions, and foreign banks and official institutions.

1.11 RESERVES OF DEPOSITORY INSTITUTIONS AND RESERVE BANK CREDIT

Millions of dollars

Factors	Monthly averages of daily figures			Weekly averages of daily figures for week ending						
	1990			1990						
	July	Aug.	Sept.	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
SUPPLYING RESERVE FUNDS										
1 **Reserve Bank credit**	**279,684**	**280,961**	**285,966**	**280,153**	**281,890**	**280,338**	**284,951**	**287,432**	**287,090**	**283,761**
U.S. government securities[1, 2]										
2 Bought outright-system account	230,592	231,366	233,704	232,406	230,140	230,240	233,529	232,933	233,687	234,214
3 Held under repurchase agreements	1,055	2,139	2,797	423	4,416	2,706	3,090	4,443	3,427	1,015
Federal agency obligations[2]										
4 Bought outright	6,437	6,408	6,377	6,414	6,414	6,398	6,377	6,377	6,377	6,377
5 Held under repurchase agreements	387	551	930	238	714	894	1,095	1,236	1,394	318
6 Acceptances	0	0	0	0	0	0	0	0	0	0
Loans to depository institutions[2]										
7 Adjustment credit	96	318	240	160	1,148	55	347	29	552	73
8 Seasonal credit	275	433	419	425	438	445	415	398	422	440
9 Extended credit	389	134	5	70	6	10	5	4	5	9
10 Float	674	566	752	407	120	846	153	1,477	393	320
11 Other Federal Reserve assets	39,780	39,045	40,742	39,610	38,495	38,745	39,942	40,535	40,833	40,996
12 Gold stock	11,065	11,064	11,064	11,064	11,064	11,064	11,065	11,064	11,064	11,063
13 Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
14 Treasury currency outstanding	20,093	20,145	20,198	20,139	20,150	20,160	20,171	20,185	20,199	20,213
ABSORBING RESERVE FUNDS										
15 Currency in circulation	268,968	270,536	272,891	270,622	270,835	270,754	273,093	274,085	272,940	271,913
16 Treasury cash holdings	568	544	525	546	545	536	534	528	519	519
Deposits, other than reserve balances, with Federal Reserve Banks										
17 Treasury	5,408	5,415	6,358	5,288	5,501	5,219	5,368	4,690	7,570	6,666
18 Foreign	243	265	258	242	355	239	280	252	247	208
19 Service-related balances and adjustments	2,022	1,873	2,017	1,968	2,132	1,955	1,953	2,026	1,911	2,203
20 Other	243	236	279	212	266	278	229	245	287	295
21 Other Federal Reserve liabilities and capital	9,176	9,219	9,905	9,044	8,990	9,027	10,339	10,544	9,594	9,310
22 Reserve balances with Federal Reserve Banks[3]	32,731	32,600	33,513	31,952	32,998	32,074	32,907	34,831	33,803	32,442
	End-of-month figures			Wednesday figures						
	1990			1990						
	July	Aug.	Sept.	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
SUPPLYING RESERVE FUNDS										
23 **Reserve Bank credit**	**279,364**	**284,445**	**284,364**	**279,970**	**284,227**	**281,237**	**292,464**	**284,054**	**292,300**	**285,241**
U.S. government securities[1, 2]										
24 Bought outright-system account	232,313	233,498	234,373	230,477	230,092	230,314	233,338	231,517	234,030	233,855
25 Held under repurchase agreements	0	2,936	0	2,960	693	3,206	7,063	3,052	4,505	2,720
Federal agency obligations[2]										
26 Bought outright	6,414	6,377	6,377	6,414	6,414	6,377	6,377	6,377	6,377	6,377
27 Held under repurchase agreements	0	1,186	0	1,667	186	823	1,793	1,424	1,701	564
28 Acceptances	0	0	0	0	0	0	0	0	0	0
Loans to depository institutions[2]										
29 Adjustment credit	97	50	77	819	7,257	71	2,152	30	3,587	49
30 Seasonal credit	407	412	423	426	447	448	399	404	435	441
31 Extended credit	437	3	5	4	7	13	3	5	5	11
32 Float	643	−97	1,832	−857	747	1,199	941	560	794	87
33 Other Federal Reserve assets	39,053	40,081	41,277	38,060	38,384	38,787	40,398	40,686	40,867	41,138
34 Gold stock	11,065	11,065	11,063	11,064	11,064	11,065	11,065	11,064	11,065	11,063
35 Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
36 Treasury currency outstanding	20,118	20,171	20,227	20,139	20,150	20,160	20,171	20,185	20,199	20,213
ABSORBING RESERVE FUNDS										
37 Currency in circulation	268,411	272,690	271,905	271,035	270,693	271,684	274,319	273,820	272,516	271,849
38 Treasury cash holdings	549	534	527	546	537	530	533	519	518	521
Deposits, other than reserve balances, with Federal Reserve Banks										
39 Treasury	6,369	4,453	7,638	5,659	5,438	6,130	8,238	4,726	16,758	5,402
40 Foreign	279	337	360	246	217	246	228	201	180	198
41 Service-related balances and adjustments	2,000	1,953	1,942	1,968	2,132	1,955	1,953	2,026	1,911	2,204
42 Other	247	219	374	276	233	276	241	235	308	367
43 Other Federal Reserve liabilities and capital	9,723	10,504	9,606	8,710	8,657	8,759	10,479	9,424	9,241	9,127
44 Reserve balances with Federal Reserve Banks[3]	31,484	33,509	31,820	31,251	36,052	31,400	36,227	32,871	30,650	35,366

1. *Includes* securities loaned—fully guaranteed by U.S. government securities pledged with Federal Reserve Banks—and *excludes* any securities sold and scheduled to be bought back under matched sale-purchase transactions.
2. Beginning with the May 1990 *Bulletin*, this table has been revised to correspond with the H.4.1 statistical release.
3. Excludes required clearing balances and adjustments to compensate for float.

NOTE. For amounts of currency and coin held as reserves, see table 1.12. Components may not add to totals because of rounding.

1.12 RESERVES AND BORROWINGS Depository Institutions[1]

Millions of dollars

Reserve classification	Monthly averages[9]									
	1987	1988	1989	1990						
	Dec.	Dec.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1 Reserve balances with Reserve Banks[2]	37,691	37,837	35,436	33,407	35,409	32,771	33,878	32,946	32,448[r]	33,301
2 Total vault cash[3]	26,675	28,204	29,812	29,581	29,281	29,812	29,632	30,457	30,843	30,622
3 Applied vault cash[4]	24,449	25,909	27,374	27,251	27,103	27,461	27,318	27,996	28,280	28,147
4 Surplus vault cash[5]	2,226	2,295	2,439	2,330	2,178	2,351	2,314	2,460	2,563	2,475
5 Total reserves[6]	62,141	63,746	62,810	60,658	62,512	60,232	61,197	60,943	60,728[r]	61,448
6 Required reserves	61,094	62,699	61,888	59,797	61,615	59,269	60,423	60,081	59,860	60,541
7 Excess reserve balances at Reserve Banks[7]	1,046	1,047	922	861	897	962	774	862	868[r]	907
8 Total borrowings at Reserve Banks	777	1,716	265	2,124	1,628	1,335	881	757	927	624
9 Seasonal borrowings at Reserve Banks	93	130	84	78	122	244	311	389	430	418
10 Extended credit at Reserve Banks[8]	483	1,244	20	1,950	1,403	875	346	280	127	6
	Biweekly averages of daily figures for weeks ending									
	1990									
	May 30	June 13	June 27	July 11	July 25	Aug. 8	Aug. 22	Sept. 5[r]	Sept. 19	Oct. 3
11 Reserve balances with Reserve Banks[2]	31,269	34,385	33,390	33,958	32,390	32,389	32,463	32,477	34,316	32,385
12 Total vault cash[3]	30,852	28,986	30,097	30,264	30,549	30,597	31,379	30,229	30,291	31,222
13 Applied vault cash[4]	28,268	26,803	27,676	27,885	28,094	27,974	28,815	27,720	27,976	28,558
14 Surplus vault cash[5]	2,584	2,184	2,421	2,380	2,455	2,623	2,565	2,509	2,315	2,664
15 Total reserves[6]	59,537	61,188	61,066	61,842	60,484	60,363	61,277	60,197	62,292	60,943
16 Required reserves	58,526	60,709	60,046	60,944	59,609	59,599	60,367	59,304	61,546	59,824
17 Excess reserve balances at Reserve Banks[7]	1,011	479	1,020	898	875	764	910	893	746	1,119
18 Total borrowings at Reserve Banks	1,723	1,291	566	581	832	908	1,124	638	705	516
19 Seasonal borrowings at Reserve Banks	278	282	329	359	396	429	432	430	410	424
20 Extended credit at Reserve Banks[8]	1,098	559	183	182	298	419	38	8	5	9

1. These data also appear in the Board's H.3 (502) release. For address, see inside front cover.
2. Excludes required clearing balances and adjustments to compensate for float and includes other off-balance sheet "as-of" adjustments.
3. Total "lagged" vault cash held by those depository institutions currently subject to reserve requirements. Dates refer to the maintenance periods in which the vault cash can be used to satisfy reserve requirements. Under contemporaneous reserve requirements, maintenance periods end 30 days after the lagged computation periods in which the balances are held.
4. All vault cash held during the lagged computation period by "bound" institutions (i.e., those whose required reserves exceed their vault cash) plus the amount of vault cash applied during the maintenance period by "nonbound" institutions (i.e., 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. 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 there is with traditional short-term adjustment credit, the money market impact of extended credit is similar to that of nonborrowed reserves.
9. Data are prorated monthly averages of biweekly averages.

1.13 SELECTED BORROWINGS IN IMMEDIATELY AVAILABLE FUNDS Large Banks[1]

Averages of daily figures, in millions of dollars

Maturity and source	1990 week ending Monday[2]								
	July 16	July 23	July 30	Aug. 6	Aug. 13	Aug. 20	Aug. 27	Sept. 3	Sept. 10
Federal funds purchased, repurchase agreements, and other selected borrowing in immediately available funds									
From commercial banks in the United States									
1 For one day or under continuing contract	88,646	80,664	79,671	86,516	85,883	89,773	84,057	87,664	95,172
2 For all other maturities	19,161	21,137	19,311	19,270	19,567	19,298	19,697	19,572	17,839
From other depository institutions, foreign banks and foreign official institutions, and U.S. government agencies									
3 For one day or under continuing contract	42,193	40,122	37,516	39,342	41,080	39,250	39,306	36,237	38,524
4 For all other maturities	17,858	19,176	18,779	17,596	16,873	16,866	16,386	17,206	17,452
Repurchase agreements on U.S. government and federal agency securities in immediately available funds									
Brokers and nonbank dealers in securities									
5 For one day or under continuing contract	13,311	13,067	13,481	17,406	17,771	18,476	17,044	18,639	16,370
6 For all other maturities	19,735	21,516	21,734	24,262	25,272	24,233	25,459	24,590	22,600
All other customers									
7 For one day or under continuing contract	33,347	33,760	32,907	33,487	30,243	32,148	32,102	33,258	33,378
8 For all other maturities	13,572	13,854	14,737	14,266	14,512	13,522	14,649	14,612	13,833
MEMO: Federal funds loans and resale agreements in immediately available funds in maturities of one day or under continuing contract									
9 To commercial banks in the United States	45,724	46,841	46,791	52,042	61,601	54,448	48,340	51,861	52,564
10 To all other specified customers[3]	12,696	13,278	12,576	16,229	16,660	17,025	15,970	16,310	17,741

1. Banks with assets of $1 billion or more as of Dec. 31, 1977.
These data also appear in the Board's H.5 (507) release. For address, see inside front cover.
2. Beginning with the August Bulletin data appearing are the most current available. To obtain data from May 1, 1989, through April 16, 1990, contact the Division of Applications Development and Statistical Services, Financial Statement Reports Section, (202) 452-3349.
3. Brokers and nonbank dealers in securities; other depository institutions; foreign banks and official institutions; and United States government agencies.

1.14 FEDERAL RESERVE BANK INTEREST RATES

Percent per year

Current and previous levels

Federal Reserve Bank	Adjustment credit and Seasonal credit[1]			Extended credit[2]						
				First 30 days of borrowing			After 30 days of borrowing[3]			
	On 10/25/90	Effective date	Previous rate	On 10/25/90	Effective date	Previous rate	On 10/25/90	Effective date	Previous rate	Effective date
Boston	7	2/24/89	6½	7	2/24/89	6½	8.60	10/18/90	8.70	10/4/90
New York		2/24/89			2/24/89			10/18/90		10/4/90
Philadelphia		2/24/89			2/24/89			10/18/90		10/4/90
Cleveland		2/24/89			2/24/89			10/18/90		10/4/90
Richmond		2/24/89			2/24/89			10/18/90		10/4/90
Atlanta		2/24/89			2/24/89			10/18/90		10/4/90
Chicago		2/24/89			2/24/89			10/18/90		10/4/90
St. Louis		2/24/89			2/24/89			10/18/90		10/4/90
Minneapolis		2/24/89			2/24/89			10/18/90		10/4/90
Kansas City		2/24/89			2/24/89			10/18/90		10/4/90
Dallas		2/27/89			2/27/89			10/18/90		10/4/90
San Francisco	7	2/24/89	6½	7	2/24/89	6½	8.60	10/18/90	8.70	10/4/90

Range of rates for adjustment credit in recent years[4]

Effective date	Range (or level)—All F.R. Banks	F.R. Bank of N.Y.	Effective date	Range (or level)—All F.R. Banks	F.R. Bank of N.Y.	Effective date	Range (or level)—All F.R. Banks	F.R. Bank of N.Y.
In effect Dec. 31, 1977	6	6	1980—July 28	10–11	10	1984—Apr. 9	8½–9	9
1978—Jan. 9	6–6½	6½	29	10	10	13	9	9
20	6½	6½	Sept. 26	11	11	Nov. 21	8½–9	8½
May 11	6½–7	7	Nov. 17	12	12	26	8½	8½
12	7	7	Dec. 5	12–13	13	Dec. 24	8	8
July 3	7–7¼	7¼						
10	7¼	7¼	1981—May 5	13–14	14	1985—May 20	7½–8	7½
Aug. 21	7¾	7¾	8	14	14	24	7½	7½
Sept. 22	8	8	Nov. 2	13–14	13			
Oct. 16	8–8½	8½	6	13	13	1986—Mar. 7	7–7½	7
20	8½	8½	Dec. 4	12	12	10	7	7
Nov. 1	8½–9½	9½				Apr. 21	6½–7	6½
3	9½	9½	1982—July 20	11½–12	11½	July 11	6	6
			23	11½	11½	Aug. 21	5½–6	5½
1979—July 20	10	10	Aug. 2	11–11½	11	22	5½	5½
Aug. 17	10–10½	10½	3	11	11			
20	10½	10½	16	10½	10½	1987—Sept. 4	5½–6	6
Sept. 19	10½–11	11	27	10–10½	10	11	6	6
21	11	11	30	10	10			
Oct. 8	11–12	12	Oct. 12	9½–10	9½	1988—Aug. 9	6–6½	6½
10	12	12	13	9½	9½	11	6½	6½
			Nov. 22	9–9½	9			
1980—Feb. 15	12–13	13	26	9	9	1989—Feb. 24	6½–7	7
19	13	13	Dec. 14	8½–9	9	27	7	7
May 29	12–13	13	15	8½–9	8½			
30	12	12	17	8½	8½	In effect Oct. 25, 1990	7	7
June 13	11–12	11						
16	11	11						

1. Adjustment credit is available on a short-term basis to help depository institutions meet temporary needs for funds that cannot be met through reasonable alternative sources. *After May 19, 1986, 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.

Seasonal credit is available to help smaller depository institutions meet regular, seasonal needs for funds that cannot be met through special industry lenders and that arise from a combination of expected patterns of movement in their deposits and loans. A temporary simplified seasonal program was established on Mar. 8, 1985, and the interest rate was a fixed rate ½ percent above the rate on adjustment credit. The program was reestablished for 1986 and 1987 but was not renewed for 1988.

2. Extended credit is available to depository institutions, when similar assistance is not reasonably available from other sources, when exceptional circumstances or practices involve only a particular institution or when an institution is experiencing difficulties adjusting to changing market conditions over a longer period of time.

3. For extended-credit loans outstanding more than 30 days, a flexible rate somewhat above rates on market sources of funds ordinarily will be charged, but in no case will the rate charged be less than the basic discount rate plus 50 basis points. The flexible rate is reestablished on the first business day of each *two-week reserve maintenance period*. At the discretion of the Federal Reserve Bank, the time period for which the basic discount rate is applied may be shortened.

4. For earlier data, see the following publications of the Board of Governors: *Banking and Monetary Statistics, 1914–1941*, and *1941–1970*; *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. There was no surcharge until Nov. 17, 1980, when a 2 percent surcharge was adopted; 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 13-week period. The surcharge was eliminated on Nov. 17, 1981.

1.15 RESERVE REQUIREMENTS OF DEPOSITORY INSTITUTIONS[1]

Percent of deposits

Type of deposit, and deposit interval[2]	Depository institution requirements after implementation of the Monetary Control Act	
	Percent of deposits	Effective date
Net transaction accounts[3,4]		
$0 million–$40.4 million	3	12/19/89
More than $40.4 million	12	12/19/89
Nonpersonal time deposits[5]		
By original maturity		
Less than 1½ years	3	10/6/83
1½ years or more	0	10/6/83
Eurocurrency liabilities		
All types	3	11/13/80

1. Reserve requirements in effect on Dec. 31, 1989. 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 provisions of the Monetary Control Act, depository institutions include commercial banks, mutual savings banks, savings and loan associations, credit unions, agencies and branches of foreign banks, and Edge corporations.

2. The Garn–St Germain Depository Institutions Act of 1982 (Public Law 97–320) requires that $2 million of reservable liabilities (transaction accounts, nonpersonal time deposits, and Eurocurrency liabilities) of each depository institution be subject to a zero percent reserve requirement. The Board is to adjust the amount of reservable liabilities subject to this 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 to be made in the event of a decrease. On Dec. 20, 1988, the exemption was raised from $3.2 million to $3.4 million. In determining the reserve requirements of depository institutions, the exemption shall apply in the following order: (1) net NOW accounts (NOW accounts less allowable deductions); (2) net other transaction accounts; and (3) nonpersonal time deposits or Eurocurrency liabilities starting with those with the highest reserve ratio. With respect to NOW accounts and other transaction accounts, the exemption applies only to such accounts that would be subject to a 3 percent reserve requirement.

3. Transaction accounts include all deposits on which the account holder is permitted to make withdrawals by negotiable or transferable instruments, payment orders of withdrawal, and telephone and preauthorized transfers in excess of three per month for the purpose of making payments to third persons or others. However, MMDAs and similar accounts subject to the rules that permit no more than six preauthorized, automatic, or other transfers per month, of which no more than three can be checks, are not transaction accounts (such accounts are savings deposits subject to time deposit reserve requirements).

4. 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 each year. Effective Dec. 19, 1989 for institutions reporting quarterly and Dec. 26, 1989 for institutions reporting weekly, the amount was decreased from $41.5 million to $40.4 million.

5. In general, nonpersonal time deposits are time deposits, including savings deposits, that are not transaction accounts and in which a beneficial interest is held by a depositor that is not a natural person. Also included are certain transferable time deposits held by natural persons and certain obligations issued to depository institution offices located outside the United States. For details, see section 204.2 of Regulation D.

1.17 FEDERAL RESERVE OPEN MARKET TRANSACTIONS[1]

Millions of dollars

Type of transaction	1987	1988	1989	1990						
				Feb.	Mar.	Apr.	May	June	July	Aug.
U.S. TREASURY SECURITIES										
Outright transactions (*excluding matched transactions*)										
Treasury bills										
1 Gross purchases	18,983	8,223	14,284	108	543	5,796	3,365	1,732	287	4,264
2 Gross sales	6,051	587	12,818	3,384	0	0	0	0	0	68
3 Exchange	239,740	241,876	231,211	18,113	21,551	17,286	22,894	16,279	16,159	21,912
4 Redemptions	9,029	2,200	12,730	400	0	0	0	0	0	0
Others within 1 year										
5 Gross purchases	3,659	2,176	327	0	100	0	0	50	0	0
6 Gross sales	300	0	0	0	0	0	0	0	0	0
7 Maturity shift	21,504	23,854	28,848	2,845	1,876	993	4,387	1,314	1,321	3,235
8 Exchange	-20,388	-24,588	-25,783	-5,418	0	-4,304	-2,771	0	-3,577	-4,550
9 Redemptions	70	0	500	0	0	0	0	0	0	0
1 to 5 years										
10 Gross purchases	10,231	5,485	1,436	0	100	100	0	0	0	0
11 Gross sales	452	800	490	0	0	0	0	0	0	0
12 Maturity shift	-17,975	-17,720	-25,534	-1,713	-1,876	-739	-3,607	-1,314	-1,234	-2,188
13 Exchange	18,938	22,515	23,250	4,743	0	4,081	2,521	0	3,577	4,200
5 to 10 years										
14 Gross purchases	2,441	1,579	287	0	0	0	0	0	0	0
15 Gross sales	0	175	29	0	0	0	0	0	0	0
16 Maturity shift	-3,529	-5,946	-2,231	-451	0	-254	-530	0	-87	-697
17 Exchange	950	1,797	1,934	450	0	223	0	0	0	0
Over 10 years										
18 Gross purchases	1,858	1,398	284	0	0	0	0	0	0	0
19 Gross sales	0	0	0	0	0	0	0	0	0	0
20 Maturity shift	0	-188	-1,086	-681	0	0	-250	0	0	-350
21 Exchange	500	275	600	226	0	0	250	0	0	350
All maturities										
22 Gross purchases	37,170	18,863	16,617	108	743	5,896	3,365	1,782	287	4,264
23 Gross sales	6,803	1,562	13,337	3,384	0	0	0	0	0	68
24 Redemptions	9,099	2,200	13,230	400	0	0	0	0	0	0
Matched transactions										
25 Gross sales	950,923	1,168,484	1,323,480	116,220	99,104	97,970	121,596	107,896	95,144	113,647
26 Gross purchases	950,935	1,168,142	1,326,542	120,637	97,128	98,643	121,218	110,042	95,787	110,635
Repurchase agreements[2]										
27 Gross purchases	314,621	152,613	129,518	0	8,050	6,409	3,959	11,242	13,106	26,700
28 Gross sales	324,666	151,497	132,688	0	6,627	7,832	3,959	11,242	11,447	23,764
29 Net change in U.S. government securities	11,234	15,872	-10,055	741	190	5,146	2,987	3,928	2,590	4,121
FEDERAL AGENCY OBLIGATIONS										
Outright transactions										
30 Gross purchases	0	0	0	0	0	0	0	0	0	0
31 Gross sales	0	0	0	0	0	0	0	0	0	0
32 Redemptions	276	587	442	0	0	78	0	0	33	37
Repurchase agreements[2]										
33 Gross purchases	80,353	57,259	38,835	0	1,966	2,595	2,314	3,221	4,697	7,130
34 Gross sales	81,350	56,471	40,411	0	1,457	3,104	2,314	3,221	4,137	5,944
35 Net change in federal agency obligations	-1,274	198	-2,018	0	509	-587	0	0	527	1,149
36 Total net change in System Open Market Account	**9,961**	**16,070**	**-12,073**	**741**	**699**	**4,559**	**2,987**	**3,928**	**3,117**	**5,270**

1. Sales, redemptions, and negative figures reduce holdings of the System Open Market Account; all other figures increase such holdings. Details may not add to totals because of rounding.

2. In July 1984 the Open Market Trading Desk discontinued accepting bankers acceptances in repurchase agreements.

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

Millions of dollars

	Account	Wednesday 1990					End of month 1990		
		Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26	July	Aug.	Sept.
		Consolidated condition statement							
	ASSETS								
1	Gold certificate account	11,065	11,065	11,064	11,065	11,063	11,064	11,065	11,063
2	Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
3	Coin	495	480	493	508	523	476	491	533
	Loans								
4	To depository institutions	531	2,554	438	4,027	501	942	465	505
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	0	0	0	0	0	0	0	0
7	Bought outright	6,377	6,377	6,377	6,377	6,377	6,414	6,377	6,377
8	Held under repurchase agreements	823	1,793	1,424	1,701	564	0	1,186	0
	U.S. Treasury securities								
	Bought outright								
9	Bills	107,769	110,794	108,972	111,485	111,310	109,768	110,953	111,828
10	Notes	91,582	91,582	91,582	91,582	91,582	91,782	91,582	91,582
11	Bonds	30,963	30,963	30,963	30,963	30,963	30,763	30,963	30,963
12	Total bought outright[2]	230,314	233,338	231,517	234,030	233,855	232,313	233,498	234,373
13	Held under repurchase agreements	3,206	7,063	3,052	4,505	2,720	0	2,936	0
14	Total U.S. Treasury securities	233,520	240,402	234,569	238,535	236,575	232,313	236,434	234,373
15	**Total loans and securities**	**241,251**	**251,125**	**242,808**	**250,640**	**244,017**	**239,668**	**244,461**	**241,255**
16	Items in process of collection	5,896	9,409	6,253	6,017	5,209	9,103	5,726	8,358
17	Bank premises	831	836	838	840	844	831	836	844
	Other assets								
18	Denominated in foreign currencies[3]	32,695	34,060	34,115	34,186	34,292	32,561	34,059	34,454
19	All other[4]	5,274	5,629	5,676	6,558	5,984	6,577	5,230	6,006
20	**Total assets**	**306,025**	**321,121**	**309,765**	**318,333**	**310,451**	**308,798**	**310,386**	**311,031**
	LIABILITIES								
21	Federal Reserve notes	252,549	255,160	254,647	253,344	252,681	249,319	253,544	252,738
	Deposits								
22	To depository institutions	33,334	38,559	35,185	33,108	37,766	34,651	35,592	33,834
23	U.S. Treasury—General account	6,130	8,238	4,726	16,758	5,402	6,369	4,453	7,638
24	Foreign—Official accounts	246	228	201	180	198	279	337	360
25	Other	276	241	235	308	367	247	219	374
26	**Total deposits**	**39,985**	**47,266**	**40,346**	**50,354**	**43,733**	**41,546**	**40,600**	**42,206**
27	Deferred credit items	4,732	8,216	5,348	5,395	4,909	8,210	5,738	6,481
28	Other liabilities and accrued dividends[5]	3,559	4,258	4,198	4,043	3,925	3,554	4,288	4,021
29	**Total liabilities**	**300,824**	**314,901**	**304,539**	**313,135**	**305,248**	**302,629**	**304,169**	**305,446**
	CAPITAL ACCOUNTS								
30	Capital paid in	2,396	2,394	2,394	2,395	2,398	2,359	2,399	2,399
31	Surplus	2,243	2,243	2,243	2,243	2,243	2,243	2,243	2,243
32	Other capital accounts	562	1,584	589	560	561	1,566	1,579	943
33	**Total liabilities and capital accounts**	**306,025**	**321,121**	**309,765**	**318,333**	**310,451**	**308,798**	**310,386**	**311,031**
34	MEMO: Marketable U.S. Treasury securities held in custody for foreign and international accounts	233,637	235,236	237,565	234,483	233,886	228,317	236,408	234,926
		Federal Reserve note statement							
35	Federal Reserve notes outstanding issued to bank	293,783	293,907	294,709	295,430	296,303	290,791	293,807	296,914
36	LESS: Held by bank	41,234	38,747	40,063	42,086	43,621	41,472	40,263	44,176
37	Federal Reserve notes, net	252,549	255,160	254,647	253,344	252,681	249,319	253,544	252,738
	Collateral held against notes net:								
38	Gold certificate account	11,065	11,065	11,064	11,065	11,063	11,064	11,065	11,063
39	Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
40	Other eligible assets	0	0	0	0	0	0	0	0
41	U.S. Treasury and agency securities	232,966	235,578	235,064	233,761	233,101	229,737	233,961	233,157
42	**Total collateral**	**252,549**	**255,160**	**254,647**	**253,344**	**252,681**	**249,319**	**253,544**	**252,738**

1. Some of these data also appear in the Board's H.4.1 (503) release. For address, see inside front cover. Components may not add to totals because of rounding.
2. Includes securities loaned—fully guaranteed by U.S. Treasury securities pledged with Federal Reserve Banks—and 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 90 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 and maturity groupings	Wednesday					End of month		
	1990					1990		
	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26	July 31	Aug. 31	Sept. 28
1 Loans—Total	531	2,554	438	4,027	501	942	465	505
2 Within 15 days	432	2,277	197	3,965	399	723	221	284
3 16 days to 90 days	100	277	241	62	103	218	243	221
4 91 days to 1 year	0	0	0	0	0	0	0	
5 Acceptances—Total	0	0	0	0	0	0	0	0
6 Within 15 days	0	0	0	0	0	0	0	0
7 16 days to 90 days	0	0	0	0	0	0	0	0
8 91 days to 1 year	0	0	0	0	0	0	0	0
9 U.S. Treasury securities—Total	233,520	240,402	234,569	238,535	236,575	232,313	233,498	234,373
10 Within 15 days[1]	14,178	14,244	9,596	15,185	12,881	9,872	2,820	7,099
11 16 days to 90 days	54,753	56,537	55,272	53,600	56,418	56,294	60,563	60,033
12 91 days to 1 year	67,422	72,214	72,295	72,344	69,869	69,706	72,709	69,835
13 Over 1 year to 5 years	59,460	59,700	59,700	59,700	59,700	58,239	59,700	59,700
14 Over 5 years to 10 years	13,170	13,170	13,170	13,170	13,170	11,801	13,170	13,170
15 Over 10 years	24,536	24,536	24,536	24,536	24,536	26,402	24,536	24,536
16 Federal agency obligations—Total	7,200	8,170	7,801	8,078	6,941	6,414	6,377	6,377
17 Within 15 days[1]	1,133	1,823	1,457	1,929	764	115	310	200
18 16 days to 90 days	497	758	725	530	525	712	497	525
19 91 days to 1 year	1,616	1,620	1,668	1,668	1,709	1,468	1,616	1,709
20 Over 1 year to 5 years	2,655	2,670	2,642	2,642	2,634	2,820	2,655	2,634
21 Over 5 years to 10 years	1,110	1,110	1,120	1,120	1,120	1,110	1,110	1,120
22 Over 10 years	188	188	188	188	188	188	188	188

1. Holdings under repurchase agreements are classified as maturing within 15 days in accordance with maximum maturity of the agreements.

NOTE: Components may not add to totals because of rounding.

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

Billions of dollars, averages of daily figures

Item	1986 Dec.	1987 Dec.	1988 Dec.	1989 Dec.	1990							
					Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
	Seasonally adjusted											
ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[2]												
1 **Total reserves**[3]	**58.02**	**58.59**	**60.59**	**60.03**	**60.22**	**60.30**	**60.28**	**59.78**	**59.73**	**59.32**	**59.75**	**60.08**
2 Nonborrowed reserves[4]	57.20	57.82	58.88	59.77	58.77	58.17	58.65	58.45	58.85	58.56	58.82	59.45
3 Nonborrowed reserves plus extended credit[5]	57.50	58.30	60.12	59.79	59.30	60.12	60.05	59.32	59.20	58.84	58.95	59.46
4 Required reserves	56.65	57.55	59.55	59.11	59.23	59.44	59.38	58.82	58.96	58.46	58.88	59.17
5 Monetary base[6]	241.43	258.06	275.24	284.95	289.71	291.82	293.54	294.40	296.28	297.86	301.12r	304.78
	Not seasonally adjusted											
ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[2]												
6 **Total reserves**[7]	**59.46**	**60.07**	**62.22**	**61.67**	**59.20**	**59.23**	**61.05**	**58.74**	**59.61**	**59.47**	**59.21r**	**59.81**
7 Nonborrowed reserves	58.64	59.30	60.50	61.40	57.75	57.11	59.42	57.41	58.73	58.71	58.29	59.19
8 Nonborrowed reserves plus extended credit[5]	58.94	59.78	61.75	61.42	58.29	59.06	60.82	58.28	59.07	58.99	58.41r	59.19
9 Required reserves[8]	58.09	59.03	61.17	60.75	58.21	58.37	60.15	57.78	58.84	58.61	58.34	58.90
10 Monetary base[9]	245.17	262.00	279.54	289.45	286.50	288.86	293.35	293.52	297.37	299.90	301.46r	303.56
NOT ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[10]												
11 **Total reserves**[11]	**59.56**	**62.14**	**63.75**	**62.81**	**60.62**	**60.66**	**62.51**	**60.23**	**61.20**	**60.94**	**60.73**	**61.45**
12 Nonborrowed reserves	58.73	61.36	62.03	62.54	59.17	58.53	60.88	58.90	60.32	60.19	59.80r	60.82
13 Nonborrowed reserves plus extended credit[5]	59.04	61.85	63.27	62.56	59.71	60.49	62.29	59.77	60.66	60.47	59.93	60.83
14 Required reserves	58.19	61.09	62.70	61.89	59.63	59.80	61.62	59.27	60.42	60.08	59.86	60.54
15 Monetary base[12]	247.62	266.06	283.00	292.55	290.02	292.38	296.87	297.03	300.99	303.39	304.99r	307.21
16 Excess reserves[13]	1.37	1.05	1.05	.92	.99	.86	.90	.96	.77	.86	.87	.91
17 Borrowings from the Federal Reserve	.83	.78	1.72	.27	1.45	2.12	1.63	1.33	.88	.76	.93	.62

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

2. Figures reflect adjustments for discontinuities or "breaks" associated with regulatory changes in reserve requirements.

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 there is with traditional short-term adjustment credit, the money market impact 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 because of 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 includes 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 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. After the introduction of CRR, currency and vault cash figures are measured over the computation periods ending on Mondays.

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

1.21 MONEY STOCK, LIQUID ASSETS, AND DEBT MEASURES[1]

Billions of dollars, averages of daily figures

Item[2]	1986 Dec.	1987 Dec.	1988 Dec.	1989 Dec.	1990 June	1990 July	1990 Aug.	1990 Sept.
	Seasonally adjusted							
1 M1	724.7	750.4	787.5	794.8	809.4	809.2	816.2r	822.8
2 M2	2,814.2	2,913.2	3,072.4	3,221.6	3,278.6r	3,284.0r	3,302.0r	3,317.7
3 M3	3,494.5	3,678.7	3,918.3	4,044.3	4,069.1r	4,073.3r	4,088.6r	4,091.7
4 L	4,135.4r	4,338.9	4,676.1r	4,881.2r	4,906.8r	4,918.4r	4,931.3	n.a.
5 Debt	7,636.2	8,345.1	9,107.6	9,788.9	10,108.7r	10,170.1r	10,244.0	n.a.
M1 components								
6 Currency[3]	180.6	196.7	211.8	221.9	233.4	235.4	238.3r	241.5
7 Travelers checks[4]	6.5	7.0	7.5	7.4	7.7	7.7	8.0	8.3
8 Demand deposits[5]	302.1	287.0	287.0	279.7	274.5	274.8	278.0	279.9
9 Other checkable deposits[6]	235.5	259.7	281.3	285.7	293.8	291.3	291.9r	293.1
Nontransactions components								
10 In M2[7]	2,089.6	2,162.8	2,284.9	2,426.8	2,469.2r	2,474.8r	2,485.7	2,495.0
11 In M3 only[8]	680.3	765.5	845.9	822.6	790.6r	789.3r	786.6r	774.0
Time and Savings accounts								
Commercial banks								
12 Savings deposits	155.8	178.3	192.0	188.5	195.0	195.7r	195.8r	196.6
13 Money market deposit accounts	377.7	356.4	350.2	351.5	368.2	370.9	374.6	376.0
14 Small time deposits[9]	366.3	388.1	447.5	528.6	559.3	568.1	571.3r	575.8
15 Large time deposits[10, 11]	289.8	326.9	368.2	401.5	397.9r	399.7r	396.4r	391.8
Thrift institutions								
16 Savings deposits	214.3	236.6	235.9	220.5	220.8	220.7	220.4r	219.2
17 Money market deposit accounts	193.3	167.4	150.1	132.2	133.0	131.6	131.0	131.1
18 Small time deposits[9]	489.9	529.7	583.5	613.7	587.8	580.1	578.2	574.6
19 Large time deposits[10]	150.0	161.9	172.9	156.8	134.9	130.8	127.7r	124.9
Money market mutual funds								
20 General purpose and broker-dealer	208.7	222.0	240.9	312.4	321.9	325.1	333.8	340.1
21 Institution-only	83.8	89.0	87.1	102.3	107.3	108.9	114.0	116.1
Debt components								
22 Federal debt	1,806.1	1,957.9	2,114.2	2,266.7	2,370.9	2,397.8r	2,436.0	n.a.
23 Nonfederal debt	5,830.1	6,387.2	6,993.4	7,522.2r	7,737.8r	7,772.3r	7,808.0	n.a.
	Not seasonally adjusted							
24 M1	740.5	766.4	804.5	812.1	810.0	812.2	814.0r	818.7
25 M2	2,826.5	2,925.6	3,085.2	3,234.5	3,275.7r	3,289.6r	3,302.0r	3,310.2
26 M3	3,508.8	3,692.7	3,932.5	4,058.3	4,062.8r	4,072.3r	4,088.7r	4,087.8
27 L	4,151.4r	4,355.2	4,692.9r	4,898.9r	4,898.5r	4,906.6r	4,925.8	n.a.
28 Debt	7,619.0	8,329.1	9,093.2	9,774.3	10,065.0r	10,124.6r	10,190.7	n.a.
M1 components								
29 Currency[3]	183.0	199.3	214.8	225.3	234.8	237.1	239.2	240.8
30 Travelers checks[4]	6.0	6.5	6.9	6.9	8.1	8.6	8.9	8.8
31 Demand deposits[5]	314.0	298.6	298.9	291.6	274.8	277.0	276.7	278.1
32 Other checkable deposits[6]	237.5	262.0	283.8	288.4	292.3	289.4	289.2r	291.1
Nontransactions components								
33 In M2[7]	2,086.0	2,159.2	2,280.7r	2,422.4	2,465.8r	2,477.5r	2,487.9	2,491.6
34 In M3 only[8]	682.3	767.0	847.3	823.8	787.0r	782.7r	786.7r	777.6
Time and Savings accounts								
Commercial banks								
35 Savings deposits	154.4	176.9	190.6	187.2	196.1	197.3	196.3	196.0
36 Money market deposit accounts	379.8	359.0	353.2	355.0	365.8	368.1	372.9	374.4
37 Small time deposits[9]	366.1	387.3	446.0	526.4	560.4	569.6r	572.3r	576.2
38 Large time deposits[10, 11]	289.2	325.8	366.9	399.8	397.4r	397.5r	397.0r	393.1
Thrift institutions								
39 Savings deposits	212.7	234.9	234.2	219.0	222.3	223.0	220.9r	218.9
40 Money market deposit accounts	192.9	167.5	150.6	132.8	132.5	131.2	131.1r	131.1
41 Small time deposits[9]	489.8	529.1	582.4	612.3	586.8	581.6	578.6	573.6
42 Large time deposits[10]	150.7	162.9	174.2	158.3	133.6r	129.5r	127.1r	125.1
Money market mutual funds								
43 General purpose and broker-dealer	208.0	221.5	240.5	312.2	319.8	322.3	332.8	339.1
44 Institution-only	84.4	89.6	87.6	102.9	106.1	108.1	113.2	113.2
Repurchase agreements and Eurodollars								
45 Overnight	82.3	83.2	83.3	77.4	82.1r	84.2r	83.0r	82.1
46 Term	164.3	197.1	227.7	178.0	163.3r	161.7r	165.3r	161.8
Debt components								
47 Federal debt	1,803.9	1,955.6	2,111.8	2,264.5	2,359.0	2,382.4r	2,418.2	n.a.
48 Nonfederal debt	5,815.1	6,373.5	6,981.4	7,509.8	7,706.0r	7,742.2r	7,772.5	n.a.

For notes see following page.

NOTES TO TABLE 1.21

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

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

M1: (1) currency outside the 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 due 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 (OCD) 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.

M2: M1 plus overnight (and continuing contract) repurchase agreements (RPs) issued by all depository institutions and overnight Eurodollars issued to U.S. residents by foreign branches of U.S. banks worldwide, money market deposit accounts (MMDAs), savings and small-denomination time deposits (time deposits—including retail RPs—in amounts of less than $100,000), and balances in both taxable and tax-exempt general purpose and broker–dealer money market mutual funds. Excludes individual retirement accounts (IRA) and Keogh balances at depository institutions and money market funds. Also excludes all balances held by U.S. commercial banks, money market funds (general purpose and broker–dealer), foreign governments and commercial banks, and the U.S. government.

M3: M2 plus large-denomination time deposits and term RP liabilities (in amounts of $100,000 or more) issued by all depository institutions, term Eurodollars held by U.S. residents at foreign branches of U.S. banks worldwide and at all banking offices in the United Kingdom and Canada, and balances in both taxable and tax-exempt, institution-only money market mutual funds. Excludes amounts held by depository institutions, the U.S. government, money market funds, and foreign banks and official institutions. Also subtracted is the estimated amount of overnight RPs and Eurodollars held by institution-only money market mutual funds.

L: M3 plus the nonbank public holdings of U.S. savings bonds, short-term Treasury securities, commercial paper and bankers acceptances, net of money market mutual fund holdings of these assets.

Debt: Debt of domestic nonfinancial sectors consists of outstanding credit market debt of the U.S. government, state and local governments, and private nonfinancial sectors. Private debt consists of corporate bonds, mortgages, consumer credit (including bank loans), other bank loans, commercial paper, bankers acceptances, and other debt instruments. Data are derived from the Federal Reserve Board's flow of funds accounts. Debt data are based on monthly averages.

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 due 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 balances at all depository institutions, credit union share draft balances, and demand deposits at thrift institutions.

7. Sum of overnight RPs and overnight Eurodollars, money market fund balances (general purpose and broker-dealer), MMDAs, and savings and small time deposits.

8. Sum of large time deposits, term RPs, term Eurodollars of U.S. residents, and money market fund balances (institution-only), less a consolidation adjustment that represents the estimated amount of overnight RPs and Eurodollars held by institution-only money market funds.

9. Small-denomination time deposits—including retail RPs—are those issued in amounts of less than $100,000. All individual retirement accounts (IRA) and Keogh accounts at commercial banks and thrifts are subtracted from small time deposits.

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

11. Large-denomination time deposits at commercial banks less those held by money market mutual funds, depository institutions, and foreign banks and official institutions.

1.22 BANK DEBITS AND DEPOSIT TURNOVER[1]

Debits are shown in billions of dollars, turnover as ratio of debits to deposits. Monthly data are at annual rates.

	Bank group, or type of customer	1987	1988	1989	1990					
					Feb.	Mar.	Apr.	May	June	July
	DEBITS TO				Seasonally adjusted					
	Demand deposits[3]									
1	All insured banks	217,116.2	226,888.4	272,793.1	299,450.2	285,111.5	274,403.6	273,186.2	301,578.2	301,589.9
2	Major New York City banks	104,496.3	107,547.3	121,894.2	132,031.4	132,470.3	124,988.2	123,314.6	131,042.7	130,590.7
3	Other banks	112,619.8	119,341.2	150,898.9	167,418.8	152,641.2	149,415.4	149,871.6	170,535.5	170,999.2
4	ATS-NOW accounts[4]	2,402.7	2,757.7	3,501.8	4,115.7	4,075.7	3,993.3	4,165.6	4,004.2	4,163.7
5	Savings deposits[5]	526.5	579.2	636.6	587.3	617.6	583.1	601.1	566.6	608.8
	DEPOSIT TURNOVER									
	Demand deposits[3]									
6	All insured banks	612.1	641.2	781.0	851.4	813.3	780.8	791.9	866.2	865.5
7	Major New York City banks	2,670.6	2,903.5	3,401.6	3,677.3	3,760.2	3,551.5	3,590.9	3,742.8	3,838.3
8	Other banks	357.0	376.8	481.5	530.1	484.0	472.5	482.5	544.6	543.8
9	ATS-NOW accounts[4]	13.8	14.7	18.3	20.6	20.2	19.7	20.5	19.5	20.5
10	Savings deposits[5]	3.1	3.1	3.5	3.1	3.2	3.0	3.2	2.9	3.1
	DEBITS TO				Not seasonally adjusted					
	Demand deposits[3]									
11	All insured banks	217,125.1	227,010.7	271,957.3	270,852.7	291,868.6	276,077.5	282,747.7	302,181.4	302,826.4
12	Major New York City banks	104,518.8	107,565.0	122,241.8	119,305.2	137,029.5	125,750.6	125,532.4	130,332.7	130,100.1
13	Other banks	112,606.2	119,445.7	149,715.5	151,547.5	154,839.2	150,326.9	157,215.3	171,848.6	172,726.3
14	ATS-NOW accounts[4]	2,404.8	2,754.7	3,496.5	3,721.3	4,030.4	4,285.8	4,066.2	4,098.2	4,108.9
15	MMDA[6]	1,954.2	2,430.1	2,790.6	2,551.2	2,714.9	2,848.4	3,016.4	2,992.1	3,033.8
16	Savings deposits[5]	526.8	578.0	635.8	518.7	594.2	646.8	592.6	567.8	640.3
	DEPOSIT TURNOVER									
	Demand deposits[3]									
17	All insured banks	612.3	641.7	779.0	791.8	850.4	784.4	834.7	866.5	864.8
18	Major New York City banks	2,674.9	2,901.4	3,415.4	3,314.9	3,836.2	3,564.6	3,796.3	3,797.6	3,777.5
19	Other banks	356.9	377.1	477.8	495.2	503.6	474.7	514.3	546.6	547.1
20	ATS-NOW accounts[4]	13.8	14.7	18.3	18.7	20.0	20.5	20.3	20.1	20.4
21	MMDA[6]	5.3	6.9	8.3	7.2	7.6	7.9	8.4	8.2	8.3
22	Savings deposits[5]	3.1	3.1	3.5	2.8	3.1	3.4	3.1	2.9	3.3

1. Historical tables containing revised data for earlier periods may be obtained from the Monetary and Reserves Projections Section, Division of Monetary Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

These data also appear on the Board's G.6 (406) release. For address, see inside front cover.

2. Annual averages of monthly figures.

3. Represents accounts of individuals, partnerships, and corporations and of states and political subdivisions.

4. Accounts authorized for negotiable orders of withdrawal (NOW) and accounts authorized for automatic transfer to demand deposits (ATS). ATS data are available beginning December 1978.

5. Excludes ATS and NOW accounts, MMDA and special club accounts, such as Christmas and vacation clubs.

6. Money market deposit accounts.

1.23 LOANS AND SECURITIES All Commercial Banks[1]

Billions of dollars; averages of Wednesday figures

Category	1989			1990								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
	Seasonally adjusted											
1 **Total loans and securities[2]**	**2,570.5**	**2,585.8**	**2,588.8**	**2,594.4**	**2,614.3**	**2,635.6**	**2,646.7**	**2,653.8**	**2,669.4**	**2,684.7**	**2,707.8**	**2,708.5**
2 U.S. government securities	390.9	396.0	396.1	404.7	414.5	422.3	427.3	430.6	438.5	440.6	441.3	447.1
3 Other securities	181.4	179.9	180.8	180.4	180.5	180.1	180.0	178.3	177.9	177.8	179.2	179.4
4 Total loans and leases[2]	1,998.2	2,009.9	2,011.9	2,009.3	2,019.4	2,033.2	2,039.4	2,045.0	2,053.0	2,066.4	2,087.3	2,082.0
5 Commercial and industrial	642.0	645.0	641.6	637.9	638.8	644.4	649.0	648.6	651.6	651.7	653.1	651.6
6 Bankers acceptances held[3]	7.9	7.6	7.4	7.3	7.6	7.6	7.5	7.6	7.9	7.6	7.3	7.7
7 Other commercial and industrial	634.1	637.4	634.2	630.6	631.2	636.8	641.5	641.0	643.7	644.2	645.7[r]	643.9
8 U.S. addressees[4]	629.9	632.4	628.8	623.1	625.4	630.6	635.5	636.4	638.8	641.6	643.2	641.1
9 Non-U.S. addressees[4]	4.2	5.0	5.4	7.6	5.8	6.2	6.0	4.5	4.9	2.6	2.5	2.8
10 Real estate	746.7	754.0	761.1	765.9	774.7	781.8	786.9	794.6	800.1	808.0	811.9	814.7
11 Individual	372.4	374.4	375.8	378.3	379.5	379.9	378.8	379.8	378.4	378.3	380.1	381.1
12 Security	40.7	40.9	38.8	39.3	40.0	37.1	36.1	34.8	35.3	38.8	46.0	43.1
13 Nonbank financial institutions	33.2	33.9	33.0	32.5	32.9	33.8	33.9	33.9	34.4	34.8	35.7	36.2
14 Agricultural	30.5	30.5	30.7	30.9	30.8	30.6	30.4	30.0	29.5	29.3	29.2	29.1
15 State and political subdivisions	41.3	40.8	40.1	38.6	38.9	38.4	38.2	37.9	37.4	36.6	36.1[r]	35.4
16 Foreign banks	9.1	8.3	8.9	8.1	7.8	8.4	8.8	8.7	7.4	7.0	8.0	7.9
17 Foreign official institutions	3.8	3.7	3.6	3.2	3.1	3.0	3.2	3.2	3.2	3.2	3.2	3.2
18 Lease financing receivables	31.9	31.9	31.8	32.1	32.2	32.6	32.3	32.5	32.3	32.6	32.7	32.8
19 All other loans	46.6	46.4	46.5	42.5	40.6	43.2	41.8	40.9	43.4[r]	46.1	51.5	47.0
	Not seasonally adjusted											
20 **Total loans and securities[2]**	**2,570.8**	**2,587.9**	**2,596.8**	**2,600.1**	**2,616.7**	**2,629.9**	**2,647.0**	**2,653.4**	**2,669.5**	**2,678.9**	**2,701.4**	**2,707.1**
21 U.S. government securities	388.2	396.1	397.2	406.4	419.0	423.8	427.2	429.6	435.6	438.1	442.1	446.1
22 Other securities	182.3	181.2	181.8	180.9	180.3	179.7	179.4	177.7	177.2	176.4	179.3	179.6
23 Total loans and leases[2]	2,000.2	2,010.6	2,017.9	2,012.8	2,017.3	2,026.4	2,040.4	2,046.1	2,056.7	2,064.4	2,080.0	2,081.4
24 Commercial and industrial	639.4	642.2	641.6	636.4	639.5	646.0	653.3	652.7	654.0	652.1	650.6	647.7
25 Bankers acceptances held[3]	8.1	7.7	7.5	7.4	7.7	7.4	7.3	7.5	7.8	7.3	7.4	7.8
26 Other commercial and industrial	631.3	634.5	634.0	629.1	631.8	638.6	645.9	645.2	646.2	644.8	643.1[r]	639.9
27 U.S. addressees[4]	625.7	629.1	628.8	624.1	627.0	633.9	641.3	640.6	641.8	640.3	638.7	635.3
28 Non-U.S. addressees[4]	5.6	5.4	5.2	4.9	4.8	4.7	4.6	4.6	4.4	4.5	4.5	4.6
29 Real estate	748.0	755.7	761.9	766.0	772.1	779.1	784.9	793.5	800.0	808.7	813.6	816.9
30 Individual	373.5	375.8	380.3	381.8	378.7	376.6	376.0	377.3	376.7	376.7	380.3	383.0
31 Security	39.7	39.7	37.9	37.8	39.5	38.1	38.5	35.3	37.4	38.8	45.3	42.1
32 Nonbank financial institutions	32.8	34.2	34.1	33.2	32.5	33.0	33.7	33.9	34.7	35.0	35.5	35.7
33 Agricultural	31.2	30.8	30.6	30.4	29.9	29.5	29.5	29.7	29.8[r]	30.0	30.0	30.0
34 State and political subdivisions	41.2	40.6	39.7	39.5	39.3	38.6	38.2	37.8	37.2	36.2	35.8	35.3
35 Foreign banks	9.4	8.5	8.7	8.2	7.8	7.8	8.4	8.7	7.6	7.1	7.9	8.1
36 Foreign official institutions	3.8	3.7	3.6	3.2	3.1	3.0	3.2	3.2	3.2	3.2	3.2	3.2
37 Lease financing receivables	31.8	31.9	31.9	32.5	32.4	32.5	32.4	32.5	32.2	32.3	32.5	32.6
38 All other loans	49.3	47.5	47.7	43.8	42.6	42.1	42.4	41.6	43.9	44.2[r]	45.4	46.6

1. These data also appear in the Board's G.7 (407) release. For address, see inside front cover.
2. Excludes loans to commercial banks in the United States.
3. Includes nonfinancial commercial paper held.
4. United States includes the 50 states and the District of Columbia.

1.24 MAJOR NONDEPOSIT FUNDS OF COMMERCIAL BANKS[1]

Monthly averages, billions of dollars

Source	1989 Oct.	Nov.	Dec.	1990 Jan.	Feb.	Mar.	Apr.^{r}	May	June	July^{r}	Aug.^{r}	Sept.
Seasonally adjusted												
1 Total nondeposit funds[2]	254.7	256.5	257.3	258.1	267.6	271.4	267.6	269.2^{r}	270.7^{r}	282.2	283.0	281.0
2 Net balances due to related foreign offices[3]	10.2	8.6	7.4	10.9	14.7	17.4^{r}	16.6	24.5^{r}	14.8^{r}	16.8	16.7	19.2
3 Borrowings from other than commercial banks in United States[4]	244.5	247.9	249.9	247.2	252.9	254.0^{r}	250.9	244.8^{r}	255.9^{r}	265.4	266.3	261.8
4 Domestically chartered banks	196.5	198.3	200.4	196.9	201.4	198.4^{r}	192.9	187.8^{r}	197.8^{r}	203.8	203.7	200.1
5 Foreign-related banks	48.0	49.6	49.4	50.4	51.5	55.6	58.0	57.0	58.1	61.7	62.5	61.7
Not seasonally adjusted												
6 Total nondeposit funds[2]	249.9	255.4	250.7	254.6	270.8	277.2	270.4	277.8^{r}	275.6^{r}	277.6	282.1	277.3
7 Net balances due to related foreign offices[3]	9.6	9.7	9.7	10.5	14.3	16.2	14.4	26.3	15.4	14.7	17.0	20.0
8 Domestically chartered banks	−15.0	−15.5	−19.2	−14.5	−11.1	−11.5	−10.6	−1.4	−6.3	−6.1	−3.6	−4.5
9 Foreign-related banks	24.6	25.2	28.9	25.0	25.4	27.7	25.0	27.7	21.7	20.8	20.6	24.4
10 Borrowings from other than commercial banks in United States[4]	240.3	245.8	241.0	244.1	256.4	261.0^{r}	256.0	251.4^{r}	260.1^{r}	262.9	265.2	257.4
11 Domestically chartered banks	193.5	198.5	194.0	192.9	203.3	204.3	197.0	193.6^{r}	199.5^{r}	200.8	203.2	197.0
12 Federal funds and security RP borrowings[5]	190.4	196.1	191.5	190.3	199.6	199.8^{r}	193.3	190.2^{r}	196.4^{r}	197.9	199.6	192.9
13 Other[6]	3.0	2.4	2.5	2.7	3.7	4.5	3.7	3.4	3.2	2.9	3.6	4.0
14 Foreign-related banks[6]	46.8	47.2	47.0	51.2	53.1	56.8	59.0	57.9	60.6	62.1	61.9	60.4
MEMO												
Gross large time deposits[7]												
15 Seasonally adjusted	461.4	464.0	464.3	462.7	460.6	457.3	455.1	454.7	452.7	454.0	450.9	445.5
16 Not seasonally adjusted	462.6	464.4	462.7	460.4	460.3	460.2	455.1	455.2	452.2	451.8	451.5	446.9
U.S. Treasury demand balances at commercial banks[8]												
17 Seasonally adjusted	21.5	20.4	21.1	20.2	17.8	19.2	21.2	18.6	20.4	14.8	33.2	28.2
18 Not seasonally adjusted	20.6	14.7	19.6	23.2	22.0	16.7	20.0	25.2	20.9	15.2	23.5	31.0

1. Commercial banks are those in the 50 states and the District of Columbia with national or state charters plus agencies and branches of foreign banks, New York investment companies majority owned by foreign banks, and Edge Act corporations owned by domestically chartered and foreign banks.
These data also appear in the Board's G.10 (411) release. For address, see inside front cover.
2. Includes federal funds, RPs, and other borrowing from nonbanks and net balances due to related foreign offices.
3. Reflects net positions of U.S. chartered banks, Edge Act corporations, and U.S. branches and agencies of foreign banks with related foreign offices plus net positions with own IBFs.
4. Other borrowings are borrowings through any instrument, such as a promissory note or due bill, given for the purpose of borrowing money for the banking business. This includes borrowings from Federal Reserve Banks and from foreign banks, term federal funds, loan RPs, and sales of participations in pooled loans.
5. Based on daily average data reported weekly by approximately 120 large banks and quarterly or annual data reported by other banks.
6. Figures are partly daily averages and partly averages of Wednesday data.
7. Time deposits in denominations of $100,000 or more. Estimated averages of daily data.
8. U.S. Treasury demand deposits and Treasury tax-and-loan notes at commercial banks. Averages of daily data.

1.25 ASSETS AND LIABILITIES OF COMMERCIAL BANKING INSTITUTIONS Last-Wednesday-of-Month Series[1]

Billions of dollars

Account	1989 Nov.	1989 Dec.	1990 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
ALL COMMERCIAL BANKING INSTITUTIONS[2]											
1 Loans and securities	2,774.7	2,780.1	2,796.0	2,809.2	2,821.2	2,838.3	2,845.9	2,870.9	2,876.4	2,895.8	2,885.6
2 Investment securities	551.0	550.5	563.9	571.2	576.8	582.5	585.9	587.7	587.5	595.8	600.4
3 U.S. government securities	376.5	375.1	389.8	398.0	405.9	412.6	416.9	419.9	420.1	427.1	432.2
4 Other	174.5	175.5	174.1	173.2	170.8	169.9	169.0	167.8	167.4	168.7	168.2
5 Trading account assets	26.8	22.8	31.8	30.2	26.0	23.9	21.4	23.7	27.2	29.2	21.3
6 Total loans	2,196.9	2,206.8	2,200.4	2,207.8	2,218.5	2,231.9	2,238.7	2,259.6	2,261.6	2,270.7	2,263.9
7 Interbank loans	185.4	187.0	187.4	187.5	191.6	190.6	192.8	202.7	199.9	198.4	188.8
8 Loans excluding interbank	2,011.6	2,019.8	2,013.0	2,020.3	2,026.9	2,041.3	2,045.9	2,056.9	2,061.7	2,072.4	2,075.1
9 Commercial and industrial	641.6	643.2	636.4	642.4	646.2	653.3	650.9	654.1	648.7	646.3	646.7
10 Real estate	758.3	762.8	767.6	774.0	781.6	786.7	796.7	801.3	810.2	813.3	817.4
11 Individual	376.5	382.3	381.7	378.6	375.5	377.5	377.3	378.5	377.7	382.2	383.9
12 All other	235.2	231.5	227.3	225.3	223.6	223.8	220.9	222.9	225.0	230.6	227.1
13 Total cash assets	231.5	255.7	218.9	224.9	212.9	211.6	239.9	222.9	214.1	211.0	217.6
14 Reserves with Federal Reserve Banks	38.7	42.8	24.6	29.5	32.0	31.6	27.8	32.0	30.1	30.3	33.9
15 Cash in vault	30.7	31.6	28.0	27.8	27.7	28.5	29.9	28.9	28.7	30.2	29.2
16 Cash items in process of collection	84.4	99.1	89.9	91.6	80.0	80.0	100.6	86.1	79.5	77.4	80.9
17 Demand balances at U.S. depository institutions	28.5	32.3	29.6	30.8	27.4	26.3	32.0	27.6	27.4	27.5	27.2
18 Other cash assets	49.2	49.9	46.8	45.2	45.8	45.2	49.7	48.3	48.4	45.6	46.4
19 Other assets	203.3	209.9	218.1	212.9	209.1	206.0	199.5	211.1	207.1	216.3	216.9
20 Total assets/total liabilities and capital	**3,209.5**	**3,245.8**	**3,233.0**	**3,247.0**	**3,243.2**	**3,255.9**	**3,285.4**	**3,304.9**	**3,297.5**	**3,323.1**	**3,320.1**
21 Deposits	2,225.7	2,270.0	2,247.1	2,262.4	2,251.3	2,257.3	2,293.1	2,280.6	2,289.7	2,295.2	2,298.1
22 Transaction deposits	600.8	642.0	612.2	616.6	594.3	601.0	618.4	599.6	591.5	590.5	596.3
23 Savings deposits	535.7	538.2	540.8	546.3	551.8	548.7	554.4	556.3	561.3	565.7	563.5
24 Time deposits	1,089.2	1,089.7	1,094.2	1,099.5	1,105.3	1,107.5	1,120.3	1,124.7	1,136.8	1,139.0	1,138.3
25 Borrowings	543.9	531.0	552.8	542.2	545.4	564.7	548.2	578.7	564.4	576.2	564.7
26 Other liabilities	229.5	233.5	221.8	229.3	230.8	218.0	227.8	227.2	224.3	231.7	236.8
27 Residual (assets less liabilities)	210.4	211.3	211.4	213.2	215.7	215.8	216.2	218.4	219.1	220.0	220.5
MEMO											
28 U.S. government securities (including trading account)	396.2	391.0	414.7	421.2	423.8	427.8	430.0	433.8	438.9	444.3	442.9
29 Other securities (including trading account)	181.6	182.3	180.9	180.2	179.0	178.6	177.2	177.6	175.9	180.8	178.9
DOMESTICALLY CHARTERED COMMERCIAL BANKS[3]											
30 Loans and securities	2,534.1	2,542.4	2,557.9	2,566.3	2,570.5	2,581.8	2,585.1	2,602.9	2,610.3	2,627.6	2,616.0
31 Investment securities	524.6	524.4	536.2	543.1	547.2	551.5	557.5	557.3	556.8	565.5	568.7
32 U.S. government securities	363.9	363.8	376.6	384.4	391.2	397.6	404.0	405.5	405.5	413.0	416.9
33 Other	160.7	160.5	159.6	158.7	156.0	154.0	153.5	151.9	151.4	152.5	151.8
34 Trading account assets	26.8	22.8	31.8	30.2	26.0	23.9	21.4	23.7	27.2	29.2	21.3
35 Total loans	1,982.7	1,995.2	1,989.9	1,993.0	1,997.3	2,006.4	2,006.2	2,021.9	2,026.3	2,032.9	2,026.0
36 Interbank loans	147.3	150.3	150.0	148.5	148.3	149.1	144.4	153.6	151.6	151.3	142.4
37 Loans excluding interbank	1,835.5	1,844.9	1,839.9	1,844.6	1,849.0	1,857.3	1,861.7	1,868.3	1,874.7	1,881.6	1,883.6
38 Commercial and industrial	516.7	517.7	513.8	518.3	519.4	523.4	520.4	519.2	516.9	513.4	513.3
39 Real estate	728.6	733.0	735.9	741.1	747.8	751.8	761.2	765.3	773.5	776.1	780.2
40 Individual	376.5	382.3	381.7	378.6	375.5	377.5	377.3	378.5	377.7	382.2	383.9
41 All other	213.7	211.8	208.5	206.5	206.3	204.6	202.8	205.3	206.7	209.9	206.1
42 Total cash assets	205.5	230.5	195.7	199.9	187.3	186.8	210.7	194.8	186.5	184.2	190.4
43 Reserves with Federal Reserve Banks	37.9	41.7	22.7	27.5	29.8	29.8	26.6	30.8	28.8	28.1	32.2
44 Cash in vault	30.7	31.5	28.0	27.8	27.7	28.5	29.8	28.8	28.7	30.2	29.2
45 Cash items in process of collection	82.5	97.7	88.5	90.2	78.5	78.7	99.2	84.1	78.1	75.8	78.9
46 Demand balances at U.S. depository institutions	26.6	30.4	27.6	28.7	25.6	24.6	30.0	25.9	25.6	25.1	25.2
47 Other cash assets	27.9	29.2	28.9	25.7	25.7	25.2	25.1	25.2	25.3	25.0	25.0
48 Other assets	136.0	140.7	143.6	140.2	136.4	133.8	136.3	141.8	138.4	144.3	149.1
49 Total assets/liabilities and capital	**2,875.7**	**2,913.6**	**2,897.2**	**2,906.5**	**2,894.2**	**2,902.4**	**2,932.0**	**2,939.6**	**2,935.3**	**2,956.1**	**2,955.5**
50 Deposits	2,143.3	2,186.8	2,164.5	2,179.9	2,169.4	2,174.6	2,210.6	2,197.8	2,207.7	2,213.3	2,218.1
51 Transaction deposits	591.2	632.1	601.9	606.3	584.5	591.2	608.3	589.0	581.1	579.9	585.1
52 Savings deposits	532.9	535.4	537.9	543.4	548.8	545.7	551.4	553.3	558.3	562.7	560.4
53 Time deposits	1,019.2	1,019.3	1,024.7	1,030.2	1,036.1	1,037.6	1,050.9	1,055.4	1,068.2	1,070.7	1,072.5
54 Borrowings	405.2	398.4	405.3	394.2	393.1	405.4	391.7	409.9	395.6	403.5	395.0
55 Other liabilities	120.6	120.9	119.9	123.1	119.9	110.5	117.3	117.2	116.8	123.2	125.8
56 Residual (assets less liabilities)	206.6	207.4	207.5	209.3	211.8	212.0	212.3	214.6	215.3	216.1	216.7
MEMO											
57 Real estate loans, revolving	49.2	50.0	51.1	51.4	52.0	53.1	54.0	55.0	56.1	57.4	58.1
58 Real estate loans, other	679.4	683.0	684.8	689.7	695.8	698.7	707.2	710.3	717.4	718.8	722.1

1. Back data are available from the Banking and Monetary Statistics section, Board of Governors of the Federal Reserve System, Washington, D.C., 20551. These data also appear in the Board's weekly H.8 (510) release.

Figures are partly estimated. They include all bank-premises subsidiaries and other significant majority-owned domestic subsidiaries. Loan and securities data for domestically chartered commercial banks are estimates for the last Wednesday of the month based on a sample of weekly reporting banks and quarter-end condition report data. Data for other banking institutions are estimates made for the last Wednesday of the month based on a weekly reporting sample of foreign-related institutions and quarter-end condition reports.

2. Commercial banking institutions include insured domestically chartered commercial banks, branches and agencies of foreign banks, Edge Act and Agreement corporations, and New York State foreign investment corporations.

3. Insured domestically chartered commercial banks include all member banks and insured nonmember banks.

1.26 ASSETS AND LIABILITIES OF LARGE WEEKLY REPORTING COMMERCIAL BANKS[1]

Millions of dollars, Wednesday figures

Account	1990								
	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
1 Cash and balances due from depository institutions	123,886	106,361	119,362	107,130	103,510	124,321	108,191	107,117	110,532
2 **Total loans, leases, and securities, net**	**1,319,467r**	**1,314,107r**	**1,337,493r**	**1,319,434r**	**1,309,415r**	**1,331,928**	**1,312,489**	**1,318,394**	**1,293,877**
3 U.S. Treasury and government agency	181,389	178,830	182,470	181,098	182,880	184,764	183,701	185,481	177,095
4 Trading account	19,705	16,508	19,683	17,478	17,153	18,954	17,974	19,012	10,619
5 Investment account	161,683	162,322	162,787	163,621	165,726	165,810	165,727	166,470	166,476
6 Mortgage-backed securities[2]	80,001r	80,837r	80,581r	80,394r	81,939r	81,552	81,554	82,123	82,339
All other maturing in									
7 One year or less	19,816	18,706	18,500	18,408	18,429	18,136	17,768	17,458	17,024
8 Over one through five years	37,338r	38,012r	39,227r	39,992r	40,340r	40,244	40,470	40,866	40,962
9 Over five years	24,528	24,767	24,478	24,827	25,018	25,878	25,935	26,022	26,151
10 Other securities	63,030	61,991	61,849	62,141	62,322r	61,807	61,688	61,943	61,770
11 Trading account	1,813	708	772	981	946	775	684	971	1,039
12 Investment account	61,216	61,283	61,078	61,160	61,376	61,032	61,004	60,972	60,731
13 States and political subdivisions, by maturity	32,138	32,155	32,121	32,057	32,032	31,959	31,967	31,980	32,037
14 One year or less	3,616	3,632	3,667	3,686	3,699	3,707	3,727	3,742	3,740
15 Over one year	28,522	28,524	28,454	28,371	28,333	28,252	28,240	28,238	28,296
16 Other bonds, corporate stocks, and securities	29,079	29,128	28,957	29,103	29,345	29,072	29,037	28,992	28,694
17 Other trading account assets	8,094r	9,377r	10,245r	9,755r	10,708r	10,383	10,016	9,933	9,272
18 Federal funds sold[3]	87,589	85,450	98,368	83,717	75,566	92,303	81,445	83,064	70,611
19 To commercial banks	59,363	56,821	68,717	55,767	51,126	64,830	56,520	56,873	49,423
20 To nonbank brokers and dealers in securities	22,540	22,973	23,528	22,373	19,439	20,322	19,630	19,647	15,564
21 To others	5,686	5,656	6,123	5,578	5,001	7,150	5,295	6,544	5,624
22 Other loans and leases, gross	1,018,304r	1,017,351r	1,023,492r	1,021,613r	1,017,077r	1,021,631	1,014,457	1,016,755	1,013,657
23 Other loans, gross	991,510r	990,548r	996,650r	994,702r	989,997r	994,478	987,562	989,907	986,713
24 Commercial and industrial	320,610r	320,098r	322,059r	319,956r	317,633r	317,908	317,253	318,443	316,891
25 Bankers acceptances and commercial paper	1,558r	1,624r	1,710r	1,623r	1,579r	1,720	1,622	1,736	1,622
26 All other	319,052r	318,474r	320,349r	318,332r	316,054r	316,188	315,631	316,707	315,269
27 U.S. addressees	317,549r	317,038r	318,938r	316,917r	314,662r	314,676	314,219	315,083	313,768
28 Non-U.S. addressees	1,503	1,436	1,411	1,416	1,392	1,512	1,412	1,624	1,501
29 Real estate loans	378,988r	379,542r	380,654r	380,500r	379,583r	379,716	380,732	381,025	381,202
30 Revolving, home equity	30,650r	30,758r	30,930r	31,092r	31,259r	31,290	31,410	31,565	31,714
31 All other	348,337r	348,784r	349,724r	349,408r	348,324r	348,425	349,322	349,461	349,488
32 To individuals for personal expenditures	173,229r	173,325r	173,675r	174,271r	174,581r	173,343	173,391	173,684	173,664
33 To depository and financial institutions	49,841	49,446	52,317	51,748	51,512	52,514	49,629	49,198	47,985
34 Commercial banks in the United States	21,915	21,781	23,071	23,499	23,996	23,928	21,414	21,340	20,770
35 Banks in foreign countries	3,957	3,650	4,921	4,907	4,158	4,420	4,264	4,418	3,920
36 Nonbank depository and other financial institutions	23,969	24,015	24,325	23,342	23,358	24,166	23,951	23,439	23,294
37 For purchasing and carrying securities	14,848	15,139	14,234	15,434	14,262	16,600	13,962	14,801	13,283
38 To finance agricultural production	6,132r	6,150r	6,171r	6,096r	6,078r	6,084	6,120	6,123	6,150
39 To states and political subdivisions	22,662r	22,635r	22,561r	22,530r	22,456r	22,423	22,322	22,265	22,194
40 To foreign governments and official institutions	1,480	1,409	1,591	1,404	1,449	1,639	1,412	1,330	1,476
41 All other	23,719r	22,804r	23,388r	22,763r	22,442r	24,252	22,740	23,039	23,869
42 Lease financing receivables	26,794	26,802	26,842	26,911	27,080	27,153	26,895	26,848	26,944
43 LESS: Unearned income	4,411r	4,422r	4,432r	4,450r	4,459r	4,426	4,429	4,442	4,429
44 Loan and lease reserve[4]	34,529r	34,471r	34,500r	34,442r	34,679r	34,534	34,390	34,341	34,099
45 Other loans and leases, net	979,365r	978,458r	984,560r	982,722r	977,939r	982,671	975,639	977,972	975,129
46 All other assets	130,501r	129,466r	133,642r	131,427r	133,241r	137,934	135,575	137,013	137,790
47 **Total assets**	**1,573,855r**	**1,549,934r**	**1,590,497r**	**1,557,991r**	**1,546,166r**	**1,594,183**	**1,556,255**	**1,562,524**	**1,542,199**
48 Demand deposits	242,848r	215,563r	244,615r	213,508r	213,279r	241,414	221,494	220,741	221,918
49 Individuals, partnerships, and corporations	190,303r	175,614r	195,532r	172,251r	171,101r	191,403	179,575	175,283	174,022
50 States and political subdivisions	7,393	5,610	6,081	5,956	5,404	5,895	5,539	6,901	7,356
51 U.S. government	2,414	1,392	2,608	1,261	1,440	1,687	2,050	3,508	1,593
52 Depository institutions in the United States	25,325	18,683	24,921r	18,604	18,840	24,515	19,506	19,612	20,342
53 Banks in foreign countries	6,650	4,970r	6,231	6,363	6,202	6,691	6,210	5,768	6,600
54 Foreign governments and official institutions	961	681	1,375	857	809	1,402	932	1,129	1,273
55 Certified and officers' checks	9,801	8,614	7,868	8,216	9,482	9,820	7,680	8,540	10,733
56 Transaction balances other than demand deposits	80,364	80,295	79,805	78,324	77,478	83,215	80,870	78,941	76,989
57 Nontransaction balances	753,999	754,155	758,425	753,907	752,688	755,061	753,471	750,036	748,410
58 Individuals, partnerships, and corporations	716,792r	717,222r	721,384r	716,756r	715,226r	718,135	716,544	714,014	712,501
59 States and political subdivisions	29,116	29,218	29,304	29,359	29,676	29,244	29,253	28,497	28,510
60 U.S. government	1,168	881	887	884	888	745	749	764	776
61 Depository institutions in the United States	6,450r	6,377r	6,375r	6,455r	6,438r	6,483	6,478	6,310	6,177
62 Foreign governments, official institutions, and banks	473	456	475	452	459	454	446	451	445
63 Liabilities for borrowed money	297,066r	299,670r	310,720r	311,995r	299,682r	309,703	299,940	309,422	289,510
64 Borrowings from Federal Reserve Banks	0	100	785	6,837	0	2,102	0	3,405	0
65 Treasury tax-and-loan notes	10,007	12,448	14,864	21,735	22,462r	12,527	17,215	30,462	26,492
66 All other liabilities for borrowed money[5]	287,059r	287,122r	295,071r	283,422r	277,219r	295,074	282,725	275,556	263,018
67 Other liabilities and subordinated notes and debentures	94,978r	95,298r	92,244r	95,185r	97,754r	99,560	94,818	97,901	100,139
68 **Total liabilities**	**1,469,255r**	**1,444,981r**	**1,485,809r**	**1,452,920r**	**1,440,882r**	**1,488,954**	**1,450,592**	**1,457,041**	**1,436,966**
69 Residual (total assets minus total liabilities)[6]	104,600r	104,952r	104,688r	105,072r	105,284r	105,230	105,662	105,483	105,233
MEMO									
70 Total loans and leases (gross) and investments adjusted[7]	1,277,129r	1,274,397r	1,284,636r	1,279,059r	1,273,430r	1,282,130	1,273,374	1,278,965	1,262,212
71 Total loans and leases (gross) adjusted[7]	1,024,616r	1,024,199r	1,030,072r	1,026,064r	1,017,521r	1,025,175	1,017,968	1,021,607	1,014,075
72 Time deposits in amounts of $100,000 or more	214,461	213,908	213,799	212,761r	212,279	211,160	211,022	209,193	207,061
73 U.S. Treasury securities maturing in one year or less	19,416	18,394	17,858	17,455	17,481r	16,762	16,340	16,430	14,478
74 Loans sold outright to affiliates—total[8]	282r	285r	283r	286r	296r	289	291	300	288
75 Commercial and industrial	137	140	138	135	144	140	141	149	151
76 Other	145r	145r	146r	151r	152r	149	150	150	137
77 Nontransaction savings deposits (including MMDAs)	286,787	287,356	291,492	287,758	287,387	290,541	288,784	286,394	285,305

1. Beginning Jan. 6, 1988, the "Large bank" reporting group was revised somewhat, eliminating some former reporters with less than $2 billion of assets and adding some new reporters with assets greater than $3 billion.
2. Includes U.S. government-issued or guaranteed certificates of participation in pools of residential mortgages.
3. Includes securities purchased under agreements to resell.
4. Includes allocated transfer risk reserve.
5. Includes federal funds purchased and securities sold under agreements to repurchase; for information on these liabilities at banks with assets of $1 billion or more on Dec. 31, 1977, see table 1.13.
6. This is not a measure of equity capital for use in capital-adequacy analysis or for other analytic uses.
7. Exclusive of loans and federal funds transactions with domestic commercial banks.
8. Loans sold are those sold outright to a bank's own foreign branches, nonconsolidated nonbank affiliates of the bank, the bank's holding company (if not a bank), and nonconsolidated nonbank subsidiaries of the holding company.

1.28 ASSETS AND LIABILITIES OF LARGE WEEKLY REPORTING COMMERCIAL BANKS IN NEW YORK CITY[1]

Millions of dollars, Wednesday figures

Account	1990								
	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
1 Cash balances due from depository institutions	30,759	23,366	30,190	28,032	21,286	24,823	22,609	22,331	26,897
2 **Total loans, leases, and securities, net[2]**	**228,562[r]**	**226,152[r]**	**236,562[r]**	**230,538[r]**	**222,626[r]**	**233,134**	**222,200**	**226,124**	**218,728**
Securities									
3 U.S. Treasury and government agency[3]	0	0	0	0	0	0	0	0	0
4 Trading account[3]	0	0	0	0	0	0	0	0	0
5 Investment account	22,646	22,684	23,046	22,896	23,381	23,624	23,589	23,814	24,372
6 Mortgage-backed securities[4]	11,294	11,471	11,492	10,890	11,329	11,325	11,332	11,342	11,895
All other maturing in									
7 One year or less	3,180	3,070	3,270	3,272	3,265	3,255	3,026	3,048	3,023
8 Over one through five years	3,810	3,805	3,924	4,488	4,545	4,548	4,732	4,735	4,768
9 Over five years	4,362	4,338	4,360	4,246	4,241	4,496	4,498	4,689	4,685
10 Other securities[3]	0	0	0	0	0	0	0	0	0
11 Trading account[3]	0	0	0	0	0	0	0	0	0
12 Investment account	13,333	13,454	13,258	13,424	13,576	13,315	13,310	13,272	13,044
13 States and political subdivisions, by maturity	6,207	6,194	6,209	6,163	6,116	6,121	6,118	6,113	6,107
14 One year or less	598	596	628	628	615	611	613	615	612
15 Over one year	5,609	5,597	5,581	5,536	5,500	5,509	5,505	5,498	5,495
16 Other bonds, corporate stocks, and securities	7,126	7,260	7,050	7,261	7,461	7,194	7,192	7,159	6,937
17 Other trading account assets[3]	0	0	0	0	0	0	0	0	0
Loans and leases									
18 Federal funds sold[5]	26,368	24,288	32,245	24,420	19,855	27,737	21,494	24,259	19,105
19 To commercial banks	13,072	12,088	17,834	12,000	9,507	16,687	11,244	13,830	11,770
20 To nonbank brokers and dealers in securities	10,470	9,443	11,882	9,898	8,026	8,764	8,166	8,415	5,517
21 To others	2,826	2,756	2,528	2,523	2,322	2,286	2,082	2,015	1,818
22 Other loans and leases, gross	182,092[r]	181,483[r]	183,811[r]	185,607[r]	181,899[r]	184,378	179,444	180,404	177,699
23 Other loans, gross	176,525[r]	175,894[r]	178,184[r]	179,913[r]	176,214[r]	178,707	173,751	174,718	171,946
24 Commercial and industrial	58,962[r]	58,758[r]	59,968[r]	59,472[r]	58,736[r]	58,751	58,361	58,134	56,876
25 Bankers acceptances and commercial paper	122	117	128	130	124	137	139	138	145
26 All other	58,840[r]	58,641[r]	59,839[r]	59,343[r]	58,612[r]	58,614	58,222	57,996	56,730
27 U.S. addressees	58,093[r]	57,928[r]	59,192[r]	58,695[r]	57,963[r]	57,871	57,557	57,141	56,026
28 Non-U.S. addressees	747	713	648	647	649	743	664	855	704
29 Real estate loans	62,859	63,016	62,975	62,816	62,463	62,643	62,602	62,684	62,312
30 Revolving, home equity	4,125	4,132	4,141	4,145	4,151	4,158	4,170	4,180	4,188
31 All other	58,734	58,884	58,834	58,672	58,312	58,485	58,432	58,504	58,123
32 To individuals for personal expenditures	19,771	19,731	19,829	19,893	19,863	19,849	19,902	20,010	20,023
33 To depository and financial institutions	18,689	17,951	19,865	21,010	19,763	19,674	18,636	18,483	17,581
34 Commercial banks in the United States	7,251	6,863	7,537	8,876	8,439	7,840	6,956	6,877	6,614
35 Banks in foreign countries	2,973	2,736	3,809	3,961	3,246	3,409	3,272	3,386	2,954
36 Nonbank depository and other financial institutions	8,465	8,352	8,519	8,172	8,078	8,425	8,408	8,221	8,013
37 For purchasing and carrying securities	5,327	5,622	4,490	6,039	4,990	6,712	4,557	4,968	4,288
38 To finance agricultural production	136	146	157	147	146	146	145	150	159
39 To states and political subdivisions	4,734	4,720	4,668	4,648	4,592	4,585	4,548	4,515	4,470
40 To foreign governments and official institutions	342	267	448	267	339	535	311	234	374
41 All other	5,704	5,683	5,784	5,620	5,322	5,812	4,689	5,539	5,863
42 Lease financing receivables	5,568	5,589	5,627	5,694	5,685	5,672	5,692	5,686	5,753
43 LESS: *Unearned income*	1,826	1,829	1,835	1,858	1,869	1,863	1,866	1,873	1,870
44 *Loan and lease reserve*	14,051	13,928	13,963	13,951	14,218	14,059	13,770	13,752	13,622
45 Other loans and leases, net[6]	166,215[r]	165,726[r]	168,013[r]	169,797[r]	165,813[r]	168,456	163,807	164,779	162,208
46 All other assets[7]	57,453[r]	54,257[r]	57,558[r]	57,114[r]	58,650[r]	60,890	58,156	58,782	54,579
47 **Total assets**	**316,774**	**303,775**	**324,311**	**315,683**	**302,562**	**318,846**	**302,966**	**307,238**	**300,204**
Deposits									
48 Demand deposits	55,134	44,751	58,835	47,894	45,519	50,937	45,219	47,558	52,063
49 Individuals, partnerships, and corporations	36,853	32,363	41,742	33,485	30,876	35,010	32,015	33,036	33,760
50 States and political subdivisions	813	614	657	655	466	641	565	780	1,539
51 U.S. government	288	197	338	152	186	202	161	216	168
52 Depository institutions in the United States	7,806	3,900	7,722	4,628	4,571	4,669	4,302	4,652	5,340
53 Banks in foreign countries	5,330	3,728	4,934	5,154	5,036	5,308	4,977	4,648	5,423
54 Foreign governments and official institutions	836	553	1,216	738	681	1,261	786	986	1,112
55 Certified and officers' checks	3,209	3,397	2,226	3,082	3,703	3,846	2,414	3,241	4,721
56 Transaction balances other than demand deposits (ATS, NOW, Super NOW, telephone transfers)	8,832	8,737	8,779	8,571	8,489	8,957	8,858	8,782	8,348
57 Nontransaction balances	117,472	116,647	119,678	116,813	116,135	116,329	115,465	114,546	112,195
58 Individuals, partnerships, and corporations	109,254	108,521	111,570	108,796	108,150	108,562	107,786	107,119	104,763
59 States and political subdivisions	6,058	6,022	6,012	5,945	5,891	5,681	5,602	5,501	5,518
60 U.S. government	37	37	41	41	41	38	43	44	47
61 Depository institutions in the United States	1,929	1,877	1,856	1,856	1,870	1,867	1,852	1,700	1,687
62 Foreign governments, official institutions, and banks	194	189	199	175	182	181	181	183	180
63 Liabilities for borrowed money	72,464	69,674	76,139	79,253	70,446	77,416	72,036	72,997	62,433
64 Borrowings from Federal Reserve Banks	0	0	0	6,232	0	1,325	0	525	0
65 Treasury tax-and-loan notes	2,045	2,640	3,040	4,688	4,638	2,574	3,676	7,280	6,114
66 All other liabilities for borrowed money[8]	70,419	67,033	73,099	68,332	65,807	73,516	68,360	65,192	56,319
67 Other liabilities and subordinated notes and debentures	37,171	38,050	35,298	37,610	36,612	39,747	35,593	37,921	39,867
68 **Total liabilities**	**291,074**	**277,859**	**298,730**	**290,143**	**277,201**	**293,386**	**277,171**	**281,804**	**274,906**
69 Residual (total assets minus total liabilities)[9]	25,700	25,916	25,580	25,541	25,362	25,460	25,794	25,434	25,298
MEMO									
70 Total loans and leases (gross) and investments adjusted[2,10]	224,116[r]	222,957[r]	226,989[r]	225,472[r]	220,766[r]	224,528	219,637	221,043	215,836
71 Total loans and leases (gross) adjusted[10]	188,137[r]	186,819[r]	190,684[r]	189,152[r]	183,808[r]	187,588	182,737	183,958	178,420
72 Time deposits in amounts of $100,000 or more	39,617	39,215	39,628	38,643	38,116	37,544	37,585	37,239	35,613
73 U.S. Treasury securities maturing in one year or less	2,683	2,394	2,516	2,524	2,644	2,456	2,200	2,149	2,058

1. These data also appear in the Board's H.4.2 (504) release. For address, see inside front cover.
2. Excludes trading account securities.
3. Not available due to confidentiality.
4. Includes U.S. government-issued or guaranteed certificates of participation in pools of residential mortgages.
5. Includes securities purchased under agreements to resell.
6. Includes allocated transfer risk reserve.
7. Includes trading account securities.
8. Includes federal funds purchased and securities sold under agreements to repurchase.
9. Not a measure of equity capital for use in capital adequacy analysis or for other analytic uses.
10. Exclusive of loans and federal funds transactions with domestic commercial banks.

1.30 LARGE WEEKLY REPORTING U.S. BRANCHES AND AGENCIES OF FOREIGN BANKS[1] Assets and Liabilities

Millions of dollars, Wednesday figures

Account	1990								
	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
1 Cash and due from depository institutions	13,975	15,706	14,755	15,019	14,262	15,218	14,389	14,490	14,492
2 Total loans and securities	154,212	157,005	158,374	160,028[r]	158,446[r]	157,326	156,471	159,729	159,915
3 U.S. Treasury and government agency securities	10,629	10,189	10,524	10,591	10,258	10,519	10,302	10,574	11,076
4 Other securities	7,217	7,292	7,263	7,272	7,266	7,317	7,317	7,324	7,324
5 Federal funds sold[2]	7,157	7,994	8,053	8,418	8,267	6,640	5,377	7,016	8,960
6 To commercial banks in the United States	6,126	6,788	6,996	7,264	7,290	5,710	4,428	5,722	7,883
7 To others	1,031	1,206	1,057	1,154	977	930	949	1,294	1,077
8 Other loans, gross	129,209	131,530	132,534	133,747[r]	132,655[r]	132,850	133,475	134,815	132,555
9 Commercial and industrial	75,352[r]	75,773	77,540	77,064	75,964[r]	77,426	75,919	76,769	76,633
10 Bankers acceptances and commercial paper	2,129	2,234	2,282	2,149	2,358	2,392	2,414	2,636	2,566
11 All other	73,223[r]	73,539	75,258	74,915	73,606[r]	75,034	73,505	74,133	74,067
12 U.S. addressees	71,909[r]	72,212	73,913	73,531	72,272[r]	73,690	72,217	72,727	72,699
13 Non-U.S. addressees	1,314	1,327	1,345	1,384	1,334	1,344	1,288	1,406	1,368
14 Loans secured by real estate[3]	24,060[r]	24,169	24,149	24,214	24,345[r]	24,459	24,573	24,632	24,692
15 To financial institutions	26,465	27,580	26,425	27,223[r]	27,768[r]	26,660	27,275	27,818	26,488
16 Commercial banks in the United States	20,504	21,457	20,239	20,918	20,839	19,731	20,713	21,222	19,682
17 Banks in foreign countries	1,028	1,163	1,320	1,503	1,923	1,770	1,628	1,556	1,688
18 Nonbank financial institutions	4,933	4,960	4,866	4,802[r]	5,006[r]	5,159	4,934	5,040	5,118
19 To foreign governments and official institutions	208	227	209	208	214	224	233	219	230
20 For purchasing and carrying securities	1,663	2,174	2,887	3,488[r]	2,955[r]	2,726	4,037	3,939	2,983
21 All other[3]	1,461	1,607	1,324	1,550	1,409	1,355	1,438	1,438	1,529
22 Other assets (claims on nonrelated parties)	33,752	33,783	33,249	33,257	32,824	32,703	32,502	31,468	32,071
23 Net due from related institutions	17,175	15,693	19,522	14,844	14,157	15,260	12,044	14,450	11,611
24 Total assets	219,118	222,188	225,902	223,146	219,690	220,508	215,406	220,139	218,091
25 Deposits or credit balances due to other than directly related institutions	48,720[r]	49,133[r]	49,364[r]	49,598[r]	48,643[r]	49,373	49,313	49,184	48,299
26 Transaction accounts and credit balances[4]	4,347[r]	4,332	4,465	4,321	4,125	4,645	4,558	4,894	4,897
27 Individuals, partnerships, and corporations	2,840	2,778	2,864	2,908	2,796	3,082	2,817	3,046	2,981
28 Other	1,507[r]	1,554	1,601	1,413	1,329	1,563	1,741	1,848	1,916
29 Nontransaction accounts[5]	44,373[r]	44,801[r]	44,899[r]	45,277[r]	44,518[r]	44,728	44,755	44,290	43,402
30 Individuals, partnerships, and corporations	36,300[r]	36,314[r]	35,941[r]	35,665[r]	35,510[r]	35,139	34,669	34,244	34,012
31 Other	8,073[r]	8,487[r]	8,958[r]	9,612[r]	9,008[r]	9,589	10,086	10,046	9,390
32 Borrowings from other than directly related institutions	111,948[r]	112,608[r]	117,008[r]	114,970[r]	109,748[r]	109,432	108,316	110,787	107,506
33 Federal funds purchased[6]	56,633[r]	52,051[r]	56,946[r]	53,348[r]	50,093[r]	52,191	51,631	56,431	49,808
34 From commercial banks in the United States	29,059	25,886	32,304	27,323	25,291	27,407	26,363	29,101	27,001
35 From others	27,574[r]	26,165[r]	24,642[r]	26,025[r]	24,802[r]	24,784	25,268	27,330	22,807
36 Other liabilities for borrowed money	55,315	60,557	60,062	61,622	59,655	57,241	56,685	54,356	57,698
37 To commercial banks in the United States	31,749	33,314	34,374	33,980	33,679	32,981	31,287	29,886	29,178
38 To others	23,566	27,243	25,688	27,642	25,976	24,260	25,398	24,470	28,520
39 Other liabilities to nonrelated parties	33,774[r]	33,273	33,996	33,118	32,946	32,536	33,030	31,997	31,999
40 Net due to related institutions	24,674	27,174	25,532	25,460	28,354	29,167	24,747	28,172	30,287
41 Total liabilities	219,118	222,188	225,902	223,146	219,690	220,508	215,406	220,139	218,091
MEMO									
42 Total loans (gross) and securities adjusted[7]	127,582	128,760	131,139	131,846[r]	130,317[r]	131,885	131,330	132,785	132,350
43 Total loans (gross) adjusted[7]	109,736	111,279	113,352	113,983[r]	112,793[r]	114,049	113,711	114,887	113,950

1. Effective Jan. 4, 1989, the reporting panel includes a new group of large U.S. branches and agencies of foreign banks. *Earlier data included 65 U.S. branches* and agencies of foreign banks that included those branches and agencies with assets of $750 million or more on June 30, 1980, plus those branches and agencies that had reached the $750 million asset level on Dec. 31, 1984. These data also appear in the Board's H.4.2 (504) release. For address, see inside front cover.
2. Includes securities purchased under agreements to resell.
3. Effective Jan. 4, 1989, loans secured by real estate are being reported as a separate component of Other loans, gross. Formerly, these loans were included in *"All other", line 21.*
4. Includes credit balances, demand deposits, and other checkable deposits.
5. Includes savings deposits, money market deposit accounts, and time deposits.
6. Includes securities sold under agreements to repurchase.
7. Exclusive of loans to and federal funds sold to commercial banks in the United States.

1.31 GROSS DEMAND DEPOSITS Individuals, Partnerships, and Corporations[1]

Billions of dollars, estimated daily-average balances, not seasonally adjusted

Type of holder	1985 Dec.	1986 Dec.	1987 Dec.	1988 Dec.	1989 Mar.	1989 June	1989 Sept.	1989 Dec.	1990 Mar.	1990 June
	Commercial banks									
1 **All holders—Individuals, partnerships, and corporations**	**321.0**	**363.6**	**343.5**	**354.7**	**330.4**	**329.3**	**337.3**	**352.2**	**328.7**	**334.3**
2 Financial business	32.3	41.4	36.3	38.6	36.3	33.0	33.7	33.8	34.1	34.9
3 Nonfinancial business	178.5	202.0	191.9	201.2	182.2	185.9	190.4	202.5	183.3	186.5
4 Consumer	85.5	91.1	90.0	88.3	87.4	86.6	87.9	90.3	86.6	86.4
5 Foreign	3.5	3.3	3.4	3.7	3.7	2.9	2.9	3.1	3.0	3.1
6 Other	21.2	25.8	21.9	22.8	20.7	21.0	22.4	22.5	21.7	23.5
	Weekly reporting banks									
7 **All holders—Individuals, partnerships, and corporations**	**168.6**	**195.1**	**183.8**	**198.3**	**181.9**	**182.2**	**186.6**	**196.7**	**183.7**	**186.3**
8 Financial business	25.9	32.5	28.6	30.5	27.2	25.4	26.3	27.6	25.6	25.0
9 Nonfinancial business	94.5	106.4	100.0	108.7	98.6	99.8	101.6	108.8	100.1	101.7
10 Consumer	33.2	37.5	39.1	42.6	41.1	42.4	43.0	44.1	42.4	43.3
11 Foreign	3.1	3.3	3.3	3.6	3.3	2.9	2.8	3.0	2.8	2.9
12 Other	12.0	15.4	12.7	12.9	11.7	11.7	12.9	13.2	12.8	13.3

1. Figures include cash items in process of collection. Estimates of gross deposits are based on reports supplied by a sample of commercial banks. Types of depositors in each category are described in the June 1971 *Bulletin*, p. 466. Figures may not add to totals because of rounding.

2. Beginning in March 1984, these data reflect a change in the panel of weekly reporting banks, and are not comparable to earlier data. Estimates in billions of dollars for December 1983 based on the new weekly reporting panel are: financial business, 24.4; nonfinancial business, 80.9; consumer, 30.1; foreign, 3.1; other 9.5.

Beginning March 1985, financial business deposits and, by implication, total gross demand deposits have been redefined to exclude demand deposits due to thrift institutions. Historical data have not been revised. The estimated volume of such deposits for December 1984 is $5.0 billion at all insured commercial banks and $3.0 billion at weekly reporting banks.

Historical data back to March 1985 have been revised to account for corrections of bank reporting errors. Historical data before March 1985 have not been revised, and may contain reporting errors. Data for all commercial banks for March 1985 were revised as follows (in billions of dollars): all holders, −.3; financial business, −.8; nonfinancial business, −.4; consumer, .9; foreign, .1; other, −.1. Data for weekly reporting banks for March 1985 were revised as follows (in billions of dollars): all holders, −.1; financial business, −.7; nonfinancial business, −.5; consumer, 1.1; foreign, .1; other, −.2.

3. Beginning March 1988, these data reflect a change in the panel of weekly reporting banks, and are not comparable to earlier data. Estimates in billions of dollars for December 1987 based on the new weekly reporting panel are: financial business, 29.4; nonfinancial business, 105.1; consumer, 41.1; foreign, 3.4; other, 13.1.

1.32 COMMERCIAL PAPER AND BANKERS DOLLAR ACCEPTANCES OUTSTANDING

Millions of dollars, end of period

Instrument	1985 Dec.	1986 Dec.	1987 Dec.	1988 Dec.	1989 Dec.	1990					
						Mar.	Apr.	May	June	July	Aug.
	Commercial paper (seasonally adjusted unless noted otherwise)										
1 **All issuers**	**298,779**	**329,991**	**358,056**	**457,297**	**529,055**	**546,786**	**544,481**	**538,686**	**537,023**	**545,849**	**546,491**
Financial companies[1]											
Dealer-placed paper[2]											
2 Total	78,443	101,072	102,844	160,094	187,084	184,097	185,107	186,155	191,463	199,466	199,099
3 Bank-related (not seasonally adjusted)[3]	1,602	2,265	1,428	1,248	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Directly placed paper[4]											
4 Total	135,320	151,820	173,980	194,537	212,210	215,501	213,843	209,203	202,101	202,829	202,217
5 Bank-related (not seasonally adjusted)[3]	44,778	40,860	43,173	43,155	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6 Nonfinancial companies[5]	85,016	77,099	81,232	102,666	129,761	147,188	145,531	143,328	143,459	143,554	145,375
	Bankers dollar acceptances (not seasonally adjusted)[6]										
7 **Total**	**68,413**	**64,974**	**70,565**	**66,631**	**62,972**	**55,865**	**53,945**	**54,766**	**53,750**	**52,006**	**52,324**
Holder											
8 Accepting banks	11,197	13,423	10,943	9,086	9,433	9,574	9,200	9,000	9,972	9,628	9,944
9 Own bills	9,471	11,707	9,464	8,022	8,510	8,386	7,850	7,632	8,639	8,395	7,895
10 Bills bought	1,726	1,716	1,479	1,064	924	1,188	1,350	1,368	1,332	1,233	2,049
Federal Reserve Banks											
11 Own account	0	0	0	0	0	0	0	0	0	0	0
12 Foreign correspondents	937	1,317	965	1,493	1,066	1,180	1,141	1,291	1,507	1,571	1,560
13 Others	56,279	50,234	58,658	56,052	52,473	45,111	43,604	44,475	42,271	40,806	40,821
Basis											
14 Imports into United States	15,147	14,670	16,483	14,984	15,651	14,418	13,413	13,993	14,801	13,691	13,188
15 Exports from United States	13,204	12,960	15,227	14,410	13,683	12,161	12,610	12,727	12,511	12,186	12,221
16 All other	40,062	37,344	38,855	37,237	33,638	29,286	27,922	28,046	26,438	26,129	26,915

1. Institutions engaged primarily in activities such as, but not limited to, 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. Beginning January 1989, bank-related series have been discontinued.
4. As reported by financial companies that place their paper directly with investors.
5. Includes public utilities and firms engaged primarily in such activities as communications, construction, manufacturing, mining, wholesale and retail trade, transportation, and services.
6. Beginning January 1988, the number of respondents in the bankers acceptance survey were reduced from 155 to 111 institutions—those with $100 million or more in total acceptances. The panel is revised every January and currently has about 100 respondents. The current reporting group accounts for over 90 percent of total acceptances activity.

1.33 PRIME RATE CHARGED BY BANKS on Short-Term Business Loans

Percent per year

Date of change	Rate	Period	Average rate	Period	Average rate	Period	Average rate
1987— Apr. 1	7.75	1987	8.21	1988— Jan.	8.75	1989— July	10.98
May 1	8.00	1988	9.32	Feb.	8.51	Aug.	10.50
15	8.25	1989	10.87	Mar.	8.50	Sept.	10.50
Sept. 4	8.75			Apr.	8.50	Oct.	10.50
Oct. 7	9.25	1987— Jan.	7.50	May	8.84	Nov.	10.50
22	9.00	Feb.	7.50	June	9.00	Dec.	10.50
Nov. 5	8.75	Mar.	7.50	July	9.29		
		Apr.	7.75	Aug.	9.84	1990— Jan.	10.11
1988— Feb. 2	8.50	May	8.14	Sept.	10.00	Feb.	10.00
May 11	9.00	June	8.25	Oct.	10.00	Mar.	10.00
July 14	9.50	July	8.25	Nov.	10.05	Apr.	10.00
Aug. 11	10.00	Aug.	8.25	Dec.	10.50	May	10.00
Nov. 28	10.50	Sept.	8.70			June	10.00
		Oct.	9.07	1989— Jan.	10.50	July	10.00
1989— Feb. 10	11.00	Nov.	8.78	Feb.	10.93	Aug.	10.00
24	11.50	Dec.	8.75	Mar.	11.50	Sept.	10.00
June 5	11.00			Apr.	11.50	Oct.	10.00
July 31	10.50			May	11.50		
				June	11.07		
1990— Jan. 8	10.00						

NOTE. These data also appear in the Board's H.15 (519) and G.13 (415) releases. For address, see inside front cover.

1.35 INTEREST RATES Money and Capital Markets

Averages, percent per year; weekly, monthly and annual figures are averages of business day data unless otherwise noted.

Instrument	1987	1988	1989	1990				1990, week ending				
				June	July	Aug.	Sept.	Aug. 31	Sept. 7	Sept. 14	Sept. 21	Sept. 28
MONEY MARKET RATES												
1 Federal funds[1,2]	6.66	7.57	9.21	8.29	8.15	8.13	8.20	8.08	8.25	8.12	8.18	8.26
2 Discount window borrowing[1,2,3]	5.66	6.20	6.93	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Commercial paper[4,5]												
3 1-month	6.74	7.58	9.11	8.21	8.09	7.99	8.09	8.03	7.96	8.02	8.10	8.26
4 3-month	6.82	7.66	8.99	8.14	7.99	7.88	7.96	7.96	7.85	7.88	7.96	8.13
5 6-month	6.85	7.68	8.80	8.06	7.90	7.77	7.83	7.89	7.72	7.75	7.81	8.01
Finance paper, directly placed[4,5]												
6 1-month	6.61	7.44	8.99	8.12	7.99	7.88	7.98	7.94	7.88	7.94	7.99	8.08
7 3-month	6.54	7.38	8.72	8.01	7.87	7.69	7.74	7.78	7.66	7.71	7.76	7.82
8 6-month	6.37	7.14	8.16	7.79	7.66	7.46	7.50	7.56	7.47	7.48	7.50	7.55
Bankers acceptances[5,6]												
9 3-month	6.75	7.56	8.87	8.00	7.86	7.75	7.83	7.80	7.68	7.73	7.85	8.02
10 6-month	6.78	7.60	8.67	7.89	7.73	7.64	7.70	7.73	7.57	7.61	7.72	7.89
Certificates of deposit, secondary market[7]												
11 1-month	6.75	7.59	9.11	8.20	8.09	7.98	8.08	8.02	7.94	8.01	8.09	8.25
12 3-month	6.87	7.73	9.09	8.23	8.10	7.97	8.06	8.04	7.94	7.97	8.06	8.24
13 6-month	7.01	7.91	9.08	8.28	8.12	7.99	8.06	8.10	7.95	7.97	8.06	8.25
14 Eurodollar deposits, 3-month[8]	7.07	7.85	9.16	8.23	8.09	7.99	8.07	8.14	7.98	7.95	8.03	8.24
U.S. Treasury bills[5]												
Secondary market[9]												
15 3-month	5.78	6.67	8.11	7.73	7.62	7.45	7.36	7.46	7.38	7.38	7.38	7.29
16 6-month	6.03	6.91	8.03	7.63	7.52	7.38	7.32	7.44	7.34	7.32	7.31	7.30
17 1-year	6.33	7.13	7.92	7.53	7.40	7.26	7.24	7.32	7.23	7.24	7.25	7.25
Auction average[10]												
18 3-month	5.82	6.68	8.12	7.74	7.66	7.44	7.38	7.49	7.39	7.41	7.39	7.32
19 6-month	6.05	6.92	8.04	7.64	7.57	7.36	7.33	7.48	7.36	7.34	7.30	7.33
20 1-year	6.33	7.17	7.91	7.65	7.52	7.37	7.25	7.40	n.a.	n.a.	n.a.	7.25
CAPITAL MARKET RATES												
U.S. Treasury notes and bonds[11]												
Constant maturities[12]												
21 1-year	6.77	7.65	8.53	8.10	7.94	7.78	7.76	7.85	7.74	7.75	7.77	7.79
22 2-year	7.42	8.10	8.57	8.35	8.16	8.06	8.08	8.16	8.06	8.06	8.08	8.12
23 3-year	7.68	8.26	8.55	8.40	8.26	8.22	8.27	8.33	8.24	8.24	8.25	8.33
24 5-year	7.94	8.47	8.50	8.43	8.33	8.44	8.51	8.56	8.48	8.47	8.52	8.58
25 7-year	8.23	8.71	8.52	8.52	8.46	8.64	8.79	8.79	8.76	8.73	8.80	8.85
26 10-year	8.39	8.85	8.49	8.48	8.47	8.75	8.89	8.88	8.85	8.84	8.92	8.96
27 30-year	8.59	8.96	8.45	8.46	8.50	8.86	9.03	9.00	8.97	8.97	9.06	9.10
Composite[13]												
28 Over 10 years (long-term)	8.64	8.98	8.58	8.62	8.64	8.97	9.11	9.11	9.07	9.06	9.14	9.17
State and local notes and bonds												
Moody's series[14]												
29 Aaa	7.14	7.36	7.00	6.88	6.96	6.99	7.18	7.19	7.13	7.06	7.11	7.40
30 Baa	8.17	7.83	7.40	7.11	7.13	7.21	7.48	7.47	7.41	7.35	7.37	7.80
31 *Bond Buyer* series[15]	7.63	7.68	7.23	7.24	7.19	7.32	7.43	7.47	7.41	7.35	7.41	7.53
Corporate bonds												
Seasoned issues[16]												
32 All industries	9.91	10.18	9.66	9.67	9.65	9.84	10.02	9.98	9.98	9.97	10.00	10.11
33 Aaa	9.38	9.71	9.26	9.26	9.24	9.41	9.56	9.56	9.57	9.54	9.51	9.63
34 Aa	9.68	9.94	9.46	9.49	9.47	9.63	9.77	9.75	9.72	9.71	9.77	9.87
35 A	9.99	10.24	9.74	9.70	9.69	9.89	10.09	10.03	10.06	10.06	10.07	10.16
36 Baa	10.58	10.83	10.18	10.22	10.20	10.41	10.64	10.56	10.54	10.57	10.66	10.76
37 A-rated, recently offered utility bonds[17]	9.96	10.20	9.79	9.85	9.96	10.29	10.28	10.31	10.23	10.28	10.35	10.25
MEMO: Dividend/price ratio[18]												
38 Preferred stocks	8.37	9.23	9.05	9.01	8.94	8.97	9.05	9.02	9.01	9.04	9.00	9.13
39 Common stocks	3.08	3.64	3.45	3.36	3.37	3.65	3.85	3.76	3.76	3.79	3.81	4.03

1. Weekly, monthly and annual figures are averages of all calendar days, where the rate for a weekend or holiday is taken to be the rate prevailing on the preceding business day. The daily rate is the average of the rates on a given day weighted by the volume of transactions at these rates.
2. Weekly figures are averages for statement week ending Wednesday.
3. Rate for the Federal Reserve Bank of New York.
4. Unweighted average of offering rates quoted by at least five dealers (in the case of commercial paper), or finance companies (in the case of finance paper). Before November 1979, maturities for data shown are 30–59 days, 90–119 days, and 120–179 days for commercial paper; and 30–59 days, 90–119 days, and 150–179 days for finance paper.
5. Yields are quoted on a bank-discount basis, rather than in an investment yield basis (which would give a higher figure).
6. Dealer closing offered rates for top-rated banks. Most representative rate (which may be, but need not be, the average of the rates quoted by the dealers).
7. Unweighted average of offered rates quoted by at least five dealers early in the day.
8. Calendar week average. For indication purposes only.
9. Unweighted average of closing bid rates quoted by at least five dealers.
10. Rates are recorded in the week in which bills are issued. Beginning with the Treasury bill auction held on Apr. 18, 1983, bidders were required to state the percentage yield (on a bank discount basis) that they would accept to two decimal places. Thus, average issuing rates in bill auctions will be reported using two rather than three decimal places.
11. Yields are based on closing bid prices quoted by at least five dealers.
12. Yields adjusted to constant maturities by the U.S. Treasury. That is, yields are read from a yield curve at fixed maturities. Based on only recently issued, actively traded securities.
13. Averages (to maturity or call) for all outstanding bonds neither due nor callable in less than 10 years, including one very low yielding "flower" bond.
14. General obligations based on Thursday figures; Moody's Investors Service.
15. General obligations only, with 20 years to maturity, issued by 20 state and local governmental units of mixed quality. Based on figures for Thursday.
16. Daily figures from Moody's Investors Service. Based on yields to maturity on selected long-term bonds.
17. Compilation of the Federal Reserve. This series is an estimate of the yield on recently-offered, A-rated utility bonds with a 30-year maturity and 5 years of call protection. Weekly data are based on Friday quotations.
18. Standard and Poor's corporate series. Preferred stock ratio based on a sample of ten issues: four public utilities, four industrials, one financial, and one transportation. Common stock ratios on the 500 stocks in the price index.

NOTE. These data also appear in the Board's H.15 (519) and G.13 (415) releases. For address, see inside front cover.

1.36 STOCK MARKET Selected Statistics

Indicator	1987	1988	1989	1990 Jan.	1990 Feb.	1990 Mar.	1990 Apr.	1990 May	1990 June	1990 July	1990 Aug.	1990 Sept.
	Prices and trading (averages of daily figures)											
Common stock prices												
1 New York Stock Exchange (Dec. 31, 1965 = 50)	161.78	149.97	180.13	187.96	182.55	186.26	185.61	191.35	196.68	196.61	181.45	173.22
2 Industrial	195.31	180.83	228.04	225.79	220.60	226.14	226.86	234.85	242.42	245.86	226.73	216.81
3 Transportation	140.52	134.09	174.90	173.67	166.69	175.08	173.54	173.53	177.37	173.18	147.41	136.95
4 Utility	74.29	72.22	94.33	95.69	92.15	92.99	91.92	93.29	93.65	89.85	85.81	83.30
5 Finance	146.48	127.41	162.01	150.11	142.68	143.14	138.57	142.94	147.93	143.11	128.14	118.59
6 Standard & Poor's Corporation (1941–43 = 10)[1]	287.00	265.88	323.05	339.97	330.45	338.47	338.18	350.25	360.39	360.03	330.75	315.41
7 American Stock Exchange (Aug. 31, 1973 = 50)[2]	316.78	295.08	356.67	367.40	355.30	360.77	353.32	353.82	361.62	359.09	333.49	318.53
Volume of trading (thousands of shares)												
8 New York Stock Exchange	188,922	161,386	165,568	172,420	155,960	149,240	140,062	163,486	153,634	160,490	174,446	142,054
9 American Stock Exchange	13,832	9,955	13,124	14,831	13,735	15,133	13,961	14,005	12,421	12,529	15,881	11,668
	Customer financing (end-of-period balances, in millions of dollars)											
10 **Margin credit at broker-dealers**[3]	**31,990**	**32,740**	**34,320**	**32,640**	**31,480**	**30,760**	**31,060**	**31,600**	**31,720**	**32,130**	**30,350**	**29,640**
Free credit balances at brokers[4]												
11 Margin-account[5]	4,750	5,660	7,040	6,755	6,575	6,525	6,465	6,215	6,490	6,385	7,140	7,285
12 Cash-account	15,640	16,595	18,505	17,370	16,200	16,510	15,375	15,470	15,625	17,035	16,745	16,185

Margin requirements (percent of market value and effective date)[6]	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. Effective July 1976, includes a new financial group, banks and insurance companies. With this change the index includes 400 industrial stocks (formerly 425), 20 transportation (formerly 15 rail), 40 public utility (formerly 60), and 40 financial.
2. Beginning July 5, 1983, the American Stock Exchange rebased its index effectively cutting previous readings in half.
3. Beginning July 1983, under the revised Regulation T, margin credit at broker-dealers includes credit extended against stocks, convertible bonds, stocks acquired through 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.
4. Free credit balances are in accounts with no unfulfilled commitments to the brokers and are subject to withdrawal by customers on demand.
5. New series beginning June 1984.
6. These regulations, adopted by the Board of Governors pursuant to the Securities Exchange Act of 1934, limit the amount of credit to purchase and carry "margin securities" (as defined in the regulations) when such credit is collateralized by securities. Margin requirements on securities other than options 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. Effective Jan. 31, 1986, the SEC approved new maintenance margin rules, permitting margins to be the price of the option plus 15 percent of the market value of the stock underlying the option.

1.37 SELECTED FINANCIAL INSTITUTIONS Selected Assets and Liabilities

Millions of dollars, end of period

Account	1987	1988	1989 Oct.	1989 Nov.	1989 Dec.	1990 Jan.[r]	1990 Feb.[r]	1990 Mar.	1990 Apr.	1990 May	1990 June	1990 July
	SAIF-insured institutions											
1 **Assets**	**1,250,855**	**1,350,500**	**1,286,710**	**1,277,191**	**1,249,055**	**1,236,507**	**1,225,091**	**1,223,351[r]**	**1,210,383[r]**	**1,197,824**		
2 Mortgages	721,593	764,513	748,780	745,091	733,729	727,544	721,450	717,687	715,461[r]	708,574		
3 Mortgage-backed securities	201,828	214,587	181,464	176,386	170,532	169,414	167,259	167,683[r]	166,164	165,713		
4 Contra-assets to mortgage assets[1]	42,344	37,950	25,950	24,976	25,457	24,135	22,809	23,073[r]	21,984[r]	21,992		
5 Commercial loans	23,163	33,889	32,572	32,344	32,150	31,916	31,775	31,069[r]	30,932	30,352		
6 Consumer loans	57,902	61,922	59,722	59,372	58,685	57,322	56,821	56,785	56,641[r]	55,658		
7 Contra-assets to nonmortgage loans[2]	3,467	3,056	3,107	3,194	3,592	2,252	2,279	2,456[r]	2,229[r]	1,766		
8 Cash and investment securities	169,717	186,986	172,727	172,465	166,053	160,534	157,292	162,313[r]	153,348[r]	152,393	n.a.	n.a.
9 Other[3]	122,462	129,610	120,501	119,704	116,955	116,164	115,587	113,342[r]	112,051[r]	108,892		
10 **Liabilities and net worth**	**1,250,855**	**1,350,500**	**1,286,710**	**1,277,191**	**1,249,055**	**1,236,507**	**1,225,091**	**1,223,351[r]**	**1,210,383[r]**	**1,197,824**		
11 Savings capital	932,616	971,700	948,500	946,655	945,656	933,843	926,439	929,910[r]	916,058	902,634		
12 Borrowed money	249,917	299,400	275,979	268,462	252,230	252,942	248,134	246,875	246,647	241,983		
13 FHLBB	116,363	134,168	130,514	127,671	124,577	121,732	120,633	117,489	115,620	114,047		
14 Other	133,554	165,232	145,465	140,791	127,653	131,210	127,501	129,386	131,027	127,936		
15 Other	21,941	24,216	30,971	31,991	27,556	26,979	28,101	25,997[r]	27,366[r]	28,773		
16 Net worth	n.a.	n.a.	31,260	30,083	23,612	23,021	22,419	20,569[r]	20,326[r]	24,357		
	SAIF-insured federal savings banks											
17 **Assets**	**284,270**	**425,966**	**502,484**	**499,995**	**498,522**	**583,063**	**581,983**	**595,644**	**593,345**			
18 Mortgages	161,926	230,734	283,652	282,510	283,844	331,503	330,366	332,995	333,300			
19 Mortgage-backed securities	45,826	64,957	72,332	71,204	70,499	76,765	77,016	80,059	81,030			
20 Contra-assets to mortgage assets[1]	9,100	13,140	13,506	13,216	13,548	12,309	11,615	11,844	11,590			
21 Commercial loans	6,504	16,731	18,299	18,172	18,143	20,310	20,244	20,366	20,324			
22 Consumer loans	17,696	24,222	28,322	28,079	28,212	20,310	20,244	20,365	20,324			
23 Contra-assets to nonmortgage loans[2]	678	889	1,048	1,082	1,193	949	986	1,001	908			
24 Finance leases plus interest	591	880	1,085	1,092	1,101	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25 Cash and investment	35,347	61,029	65,193	65,191	64,538	70,742	70,054	76,158	72,618			
26 Other	24,069	35,412	40,799	40,852	39,981	45,444	46,238	46,371	46,180			
27 **Liabilities and net worth**	**284,270**	**425,966**	**502,484**	**499,995**	**498,522**	**583,063**	**581,983**	**595,644**	**593,345**			
28 Savings capital	203,196	298,197	355,923	355,874	360,547	418,555	419,246	433,000	429,469			
29 Borrowed money	60,716	99,286	114,231	111,369	108,448	126,398	124,171	126,253	126,240			
30 FHLBB	29,617	46,265	57,793	56,842	57,032	63,516	63,026	63,550	63,120			
31 Other	31,099	53,021	56,438	54,527	51,416	62,882	61,145	62,703	63,120			
32 Other	5,324	8,075	10,317	10,749	9,041	9,770	10,347	9,435	9,982			
33 Net worth	15,034	20,218	25,983	25,958	22,716	25,986	25,723	24,169	23,505			

1.37—Continued

Account	1987	1988	1989 Oct.	1989 Nov.	1989 Dec.	1990 Jan.[r]	1990 Feb.[r]	1990 Mar.	1990 Apr.	1990 May	1990 June	1990 July
	Credit unions[4]											
34 **Total assets/liabilities and capital**		**174,593**	**181,527**	**182,856**	**183,688**	**183,301**	**186,119**	**192,718**	**193,208**	**195,020**	**195,302**	**194,523**
35 Federal		114,566	118,887	119,682	120,666	120,489	122,885	126,690	127,250	128,648	128,142	127,564
36 State		60,027	62,640	63,174	63,022	62,812	63,234	66,028	65,958	66,372	67,160	66,959
37 Loans outstanding	n.a.	113,191	122,997	122,899	122,608	122,332	121,968	121,660	122,616	123,205	123,968	124,343
38 Federal		73,766	80,570	80,601	80,272	80,041	79,715	79,407	80,205	80,550	81,063	81,063
39 State		39,425	42,427	42,298	42,336	42,291	42,253	42,253	42,411	42,655	42,905	43,280
40 Savings		159,010	164,695	165,533	167,371	166,629	168,609	175,942	175,745	176,701	178,127	176,360
41 Federal		104,431	107,588	108,319	109,653	109,818	111,246	115,714	115,554	116,402	116,717	115,305
42 State		54,579	57,107	57,214	57,718	56,811	57,363	60,228	60,191	60,299	61,408	61,056
	Life insurance companies											
43 **Assets**	**1,044,459**	**1,166,870**	**1,276,510[r]**	**1,288,728[r]**	**1,299,756[r]**							
Securities												
44 Government	84,426	84,051	77,999[r]	77,092[r]	77,297[r]							
45 United States[5]	57,078	58,564	53,116[r]	52,203[r]	52,517[r]							
46 State and local	10,681	9,136	8,958[r]	9,013[r]	9,028[r]							
47 Foreign[6]	16,667	16,351	15,925[r]	15,876[r]	15,752[r]							
48 Business	569,199	660,416	747,782[r]	755,589[r]	764,521[r]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
49 Bonds	472,684	556,043	626,643[r]	632,563[r]	638,907[r]							
50 Stocks	96,515	104,373	121,139[r]	123,026[r]	125,614[r]							
51 Mortgages	203,545	232,863	250,019[r]	252,070[r]	254,215[r]							
52 Real estate	34,172	37,371	39,793[r]	39,834[r]	39,908[r]							
53 Policy loans	53,626	54,236	56,963[r]	57,183[r]	57,439[r]							
54 Other assets	89,586	93,358	103,954[r]	106,960[r]	106,376[r]							

1. Contra-assets are credit-balance accounts that must be subtracted from the corresponding gross asset categories to yield net asset levels. Contra-assets to mortgage loans, contracts, and pass-through securities include loans in process, unearned discounts and deferred loan fees, valuation allowances for mortgages "held for sale," and specific reserves and other valuation allowances.

2. Contra-assets are credit-balance accounts that must be subtracted from the corresponding gross asset categories to yield net asset levels. Contra-assets to nonmortgage loans include loans in process, unearned discounts and deferred loan fees, and specific reserves and valuation allowances.

3. Holding of stock in Federal Home Loan Bank and Finance leases plus interest are included in "Other" (line 9).

4. Data include all federally insured credit unions, both federal and state chartered, serving natural persons.

5. Direct and guaranteed obligations. Excludes federal agency issues not guaranteed, which are shown in the table under "Business" securities.

6. Issues of foreign governments and their subdivisions and bonds of the International Bank for Reconstruction and Development.

NOTE. *SAIF-insured institutions:* Estimates by the OTS for all institutions insured by the SAIF and based on the OTS thrift Financial Report.

SAIF-insured federal savings banks: Estimates by the OTS for federal savings banks insured by the SAIF and based on the OTS thrift Financial Report.

Credit unions: Estimates by the National Credit Union Administration for federally chartered and federally insured state-chartered credit unions serving natural persons.

Life insurance companies: Estimates of the American Council of Life Insurance for all life insurance companies in the United States. Annual figures are annual-statement asset values, with bonds carried on an amortized basis and stocks at year-end market value. Adjustments for interest due and accrued and for differences between market and book values are not made on each item separately but are included, in total, in "other assets."

As of June 1989 Savings bank data are no longer available.

1.38 FEDERAL FISCAL AND FINANCING OPERATIONS

Millions of dollars

Type of account or operation	Fiscal year 1988	Fiscal year 1989[r]	Fiscal year 1990	Calendar year 1990 Apr.	May	June	July	Aug.	Sept.
U.S. budget[1]									
1 Receipts, total	908,166	990,701	1,031,463	139,624	69,212	110,614	72,357	78,486	102,874
2 On-budget	666,675	727,035	749,809	106,775	45,514	83,717	50,446	56,284	78,542
3 Off-budget	241,491	263,666	281,654	32,849	23,698	26,897	21,911	22,202	24,332
4 Outlays, total	1,063,318	1,144,020	1,251,850	97,795[r]	111,693[r]	121,719[r]	98,280[r]	131,206[r]	82,026
5 On-budget	860,627	933,109	1,026,785	79,679[r]	91,742[r]	105,759[r]	79,833[r]	89,717[r]	80,613
6 Off-budget	202,691	210,911	225,065	18,116	19,951	15,960	18,447	41,489	1,413
7 Surplus, or deficit (−), total	−155,152	−153,319	−220,387	41,829[r]	−42,482[r]	−11,105[r]	−25,924[r]	−52,719[r]	20,848
8 On-budget	−193,952	−206,074	−276,976	27,096[r]	−46,229[r]	−22,042[r]	−29,388[r]	−33,432[r]	−2,071
9 Off-budget	38,800	52,755	56,589	14,733	3,747	10,937	3,464	−19,287	22,919
Source of financing (total)									
10 Borrowing from the public	166,139	141,806	264,453	−5,935	23,380	23,520	24,230[r]	47,329	−2,595
11 Operating cash (decrease, or increase (−))	−7,962	3,425	818	−20,830	25,594	−20,916	9,862	2,433	17,832
12 Other[2]	−3,025	8,088	−44,884	−15,064[r]	−6,492[r]	8,501[r]	−8,168[r]	2,957[r]	−421
MEMO									
13 Treasury operating balance (level, end of period)	44,398	40,973	40,155	39,296	13,702	34,618	24,756	22,323	40,155
14 Federal Reserve Banks	13,023	13,452	7,638	5,205	4,426	5,470	6,369	4,453	7,638
15 Tax and loan accounts	31,375	27,521	32,517	34,091	9,276	29,148	18,387	17,869	32,517

1. In accordance with the Balanced Budget and Emergency Deficit Control Act of 1985, all former off-budget entries are now presented on-budget. The Federal Financing Bank (FFB) activities are now shown as separate accounts under the agencies that use the FFB to finance their programs. The act has also moved two social security trust funds (Federal old-age survivors insurance and Federal disability insurance trust funds) off-budget.

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

SOURCE. *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government* and the *Budget of the U.S. Government*.

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

Millions of dollars

Source or type	Fiscal year 1988	Fiscal year 1989	Calendar year						
			1988	1989		1990	1990		
			H2	H1	H2	H1	July	Aug.	Sept.
RECEIPTS									
1 **All sources**	**908,166**	**990,701**	**449,330**	**527,574**	**470,329**	**548,977**	**72,357**	**78,486**	**102,874**
2 Individual income taxes, net	401,181	445,690	200,300	233,572	218,706r	243,087r	33,308r	36,455r	46,664
3 Withheld	341,435	361,386	179,600	174,230	193,296	190,219	32,211	34,610	30,806
4 Presidential Election Campaign Fund	33	32	4	28	3	30	31	29	1
5 Nonwithheld	132,199	154,839	29,880	121,563	33,303	117,675r	2,783	3,451	17,420
6 Refunds	72,487	70,567	9,186	62,251	7,898r	64,838r	1,716r	1,577r	1,562
Corporation income taxes									
7 Gross receipts	109,683	117,015	56,409	61,585	52,269	58,830	3,364	2,564	18,868
8 Refunds	15,487	13,723	7,250	7,259	6,842	8,326	1,307	956	1,524
9 Social insurance taxes and contributions, net	334,335	359,416	157,603	200,127	162,574	210,476	29,610	32,047	31,010
10 Employment taxes and contributions[2]	305,093	332,859	144,983	184,569	152,407	195,269	27,554	27,919	30,480
11 Self-employment taxes and contributions[3]	17,691	18,504	3,032	16,371	1,947	19,017	0	0	2,638
12 Unemployment insurance	24,584	22,011	10,359	13,279	7,909	12,929	1,701	3,712	186
13 Other net receipts[4]	4,659	4,546r	2,262	2,277	2,260	2,278	355	416	344
14 Excise taxes	35,604	34,386	19,299	16,814	16,799r	18,153r	3,052r	2,740r	2,774
15 Customs deposits	15,411	16,334	8,107	7,918	8,667	8,096	1,505	1,627	1,273
16 Estate and gift taxes	7,594	8,745	4,054	4,583	4,451	6,442	924	883	875
17 Miscellaneous receipts[5]	19,909	22,839	10,809	10,235	13,704r	12,222r	1,900r	3,127r	2,934
OUTLAYS									
18 **All types**	**1,063,318**	**1,144,020r**	**554,089r**	**565,425r**	**588,448r**	**640,982r**	**98,280r**	**131,206r**	**82,026**
19 National defense	290,361	303,559r	150,496	148,098	149,613	152,733	22,717	28,664	21,497
20 International affairs	10,471	9,574r	2,627	6,567	5,971r	6,770	28	1,039	1,957
21 General science, space, and technology	10,841	12,838r	5,852	6,238	7,091	6,974	1,283	1,333	1,132
22 Energy	2,297	3,702r	1,966	2,221	1,597	1,504	211	207	-357
23 Natural resources and environment	14,625	16,182r	9,072	7,022	9,183	7,343	1,375	1,388	1,517
24 Agriculture	17,210	16,948	6,911	9,619	4,132	7,450	417	98	67
25 Commerce and housing credit	18,828	29,091r	19,836	4,129	22,295	38,788	5,142	3,045	12,018
26 Transportation	27,272	27,608r	14,922	12,953	14,982	13,754	2,683	2,734	2,608
27 Community and regional development	5,294	5,361r	2,690	1,833	4,879	3,987	606	614	519
28 Education, training, employment, and social services	31,938	36,694r	16,162	18,083	18,663	19,537	2,198	3,417	2,730
29 Health	44,490	48,390r	23,360	24,078	25,339	29,488	5,103	5,585	4,804
30 Social security and medicare	297,828	317,506	149,017	162,195	162,322	175,997	30,226	49,891	8,623
31 Income security	129,332	136,031r	64,978	70,937	67,950	78,456	11,786	13,475	10,206
32 Veterans benefits and services	29,406	30,066	15,797	14,891	14,864	15,217	1,269	3,624	1,208
33 Administration of justice	8,436	9,422r	4,361	4,801	4,963	4,983	921	866	717
34 General government	9,518	9,124r	5,137	3,858	4,760	4,916	807	691	1,406
35 General-purpose fiscal assistance	1,816	n.a.	0	0	n.a.	n.a.	n.a.	n.a.	n.a.
36 *Net interest*[6]	151,748	169,317r	78,317	86,009	87,927	91,155	15,153	17,556	15,697
37 Undistributed offsetting receipts[7]	-36,967	-37,212	-18,771	-18,131	-18,935	-17,688	-3,634	-2,987	4,320

1. Functional details do not add to total outlays for calendar year data because revisions to monthly totals have not been distributed among functions. Fiscal year total for outlays does 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. Old-age, disability, and hospital insurance.
4. Federal employee retirement contributions and civil service retirement and disability fund.
5. Deposits of earnings by Federal Reserve Banks and other miscellaneous receipts.
6. Net interest function includes interest received by trust funds.
7. Consists of rents and royalties on the outer continental shelf and U.S. government contributions for employee retirement.

SOURCES. U.S. Department of the Treasury, *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government*, and the U.S. Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 1990*.

1.40 FEDERAL DEBT SUBJECT TO STATUTORY LIMITATION

Billions of dollars

Item	1988		1989				1990		
	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30
1 **Federal debt outstanding**	**2,614.6**	**2,707.3**	**2,763.6**	**2,824.0**	**2,881.1**	**2,975.5**	**3,081.9**	**3,175.5**	**3,266.1**
2 Public debt securities	2,602.2	2,684.4	2,740.9	2,799.9	2,857.4	2,953.0	3,052.0	3,143.8	3,233.3
3 Held by public	2,051.7	2,095.2	2,133.4	2,142.1	2,180.7	2,245.2	2,329.3	2,368.8	n.a.
4 Held by agencies	550.4	589.2	607.5	657.8	676.7	707.8	722.7	775.0	n.a.
5 Agency securities	12.4	22.9	22.7	24.0	23.7	22.5	29.9	31.7	n.a.
6 Held by public	12.2	22.6	22.3	23.6	23.5	22.4	29.8	31.6	n.a.
7 Held by agencies	.2	.3	.4	.5	.1	.1	.2	.2	n.a.
8 **Debt subject to statutory limit**	**2,586.9**	**2,669.1**	**2,725.6**	**2,784.6**	**2,829.8**	**2,921.7**	**2,988.9**	**3,077.0**	**3,161.2**
9 Public debt securities	2,586.7	2,668.9	2,725.5	2,784.3	2,829.5	2,921.4	2,988.6	3,076.6	3,160.9
10 Other debt[1]	.1	.2	.2	.2	.3	.3	.3	.4	.4
11 MEMO: Statutory debt limit	2,800.0	2,800.0	2,800.0	2,800.0	2,870.0	3,122.7	3,122.7	3,122.7	3,195.0

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

SOURCES. *Treasury Bulletin* and *Monthly Statement of the Public Debt of the United States*.

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

Billions of dollars, end of period

Type and holder	1986	1987	1988	1989	1989	1990		
					Q4	Q1	Q2	Q3
1 **Total gross public debt**	**2,214.8**	**2,431.7**	**2,684.4**	**2,953.0**	**2,953.0**	**3,052.0**	**3,143.8**	**3,233.3**
By type								
2 Interest-bearing debt	2,212.0	2,428.9	2,663.1	2,931.8	2,931.8	3,029.5	3,121.5	3,210.9
3 Marketable	1,619.0	1,724.7	1,821.3	1,945.4	1,945.4	1,995.3	2,028.0	2,092.8
4 Bills	426.7	389.5	414.0	430.6	430.6	453.1	453.5	482.5
5 Notes	927.5	1,037.9	1,083.6	1,151.5	1,151.5	1,169.4	1,192.7	1,218.1
6 Bonds	249.8	282.5	308.9	348.2	348.2	357.9	366.8	377.2
7 Nonmarketable[1]	593.1	704.2	841.8	986.4	986.4	1,034.2	1,093.5	1,118.2
8 State and local government series	110.5	139.3	151.5	163.3	163.3	163.5	164.3	161.3
9 Foreign issues[2]	4.7	4.0	6.6	6.8	6.8	37.1	36.4	n.a.
10 Government	4.7	4.0	6.6	6.8	6.8	37.1	36.4	36.0
11 Public	.0	.0	.0	.0	.0	.0	.0	.0
12 Savings bonds and notes	90.6	99.2	107.6	115.7	115.7	118.0	120.1	122.2
13 Government account series[3]	386.9	461.3	575.6	695.6	695.6	705.1	758.7	779.4
14 Non-interest-bearing debt	2.8	2.8	21.3	21.2	21.2	22.4	22.3	22.4
By holder[4]								
15 U.S. government agencies and trust funds	403.1	477.6	589.2	707.8	707.8	722.7	775.0	
16 Federal Reserve Banks	211.3	222.6	238.4	228.4	228.4	219.3	231.4	
17 Private investors	1,602.0	1,731.4	1,858.5	2,015.8	2,015.8	2,115.1	2,135.5	
18 Commercial banks	203.5	201.5	193.8	180.6	180.6	182.0	n.a.	
19 Money market funds	28.0	14.6	11.8	14.4	14.4	31.3	n.a.	
20 Insurance companies	105.6	104.9	107.3	107.9	107.9	108.0	n.a.	
21 Other companies	68.8	84.6	87.1	93.8	93.8	95.0	n.a.	n.a.
22 State and local Treasurys	262.8	284.6	313.6	337.1	337.1	338.0	n.a.	
Individuals								
23 Savings bonds	92.3	101.1	109.6	117.7	117.7	119.9	121.6	
24 Other securities	70.4	71.3	79.2	93.8	93.8	95.0	n.a.	
25 Foreign and international[5]	263.4	299.7	362.2	393.4	393.4	386.9	392.7	
26 Other miscellaneous investors[6]	506.6	569.1	593.9	674.3	674.3	754.9	n.a.	

1. Includes (not shown separately): Securities issued to the Rural Electrification Administration; depository bonds, retirement plan bonds, and individual retirement bonds.
2. Nonmarketable dollar-denominated and foreign currency-denominated series held by foreigners.
3. Held almost entirely by U.S. Treasury agencies and trust funds.
4. Data for Federal Reserve Banks and U.S. Treasury agencies and trust funds are actual holdings; data for other groups are Treasury estimates.
5. Consists of investments of foreign and international accounts. Excludes non-interest-bearing notes issued to the International Monetary Fund.
6. Includes savings and loan associations, nonprofit institutions, credit unions, mutual savings banks, corporate pension trust funds, dealers and brokers, certain U.S. Treasury deposit accounts, and federally-sponsored agencies.

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

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

Millions of dollars

	Item	1990 July	1990 Aug.	1990 Sept.	1990 Aug. 1	1990 Aug. 8	1990 Aug. 15	1990 Aug. 22	1990 Aug. 29	1990 Sept. 5	1990 Sept. 12	1990 Sept. 19	1990 Sept. 26
	IMMEDIATE TRANSACTIONS[2]												
	By type of security												
	U.S. government securities												
1	Bills	135,618	150,589	153,579	165,104	180,990	142,351	126,730	165,575	110,101	135,753	170,641	175,870
	Coupon securities												
2	Maturing in less than 3.5 years	124,839	162,366	143,274	151,200	254,307	144,551	131,341	146,503	99,855	131,682	144,204	169,377
3	Maturing in 3.5 to 7.5 years	119,918	120,685	111,268	123,264	182,708	109,405	105,121	100,355	82,269	103,290	115,933	118,763
4	Maturing in 7.5 to 15 years	45,979	67,972	47,187	52,395	103,473	80,974	50,396	52,945	36,014	47,860	51,471	44,935
5	Maturing in 15 years or more	69,519	76,686	53,050	68,094	115,514	98,123	60,166	52,514	32,046	57,216	55,014	53,796
	Federal agency securities												
	Debt												
6	Maturing in less than 3.5 years	22,963	19,543	21,755	28,705	18,522	16,011	17,029	22,775	24,547	16,962	21,489	22,578
7	Maturing in 3.5 to 7.5 years	3,382	2,772	2,197	2,877	3,483	3,303	2,788	2,087	1,289	2,482	2,751	1,798
8	Maturing in 7.5 years or more	5,019	3,894	2,569	3,793	4,451	4,372	3,673	3,761	2,246	2,933	2,314	2,215
	Mortgage-backed												
9	Pass-throughs	35,119	34,383	44,740	42,700	32,996	33,747	36,272	36,023	26,455	42,756	45,890	51,253
10	All others[3]	7,323	6,981	5,581	9,407	7,954	6,791	7,184	6,544	4,391	6,033	7,145	3,884
	By type of counterparty												
	Primary dealers and brokers												
11	U.S. government securities												
	Federal agency	309,875	360,883	322,125	348,483	539,401	353,942	299,091	307,981	224,871	308,573	338,057	356,053
12	Debt securities	10,909	8,240	8,550	11,138	8,761	8,265	6,746	8,551	8,388	8,033	8,577	7,881
13	Mortgage backed securities	20,070	19,094r	24,845	25,175	17,640	17,576	21,023	20,579	14,947	25,319	21,456	29,929
	Customers												
14	U.S. government securities												
	Federal agency	185,997	217,415	186,234	211,574	297,591	221,462	174,663	209,911	135,414	167,228	199,206	206,688
15	Debt securities	20,455	17,969	17,970	24,237	17,695	15,421	16,744	20,072	19,694	14,344	17,977	18,710
16	Mortgage-backed securities	22,372	22,269r	25,476	26,932	23,310	22,962	22,433	21,988	15,899	23,470	31,579	25,208
	FUTURE AND FORWARD TRANSACTIONS[4]												
	By type of deliverable security												
	U.S. government securities												
17	Bills	14,786	22,713r	20,912	18,743	40,631r	14,016	20,133	21,121	12,073	21,439	26,281	19,782
	Coupon securities												
18	Maturing in less than 3.5 years	6,441	8,400	5,852	7,380	12,096	7,893	6,399	9,282	3,730	5,662	6,210	6,209
19	Maturing in 3.5 to 7.5 years	3,078	3,405	2,227	1,738	4,284	2,633	2,984	4,476	2,341	1,149	2,709	1,968
20	Maturing in 7.5 to 15 years	4,140	6,829	4,498	3,886	10,686	6,898	5,654	6,031	3,417	4,964	5,068	3,449
21	Maturing in 15 years or more	30,248	50,828r	37,658	33,704	72,132r	54,946	45,455	43,631	27,260	40,521	40,188	34,328
	Federal agency securities												
	Debt												
22	Maturing in less than 3.5 years	452	236	151	101	48	437	108	447	59	83	198	228
23	Maturing in 3.5 to 7.5 years	163	287r	565	331	162	928	92	60	31	1,202	836	127
24	Maturing in 7.5 years or more	775	102	223	155	95	154	104	70	40	36	113	419
	Mortgage-backed												
25	Pass-throughs	40,660	42,167	37,292	32,094	42,653	55,723	43,127	38,132	19,787	37,102	46,035	39,457
26	All others[3]	7,332	7,223	4,847	6,469	9,843	7,594	7,553	5,358	3,959	4,508	6,383	2,552
	OPTION TRANSACTIONS[6]												
	By type of underlying securities												
	U.S. government securities												
27	Bills	26	55r	17	0	0	1	250	0	0	0	0	6
	Coupon securities												
28	Maturing in less than 3.5 years	1,978	3,393r	4,660	2,675	3,347	3,255	3,365	3,811	3,235	3,063	5,280	6,108
29	Maturing in 3.5 to 7.5 years	1,665	1,446r	1,476	1,956	2,983	748	866	934	1,818	923	1,943	1,335
30	Maturing in 7.5 to 15 years	954	1,550	909	1,051	2,111	1,666	1,549	1,175	1,048	968	340	1,342
31	Maturing in 15 years or more	8,099	14,228r	9,293	10,047	16,422	13,568	13,968	16,332	7,871	10,591	7,615	9,959
	Federal agency securities												
	Debt												
32	Maturing in less than 3.5 years	19	11	15	15	6	0	0	40	0	1	33	25
33	Maturing in 3.5 to 7.5 years	0	0	0	0	0	0	0	0	0	0	0	0
34	Maturing in 7.5 years or more	11	35	25	0	0	50	80	0	80	0	50	0
	Mortgage-backed												
35	Pass-throughs	2,394	2,600	1,875	2,183	3,162	3,409	2,745	1,802	1,014	2,949	1,676	1,729
36	All others[3]	0	0	34	0	0	0	0	0	0	118	0	10

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. Averages for transactions are based on the number of trading days in the period. Immediate, forward, and future transactions are reported at principal value, which does not include accrued interest; option transactions are reported at the face value of the underlying securities.

2. Transactions for immediate delivery include purchases or sales of securities (other than mortgage-backed 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 securities include purchases and sales for which delivery is scheduled in thirty days or less. Stripped securities are reported at market value by maturity of coupon or corpus.

3. Includes securities such as CMOs, REMICs; IOs, and POs.

4. Futures transactions are standardized agreements arranged on an exchange. Forward transactions are agreements made in the over-the-counter market that specify delayed delivery. All futures transactions are included regardless of time to delivery. Forward contracts for U.S. government securities and federal agency debt securities are included when the time to delivery is more than five days. Forward contracts for mortgage-backed securities are included when the time to delivery is more than thirty days.

5. 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. government and federal agency securities.

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

Millions of dollars

Item	1990 July	1990 Aug.	1990 Sept.	1990 Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
	Positions[2]											
NET IMMEDIATE[3]												
By type of security												
U.S. government securities												
1 Bills	3,032	6,815	0	6,610	6,517	9,520	6,587	4,975	5,733	7,840	1,870	2,183
Coupon securities												
2 Maturing in less than 3.5 years	3,183	5,395	0	5,050	7,415	6,879	1,538	6,286	3,685	1,513	-3,123	-1,919
3 Maturing in 3.5 to 7.5 years	3,781	-2,645	0	466	-1,681	-3,352	-4,255	-1,683	-2,829	-4,903	-6,286	-5,421
4 Maturing in 7.5 to 15 years	-6,018	-5,740	0	-7,117	-4,837	-5,312	-5,178	-7,079	-6,987	-7,016	-6,780	-8,039
5 Maturing in 15 years or more	-10,969	-12,241	0	-10,051	-12,406	-10,398	-12,494	-13,375	-14,352	-14,161	-14,008	-14,317
Federal agency securities												
Debt												
6 Maturing in less than 3.5 years	3,166	4,136	0	4,175	4,837	4,828	3,447	3,849	2,661	3,388	4,597	5,020
7 Maturing in 3.5 to 7.5 years	1,446	1,422	0	1,403	1,235	1,080	1,545	1,723	1,799	1,908	1,907	1,632
8 Maturing in 7.5 years or more	2,899	2,396	0	3,098	2,690	2,535	1,947	2,342	2,292	2,428	1,911	1,662
Mortgage-backed												
9 Pass-throughs	17,146	16,696	0	19,612	19,038	19,894	15,815	12,592	13,296	18,592	19,930	14,360
10 All others[4]	0	0	0	0	0	0	0	0	0	0	0	0
Other money market instruments												
11 Certificates of deposit	2,877	3,129	0	3,761	3,436	2,795	2,879	3,180	3,600	2,773	2,572	2,903
12 Commercial paper	6,146	7,489	0	7,375	9,049	7,846	5,984	6,541	9,425	7,934	6,674	5,638
13 Bankers' acceptances	1,030	1,193	0	994	1,169	1,508	1,133	1,002	1,148	946	1,219	605
FUTURE AND FORWARD[5]												
By type of deliverable security												
U.S. government securities												
14 Bills	-8,317	-15,495	0	-13,051	-18,829	-18,715	-15,794	-10,246	-11,096	-10,398	-12,907	-12,482
Coupon securities												
15 Maturing in less than 3.5 years	-771	-616	0	-16	-551	-680	-678	-578	-834	-71	-468	-678
16 Maturing in 3.5 to 7.5 years	-1,909	-1,728	0	-2,078	-2,465	-1,865	-1,116	-1,659	-878	-888	-1,540	-1,822
17 Maturing in 7.5 to 15 years	-798	327	0	-769	143	137	668	565	159	-50	481	588
18 Maturing in 15 years or more	-5,098	-2,405	0	-6,006	-3,406	-2,508	-1,621	-1,928	-1,152	91	801	948
Federal agency securities												
Debt												
19 Maturing in less than 3.5 years	-69	167	0	-99	45	148	115	397	177	174	113	73
20 Maturing in 3.5 to 7.5 years	-104	71	0	-126	-17	282	-2	70	5	194	68	29
21 Maturing in 7.5 years or more	162	-52	0	-17	-42	-139	6	-47	-21	-9	18	287
Mortgage-backed												
22 Pass-throughs	-11,755	-7,823	0	-11,658	-8,732	-11,313	-6,190	-5,320	-4,989	-10,152	-11,365	-5,536
23 All others[4]	0	0	0	0	0	0	0	0	0	0	0	0
Other money market instruments												
24 Certificates of deposit	35,615	47,770	0	29,540	43,378	33,875	63,054	55,075	41,825	52,817	50.326	68,577
25 Commercial paper	0	-3	0	0	0	0	0	-13	0	0	0	0
26 Bankers' acceptances	0	0	0	0	0	0	0	0	0	0	0	0
	Financing[6]											
Reverse repurchase agreements												
27 Overnight and continuing	148,001	157,064	0	158,942	153,860	161,066	160,550	152,563	156,881	154,733	167,521	149,268
28 Term	217,735	229,319	0	231,348	250,444	212,011	224,848	234,528	212,367	220,311	222,602	225,741
Reverse repurchase agreements												
29 Overnight and continuing	223,111	234,871	0	232,171	233,845	241,163	237,704	225,955	239,080	230,982	248,020	222,741
30 Term	179,589	189,849	0	189,706	210,937	177,140	184,504	193,893	165,155	173,862	178,720	180,331
Securities borrowed												
31 Overnight and continuing	42,585	45,459	0	45,126	43,148	42,080	47,678	47,948	49,055	49,227	49,383	53,214
32 Term	13,238	13,685	0	12,902	13,036	12,394	13,838	14,973	15,820	16,703	17,988	20,704
Securities lent												
33 Overnight and continuing	19,830	19,406	0	18,843	18,518	18,220	19,650	20,810	21,184	21,825	22,504	24,558
34 Term	1,290	480	0	807	539	335	829	203	362	566	1,055	2,490
Collateralized loans												
35 Overnight and continuing	4,503	5,058	0	4,839	5,918	4,119	5,000	4,369	8,051	4,203	4,893	3,342
36 Term	824	691	0	394	249	1,580	503	461	737	1,197	836	757
MEMO: Matched book[7]												
Reverse repurchases												
37 Overnight and continuing	92,712	100,242	0	102,235	99,169	101,014	105,318	95,007	100,852	100,590	108,545	95,866
38 Term	177,648	184,789	0	190,108	204,184	167,985	180,166	189,082	174,209	180,126	179,354	181,130
Repurchases												
39 Overnight and continuing	124,806	131,250	0	134,759	129,610	127,391	137,781	127,388	139,395	137,282	143,847	126,605
40 Term	139,661	148,876	0	152,319	170,604	135,251	144,808	149,716	130,087	137,627	142,581	141,782

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. Data for positions and financing are averages of close-of- business Wednesday weekly data.
2. Securities positions are reported at market value.
3. 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 settle on the issue date of offering. Net immediate positions of mortgage-backed securities include securities purchased or sold that have been delivered or are scheduled to be delivered in thirty days or less.
4. Includes securities such as CMOs, REMICs, IOs, and POs.
5. Futures positions are standardized contracts arranged on an exchange. Forward positions reflect agreements made in the over-the-counter market that specify delayed delivery. All futures positions are included regardless of time to delivery. Forward contracts for U.S. government securities and for federal agency debt securities are included when the time to delivery is more than five business days. Forward contracts for mortgage-backed securities are included when the time to delivery is more than thirty days.
6. 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 a requirement for advance notice by either party; term agreements have a fixed maturity of more than one business day.
7. Matched-book data reflect financial intermediation activity in which the borrowing and lending transactions are matched. Matched-book data are included in the financing breakdowns listed above. The reverse repurchase and repurchase numbers are not always equal due to the "matching" of securities of different values or types of collateralization.

1.44 FEDERAL AND FEDERALLY SPONSORED CREDIT AGENCIES Debt Outstanding

Millions of dollars, end of period

Agency	1986	1987	1988	1989	1990				
					Apr.	May	June	July	Aug.
1 **Federal and federally sponsored agencies**	**307,361**	**341,386**	**381,498**	**411,805**	**423,481**	**424,082**	**422,261**	**0**	**0**
2 Federal agencies	36,958	37,981	35,668	35,664	42,526	42,482	42,015	41,978	42,323
3 Defense Department[1]	33	13	8	7	7	7	7	7	7
4 Export-Import Bank[2,3]	14,211	11,978	11,033	10,985	11,017	11,017	11,150	11,150	11,150
5 Federal Housing Administration[4]	138	183	150	328	352	365	394	281	316
6 Government National Mortgage Association participation certificates[5]	2,165	1,615	0	0	0	0	0	0	0
7 Postal Service[6]	3,104	6,103	6,142	6,445	6,445	6,148	6,148	6,148	6,948
8 Tennessee Valley Authority	17,222	18,089	18,335	17,899	24,705	24,945	24,316	24,392	23,902
9 United States Railway Association[6]	85	0	0	0	0	0	0	0	0
10 Federally sponsored agencies[7]	270,553	303,405	345,830	375,407	380,955	381,600	380,245	0	0
11 Federal Home Loan Banks	88,758	115,727	135,836	136,087	127,401	125,515	123,021	119,692	118,380
12 Federal Home Loan Mortgage Corporation	13,589	17,645	22,797	26,148	28,789	30,444	31,049	27,716	27,589
13 Federal National Mortgage Association	93,563	97,057	105,459	116,064	117,357	118,108	117,964	118,356	119,248
14 Farm Credit Banks[8]	62,478	55,275	53,127	54,864	53,700	53,795	53,451	53,175	54,015
15 Student Loan Marketing Association[9]	12,171	16,503	22,073	28,705	31,664	31,696	32,392	32,218	32,605
16 Financing Corporation[10]	0	1,200	5,850	8,170	8,170	8,170	8,170	8,170	8,170
17 Farm Credit Financial Assistance Corporation[11]	0	0	690	847	847	847	1,172	1,172	1,172
18 Resolution Funding Corporation[12]	0	0	0	4,522	13,026	13,026	13,026	18,052	18,052
MEMO									
19 **Federal Financing Bank debt**[13]	***157,510***	***152,417***	***142,850***	***134,873***	***136,957***	***141,536***	***157,685***	***162,443***	***166,017***
Lending to federal and federally sponsored agencies									
20 Export-Import Bank[3]	14,205	11,972	11,027	10,979	11,011	11,011	11,144	11,144	11,144
21 Postal Service[6]	2,854	5,853	5,892	6,195	6,195	5,898	5,898	5,898	6,698
22 Student Loan Marketing Association	4,970	4,940	4,910	4,880	4,880	4,880	4,880	4,880	4,880
23 Tennessee Valley Authority	15,797	16,709	16,955	16,519	15,325	15,565	14,936	15,012	14,522
24 United States Railway Association[6]	85	0	0	0	0	0	0	0	0
Other Lending[14]									
25 Farmers Home Administration	65,374	59,674	58,496	53,311	51,916	51,591	51,901	52,171	52,211
26 Rural Electrification Administration	21,680	21,191	19,246	19,265	19,191	19,182	19,168	19,066	19,043
27 Other	32,545	32,078	26,324	23,724	28,439	33,409	49,758	54,272	57,519

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. Off-budget Aug. 17, 1974, through Sept. 30, 1976; on-budget thereafter.
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 1969 by the Government National Mortgage Association acting as trustee for the Farmers Home Administration; Department of Health, Education, and Welfare; Department of Housing and Urban Development; Small Business Administration; and the Veterans Administration.
6. Off-budget.
7. Includes outstanding noncontingent liabilities: notes, bonds, and debentures. Some data are estimated.
8. Excludes borrowing by the Farm Credit Financial Assistance Corporation, shown in line 17.
9. Before late 1981, the Association obtained financing through the Federal Financing Bank (FFB). Borrowing excludes that obtained from the FFB, which is shown on line 21.
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. Includes FFB purchases of agency assets and guaranteed loans; the latter contain loans guaranteed by numerous agencies with the guarantees of any particular agency being generally small. The Farmers Home Administration item consists exclusively of agency assets, while the Rural Electrification Administration entry contains both agency assets and guaranteed loans.
14. The FFB, which began operations in 1974, is authorized to purchase or sell obligations issued, sold, or guaranteed by other federal agencies. Since FFB incurs debt solely for the purpose of lending to other agencies, its debt is not included in the main portion of the table in order to avoid double counting.

1.45 NEW SECURITY ISSUES Tax-Exempt State and Local Governments

Millions of dollars

Type of issue or issuer, or use	1987	1988	1989	1990 Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
	102,407	**114,522**	**113,646**	**6,329**	**9,880**	**8,582**	**12,032**	**13,625**	**8,731**	**10,035**	**13,930**
Type of issue											
2 General obligation	30,589	30,312	35,774	3,010	3,199	3,386	3,166	4,426	2,847	3,358	3,763
3 Revenue	71,818	84,210	77,873	3,319	6,681	5,196	8,866	9,199	5,884	6,677	10,167
Type of issuer											
4 State	10,102	8,830	11,819	1,196	707	1,387	1,003	1,090	1,442	1,610	2,317
5 Special district and statutory authority[2]	65,460	74,409	71,022	3,277	6,247	4,366	7,485	8,556	5,670	6,692	8,188
6 Municipalities, counties, and townships	26,845	31,193	30,805	1,856	2,926	2,243	3,544	3,977	1,742	2,195	3,425
7 **Issues for new capital, total**	**56,789**	**79,665**	**84,062**	**5,635**	**6,667**	**7,744**	**10,486**	**10,974**	**7,442**	**9,346**	**12,713**
Use of proceeds											
8 Education	9,524	15,021	15,133	1,420	1,018	1,054	1,694	2,612	2,212	1,389	1,472
9 Transportation	3,677	6,825	6,870	511	1,158	1,215	1,375	1,592	789	931	920
10 Utilities and conservation	7,912	8,496	11,427	718	502	991	1,232	2,159	719	1,015	687
11 Social welfare	11,106	19,027	16,703	432	1,425	2,664	2,628	2,199	2,012	3,508	3,995
12 Industrial aid	7,474	5,624	5,036	115	432	232	681	693	434	495	674
13 Other purposes	18,020	24,672	28,894	2,439	2,132	2,426	2,155	4,366	2,688	3,161	4,965

1. Par amounts of long-term issues based on date of sale.
2. Includes school districts beginning 1986.

SOURCES. Investment Dealer's Digest beginning April 1990. Securities Data/Bond Buyer Municipal Data Base beginning 1986. Public Securities Association for earlier data.

1.46 NEW SECURITY ISSUES U.S. Corporations

Millions of dollars

Type of issue or issuer, or use	1987	1988	1989	1990 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1 **All issues**[1]	**392,674**	**410,811**	**376,488**	**15,144**	**13,811**	**21,199**	**15,346**r	**25,164**r	**28,893**r	**19,868**r	**14,008**
2 **Bonds**[2]	**326,166**	**353,010**	**318,617**	**12,866**	**10,892**	**17,405**	**13,590**r	**22,813**r	**26,020**r	**17,621**r	**13,200**
Type of offering											
3 Public, domestic	209,790	202,132	181,230	10,814	9,985	15,498	12,669r	19,663r	22,809r	14,316r	12,000
4 Private placement, domestic[3]	92,070	127,700	114,629	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5. Sold abroad	24,306	23,178	22,758	2,052	907	1,907	921	3,150	3,211	3,305r	1,200
Industry group											
6 Manufacturing	60,657	70,574	76,345	2,036	2,488	3,396	3,612r	2,540	3,729	1,545	404
7 Commercial and miscellaneous	49,773	62,104	49,307	655	157	263	683	1,171	2,999	1,642	215
8 Transportation	11,974	10,075	10,050	35	53	386	194	927	1,001	270	500
9 Public utility	23,004	19,318	17,056	1,043	1,057	317	435	1,004	2,561	655	708
10 Communication	7,340	5,952	8,503	23	35	704	500	326	411	113	15
11 Real estate and financial	173,418	184,990	157,355	9,075	7,103	12,340	8,167	16,840	15,319r	13,396r	11,358
12 **Stocks**[2]	**66,508**	**57,802**	**57,870**	**2,278**	**2,919**	**3,794**	**1,756**	**2,351**	**2,873**	**2,247**	**808**
Type											
13 Preferred	10,123	6,544	6,194	50	167	1,028	193	665	310	350	145
14 Common	43,225	35,911	26,030	2,228	2,752	2,767	1,564	1,686	2,563r	1,897	663
15 Private placement[3]	13,157	15,346	25,647	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Industry group											
16 Manufacturing	13,880	7,608	9,308	835	431	521	253	86	265	348	125
17 Commercial and miscellaneous	12,888	8,449	7,611	125r	952r	552	666	706	748r	507	251
18 Transportation	2,439	1,535	1,929	0	0	0	0	22	21	0	71
19 Public utility	4,322	1,898	3,090	106	582	533	219	471	0	173	139
20 Communication	1,458	515	1,904	0	0	0	0	380	29	0	0
21 Real estate and financial	31,521	37,798	34,028	1,213r	954r	2,188	619	686	1,799	862	218

1. Figures which represent gross proceeds of issues maturing in more than one year, are principal amount or number of units multiplied by offering price. Excludes secondary offerings, employee stock plans, investment companies other than closed-end, intracorporate transactions, equities sold abroad, and Yankee bonds. Stock data include ownership securities issued by limited partnerships.
2. Monthly data include only public offerings.
3. Data are not available on a monthly basis. Before 1987, annual totals include underwritten issues only.

SOURCES. IDD Information Services, Inc., the Board of Governors of the Federal Reserve System, and before 1989, the U.S. Securities and Exchange Commission.

1.47 OPEN-END INVESTMENT COMPANIES Net Sales and Asset Position

Millions of dollars

Item	1988	1989	1990							
			Jan.	Feb.	Mar.	Apr.	May	June	July[r]	Aug.
INVESTMENT COMPANIES[1]										
1 **Sales of own shares**[2]	**271,237**	**306,445**	**35,620**	**26,118**	**28,817**	**29,788**	**27,431**	**28,301**	**29,444**	**29,227**
2 Redemptions of own shares[3]	267,451	272,165	27,331	20,978	23,777	27,306	23,337	23,340	22,933	24,837
3 Net sales	3,786	34,280	8,289	5,140	5,040	2,482	4,094	4,961	6,511	4,390
4 **Assets**[4]	**472,297**	**553,871**	**535,165**	**542,725**	**549,638**	**542,061**	**574,302**	**582,190**	**586,526**	**554,722**
5 Cash position[5]	45,090	44,780	48,865	51,356	50,454	55,213	52,741	49,861	48,944	51,103
6 Other	427,207	509,091	486,300	491,369	499,184	486,848	521,560	532,329	537,582	503,619

1. Data on sales and redemptions exclude money market mutual funds but include limited maturity municipal bond funds. Data on asset positions exclude both money market mutual funds and limited maturity municipal bond funds.
2. Includes reinvestment of investment income dividends. Excludes reinvestment of capital gains distributions and share issue of conversions from one fund to another in the same group.
3. Excludes share redemption resulting from conversions from one fund to another in the same group.
4. Market value at end of period, less current liabilities.
5. Also includes all U.S. government securities and other short-term debt securities.

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

1.48 CORPORATE PROFITS AND THEIR DISTRIBUTION

Billions of dollars; quarterly data are at seasonally adjusted annual rates.

Account	1987	1988	1989	1988		1989				1990	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1 Corporate profits with inventory valuation and capital consumption adjustment	308.3	337.6	311.6	334.4	349.6	327.3	321.4	306.7	290.9	296.8	306.6
2 Profits before tax	275.3	316.7	307.7	320.4	331.1	335.1	314.6	291.4	289.8	296.9	299.3
3 Profits tax liability	126.9	136.2	135.1	137.9	142.1	148.3	140.8	127.8	123.5	129.9	133.1
4 Profits after tax	148.4	180.5	172.6	182.5	189.1	186.7	173.8	163.6	166.3	167.1	166.1
5 Dividends	98.2	110.0	123.5	111.8	115.3	119.1	122.1	125.0	127.7	130.3	133.0
6 Undistributed profits	50.2	70.5	49.1	70.8	73.8	67.6	51.7	38.6	38.6	36.8	33.2
7 Inventory valuation	-19.4	-27.0	-21.7	-33.3	-22.5	-43.0	-23.1	-6.1	-14.5	-11.4	-.5
8 Capital consumption adjustment	52.4	47.8	25.5	47.3	40.9	35.2	29.9	21.4	15.6	11.3	7.7

SOURCE. *Survey of Current Business* (Department of Commerce).

1.50 TOTAL NONFARM BUSINESS EXPENDITURES on New Plant and Equipment ▲

Billions of dollars; quarterly data are at seasonally adjusted annual rates.

Industry	1988	1989	1990	1989				1990			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1 **Total nonfarm business**	**455.49**	**507.40**	**534.76**	**487.43**	**502.05**	**514.95**	**519.58**	**532.45**	**535.49**	**532.47**	**538.61**
Manufacturing											
2 Durable goods industries	77.04	82.56	84.69	80.20	82.44	83.60	83.41	86.35	84.34	83.63	84.45
3 Nondurable goods industries	86.41	101.24	107.75	92.53	98.47	102.40	108.47	105.02	110.82	108.74	106.42
Nonmanufacturing											
4 Mining	9.29	9.21	9.96	8.94	9.24	9.24	9.38	9.58	9.84	10.23	10.19
Transportation											
5 Railroad	5.52	6.26	5.89	6.02	5.81	6.36	6.80	6.45	6.66	5.34	5.10
6 Air	5.63	6.73	9.09	5.67	6.84	8.89	5.75	9.35	9.36	9.77	7.88
7 Other	5.48	5.85	6.13	6.15	5.78	5.78	5.69	6.33	5.84	5.50	6.83
Public utilities											
8 Electric	40.90	44.81	43.79	43.56	46.37	44.44	44.66	43.37	42.62	43.85	45.33
9 Gas and other	19.47	21.47	22.12	22.53	21.72	20.75	21.15	22.34	21.65	22.35	22.13
10 Commercial and other[2]	205.76	229.28	245.34	221.82	225.39	233.50	234.25	243.66	244.37	243.05	250.27

▲Trade and services are no longer being reported separately. They are included in Commercial and other, line 10.
1. Anticipated by business.
2. "Other" consists of construction; wholesale and retail trade; finance and insurance; personal and business services; and communication.

SOURCE. *Survey of Current Business* (Department of Commerce).

1.51 DOMESTIC FINANCE COMPANIES Assets and Liabilities[1]

Billions of dollars, end of period

Account	1985	1986	1987	1988	1989				1990	
				Q4	Q1	Q2	Q3	Q4	Q1	Q2
ASSETS										
Accounts receivable, gross[2]										
1 Consumer	111.9	134.7	141.1	146.2	139.1	143.9	146.3	140.8	137.9	138.6
2 Business	157.5	173.4	207.4	236.5	243.3	250.9	246.8	256.0	262.9	274.8
3 Real estate	28.0	32.6	39.5	43.5	45.1	47.1	48.7	48.9	52.1	55.4
4 Total	297.4	340.6	388.1	426.2	427.5	441.9	441.8	445.8	452.8	468.8
Less:										
5 Reserves for unearned income	39.2	41.5	45.3	50.0	51.0	52.2	52.9	52.0	51.9	54.3
6 Reserves for losses	4.9	5.8	6.8	7.3	7.4	7.5	7.7	7.7	7.9	8.2
7 Accounts receivable, net	253.3	293.3	336.0	368.9	369.2	382.2	381.3	386.1	393.0	406.3
8 All other	45.3	58.6	58.3	72.4	75.1	81.4	85.2	91.6	92.5	95.5
9 **Total assets**	**298.6**	**351.9**	**394.2**	**441.3**	**444.3**	**463.6**	**466.4**	**477.6**	**485.5**	**501.9**
LIABILITIES										
10 Bank loans	18.0	18.6	16.4	15.4	11.3	12.1	12.2	14.5	13.9	15.8
11 Commercial paper	99.2	117.8	128.4	142.0	147.8	149.0	147.2	149.5	152.9	152.4
Debt										
12 Other short-term	12.7	17.5	28.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13 Long-term	94.4	117.5	137.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14 Due to parent	n.a.	n.a.	n.a.	50.6	56.9	59.8	60.3	63.8	70.5	72.8
15 Not elsewhere classified	n.a.	n.a.	n.a.	137.9	133.6	140.5	145.1	147.8	145.7	153.0
16 All other liabilities	41.5	44.1	52.8	59.8	58.1	63.5	61.8	62.6	61.7	66.1
17 Capital, surplus, and undivided profits	32.8	36.4	31.5	35.6	36.6	38.8	39.8	39.4	40.7	41.8
18 **Total liabilities and capital**	**298.6**	**351.9**	**394.2**	**441.3**	**444.3**	**463.6**	**466.4**	**477.6**	**485.5**	**501.9**

1. Components may not add to totals because of rounding.

2. Excludes pools of securitized assets.

1.52 DOMESTIC FINANCE COMPANIES Business Credit Outstanding and Net Change[1]

Millions of dollars, seasonally adjusted

Type	1987	1988	1989	1990					
				Mar.	Apr.	May	June	July	Aug.
1 **Total**	**205,992**	**234,578**	**258,504**	**261,662**	**262,379**	**266,859**	**273,786**	**277,616[r]**	**283,043**
Retail financing of installment sales									
2 Automotive	36,139	36,957	39,139	39,264	39,550	39,245	39,716	38,931	38,610
3 Equipment	25,075	28,199	29,674	29,789	30,115	30,635	30,491	30,623	30,707
4 Pools of securitized assets[2]	n.a.	n.a.	698	704	662	622	642	800[r]	987
Wholesale									
5 Automotive	30,070	32,357	33,074	29,963	29,672	29,896	31,815	33,158	34,429
6 Equipment	5,578	5,954	6,896	9,408	9,372	9,429	9,495	9,929	9,812
7 All other	8,329	9,312	9,918	10,030	9,961	9,892	10,043	9,722	9,707
8 Pools of securitized assets[2]	n.a.	n.a.	0	0	0	0	0	0	650
Leasing									
9 Automotive	22,097	24,875	27,074	28,325	28,528	28,878	29,575	30,210	30,942
10 Equipment	43,493	57,658	68,112	68,755	69,473	72,715	74,916	76,316	78,714
11 Pools of securitized assets[2]	n.a.	n.a.	1,247	1,433	1,646	1,597	1,547	1,760	1,703
12 Loans on commercial accounts receivable and factored commercial accounts receivable	18,170	18,103	19,081	19,426	18,716	18,700	19,869	20,077	19,974
13 All other business credit	17,042	21,162	23,590	24,565	24,685	25,250	25,677	26,089	26,809
	Net change (during period)								
14 **Total**	**33,866**	**22,434**	**22,580**	**2,647**	**717**	**4,480**	**6,927**	**3,830[r]**	**5,427**
Retail financing of installment sales									
15 Automotive	9,925	819	2,182	140	286	−305	471	−785	−321
16 Equipment	2,056	1,386	1,475	306	327	520	−144	132	84
17 Pools of securitized assets[2]	n.a.	n.a.	−26	23	−42	−40	20	158[r]	187
Wholesale									
18 Automotive	7,158	2,288	716	472	−291	224	1,919	1,343	1,271
19 Equipment	250	377	940	254	−37	57	67	434	−118
20 All other	1,293	983	605	153	−69	−69	151	−321	−16
21 Pools of securitized assets[2]	n.a.	n.a.	0	0	0	0	0	0	650
Leasing									
22 Automotive	2,174	2,777	2,201	1,164	203	351	696	636	731
23 Equipment	5,271	9,752	9,187	−580	718	3,243	2,201	1,400	2,398
24 Pools of securitized assets[2]	n.a.	n.a.	526	56	213	−49	−50	213	−57
25 Loans on commercial accounts receivable and factored commercial accounts receivable	2,245	−65	979	272	−711	−16	1,169	208	−103
26 All other business credit	3,498	4,119	3,796	388	120	565	427	412	721

1. These data also appear in the Board's G.20 (422) release. For address, see inside front cover.

2. Data on pools of securitized assets are not seasonally adjusted.

1.53 MORTGAGE MARKETS

Millions of dollars; exceptions noted.

Item	1987	1988	1989	1990						
				Mar.	Apr.	May	June	July	Aug.	Sept.
	Terms and yields in primary and secondary markets									
PRIMARY MARKETS										
Conventional mortgages on new homes										
Terms[1]										
1 Purchase price (thousands of dollars)	137.0	150.0	159.6	138.2	155.5	162.1	149.8	163.5	161.5	156.6
2 Amount of loan (thousands of dollars)	100.5	110.5	117.0	100.9	114.6	119.7	111.8	120.9	118.3	114.8
3 Loan/price ratio (percent)	75.2	75.5	74.5	74.7	75.4	75.0	76.4	75.3	74.5	74.7
4 Maturity (years)	27.8	28.0	28.1	26.6	26.6	28.1	26.9	28.0	27.2	27.2
5 Fees and charges (percent of loan amount)[2]	2.26	2.19	2.06	1.96	2.00	2.41	1.96	1.93	2.07	1.78
6 Contract rate (percent per year)	8.94	8.81	9.76	9.70	9.83	9.87	9.80	9.75	9.75	9.60
Yield (percent per year)										
7 OTS series[3]	9.31	9.18	10.11	10.03	10.17	10.28	10.13	10.08	10.11	9.90
8 HUD series[4]	10.17	10.30	10.21	10.20	10.46	10.19	10.12	9.94	10.12	10.18
SECONDARY MARKETS										
Yield (percent per year)										
9 FHA mortgages (HUD series)[5]	10.16	10.49	10.24	10.30	10.75	10.23	10.18	10.11	10.28	10.24
10 GNMA securities[6]	9.44	9.83	9.71	9.53	9.77	9.77	9.54	9.48	9.63	9.65
	Activity in secondary markets									
FEDERAL NATIONAL MORTGAGE ASSOCIATION										
Mortgage holdings (end of period)										
11 Total	95,030	101,329	104,974	112,353	112,463	112,791	112,855	113,378	113,507	113,718
12 FHA/VA-insured	21,660	19,762	19,640	20,688	20,707	20,723	20,830	21,059	21,101	21,364
13 Conventional	73,370	81,567	85,335	91,665	91,756	92,068	92,025	92,319	92,406	92,354
Mortgage transactions (during period)										
14 Purchases	20,531	23,110	22,518	1,945	1,705	1,630	1,802	2,304	2,134	2,123
Mortgage commitments[7]										
15 Issued (during period)[8]	n.a.	n.a.	n.a.	1,754	1,568	1,960	2,089	2,215	2,302	2,073
16 To sell (during period)[9]	n.a.	n.a.	n.a.	398	518	534	853	874	761	644
FEDERAL HOME LOAN MORTGAGE CORPORATION										
Mortgage holdings (end of period)[9]										
17 Total	12,802	15,105	20,105	19,823	19,730	19,874	19,979	20,127	n.a.	n.a.
18 FHA/VA	686	620	590	561	555	556	550	546	n.a.	n.a.
19 Conventional	12,116	14,485	19,516	19,261	19,174	19,319	19,429	19,581	n.a.	n.a.
Mortgage transactions (during period)										
20 Purchases	76,845	44,077	78,588	6,301	5,719	6,064	5,856	4,527	n.a.	n.a.
21 Sales	75,082	39,780	73,446	6,503	5,687	5,792	5,546	4,248	4,705	5,266
Mortgage commitments[10]										
22 Contracted (during period)	71,467	66,026	88,519	6,119	10,441	8,502	11,183	5,851	n.a.	n.a.

1. Weighted averages based on sample surveys of mortgages originated by major institutional lender groups; compiled by the Federal Home Loan Bank 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 rates on loans closed, assuming prepayment at the end of 10 years.
4. Average contract rates on new commitments for conventional first mortgages; from Department of Housing and Urban Development.
5. Average gross yields on 30-year, minimum-downpayment, Federal Housing Administration-insured first mortgages for immediate delivery in the private secondary market. Based on transactions on first day of subsequent month. Large monthly movements in average yields may reflect market adjustments to changes in maximum permissable contract rates.
6. Average net yields to investors on Government National Mortgage Association guaranteed, mortgage-backed, fully modified pass-through securities, assuming prepayment in 12 years on pools of 30-year FHA/VA mortgages carrying the prevailing ceiling rate. Monthly figures are averages of Friday figures from the *Wall Street Journal*.
7. Includes some multifamily and nonprofit hospital loan commitments in addition to 1- to 4-family loan commitments accepted in FNMA's free market auction system, and through the FNMA-GNMA tandem plans.
8. Does not include standby commitments issued, but includes standby commitments converted.
9. Includes participation as well as whole loans.
10. Includes conventional and government-underwritten loans. FHLMC's mortgage commitments and mortgage transactions include activity under mortgage/securities swap programs, while the corresponding data for FNMA exclude swap activity.

1.54 MORTGAGE DEBT OUTSTANDING[1]

Millions of dollars, end of period

Type of holder, and type of property	1987	1988	1989	1989 Q2	1989 Q3	1989 Q4	1990 Q1	1990 Q2
1 **All holders**	**2,971,019**	**3,264,348**	**3,540,084**	**3,402,082**	**3,473,550**	**3,540,084**	**3,601,132**	**3,657,741**
2 1- to 4-family	1,958,400	2,186,292	2,404,311	2,287,645	2,347,566	2,404,311	2,450,291	2,492,784
3 Multifamily	272,500	289,128	305,582	299,449	302,374	305,582	310,273	314,360
4 Commercial	651,323	702,113	744,856	728,212	737,299	744,856	755,857	765,489
5 Farm	88,797	86,816	85,336	86,777	86,311	85,336	84,710	85,109
6 Selected financial institutions	1,657,937	1,826,668	1,919,243	1,891,210	1,913,914	1,919,243	1,924,635	1,924,617
7 Commercial banks[2]	592,449	669,237	763,533	715,262	742,096	763,533	783,100	803,660
8 1- to 4-family	275,613	317,585	368,567	338,799	355,084	368,567	376,616	388,018
9 Multifamily	32,756	33,158	37,990	36,022	37,201	37,990	39,202	40,271
10 Commercial	269,648	302,989	340,285	324,083	333,272	340,285	350,473	358,367
11 Farm	14,432	15,505	16,691	16,358	16,539	16,691	16,809	17,003
12 Savings institutions[3]	860,467	924,606	910,254	938,714	932,373	910,254	892,022	867,640
13 1- to 4-family	602,408	671,722	669,220	687,000	683,148	669,220	658,440	639,985
14 Multifamily	106,359	110,775	106,014	110,067	108,447	106,014	103,860	101,112
15 Commercial	150,943	141,433	134,370	140,977	140,096	134,370	129,103	125,944
16 Farm	757	676	650	670	682	650	619	599
17 Life insurance companies	205,021	232,825	245,456	237,234	239,445	245,456	249,513	253,317
18 1- to 4-family	12,676	15,299	13,827	12,814	13,290	13,827	14,173	14,479
19 Multifamily	21,644	23,583	27,195	25,232	26,372	27,195	28,182	29,155
20 Commercial	160,874	184,273	194,871	189,623	190,152	194,871	197,621	200,139
21 Farm	9,828	9,671	9,563	9,565	9,632	9,563	9,537	9,544
22 Finance companies[4]	29,716	37,846	45,476	41,824	43,157	45,476	45,808	47,104
23 Federal and related agencies	192,721	200,570	209,472	202,056	205,809	209,472	216,059	230,511
24 Government National Mortgage Association	444	26	23	24	24	23	22	21
25 1- to 4-family	25	26	23	24	24	23	22	21
26 Multifamily	419	0	0	0	0	0	0	0
27 Farmers Home Administration[5]	43,051	42,018	41,176	40,711	41,117	41,176	41,125	41,027
28 1- to 4-family	18,169	18,347	18,422	18,391	18,405	18,422	18,419	18,433
29 Multifamily	8,044	8,513	9,054	8,778	8,916	9,054	9,199	9,351
30 Commercial	6,603	5,343	4,443	3,885	4,366	4,443	4,510	4,418
31 Farm	10,235	9,815	9,257	9,657	9,430	9,257	8,997	8,826
32 Federal Housing and Veterans Administration	5,574	5,973	6,061	6,424	6,023	6,061	6,215	....
33 1- to 4-family	2,557	2,672	2,850	2,827	2,900	2,850	2,977	3,041
34 Multifamily	3,017	3,301	3,211	3,597	3,123	3,211	3,291	3,243
35 Federal National Mortgage Association	96,649	103,013	110,721	103,309	107,052	110,721	112,353	114,592
36 1- to 4-family	89,666	95,833	102,295	95,714	99,168	102,295	103,300	105,026
37 Multifamily	6,983	7,180	8,426	7,595	7,884	8,426	9,053	9,566
38 Federal Land Banks	34,131	32,115	29,640	31,467	30,943	29,640	29,325	30,517
39 1- to 4-family	2,008	1,890	1,210	1,851	1,821	1,210	1,197	1,957
40 Farm	32,123	30,225	28,430	29,616	29,122	28,430	28,128	28,559
41 Federal Home Loan Mortgage Corporation	12,872	17,425	21,851	20,121	20,650	21,851	19,823	20,126
42 1- to 4-family	11,430	15,077	18,248	17,382	17,659	18,248	16,772	16,918
43 Multifamily	1,442	2,348	3,603	2,739	2,992	3,603	3,051	3,208
44 Mortgage pools or trusts[6]	718,297	810,887	943,932	864,885	899,435	943,932	981,265	1,011,982
45 Government National Mortgage Association	317,555	340,527	369,867	353,759	361,291	369,867	378,292	384,289
46 1- to 4-family	309,806	331,257	358,142	342,545	349,838	358,142	366,300	372,051
47 Multifamily	7,749	9,270	11,725	11,214	11,453	11,725	11,992	12,237
48 Federal Home Loan Mortgage Corporation	212,634	226,406	272,870	245,242	257,938	272,870	281,736	291,863
49 1- to 4-family	205,977	219,988	266,060	238,446	251,232	266,060	274,084	283,822
50 Multifamily	6,657	6,418	6,810	6,796	6,706	6,810	7,652	8,041
51 Federal National Mortgage Association	139,960	178,250	228,232	196,501	208,894	228,232	246,391	259,664
52 1- to 4-family	137,988	172,331	219,577	188,774	200,302	219,577	237,916	250,663
53 Multifamily	1,972	5,919	8,655	7,727	8,592	8,655	8,475	9,002
54 Farmers Home Administration[5]	245	104	80	85	82	80	75	71
55 1- to 4-family	121	26	21	23	22	21	20	18
56 Multifamily	0	0	0	0	0	0	0	0
57 Commercial	63	38	26	26	26	26	25	23
58 Farm	61	40	33	36	35	33	31	30
59 Individuals and others[7]	402,064	426,223	467,438	443,931	454,392	467,438	479,172	490,631
60 1- to 4-family	242,053	258,639	292,967	273,757	283,445	292,967	301,573	310,747
61 Multifamily	75,458	78,663	82,899	79,681	80,689	82,899	84,873	86,468
62 Commercial	63,192	68,037	70,861	69,618	69,387	70,861	72,136	72,868
63 Farm	21,361	20,884	20,711	20,875	20,871	20,711	20,589	20,548

1. Based on data from various institutional and governmental sources, with some quarters estimated in part by the Federal Reserve. Multifamily debt refers to loans on structures of five or more units.
2. Includes loans held by nondeposit trust companies but not bank trust departments.
3. Includes savings banks and savings and loan associations. Beginning 1987:1, data reported by FSLIC-insured institutions include loans in process and other contra assets (credit balance accounts that must be subtracted from the corresponding gross asset categories to yield net asset levels).
4. Assumed to be entirely 1- to 4-family loans.
5. Farmers Home Administration-guaranteed securities sold to the Federal Financing Bank were reallocated from FmHA mortgage pools to FmHA mortgage holdings in 1986:4, because of accounting changes by the Farmers Home Administration.
6. Outstanding principal balances of mortgage pools backing securities insured or guaranteed by the agency indicated. Includes private pools which are not shown as a separate line item.
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 other U.S. agencies.

1.55 CONSUMER INSTALLMENT CREDIT[1] Total Outstanding, and Net Change, seasonally adjusted

Millions of dollars, amounts outstanding, end of period

Holder, and type of credit	1988	1989	1989	1990							
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
	Seasonally adjusted										
1 **Total**	**664,701**	**716,624**	**716,624**	**717,829**	**717,869**	**720,445**	**720,835**	**724,485**	**724,601**	**729,329r**	**731,416**
2 Automobile	284,556	290,770	290,770	290,904	289,629	290,932	288,936	288,931	287,168	286,791r	285,050
3 Revolving	174,057	197,110	197,110	199,146	199,927	202,263	203,965	207,153	208,362	212,138r	213,916
4 Mobile home	25,201	22,343	22,343	22,604	22,633	22,708	22,702	22,815	22,733	22,795r	23,003
5 Other	180,887	206,401	206,401	205,175	205,680	204,543	205,232	205,585	206,338	207,605r	209,446
	Not seasonally adjusted										
6 **Total**	**674,719**	**727,561**	**727,561**	**721,026**	**717,062**	**713,138**	**715,801**	**720,045**	**722,953**	**727,196r**	**733,543**
By major holder											
7 Commercial banks	324,792	343,865	343,865	342,266	339,418	334,645	337,576	339,328	335,998	339,124r	342,641
8 Finance companies	146,212	140,832	140,832	140,740	139,115	137,857	138,174	138,384	138,642	138,796	139,496
9 Credit unions	88,340	90,875	90,875	90,452	90,127	89,556	89,689	89,913	90,137	90,631r	91,324
10 Retailers[2]	48,302	42,638	42,638	39,959	37,904	37,302	37,207	37,347	37,382	36,804	37,231
11 Savings institutions	63,399	57,228	57,228	55,425	54,771	54,095	53,606	53,301	52,902	52,503	52,399
12 Gasoline companies	3,674	3,935	3,935	4,013	3,803	3,792	3,928	4,024	4,192	4,396	4,722
13 Pools of securitized assets[2]	n.a.	48,188	48,188	48,171	51,924	55,891	55,621	57,748	63,700	64,942r	65,730
By major type of credit[3]											
14 Automobile	284,328	290,421	290,421	288,984	288,036	286,539	286,220	287,140	287,254	287,322	n.a.
15 Commercial banks	123,392	126,613	126,613	127,075	127,149	126,289	126,483	127,056	126,988	126,986r	127,882
16 Finance companies	97,245	82,721	82,721	81,918	80,227	79,523	79,295	78,927	78,273	77,716	77,205
17 Pools of securitized assets[2]	n.a.	18,191	18,191	17,827	18,931	19,563	19,406	20,151	21,043	21,692r	21,515
18 Revolving	183,909	208,188	208,188	203,288	200,147	199,937	201,783	204,854	206,820	209,582	n.a.
19 Commercial banks	123,020	130,956	130,956	128,384	124,821	122,024	124,039	125,433	122,116	124,569r	125,987
20 Retailers	43,697	37,967	37,967	35,359	33,378	32,794	32,721	32,857	32,884	32,325	32,735
21 Gasoline companies	3,674	3,935	3,935	4,013	3,803	3,792	3,928	4,024	4,192	4,396	4,722
22 Pools of securitized assets[2]	n.a.	22,977	22,977	23,450	26,204	29,542	29,403	30,913	36,076	36,786	37,601
23 Mobile home	25,143	22,283	22,283	22,717	22,726	22,426	22,484	22,610	22,644	22,843	n.a.
24 Commercial banks	9,025	9,155	9,155	9,109	9,162	9,142	9,231	9,295	9,296	9,443	9,569
25 Finance companies	7,191	4,716	4,716	5,411	5,410	5,178	5,168	5,224	5,266	5,328	5,358
26 Other	181,339	206,669	206,669	206,037	206,153	204,236	205,314	205,441	206,235	207,186	n.a.
27 Commercial banks	69,355	77,141	77,141	77,698	78,286	77,190	77,823	77,544	77,598	78,126r	79,203
28 Finance companies	41,776	53,395	53,395	53,411	53,478	53,156	53,711	54,233	55,103	55,752	56,933
29 Retailers	4,605	4,671	4,671	4,600	4,526	4,508	4,486	4,490	4,498	4,479	4,496
30 Pools of securitized assets[2]	n.a.	7,020	7,020	6,894	6,789	6,786	6,812	6,684	6,581	6,464	6,614

1. The Board's series cover most short- and intermediate-term credit extended to individuals that is scheduled to be repaid (or has the option of repayment) in two or more installments.

These data also appear in the Board's G.19 (421) release. For address, see inside front cover.

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

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

1.56 TERMS OF CONSUMER INSTALLMENT CREDIT[1]

Percent unless noted otherwise

	Item	1987	1988	1989	1990 Feb.	Mar.	Apr.	May	June	July	Aug.
	INTEREST RATES										
	Commercial banks[2]										
1	48-month new car[3]	10.45	10.85	12.07	11.80	n.a.	n.a.	11.82	n.a.	n.a.	11.89
2	24-month personal	14.22	14.68	15.44	15.27	n.a.	n.a.	15.41	n.a.	n.a.	15.46
3	120-month mobile home[3]	13.38	13.54	14.11	13.91	n.a.	n.a.	14.09	n.a.	n.a.	14.09
4	Credit card	17.92	17.78	18.02	18.12	n.a.	n.a.	18.14	n.a.	n.a.	18.18
	Auto finance companies										
5	New car	10.73	12.60	12.62	12.67	12.31	12.21	12.23	12.58	12.68	12.62
6	Used car	14.60	15.11	16.18	15.91	15.97	16.02	16.03	16.00	15.96	15.98
	OTHER TERMS[4]										
	Maturity (months)										
7	New car	53.5	56.2	54.2	54.7	54.3	54.2	54.5	54.8	54.9	54.8
8	Used car	45.2	46.7	46.6	46.4	46.4	46.5	46.1	46.2	46.2	46.2
	Loan-to-value ratio										
9	New car	93	94	91	88	88	87	87	87	86	86
10	Used car	98	98	97	96	95	96	96	95	96	96
	Amount financed (dollars)										
11	New car	11,203	11,663	12,001	12,053	12,216	12,089	12,064	12,108	12,125	11,939
12	Used car	7,420	7,824	7,954	8,065	8,132	8,105	8,169	8,296	8,401	8,415

1. These data also appear in the Board's G.19 (421) release. For address, see inside front cover.
2. Data for midmonth of quarter only.
3. Before 1983 the maturity for new car loans was 36 months, and for mobile home loans was 84 months.
4. At auto finance companies. /sl1.56-bul-tel/btJql! 53.5 56.2 54.2 54.7 54.7 54.3 54.2 54.5 54.8 54.9 45.2 46.7 46.6 45.5 46.4 46.4 46.5 46.1 46.2 46.2 93 94 91 89 88 88 87 87 87 86 98 98

1.57 FUNDS RAISED IN U.S. CREDIT MARKETS

Billions of dollars; quarterly data are at seasonally adjusted annual rates.

Transaction category, sector	1985	1986	1987	1988	1989	1988	1989				1990	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2
	Nonfinancial sectors											
1 **Total net borrowing by domestic nonfinancial sectors**	**848.1**	**836.9**	**687.0**	**760.8**	**676.5**	**694.9**	**746.7**	**666.5**	**673.3**	**619.5**	**749.9**	**598.1**
By sector and instrument												
2 U.S. government	223.6	215.0	144.9	157.5	150.2	144.8	147.3	100.1	168.4	185.0	247.6	216.7
3 Treasury securities	223.7	214.7	143.4	140.0	150.0	103.2	148.5	95.0	166.8	189.6	218.1	211.4
4 Agency issues and mortgages	−.1	.4	1.5	17.4	.2	41.6	−1.2	5.1	1.6	−4.6	29.6	5.4
5 Private domestic nonfinancial sectors	624.5	621.9	542.1	603.3	526.3	550.1	599.4	566.3	504.9	434.5	502.3	381.4
6 Debt capital instruments	451.2	465.8	453.2	459.2	379.7	439.0	412.8	390.1	369.2	346.8	362.3	284.4
7 Tax-exempt obligations	135.4	22.7	49.3	49.8	30.4	56.8	39.7	28.7	34.1	19.1	13.5	21.6
8 Corporate bonds	73.5	126.8	79.4	102.9	73.6	87.1	58.2	86.5	62.7	87.2	42.3	60.2
9 Mortgages	242.2	316.3	324.5	306.5	275.7	295.1	314.9	275.0	272.4	240.5	306.5	202.6
10 Home mortgages	156.8	218.7	234.9	231.0	218.0	212.0	225.5	211.3	221.0	214.3	238.4	144.1
11 Multifamily residential	29.8	33.5	24.4	16.7	16.4	19.2	23.1	21.4	11.8	9.5	21.5	17.1
12 Commercial	62.2	73.6	71.6	60.8	42.7	63.9	68.6	41.5	40.9	19.9	47.9	42.2
13 Farm	−6.6	−9.5	−6.4	−2.1	−1.5	.0	−2.3	.9	−1.3	−3.2	−1.4	−.8
14 Other debt instruments	173.3	156.1	88.9	144.1	146.6	111.1	186.6	176.2	135.7	87.7	139.9	97.0
15 Consumer credit	82.5	58.0	33.5	50.2	39.1	51.2	38.2	36.9	37.1	44.1	14.6	9.8
16 Bank loans n.e.c.	40.6	66.9	10.0	39.8	39.9	22.2	55.9	45.1	50.8	7.7	21.2	17.4
17 Open market paper	14.6	−9.3	2.3	11.9	20.4	39.0	32.3	39.5	16.9	−6.9	69.7	−6.0
18 Other	35.6	40.5	43.2	42.2	47.1	−1.3	60.2	54.7	30.9	42.8	34.5	75.8
19 *By borrowing sector*	624.5	621.9	542.1	603.3	526.3	550.1	599.4	566.3	504.9	434.5	502.3	381.4
20 State and local governments	90.9	36.2	48.8	45.6	29.6	53.0	40.1	33.3	28.6	16.5	9.0	14.9
21 Households	284.5	293.0	302.2	314.9	284.8	288.5	293.2	263.7	290.8	291.3	294.8	197.8
22 Nonfinancial business	249.1	292.7	191.0	242.8	211.9	208.6	266.0	269.4	185.4	126.7	198.5	168.7
23 Farm	−14.5	−16.3	−10.6	−7.5	1.6	−14.5	4.7	−5.0	−2.1	8.9	4.3	6.2
24 Nonfarm noncorporate	129.3	99.2	77.9	65.7	50.8	57.3	71.0	56.9	40.2	35.0	32.5	55.9
25 Corporate	134.3	209.7	123.7	184.6	159.5	165.8	190.3	217.4	147.3	82.9	161.6	106.6
26 Foreign net borrowing in United States	1.2	9.7	4.5	6.3	10.9	9.9	3.2	−6.9	30.4	16.9	−3.3	46.3
27 Bonds	3.8	3.1	7.4	6.9	5.3	5.7	2.5	11.5	8.1	1.0	28.3	27.0
28 Bank loans n.e.c.	−2.8	−1.0	−3.6	−1.8	−.1	−3.8	3.2	−3.2	3.7	−4.3	−6.7	−5.2
29 Open market paper	6.2	11.5	2.1	8.7	13.3	14.3	16.9	−6.6	20.7	22.2	−16.5	23.0
30 U.S. government loans	−6.0	3.9	−1.4	−7.5	−7.5	−6.3	−19.4	−8.7	2.1	.1	−8.3	1.4
31 **Total domestic plus foreign**	**849.3**	**846.6**	**691.5**	**767.1**	**687.4**	**704.8**	**749.9**	**659.6**	**703.6**	**636.4**	**746.6**	**644.4**
	Financial sectors											
32 **Total net borrowing by financial sectors**	**201.3**	**285.1**	**300.2**	**247.6**	**205.5**	**306.1**	**356.6**	**154.1**	**123.9**	**187.3**	**201.7**	**150.1**
By instrument												
33 U.S. government related	101.5	154.1	171.8	119.8	151.0	149.0	194.0	128.8	124.8	156.4	175.5	145.2
34 Sponsored credit agency securities	20.6	15.2	30.2	44.9	25.2	62.8	70.0	22.5	13.2	−4.7	14.5	17.3
35 Mortgage pool securities	79.9	139.2	142.3	74.9	125.8	86.3	124.0	106.3	111.6	161.1	161.0	127.8
36 Loans from U.S. government	1.1	−.4	−.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
37 Private financial sectors	99.7	131.0	128.4	127.8	54.5	157.1	162.6	25.3	−.9	30.9	26.2	5.0
38 Corporate bonds	50.9	82.9	78.9	51.7	36.8	45.5	52.3	28.5	26.7	39.6	41.6	69.0
39 Mortgages	.1	.1	.4	.3	.0	1.2	.3	.0	.3	−.4	−.7	.0
40 Bank loans n.e.c.	2.6	4.0	−3.2	1.4	1.8	1.8	1.0	−.1	2.0	4.2	2.2	−5.7
41 Open market paper	32.0	24.2	27.9	54.8	26.9	74.9	50.1	10.1	11.0	36.3	9.4	−27.7
42 Loans from Federal Home Loan Banks	14.2	19.8	24.4	19.7	−11.0	33.7	58.9	−13.1	−41.0	−48.8	−21.8	30.7
By sector												
43 **Total**	**201.3**	**285.1**	**300.2**	**247.6**	**205.5**	**306.1**	**356.6**	**154.1**	**123.9**	**187.3**	**201.7**	**150.1**
44 Sponsored credit agencies	21.7	14.9	29.5	44.9	25.2	62.8	70.0	22.5	13.2	−4.7	14.5	17.3
45 Mortgage pools	79.9	139.2	142.3	74.9	125.8	86.3	124.0	106.3	111.6	161.1	161.0	127.8
46 Private financial sectors	99.7	131.0	128.4	127.8	54.5	157.1	162.6	25.3	−.9	30.9	26.2	5.0
47 Commercial banks	−4.9	−3.6	6.2	−3.0	−1.4	6.6	−11.1	2.5	3.5	−.7	−4.9	3.3
48 Bank affiliates	16.6	15.2	14.3	5.2	6.2	1.5	9.4	2.9	16.5	−3.9	−12.8	−32.7
49 Savings and loan associations	17.3	20.9	19.6	19.9	−14.1	31.3	60.8	−16.3	−44.7	−56.2	−15.9	−41.1
50 Mutual savings banks	1.5	4.2	8.1	1.9	−1.4	3.7	−4.1	.0	−2.3	.7	−8.3	4.7
51 Finance companies	57.7	54.7	40.8	67.7	46.3	67.0	68.8	40.4	23.5	52.6	33.8	22.6
52 REITs	−.1	.8	.3	3.5	−1.9	14.5	−1.8	−2.8	−3.1	.1	.5	−2.4
53 SCO Issuers	11.5	39.0	39.1	32.5	20.8	32.5	40.6	−1.4	5.7	38.2	34.7	50.5

1.57—Continued

Transaction category, sector	1985	1986	1987	1988	1989	1988	1989				1990	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2
	All sectors											
54 **Total net borrowing**	**1,050.6**	**1,131.7**	**991.7**	**1,014.7**	**892.9**	**1,010.9**	**1,106.5**	**813.7**	**827.5**	**823.7**	**948.3**	**794.5**
55 U.S. government securities	324.2	369.5	317.5	277.2	301.2	293.8	341.3	228.9	293.2	341.4	423.1	361.9
56 State and local obligations	135.4	22.7	49.3	49.8	30.4	56.8	39.7	28.7	34.1	19.1	13.5	21.6
57 Corporate and foreign bonds	128.2	212.8	165.7	161.5	115.7	138.3	113.0	126.5	97.6	125.7	112.1	156.2
58 Mortgages	242.2	316.4	324.9	306.7	275.7	296.2	315.2	275.0	272.7	240.1	305.7	202.6
59 Consumer credit	82.5	58.0	33.5	50.2	39.1	51.2	38.2	36.9	37.1	44.1	14.6	9.8
60 Bank loans n.e.c.	40.3	69.9	3.2	39.4	41.5	20.2	60.2	41.9	56.5	7.5	12.2	6.5
61 Open market paper	52.8	26.4	32.3	75.4	60.6	128.2	99.3	42.9	48.5	51.6	62.7	−10.7
62 Other loans	45.0	56.1	65.5	54.4	28.6	26.1	99.7	32.9	−12.2	−6.0	4.3	46.6
63 MEMO: U.S. government, cash balance	14.4	.0	−7.9	10.4	−5.9	−2.8	−14.3	20.7	−22.7	−7.3	21.5	−51.0
Totals net of changes in U.S. government cash balances												
64 Net borrowing by domestic nonfinancial	833.7	836.9	694.9	750.4	682.4	697.7	761.0	645.8	696.0	626.8	728.4	649.2
65 Net borrowing by U.S. government	209.3	215.0	152.8	147.1	156.1	147.6	161.6	79.4	191.1	192.4	226.2	267.8
	External corporate equity funds raised in United States											
66 **Total net share issues**	**17.2**	**86.8**	**10.9**	**−124.2**	**−60.7**	**−173.0**	**−164.7**	**−38.1**	**−54.6**	**14.6**	**−8.3**	**55.7**
67 Mutual funds	84.4	159.0	73.9	1.1	41.3	9.8	1.0	34.0	57.9	72.4	53.1	76.5
68 All other	−67.2	−72.2	−63.0	−125.3	−102.0	−182.8	−165.7	−72.1	−112.5	−57.8	−61.4	−20.8
69 Nonfinancial corporations	−84.5	−85.0	−75.5	−129.5	−124.2	−194.5	−172.3	−98.7	−146.3	−79.3	−69.0	−48.0
70 Financial corporations	13.6	11.6	14.6	3.3	5.5	5.0	2.1	9.2	6.3	4.3	6.4	5.5
71 Foreign shares purchased in United States	3.7	1.2	−2.1	.9	16.7	6.8	4.5	17.4	27.5	17.2	1.2	21.7

1.58 DIRECT AND INDIRECT SOURCES OF FUNDS TO CREDIT MARKETS

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

Transaction category, or sector	1985	1986	1987	1988	1989	1988	1989				1990	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2
1 **Total funds advanced in credit markets to domestic nonfinancial sectors**	**848.1**	**836.9**	**687.0**	**760.8**	**676.5**	**694.9**	**746.7**	**666.5**	**673.3**	**619.5**	**749.9**	**598.1**
By public agencies and foreign												
2 Total net advances	202.0	280.2	248.8	210.7	187.6	230.2	312.8	15.5	218.3	203.8	234.5	284.1
3 U.S. government securities	45.9	69.4	70.1	85.2	30.7	114.5	83.1	-103.3	115.7	27.1	16.9	96.1
4 Residential mortgages	94.6	136.3	139.1	86.3	137.9	97.7	126.0	119.7	127.7	178.3	181.1	178.7
5 FHLB advances to thrifts	14.2	19.8	24.4	19.7	-11.0	33.7	58.9	-13.1	-41.0	-48.8	-21.8	-30.7
6 Other loans and securities	47.3	54.7	15.1	19.4	30.0	-15.6	44.8	12.1	15.8	47.1	58.3	39.9
Total advanced, by sector												
7 U.S. government	17.8	9.7	-7.9	-9.4	-2.4	-28.7	-.2	-6.0	-9.3	5.7	35.1	53.3
8 Sponsored credit agencies	103.5	153.3	169.3	112.0	125.3	146.8	188.2	28.0	126.4	158.4	183.3	138.5
9 Monetary authorities	18.4	19.4	24.7	10.5	-7.3	13.1	8.1	-1.6	-31.2	-4.6	-6.7	39.7
10 Foreign	62.3	97.8	62.7	97.6	72.1	99.0	116.7	-4.9	132.4	44.2	22.8	52.6
Agency and foreign borrowing not in line 1												
11 Sponsored credit agencies and mortgage pools	101.5	154.1	171.8	119.8	151.0	149.0	194.0	128.8	124.8	156.4	175.5	145.2
12 Foreign	1.2	9.7	4.5	6.3	10.9	9.9	3.2	-6.9	30.4	16.9	-3.3	46.3
Private domestic funds advanced												
13 Total net advances	748.8	720.5	614.5	676.2	650.8	623.6	631.1	772.9	610.1	589.0	687.6	505.5
14 U.S. government securities	278.2	300.1	247.4	192.1	270.5	179.4	258.2	332.2	177.4	314.3	406.2	265.8
15 *State and local obligations*	135.4	22.7	49.3	49.8	30.4	56.8	39.7	28.7	34.1	19.1	13.5	21.6
16 Corporate and foreign bonds	40.6	89.7	66.9	91.3	66.0	68.5	36.8	91.1	65.6	70.4	54.5	70.8
17 Residential mortgages	91.8	115.9	120.2	161.3	96.5	133.5	122.6	113.0	105.1	45.5	78.8	-17.5
18 Other mortgages and loans	216.9	212.0	155.2	201.4	176.4	219.2	232.8	194.8	187.0	91.0	112.8	134.2
19 LESS: Federal Home Loan Bank advances	14.2	19.8	24.4	19.7	-11.0	33.7	58.9	-13.1	-41.0	-48.8	-21.8	-30.7
Private financial intermediation												
20 Credit market funds advanced by private financial institutions	578.0	730.0	528.4	562.3	522.5	621.4	517.4	581.5	361.7	629.2	365.6	309.9
21 Commercial banking	188.4	198.1	135.4	156.3	177.3	144.5	180.4	160.9	183.7	184.3	187.9	127.4
22 Savings institutions	87.9	107.6	136.8	120.4	-91.3	96.2	46.1	-71.7	-138.1	-201.6	-26.6	-177.1
23 *Insurance and pension funds*	150.1	160.1	179.7	198.7	189.7	209.7	195.7	198.2	156.9	207.8	146.9	195.1
24 Other finance	151.6	264.2	76.6	86.9	246.8	171.0	95.1	294.2	159.2	438.7	57.3	164.6
25 Sources of funds	578.0	730.0	528.4	562.3	522.5	621.4	517.4	581.5	361.7	629.2	365.6	309.9
26 Private domestic deposits and RPs	212.1	277.1	162.8	229.2	223.7	197.5	136.5	278.1	275.4	204.9	122.2	63.3
27 Credit market borrowing	99.7	131.0	128.4	127.8	54.5	157.1	162.6	25.3	-.9	30.9	26.2	5.0
28 Other sources	266.1	321.8	237.1	205.3	244.3	266.9	218.3	278.1	87.2	393.5	217.3	241.7
29 Foreign funds	19.7	12.9	43.7	9.3	-11.7	35.3	-3.8	-43.0	30.5	-30.3	50.0	-18.4
30 Treasury balances	10.3	1.7	-5.8	7.3	-3.4	.5	-12.6	13.9	-19.9	5.0	11.9	-27.1
31 Insurance and pension reserves	131.7	119.9	135.4	177.6	143.8	215.7	179.5	119.5	96.9	179.2	131.1	173.4
32 Other, net	104.4	187.3	63.9	11.0	115.6	15.4	55.2	187.6	-20.2	239.6	24.3	113.8
Private domestic nonfinancial investors												
33 Direct lending in credit markets	270.5	121.5	214.6	241.7	182.8	159.3	276.4	216.7	247.5	-9.4	348.1	200.5
34 U.S. government securities	157.8	27.0	86.0	129.0	136.0	82.3	195.1	160.2	188.8	.0	290.9	105.1
35 State and local obligations	37.7	-19.9	61.8	53.5	28.3	57.9	56.7	4.4	39.6	12.3	2.5	3.5
36 Corporate and foreign bonds	3.8	52.9	23.3	-9.4	-12.6	-32.5	-27.9	8.8	-32.1	.7	31.2	45.1
37 Open market paper	51.6	9.9	15.8	36.4	4.1	33.8	44.6	7.6	20.8	-56.7	6.3	24.9
38 Other	19.6	51.7	27.6	32.2	27.1	17.8	7.8	35.8	30.4	34.3	17.1	21.9
39 Deposits and currency	222.8	297.5	179.3	232.8	239.8	153.3	177.8	301.3	250.0	230.2	146.8	88.5
40 Currency	12.4	14.4	19.0	14.7	11.7	7.6	17.8	12.8	6.0	10.1	25.9	22.6
41 *Checkable deposits*	41.4	96.4	-.9	12.9	1.7	20.2	-31.6	-40.3	16.3	62.2	-9.2	-53.6
42 Small time and savings accounts	138.5	120.6	76.0	122.4	100.5	56.5	20.7	111.6	162.2	107.4	104.6	134.9
43 Money market fund shares	7.2	43.2	28.9	20.2	85.2	60.9	39.4	119.2	116.7	65.6	72.8	5.8
44 Large time deposits	7.4	-3.2	37.2	40.8	23.1	37.0	68.5	61.1	-23.8	-13.4	-31.3	-41.2
45 Security RPs	17.7	20.2	21.6	32.9	13.3	22.9	39.4	26.6	3.9	-16.9	14.8	17.4
46 Deposits in foreign countries	-1.7	5.9	-2.5	-11.2	4.4	-51.8	23.5	10.4	-31.3	15.2	-1.3	2.6
47 **Total of credit market instruments, deposits, and currency**	**493.3**	**419.0**	**393.9**	**474.5**	**422.7**	**312.5**	**454.2**	**518.1**	**497.5**	**220.8**	**495.0**	**288.9**
48 Public holdings as percent of total	23.8	33.1	36.0	27.5	27.3	32.7	41.7	2.3	31.0	32.0	31.4	44.1
49 *Private financial intermediation (in percent)*	77.2	101.3	86.0	83.2	80.3	99.6	82.0	75.2	59.3	106.8	53.2	61.3
50 Total foreign funds	82.0	110.7	106.4	106.9	60.4	134.3	112.9	-47.9	162.9	13.9	72.7	34.2
MEMO: Corporate equities not included above												
51 **Total net issues**	**17.2**	**86.8**	**10.9**	**-124.2**	**-60.7**	**-173.0**	**-164.7**	**-38.1**	**-54.6**	**14.6**	**-8.3**	**55.7**
52 Mutual fund shares	84.4	159.0	73.9	1.1	41.3	9.8	1.0	34.0	57.9	72.4	53.1	76.5
53 Other equities	-67.2	-72.2	-63.0	-125.3	-102.0	-182.8	-165.7	-72.1	-112.5	-57.8	-61.4	-20.8
54 Acquisitions by financial institutions	46.9	50.9	32.0	-2.9	7.2	17.3	-.2	-14.1	-17.9	60.9	36.7	71.0
55 Other net purchases	-29.7	35.9	-21.2	-121.4	-67.9	-190.3	-164.5	-24.0	-36.7	-46.3	-45.0	15.4

NOTES BY LINE NUMBER.
1. Line 1 of table 1.57.
2. Sum of lines 3–6 or 7–10.
6. Includes farm and commercial mortgages.
11. Credit market funds raised by federally sponsored credit agencies, and net issues of federally related mortgage pool securities.
13. Line 1 less line 2 plus line 11 and 12. Also line 20 less line 27 plus line 33. Also sum of lines 28 and 47 less lines 40 and 46.
18. Includes farm and commercial mortgages.
26. Line 39 less lines 40 and 46.
27. Excludes equity issues and investment company shares. Includes line 19.
29. Foreign deposits at commercial banks, bank borrowings from foreign branches, and liabilities of foreign banking agencies to foreign affiliates, less claims on foreign affiliates and deposits by banking in foreign banks.
30. Demand deposits and note balances at commercial banks.
31. Excludes net investment of these reserves in corporate equities.
32. Mainly retained earnings and net miscellaneous liabilities.
33. Line 13 less line 20 plus line 27.
34–38. Lines 14–18 less amounts acquired by private finance plus amounts borrowed by private finance. Line 38 includes mortgages.
40. Mainly an offset to line 9.
47. Lines 33 plus 39, or line 13 less line 28 plus 40 and 46.
48. Line 2/line 1.
49. Line 20/line 13.
50. Sum of lines 10 and 29.
51, 53. Includes issues by financial institutions.

NOTE. Full statements for sectors and transaction types in flows and in amounts outstanding may be obtained from Flow of Funds Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

1.59 SUMMARY OF CREDIT MARKET DEBT OUTSTANDING

Billions of dollars; period-end levels.

Transaction category, sector	1985	1986	1987	1988	1988	1989				1990	
					Q4	Q1	Q2	Q3	Q4	Q1	Q2
						Nonfinancial sectors					
1 **Total credit market debt owed by domestic nonfinancial sectors**	**6,804.5**	**7,646.3**	**8,343.9**	**9,096.0**	**9,096.0**	**9,267.7**	**9,438.6**	**9,603.6**	**9,803.5**	**9,972.6**	**10,126.6**
By sector and instrument											
2 U.S. government	1,600.4	1,815.4	1,960.3	2,117.8	2,117.8	2,155.7	2,165.7	2,204.7	2,268.0	2,359.5	2,397.3
3 Treasury securities	1,597.1	1,811.7	1,955.2	2,095.2	2,095.2	2,133.4	2,142.1	2,180.7	2,245.2	2,329.3	2,365.8
4 Agency issues and mortgages	3.3	3.6	5.2	22.6	22.6	22.3	23.6	24.0	22.8	30.2	31.6
5 Private domestic nonfinancial sectors	5,204.1	5,831.0	6,383.6	6,978.2	6,978.2	7,111.9	7,272.9	7,398.9	7,535.5	7,613.1	7,729.3
6 Debt capital instruments	3,485.2	3,962.7	4,427.9	4,886.4	4,886.4	4,989.1	5,091.4	5,189.9	5,283.2	5,356.3	5,432.2
7 Tax-exempt obligations	655.5	679.1	728.4	790.8	790.8	798.6	804.9	816.4	821.2	822.5	826.8
8 Corporate bonds	542.6	669.4	748.8	851.7	851.7	866.2	887.9	903.5	925.3	935.9	951.0
9 Mortgages	2,287.1	2,614.2	2,950.7	3,243.8	3,243.8	3,324.2	3,398.6	3,470.0	3,536.6	3,597.9	3,654.5
10 Home mortgages	1,490.2	1,720.8	1,943.1	2,173.9	2,173.9	2,229.0	2,287.6	2,347.6	2,404.3	2,450.3	2,492.8
11 Multifamily residential	213.0	246.2	270.0	286.7	286.7	293.1	298.3	301.2	304.4	309.2	313.3
12 Commercial	478.1	551.4	648.7	696.4	696.4	716.2	725.9	734.9	742.6	753.7	763.3
13 Farm	105.9	95.8	88.9	86.8	86.8	86.0	86.8	86.3	85.3	84.7	85.1
14 Other debt instruments	1,718.9	1,868.2	1,955.7	2,091.9	2,091.9	2,122.8	2,181.5	2,208.9	2,252.3	2,256.9	2,297.1
15 Consumer credit	601.8	659.8	693.2	743.5	743.5	741.7	756.7	771.0	790.6	774.3	783.3
16 Bank loans n.e.c.	602.3	666.0	673.3	713.1	713.1	725.6	740.3	750.7	763.0	756.6	764.8
17 Open market paper	72.2	62.9	73.8	85.7	85.7	96.1	110.1	113.3	107.1	126.0	128.7
18 Other	442.6	479.6	515.3	549.6	549.6	559.4	574.4	574.0	591.7	599.9	620.3
19 By borrowing sector	5,204.1	5,831.0	6,383.6	6,978.2	6,978.2	7,111.9	7,272.9	7,398.9	7,535.5	7,613.1	7,729.3
20 State and local governments	473.9	510.1	558.9	604.5	604.5	612.4	619.9	629.9	634.1	634.3	636.8
21 Households	2,296.0	2,596.1	2,879.1	3,191.5	3,191.5	3,257.9	3,330.5	3,411.3	3,501.5	3,542.8	3,600.1
22 Nonfinancial business	2,434.2	2,724.8	2,945.6	3,182.2	3,182.2	3,241.6	3,322.5	3,357.6	3,399.9	3,436.0	3,492.4
23 Farm	173.4	156.6	145.5	137.6	137.6	136.7	139.5	139.2	139.2	138.2	143.8
24 Nonfarm noncorporate	898.3	997.6	1,075.4	1,145.1	1,145.1	1,163.9	1,177.6	1,183.0	1,195.9	1,205.1	1,218.6
25 Corporate	1,362.4	1,570.6	1,724.6	1,899.5	1,899.5	1,941.0	2,005.3	2,035.4	2,064.8	2,092.8	2,130.0
26 Foreign credit market debt held in United States	236.7	238.3	244.6	253.9	253.9	254.0	252.2	257.7	261.6	260.5	273.0
27 Bonds	71.8	74.9	82.3	89.2	89.2	90.4	92.1	94.2	94.5	102.1	107.5
28 Bank loans n.e.c.	27.9	26.9	23.3	21.5	21.5	21.6	21.5	22.6	21.4	19.0	18.5
29 Open market paper	33.9	37.4	41.2	49.9	49.9	54.4	52.7	57.5	63.0	59.3	65.1
30 U.S. government loans	103.0	99.1	97.7	93.2	93.2	87.5	85.8	83.4	82.7	80.1	81.9
31 **Total domestic plus foreign**	**7,041.1**	**7,884.7**	**8,588.5**	**9,349.9**	**9,349.9**	**9,521.7**	**9,690.7**	**9,861.3**	**10,065.1**	**10,233.1**	**10,399.7**
						Financial sectors					
32 **Total credit market debt owed by financial sectors**	**1,213.2**	**1,529.8**	**1,836.8**	**2,084.4**	**2,084.4**	**2,191.3**	**2,234.1**	**2,263.8**	**2,322.4**	**2,358.6**	**2,400.0**
By instrument											
33 U.S. government related	632.7	810.3	978.6	1,098.4	1,098.4	1,140.8	1,169.5	1,203.6	1,249.3	1,287.5	1,319.7
34 Sponsored credit agency securities	257.8	273.0	303.2	348.1	348.1	364.3	369.0	370.4	373.3	376.0	378.9
35 Mortgage pool securities	368.9	531.6	670.4	745.3	745.3	771.5	795.6	828.2	871.0	906.5	935.9
36 Loans from U.S. government	6.1	5.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
37 Private financial sectors	580.5	719.5	858.2	986.1	986.1	1,050.5	1,064.6	1,060.2	1,073.0	1,071.1	1,080.3
38 Corporate bonds	204.5	287.4	366.3	418.0	418.0	458.6	466.1	472.7	482.7	492.6	510.4
39 Mortgages	2.7	2.7	3.1	3.4	3.4	3.5	3.5	3.5	3.4	3.2	3.3
40 Bank loans n.e.c.	32.1	36.1	32.8	34.2	34.2	32.2	33.8	34.1	36.0	33.2	33.5
41 Open market paper	252.4	284.6	322.9	377.7	377.7	392.5	399.4	398.8	409.1	409.1	406.8
42 Loans from Federal Home Loan Banks	88.8	108.6	133.1	152.8	152.8	163.8	161.9	151.1	141.8	132.9	126.3
43 **Total, by sector**	**1,213.2**	**1,529.8**	**1,836.8**	**2,084.4**	**2,084.4**	**2,191.3**	**2,234.1**	**2,263.8**	**2,322.4**	**2,358.6**	**2,400.0**
44 Sponsored credit agencies	263.9	278.7	308.2	353.1	353.1	369.3	374.0	375.4	378.3	381.0	383.8
45 Mortgage pools	368.9	531.6	670.4	745.3	745.3	771.5	795.6	828.2	871.0	906.5	935.9
46 Private financial sectors	580.5	719.5	858.2	986.1	986.1	1,050.5	1,064.6	1,060.2	1,073.0	1,071.1	1,080.3
47 Commercial banks	79.2	75.6	81.8	78.8	78.8	73.3	75.7	77.0	77.4	73.4	76.1
48 Bank affiliates	106.2	116.8	131.1	136.2	136.2	140.0	141.2	144.0	142.5	140.8	133.0
49 Savings and loan associations	98.9	119.8	139.4	159.3	159.3	170.1	167.9	155.7	145.2	137.0	128.7
50 Mutual savings banks	4.4	8.6	16.7	18.6	18.6	17.8	17.7	17.5	17.2	15.4	16.3
51 Finance companies	261.2	328.1	378.8	446.1	446.1	464.3	478.0	481.2	496.2	501.3	510.9
52 REITs	5.6	6.5	7.3	11.4	11.4	11.1	10.6	10.0	10.1	10.1	9.7
53 SCO issuers	25.0	64.0	103.1	135.7	135.7	173.8	173.5	174.9	184.4	193.1	205.7
						All sectors					
54 **Total credit market debt**	**8,254.4**	**9,414.4**	**10,425.3**	**11,434.3**	**11,434.3**	**11,712.9**	**11,924.8**	**12,125.1**	**12,387.4**	**12,591.7**	**12,799.7**
55 U.S. government securities	2,227.0	2,620.0	2,933.9	3,211.1	3,211.1	3,291.5	3,330.3	3,403.3	3,512.4	3,642.0	3,712.1
56 State and local obligations	655.5	679.1	728.4	790.8	790.8	798.6	804.9	816.4	821.2	822.5	826.8
57 Corporate and foreign bonds	818.9	1,031.7	1,197.4	1,358.9	1,358.9	1,415.2	1,446.1	1,470.5	1,502.6	1,530.7	1,568.9
58 Mortgages	2,289.8	2,617.0	2,953.8	3,247.2	3,247.2	3,327.7	3,402.1	3,473.6	3,540.1	3,601.1	3,657.7
59 Consumer credit	601.8	659.8	693.2	743.5	743.5	741.7	756.7	771.0	790.6	774.3	783.3
60 Bank loans n.e.c.	662.4	729.0	729.5	768.9	768.9	779.5	795.6	807.4	820.3	808.9	816.9
61 Open market paper	358.5	384.9	437.9	513.4	513.4	543.0	562.2	569.6	579.2	594.5	600.5
62 Other loans	640.5	693.1	751.1	800.5	800.5	815.7	827.0	813.4	821.1	817.8	833.6

1.60 SUMMARY OF CREDIT MARKET CLAIMS, BY HOLDER

Billions of dollars, except as noted; period-end levels.

Transaction category, or sector	1985	1986	1987	1988	1988	1989				1990	
					Q4	Q1	Q2	Q3	Q4	Q1	Q2
1 **Total funds advanced in credit markets to domestic nonfinancial sectors**	**6,804.5**	**7,646.3**	**8,343.9**	**9,096.0**	**9,096.0**	**9,267.7**	**9,438.6**	**9,603.6**	**9,803.5**	**9,972.6**	**10,126.6**
By public agencies and foreign											
2 Total held	1,474.0	1,779.4	2,006.6	2,199.7	2,199.7	2,257.0	2,266.9	2,323.3	2,386.5	2,428.9	2,504.7
3 U.S. government securities	435.4	509.8	570.9	651.5	651.5	666.1	646.1	674.5	689.4	686.4	714.0
4 Residential mortgages	518.2	678.5	814.1	900.4	900.4	927.2	954.4	991.1	1,038.4	1,078.9	1,120.8
5 FHLB advances to thrifts	88.8	108.6	133.1	152.8	152.8	163.8	161.9	151.1	141.8	132.9	126.3
6 Other loans and securities	431.6	482.4	488.6	495.1	495.1	500.0	504.5	506.6	517.0	530.7	543.6
7 Total held, by type of lender	1,474.0	1,779.4	2,006.6	2,199.7	2,199.7	2,257.0	2,266.9	2,323.3	2,386.5	2,428.9	2,504.7
8 U.S. government	248.6	255.3	240.0	217.6	217.6	212.9	211.5	207.8	207.1	216.6	231.1
9 Sponsored credit agencies and mortgage pools	659.8	835.9	1,001.0	1,113.0	1,113.0	1,151.1	1,157.8	1,193.5	1,238.2	1,275.4	1,309.5
10 Monetary authority	186.0	205.5	230.1	240.6	240.6	235.4	238.4	227.6	233.3	224.4	237.8
11 Foreign	379.5	482.8	535.5	628.5	628.5	657.6	659.2	694.5	707.9	712.5	726.3
Agency and foreign debt not in line 1											
12 Sponsored credit agencies and mortgage pools	632.7	810.3	978.6	1,098.4	1,098.4	1,140.8	1,169.5	1,203.6	1,249.3	1,287.5	1,319.7
13 Foreign	236.7	238.3	244.6	253.9	253.9	254.0	252.2	257.7	261.6	260.5	273.0
Private domestic holdings											
14 Total private holdings	6,199.9	6,915.6	7,560.4	8,248.5	8,248.5	8,405.4	8,593.3	8,741.5	8,927.9	9,091.7	9,214.7
15 U.S. government securities	1,791.6	2,110.1	2,363.0	2,559.7	2,559.7	2,625.4	2,684.1	2,728.8	2,823.0	2,955.5	2,998.1
16 State and local obligations	655.5	679.1	728.4	790.8	790.8	798.6	804.9	816.4	821.2	822.5	826.8
17 Corporate and foreign bonds	517.3	606.6	674.3	765.6	765.6	776.5	797.7	814.5	831.6	846.8	862.5
18 Residential mortgages	1,185.1	1,288.5	1,399.0	1,560.2	1,560.2	1,594.9	1,631.5	1,657.7	1,670.4	1,680.6	1,685.2
19 Other mortgages and loans	2,139.3	2,339.8	2,528.7	2,724.9	2,724.9	2,773.7	2,836.9	2,875.2	2,923.5	2,919.1	2,968.4
20 LESS: Federal Home Loan Bank advances	88.8	108.6	133.1	152.8	152.8	163.8	161.9	151.1	141.8	132.9	126.3
Private financial intermediation											
21 Credit market claims held by private financial institutions	5,289.4	6,018.0	6,564.5	7,128.6	7,128.6	7,273.3	7,430.5	7,518.2	7,674.1	7,760.9	7,851.6
22 Commercial banking	1,989.5	2,187.6	2,323.0	2,479.3	2,479.3	2,501.4	2,549.0	2,599.6	2,656.6	2,680.4	2,721.1
23 Savings institutions	1,191.2	1,297.9	1,445.5	1,567.7	1,567.7	1,570.6	1,561.0	1,530.3	1,480.3	1,461.2	1,425.4
24 Insurance and pension funds	1,365.3	1,525.4	1,705.1	1,903.8	1,903.8	1,957.8	2,004.9	2,042.7	2,093.4	2,135.7	2,181.4
25 Other finance	743.4	1,007.1	1,091.0	1,177.9	1,177.9	1,243.5	1,315.6	1,345.5	1,443.8	1,483.6	1,523.7
26 Sources of funds	5,289.4	6,018.0	6,564.5	7,128.6	7,128.6	7,273.3	7,430.5	7,518.2	7,674.1	7,760.9	7,851.6
27 Private domestic deposits and RPs	2,926.1	3,199.0	3,354.2	3,599.1	3,599.1	3,629.1	3,680.0	3,741.3	3,822.8	3,849.8	3,843.9
28 Credit market debt	580.5	719.5	858.2	986.1	986.1	1,050.5	1,064.6	1,060.2	1,073.0	1,071.1	1,080.3
29 Other sources	1,782.9	2,099.5	2,352.1	2,543.5	2,543.5	2,593.7	2,685.9	2,716.6	2,778.3	2,840.0	2,927.4
30 Foreign funds	5.6	18.6	62.3	71.5	71.5	61.8	50.0	55.7	59.9	62.8	58.2
31 Treasury balances	25.8	27.5	21.6	29.0	29.0	13.5	34.4	30.3	25.6	16.7	29.1
32 Insurance and pension reserves	1,289.3	1,398.5	1,527.8	1,692.5	1,692.5	1,741.8	1,774.0	1,793.2	1,829.9	1,867.1	1,918.3
33 Other, net	462.1	655.0	740.3	750.5	750.5	776.6	827.5	837.4	862.9	893.3	921.8
Private domestic nonfinancial investors											
34 Credit market claims	1,491.0	1,617.0	1,854.1	2,106.0	2,106.0	2,182.6	2,227.4	2,283.6	2,326.8	2,401.9	2,443.4
35 U.S. government securities	803.3	848.7	936.7	1,072.2	1,072.2	1,099.1	1,119.8	1,166.6	1,201.0	1,279.7	1,286.3
36 Tax-exempt obligations	231.5	212.6	274.4	340.9	340.9	348.9	353.6	363.1	369.2	363.0	367.0
37 Corporate and foreign bonds	37.1	90.5	114.0	100.4	100.4	123.6	125.1	121.2	117.2	125.4	136.7
38 Open market paper	135.2	145.1	178.5	218.0	218.0	225.1	233.5	235.9	227.4	219.0	232.6
39 Other	283.8	320.1	350.4	374.4	374.4	386.0	395.3	396.8	412.1	414.7	420.9
40 Deposits and currency	3,116.8	3,410.1	3,583.9	3,832.3	3,832.3	3,865.5	3,927.1	3,977.2	4,072.1	4,098.1	4,103.5
41 Currency	171.9	186.3	205.4	220.1	220.1	220.7	226.4	224.4	231.8	234.4	242.6
42 Checkable deposits	420.3	516.6	515.4	527.2	527.2	494.6	495.8	487.2	528.9	501.9	499.0
43 Small time and savings accounts	1,831.9	1,948.3	2,017.1	2,156.2	2,156.2	2,168.9	2,189.3	2,224.4	2,256.7	2,290.4	2,316.9
44 Money market fund shares	225.6	268.9	297.8	318.0	318.0	342.7	362.1	391.0	403.3	436.7	426.3
45 Large time deposits	339.9	336.7	373.9	414.7	414.7	430.8	435.7	440.0	437.8	429.2	407.1
46 Security RPs	108.3	128.5	150.1	182.9	182.9	192.1	197.1	198.6	196.2	191.6	194.5
47 Deposits in foreign countries	18.8	24.8	24.3	13.1	13.1	15.8	20.7	11.4	17.6	13.9	17.0
48 **Total of credit market instruments, deposits, and currency**	**4,607.8**	**5,027.2**	**5,438.0**	**5,938.2**	**5,938.2**	**6,048.1**	**6,154.5**	**6,260.8**	**6,399.0**	**6,500.0**	**6,546.9**
49 Public holdings as percent of total	20.9	22.6	23.4	23.5	23.5	23.7	23.4	23.6	23.7	23.7	24.1
50 Private financial intermediation (in percent)	85.3	87.0	86.8	86.4	86.4	86.5	86.5	86.0	86.0	85.4	85.2
51 Total foreign funds	385.1	501.3	597.8	700.1	700.1	719.5	709.3	750.2	767.8	775.3	784.5
MEMO: Corporate equities not included above											
52 **Total market value**	**2,823.9**	**3,360.6**	**3,325.0**	**3,619.8**	**3,619.8**	**3,730.8**	**4,071.3**	**4,398.7**	**4,382.1**	**4,172.4**	**4,339.8**
53 Mutual fund shares	240.2	413.5	460.1	478.3	478.3	486.3	514.8	543.9	555.1	550.3	587.9
54 Other equities	2,583.7	2,947.1	2,864.9	3,141.6	3,141.6	3,244.5	3,556.5	3,854.8	3,827.0	3,622.1	3,751.9
55 Holdings by financial institutions	800.3	974.6	1,039.5	1,176.1	1,176.1	1,241.6	1,354.4	1,490.5	1,497.8	1,438.4	1,539.8
56 Other holdings	2,023.6	2,385.9	2,285.5	2,443.7	2,443.7	2,489.2	2,716.9	2,908.2	2,884.3	2,734.0	2,800.0

NOTES BY LINE NUMBER.

1. Line 1 of table 1.59.
2. Sum of lines 3–6 or 8–11.
6. Includes farm and commercial mortgages.
12. Credit market debt of federally sponsored agencies, and net issues of federally related mortgage pool securities.
14. Line 1 less line 2 plus line 12 and 13. Also line 21 less line 28 plus line 34. Also sum of lines 29 and 48 less lines 41 and 47.
19. Includes farm and commercial mortgages.
27. Line 40 less lines 41 and 47.
28. Excludes equity issues and investment company shares. Includes line 20.
30. Foreign deposits at commercial banks plus bank borrowings from foreign affiliates, less claims on foreign affiliates and deposits by banking in foreign banks.
31. Demand deposits and note balances at commercial banks.
32. Excludes net investment of these reserves in corporate equities.
33. Mainly retained earnings and net miscellaneous liabilities.
34. Line 14 less line 21 plus line 28.
35–39. Lines 15–19 less amounts acquired by private finance plus amounts borrowed by private finance. Line 39 includes mortgages.
41. Mainly an offset to line 10.
48. Lines 34 plus 40, or line 14 less line 29 plus 41 and 47.
49. Line 2/line 1 and 13.
50. Line 21/line 14.
51. Sum of lines 11 and 30.
52–54. Includes issues by financial institutions.

NOTE. Full statements for sectors and transaction types in flows and in amounts outstanding may be obtained from Flow of Funds Section, Stop 95, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

2.10 NONFINANCIAL BUSINESS ACTIVITY Selected Measures

1977 = 100; monthly and quarterly data are seasonally adjusted. Exceptions noted.

Measure	1987	1988	1989	1990								
				Jan.	Feb.	Mar.	Apr.	May	June[r]	July[r]	Aug.[r]	Sept.
1 **Industrial production (1987 = 100)[1]**	**100.0**	**105.4**	**108.1**	**107.5**	**108.5**	**108.9**	**108.8**	**109.4**	**110.1**	**110.3**	**110.4**	**110.7**
Market groupings												
2 Products, total (1987 = 100)	100.0	105.3	108.6	108.4	109.4	110.1	109.8	110.5	110.9	110.8	110.9	111.5
3 Final, total (1987 = 100)	100.0	105.6	109.1	108.5	109.7	110.7	110.4	111.2	111.7	111.5	111.7	112.6
4 Consumer goods (1987 = 100)	100.0	104.0	106.7	106.0	107.0	107.5	107.2	107.4	107.8	107.3	107.8	109.1
5 Equipment (1987 = 100)	100.0	107.6	112.3	111.8	113.3	114.9	114.7	116.2	116.8	116.9	116.7	117.1
6 Intermediate (1987 = 100)	100.0	104.4	106.8	108.0	108.4	108.2	108.0	108.3	108.3	108.5	108.4	107.9
7 Materials (1987 = 100)	100.0	105.6	107.4	106.2	107.1	107.1	107.3	107.7	108.8	109.5	109.7	109.4
Industry groupings												
8 Manufacturing (1987 = 100)	100.0	105.8	108.9	108.1	109.6	109.8	109.5	110.3	110.8	111.0	111.2	111.4
Capacity utilization (percent)[2]												
9 Manufacturing	81.4	83.9	83.9	82.0	83.0	82.9	82.5	82.8	83.0	82.9	82.8	82.8
10 Construction contracts (1982 = 100)[3]	164.8	166.4	170.0[r]	158.0	154.0	157.0	147.0	155.0	153.0	148.0	146.0	166.0
11 Nonagricultural employment, total[4]	123.9	128.0	131.6	133.0	133.3	133.5	133.6	134.1	134.4	134.3	134.2	134.1
12 Goods-producing, total	101.5	103.7	105.3	103.5	104.1	103.8	103.4	103.5	103.4	103.1	102.8	102.4
13 Manufacturing, total	96.7	98.6	99.6	97.4	97.8	97.6	97.5	97.4	97.3	97.2	96.9	96.6
14 Manufacturing, production- worker	91.9	93.9	94.8	92.0	92.5	92.4	92.3	92.1	92.0	92.0	91.7	91.3
15 Service-producing	133.3	138.2	142.7	145.3	145.6	146.0	146.2	147.0	147.4	147.3	147.3	147.3
16 Personal income, total	234.3	253.2	272.7	281.9	283.8	285.8	286.4[r]	287.5[r]	288.7	290.1	290.7	292.2
17 Wages and salary disbursements	226.4	244.6	258.9	264.9	266.9	268.6	269.9	271.2[r]	272.8	274.4	274.4	276.2
18 Manufacturing	183.8	196.5	203.1	201.1	203.0	204.6	203.9[r]	205.8[r]	206.8	206.9	206.7	206.4
19 Disposable personal income[5]	231.6	252.5	270.1	279.9	281.7	283.9	283.6[r]	284.4[r]	285.8	287.0	287.4	288.7
20 Retail sales[6]	213.6	228.0	240.6	249.6	249.7	248.7	246.3	246.1	248.9	250.1	249.2	251.9
Prices[7]												
21 Consumer (1982–84 = 100)	113.6	118.3	124.0	127.4	128.0	128.7	128.9	129.2	129.9	130.4	131.6	132.7
22 Producer finished goods (1982 = 100)	105.4	108.0	113.6	117.6	117.4	117.2	117.2	117.7	117.9	118.0	119.2	120.3

1. A major revision of the industrial production index and the capacity utilization rates was released in April 1990. See "Industrial Production: 1989 Developments and Historical Revision" in the *Federal Reserve Bulletin*, vol. 76 (April 1990), pp. 187–204.

2. Ratios of indexes of production to indexes of capacity. Based on data from Federal Reserve, McGraw-Hill Economics Department, 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 in *Employment and Earnings* (U.S. Department of Labor). Series covers employees only, excluding personnel in the Armed Forces.

5. Based on data in *Survey of Current Business* (U.S. Department of Commerce).

6. Based on Bureau of Census data published in *Survey of Current Business*.

7. Data without seasonal adjustment, as published in *Monthly Labor Review*. Seasonally adjusted data for changes in the price indexes may be obtained from the Bureau of Labor Statistics, U.S. Department of Labor.

NOTE. Basic data (not index numbers) for series mentioned in notes 4, 5,and 6, and indexes for series mentioned in notes 3 and 7 may also be found in the *Survey of Current Business*.

Figures for industrial production for the latest month are preliminary and the prior three months have been revised. See "Recent Developments in Industrial Capacity and Utilization," *Federal Reserve Bulletin*, vol. 76 (June 1990), pp. 411–35.

2.11 LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Thousands of persons; monthly data are seasonally adjusted. Exceptions noted.

Category	1987	1988	1989	1990							
				Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
HOUSEHOLD SURVEY DATA											
1 **Noninstitutional population**[1]	**185,010**	**186,837**	**188,601**	**189,607**	**189,717**	**189,844**	**189,983**	**190,122**	**190,275**	**190,411**	**190,568**
2 Labor force (including Armed Forces)[1]	122,122	123,893	126,077	126,825	127,017	127,061	127,159	126,981	126,906	126,810	127,134
3 Civilian labor force	119,865	121,669	123,869	124,630	124,829	124,886	125,004	124,836	124,767	124,660	124,967
Employment											
4 Nonagricultural industries[2]	109,232	111,800	114,142	114,957	115,133	114,983	115,045	115,041	114,867	114,521	114,717
5 Agriculture	3,208	3,169	3,199	3,079	3,200	3,133	3,305	3,348	3,085	3,137	3,181
Unemployment											
6 Number	7,425	6,701	6,528	6,594	6,495	6,770	6,653	6,447	6,814	7,003	7,069
7 Rate (percent of civilian labor force)	6.2	5.5	5.3	5.3	5.2	5.4	5.3	5.2	5.5	5.6	5.7
8 Not in labor force	62,888	62,944	62,524	62,782	62,700	62,783	62,824	63,141	63,369	63,601	63,434
ESTABLISHMENT SURVEY DATA											
9 **Nonagricultural payroll employment**[3]	**102,200**	**105,584**	**108,573**	**109,958**	**110,122**	**110,177**	**110,617**	**110,829**	**110,740**	**110,657**^{r}	**110,556**
10 *Manufacturing*	*19,024*	*19,403*	*19,611*	*19,244*	*19,217*	*19,190*	*19,167*	*19,148*	*19,131*^{r}	*19,083*^{r}	*19,017*
11 Mining	717	721	722	727	729	734	738	744	745^r	736	738
12 Contract construction	4,967	5,125	5,302	5,368	5,313	5,256	5,286	5,270	5,229^r	5,194^r	5,174
13 Transportation and public utilities	5,372	5,548	5,703	5,804	5,808	5,809	5,833	5,846	5,841^r	5,845^r	5,859
14 Trade	24,327	25,139	25,807	26,115	26,125	26,141	26,164	26,205	26,225^r	26,213^r	26,202
15 Finance	6,547	6,676	6,814	6,817	6,821	6,823	6,838	6,844	6,842^r	6,850^r	6,843
16 Service	24,236	25,600	26,889	27,842	27,950	27,969	28,094	28,225	28,287^r	28,386^r	28,407
17 Government	17,010	17,372	17,726	18,041	18,159	18,255	18,497	18,547	18,440^r	18,350^r	18,316

1. Persons 16 years of age and over. Monthly figures, which are based on sample data, relate to the calendar week that contains the 12th day; annual data are averages of monthly figures. By definition, seasonality does not exist in population figures. Based on data from *Employment and Earnings* (U.S. Department of Labor).

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

3. Data include all full- and part-time employees who worked during, or received pay for, the pay period that includes the 12th day of the month, and exclude proprietors, self-employed persons, domestic servants, unpaid family workers, and members of the Armed Forces. Data are adjusted to the March 1984 benchmark and only seasonally adjusted data are available at this time. Based on data from *Employment and Earnings* (U.S. Department of Labor).

2.12 OUTPUT, CAPACITY, AND CAPACITY UTILIZATION[1]

Seasonally adjusted

Series	1989	1990			1989	1990			1989	1990		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
	Output (1987 = 100)				Capacity (percent of 1987 output)				Utilization rate (percent)			
1 **Total industry**	**108.1**	**108.3**	**109.4**	**110.4**	**129.5**	**130.3**	**131.2**	**132.1**	**83.5**	**83.1**	**83.4**	**83.6**
2 **Manufacturing**	**108.7**	**109.2**	**110.2**	**111.2**	**131.1**	**132.1**	**133.2**	**134.2**	**82.9**	**82.6**	**82.8**	**82.8**
3 Primary processing	106.1	106.4	106.3	107.9	123.4	124.2	124.9	125.7	85.9	85.7	85.1	85.8
4 Advanced processing	109.9	110.5	112.1	112.7	134.7	135.8	137.0	138.2	81.6	81.4	81.8	81.6
5 Durable	110.0	110.4	112.4	113.5	135.2	136.2	137.2	138.3	81.3	81.0	81.9	82.1
6 Lumber and products	104.8	105.1	102.3	101.0	122.3	123.2	124.1	125.0	85.7	85.3	82.5	80.8
7 Primary metals	105.3	106.1	107.4	112.3	126.9	127.2	127.3	127.4	83.0	83.4	84.3	88.2
8 Iron and steel	104.5	107.1	107.5	114.5	131.5	131.9	132.0	132.1	79.5	81.2	81.4	86.7
9 Nonferrous	106.4	104.6	107.1	109.3	120.2	120.4	120.6	120.9	88.5	86.9	88.8	90.4
10 Nonelectrical machinery	121.9	124.4	126.7	128.7	150.1	151.6	153.2	154.9	81.2	82.1	82.7	83.1
11 Electrical machinery	110.1	111.1	112.2	112.3	136.0	137.4	138.8	140.2	81.0	80.9	80.8	80.1
12 Motor vehicles and parts	99.1	91.5	102.6	104.0	132.0	132.5	133.5	134.5	75.1	69.0	76.9	77.3
13 Aerospace and miscellaneous transportation equipment	106.7	111.6	113.6	113.6	132.5	133.4	134.3	135.2	80.6	83.6	84.6	84.0
14 Nondurable	107.1	107.7	107.5	108.2	125.9	126.9	128.0	129.0	85.0	84.8	84.0	83.8
15 Textile mill products	100.3	101.1	102.4	101.9	115.5	116.0	116.6	117.1	86.9	87.2	87.9	87.1
16 Paper and products	104.2	103.9	104.5	106.1	113.3	113.9	114.7	115.5	92.0	91.2	91.1	91.9
17 Chemicals and products	108.9	109.9	109.9	111.2	132.1	133.4	134.7	135.9	82.5	82.4	81.6	81.8
18 Plastics materials	106.2	111.7	116.3	......	123.7	126.1	128.4	......	85.8	88.6	90.6	......
19 Petroleum products	106.8	109.9	106.0	110.2	121.0	121.1	121.1	121.1	88.3	90.8	87.5	91.0
20 Mining	100.6	101.3	102.5	102.5	116.1	115.7	115.2	114.8	86.7	87.6	88.9	89.2
21 Utilities	110.6	105.7	107.8	110.7	125.7	126.0	126.4	126.7	88.0	83.9	85.3	87.3
22 Electric	111.8	108.4	111.0	113.6	120.8	121.1	121.6	122.1	92.6	89.5	91.3	93.0

Series	Previous cycle[2]		Latest cycle[3]		1989	1990								
	High	Low	High	Low	Sept.	Jan.	Feb.	Mar.	Apr.	May	June[r]	July[r]	Aug.[r]	Sept.[p]
	Capacity utilization rate (percent)													
23 **Total industry**	**89.2**	**72.6**	**87.3**	**71.8**	**83.9**	**82.7**	**83.2**	**83.4**	**83.1**	**83.4**	**83.7**	**83.7**	**83.6**	**83.6**
24 **Manufacturing**	**88.9**	**70.8**	**87.3**	**70.0**	**83.6**	**82.0**	**83.0**	**82.9**	**82.5**	**82.8**	**83.0**	**82.9**	**82.8**	**82.8**
25 Primary processing	92.2	68.9	89.7	66.8	86.1	85.7	86.1	85.2	85.0	84.9	85.5	86.0	86.0	85.4
26 Advanced processing	87.5	72.0	86.3	71.4	82.5	80.5	81.7	82.0	81.5	82.0	81.9	81.6	81.5	81.7
27 Durable	88.8	68.5	86.9	65.0	82.8	79.9	81.3	81.9	81.2	82.1	82.4	82.1	82.1	82.1
28 Lumber and products	90.1	62.2	87.6	60.9	84.3	86.3	84.7	85.0	83.4	81.9	82.0	81.9	81.2	79.3
29 Primary metals	100.6	66.2	102.4	46.8	86.8	82.6	84.8	82.8	83.6	83.4	86.0	86.5	89.7	88.3
30 Iron and steel	105.8	66.6	110.4	38.3	83.7	79.3	83.8	80.4	80.8	79.9	83.6	83.7	89.1	87.3
31 Nonferrous	92.9	61.3	90.5	62.2	91.4	87.8	86.4	86.6	87.9	88.8	89.8	90.8	90.7	89.8
32 Nonelectrical machinery	96.4	74.5	92.1	64.9	82.7	81.9	82.0	82.3	82.3	82.8	82.9	83.1	83.4	82.7
33 Electrical machinery	87.8	63.8	89.4	71.1	82.0	80.5	80.8	81.5	80.5	81.0	81.0	80.3	80.2	80.0
34 Motor vehicles and parts	93.4	51.1	93.0	44.5	78.2	58.1	71.0	77.9	71.9	77.9	80.7	76.5	75.0	80.5
35 Aerospace and miscellaneous transportation equipment	77.0	66.6	81.1	66.9	85.2	83.4	83.9	83.7	84.6	84.5	84.5	84.9	84.0	83.2
36 Nondurable	87.9	71.8	87.0	76.9	84.7	84.9	85.3	84.2	84.2	83.9	83.8	84.0	83.7	83.7
37 Textile mill products	92.0	60.4	91.7	73.8	88.2	86.9	88.8	85.9	86.7	88.1	88.8	87.9	86.9	86.3
38 Paper and products	96.9	69.0	94.2	82.0	90.5	91.3	92.2	90.0	92.0	90.7	90.6	93.6	91.3	90.7
39 Chemicals and products	87.9	69.9	85.1	70.1	81.9	82.6	82.8	81.8	82.2	81.1	81.6	81.6	81.8	82.1
40 Plastics materials	102.0	50.6	90.9	63.4	85.5	88.5	88.9	88.3	90.8	90.9	90.0	90.5	......	......
41 Petroleum products	96.7	81.1	89.5	68.2	89.9	89.7	92.5	90.1	88.2	86.4	87.9	91.2	90.5	91.2
42 Mining	94.4	88.4	96.6	80.6	87.2	87.8	87.3	87.5	89.2	88.7	88.8	90.0	88.6	89.0
43 Utilities	95.6	82.5	88.3	76.2	84.3	84.8	82.5	84.2	84.5	84.7	86.8	86.4	87.4	88.1
44 Electric	99.0	82.7	88.3	78.7	88.9	89.5	88.4	90.4	90.3	90.7	92.9	91.9	93.2	94.0

1. These data also appear in the Board's G.17 (419) release. For address, see inside front cover. For a detailed description of the series, see "Recent Developments in Industrial Capacity and Utilization," *Federal Reserve Bulletin*, vol. 76 (June 1990), pages 411–35.

2. Monthly high 1973; monthly low 1975.

3. Monthly highs 1978 through 1980; monthly lows 1982.

2.13 INDUSTRIAL PRODUCTION Indexes and Gross Value[1]

Monthly data are seasonally adjusted

Groups	1987 proportion	1989 avg.	1989 Sept.	1989 Oct.	1989 Nov.	1989 Dec.	1990 Jan.	1990 Feb.	1990 Mar.	1990 Apr.	1990 May	1990 June[r]	1990 July[r]	1990 Aug.[r]	1990 Sept.[p]
			Index (1987 = 100)												
MAJOR MARKET															
1 **Total index**	**100.0**	**108.1**	**108.2**	**107.7**	**108.1**	**108.6**	**107.5**	**108.5**	**108.9**	**108.8**	**109.4**	**110.1**	**110.3**	**110.4**	**110.7**
2 **Products**	**60.8**	**108.6**	**108.8**	**108.1**	**108.9**	**109.7**	**108.4**	**109.4**	**110.1**	**109.8**	**110.5**	**110.9**	**110.8**	**110.9**	**111.5**
3 **Final products**	**46.0**	**109.1**	**109.6**	**108.5**	**109.4**	**110.3**	**108.5**	**109.7**	**110.7**	**110.4**	**111.2**	**111.7**	**111.5**	**111.7**	**112.6**
4 Consumer goods	26.0	106.7	106.3	107.3	107.4	108.3	106.0	107.0	107.5	107.2	107.4	107.8	107.3	107.8	109.1
5 Durable consumer goods	5.6	107.9	107.6	106.8	105.7	106.8	99.4	106.2	110.8	107.3	109.3	112.1	108.5	108.0	111.5
6 Automotive products	2.5	106.9	104.9	102.9	102.4	104.5	85.2	99.3	109.3	102.4	107.0	112.2	106.7	104.5	112.5
7 Autos and trucks	1.5	105.7	103.1	99.7	98.4	100.1	66.3	92.7	107.7	95.8	105.6	112.9	104.8	101.5	115.2
8 Autos, consumer	.9	101.2	102.0	100.7	92.8	92.6	62.1	86.9	100.5	87.7	96.8	103.8	98.1	97.2	115.1
9 Trucks, consumer	.6	113.3	105.0	98.2	108.0	112.6	73.3	102.3	120.0	109.3	120.4	128.3	116.2	108.8	115.4
10 Auto parts and allied goods	1.0	108.7	107.4	107.6	108.2	111.2	113.6	109.4	111.6	112.2	108.9	111.2	109.7	108.9	108.4
11 Other	3.1	108.7	109.8	109.8	108.4	108.6	110.6	111.6	112.0	111.2	111.1	112.0	110.0	110.8	110.8
12 Appliances, A/C, and TV	.8	106.7	109.3	107.6	102.0	101.0	108.4	107.8	108.1	104.4	103.6	107.5	100.2	102.0	102.0
13 Carpeting and furniture	.9	101.5	100.9	101.1	100.4	102.0	103.7	104.7	105.9	107.5	107.6	107.8	107.4	108.0	107.1
14 Miscellaneous home goods	1.4	114.5	115.8	116.6	117.1	117.1	116.2	118.2	118.0	117.3	117.5	117.2	117.0	117.5	118.1
15 Nondurable consumer goods	20.4	106.4	106.0	107.4	107.8	108.7	107.8	107.2	106.6	107.1	106.9	106.6	107.0	107.7	108.5
16 Foods and tobacco	9.1	104.2	103.7	105.6	105.8	106.4	105.5	106.2	105.8	105.6	105.2	104.4	104.5	105.2	105.8
17 Clothing	2.6	101.6	101.6	101.9	100.1	99.4	100.6	99.6	97.0	96.0	96.4	95.7	95.8	96.0	95.7
18 Chemical products	3.5	109.4	107.8	110.3	111.3	110.3	112.7	112.0	111.0	113.5	113.0	112.8	112.5	114.1	115.3
19 Paper products	2.5	114.3	116.2	117.2	118.1	116.9	116.2	117.6	116.4	118.1	118.6	118.3	119.7	119.1	120.7
20 Energy	2.7	106.7	106.0	106.0	108.0	115.2	107.9	101.5	103.1	104.1	104.1	105.3	106.8	108.4	109.1
21 Fuels	.7	102.8	103.4	103.1	103.0	100.5	105.1	106.6	101.8	101.6	98.2	102.6	104.6	105.3	105.7
22 Residential utilities	2.0	108.1	106.9	107.0	109.8	120.7	109.0	99.6	103.6	105.0	106.3	106.3	107.6	109.6	110.3
23 **Equipment, total**	**20.0**	**112.3**	**113.8**	**110.1**	**112.0**	**112.9**	**111.8**	**113.3**	**114.9**	**114.7**	**116.2**	**116.8**	**116.9**	**116.7**	**117.1**
24 Business equipment	13.9	119.1	120.7	116.0	118.7	119.9	118.0	120.1	122.2	121.6	123.5	124.4	124.6	124.8	125.6
25 Information processing and related	5.6	121.7	123.7	119.9	123.5	124.0	124.0	124.7	126.0	126.4	126.8	126.2	125.7	128.6	128.7
26 Office and computing	1.9	137.2	141.8	132.8	141.0	142.7	142.7	144.3	147.2	149.3	148.9	150.6	152.6	154.5	154.1
27 *Industrial*	4.0	*113.8*	*113.8*	*112.4*	*113.4*	*112.8*	*113.5*	*113.4*	*113.9*	*114.2*	*115.8*	*116.0*	*117.1*	*117.7*	*117.1*
28 Transit	2.5	123.8	127.0	112.9	117.0	123.4	111.4	122.7	130.6	126.2	132.5	137.4	133.8	132.0	138.3
29 Autos and trucks	1.2	103.9	103.1	97.6	98.0	97.6	69.6	91.7	104.5	95.2	105.7	112.2	103.0	100.9	113.7
30 *Other*	*1.9*	*116.5*	*119.1*	*116.3*	*117.8*	*118.5*	*118.7*	*117.4*	*117.8*	*117.6*	*119.4*	*119.9*	*119.7*	*119.3*	*117.9*
31 Defense and space equipment	5.4	97.4	98.9	96.6	96.7	96.6	97.5	97.6	97.5	97.3	97.6	97.6	97.9	97.4	97.0
32 Oil and gas well drilling	.6	93.7	97.3	97.3	99.9	100.3	98.3	100.1	106.0	114.3	118.6	119.5	116.2	106.9	107.4
33 Manufactured homes	.2	92.3	87.5	87.9	89.4	91.6	91.6	94.3	92.9	89.7	91.3	92.8	90.0	93.4	91.9
34 **Intermediate products, total**	**14.7**	**106.8**	**106.3**	**106.9**	**107.3**	**107.9**	**108.0**	**108.4**	**108.2**	**108.0**	**108.3**	**108.3**	**108.5**	**108.4**	**107.9**
35 Construction supplies	6.0	106.1	105.2	106.3	107.0	107.4	107.9	108.2	107.3	106.4	105.5	106.0	106.4	105.9	104.9
36 Business supplies	8.7	107.3	107.0	107.3	107.5	108.2	108.0	108.5	108.9	109.1	110.2	109.8	110.0	110.1	110.0
37 **Materials, total**	**39.2**	**107.4**	**107.4**	**107.1**	**107.0**	**106.9**	**106.2**	**107.1**	**107.1**	**107.3**	**107.7**	**108.8**	**109.5**	**109.7**	**109.4**
38 Durable goods materials	19.4	111.6	112.0	110.8	110.8	110.4	109.4	110.8	110.9	110.9	112.5	113.8	114.1	115.1	114.4
39 Durable consumer parts	4.2	109.0	108.8	106.9	105.7	102.5	96.5	102.8	104.5	103.2	108.5	108.5	108.3	110.7	109.5
40 Equipment parts	7.3	114.7	115.5	114.4	115.3	115.8	116.5	117.6	117.6	117.4	118.1	119.1	119.1	119.3	119.3
41 Other	7.9	110.2	110.6	109.5	109.4	109.5	109.7	108.7	108.1	108.9	109.6	111.8	112.7	113.6	112.5
42 Basic metal materials	2.8	112.1	112.9	111.0	108.6	109.3	108.5	109.9	107.5	110.2	109.2	113.6	115.3	117.0	115.1
43 Nondurable goods materials	9.0	105.3	104.2	106.1	104.9	104.3	105.4	105.8	105.2	106.1	105.2	106.1	107.7	106.6	106.2
44 Textile materials	1.2	99.8	99.6	98.6	96.1	95.8	94.6	96.2	94.9	95.6	97.4	99.4	99.0	97.8	97.2
45 Pulp and paper materials	1.9	103.8	104.1	107.7	104.6	103.7	105.0	105.3	103.0	106.0	104.5	104.8	109.0	105.9	105.7
46 Chemical materials	3.8	106.4	104.5	106.8	105.8	103.8	105.8	107.3	107.5	107.4	105.4	107.3	108.5	108.2	107.7
47 Other	2.1	107.6	106.5	107.5	108.4	110.4	110.9	108.8	108.7	109.8	109.8	108.8	109.8	109.1	108.8
48 Energy materials	10.9	101.4	101.6	101.3	101.9	102.7	101.2	101.7	102.0	101.8	101.1	102.1	102.9	102.5	103.2
49 Primary energy	7.2	99.9	100.7	99.8	100.5	99.0	101.1	102.1	101.2	100.3	100.1	101.2	102.7	101.5	102.0
50 Converted fuel materials	3.7	104.3	103.6	104.2	104.5	110.0	101.4	100.9	103.4	104.6	102.9	103.9	103.3	104.4	105.6
SPECIAL AGGREGATES															
51 Total excluding autos and trucks	97.3	108.2	108.4	108.0	108.4	108.9	108.6	108.9	109.0	109.2	109.5	110.0	110.5	110.7	110.6
52 Total excluding motor vehicles and parts	95.3	108.3	108.5	108.1	108.6	109.1	109.0	109.2	109.2	109.5	109.7	110.2	110.7	110.9	110.8
53 Total excluding office and computing machines	97.5	107.4	107.4	107.1	107.3	107.7	106.6	107.6	108.0	107.8	108.4	109.1	109.2	109.3	109.6
54 Consumer goods excluding autos and trucks	24.5	106.8	106.5	107.7	107.9	108.8	108.4	107.8	107.5	107.9	107.6	107.5	107.5	108.2	108.8
55 Consumer goods excluding energy	23.3	106.7	106.4	107.4	107.3	107.5	105.8	107.6	108.0	107.5	107.8	108.1	107.4	107.7	109.1
56 Business equipment excluding autos and trucks	12.7	120.6	122.4	117.8	120.7	122.1	122.8	122.9	124.0	124.2	125.3	125.6	126.7	127.2	126.8
57 Business equipment excluding office and computing equipment	12.0	116.2	117.3	113.3	115.0	116.2	114.0	116.2	118.2	117.2	119.4	120.2	120.0	120.0	121.0
58 Materials excluding energy	28.4	109.6	109.5	109.3	108.9	108.4	108.1	109.2	109.1	109.4	110.2	111.4	112.1	112.4	111.8

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

Groups	SIC code	1987 proportion	1989 avg.	1989 Sept.	1989 Oct.	1989 Nov.	1989 Dec.	1990 Jan.	1990 Feb.	1990 Mar.	1990 Apr.	1990 May	1990 June[r]	1990 July[r]	1990 Aug.[r]	1990 Sept.[p]
				Index (1987 = 100)												
MAJOR INDUSTRY																
1 **Total index**	....	**100.0**	**108.1**	**108.2**	**107.7**	**108.1**	**108.6**	**107.5**	**108.5**	**108.9**	**108.8**	**109.4**	**110.1**	**110.3**	**110.4**	**110.7**
2 **Manufacturing**	....	**84.4**	**108.9**	**109.1**	**108.4**	**108.9**	**108.8**	**108.1**	**109.6**	**109.8**	**109.5**	**110.3**	**110.8**	**111.0**	**111.2**	**111.4**
3 **Primary processing**	....	**26.7**	**106.4**	**105.8**	**106.6**	**106.2**	**105.3**	**106.2**	**106.9**	**106.0**	**105.9**	**106.1**	**107.0**	**107.9**	**108.1**	**107.6**
4 **Advanced processing**	....	**57.7**	**110.1**	**110.6**	**109.3**	**110.1**	**110.4**	**109.0**	**110.9**	**111.7**	**111.3**	**112.4**	**112.6**	**112.4**	**112.6**	**113.2**
5 **Durable**	....	**47.3**	**110.9**	**111.5**	**109.4**	**110.1**	**110.4**	**108.6**	**110.7**	**111.9**	**111.1**	**112.6**	**113.4**	**113.2**	**113.6**	**113.8**
6 Lumber and products	24	2.0	103.0	102.6	103.2	104.8	106.4	106.0	104.3	105.0	103.3	101.7	102.0	102.1	101.5	99.4
7 Furniture and fixtures	25	1.4	105.3	105.7	105.6	104.4	105.1	105.1	104.8	105.9	107.6	108.0	108.7	109.4	108.8	106.9
8 Clay, glass, and stone products	32	2.5	108.0	106.5	107.7	108.2	108.6	110.0	108.0	107.7	105.1	106.4	106.1	105.6	106.5	105.9
9 Primary metals	33	3.3	109.2	109.9	108.6	104.8	102.6	105.0	107.9	105.4	106.4	106.2	109.5	110.2	114.3	112.5
10 Iron and steel	331,2	1.9	109.3	109.7	109.2	104.1	100.3	104.6	110.6	106.1	106.7	105.5	110.3	110.6	117.6	115.3
11 Raw steel	....	.1	108.5	102.9	106.4	100.6	97.6	109.9	109.0	105.9	104.9	107.6	111.8	113.8	118.5	112.5
12 Nonferrous	333–6,9	1.4	109.0	109.8	107.6	105.8	105.8	105.6	104.0	104.3	105.9	107.1	108.3	109.7	109.6	108.6
13 Fabricated metal products	34	5.4	107.2	106.0	105.9	106.9	106.3	105.1	105.6	105.5	105.0	107.1	106.7	107.9	108.2	107.3
14 Nonelectrical machinery	35	8.6	121.8	123.4	119.0	122.9	123.8	123.7	124.2	125.2	125.7	126.9	127.5	128.3	129.2	128.6
15 Office and computing machines	357	2.5	137.2	141.8	132.8	141.0	142.7	142.7	144.3	147.3	149.3	149.0	150.6	152.6	154.4	154.1
16 Electrical machinery	36	8.6	109.5	110.8	110.2	110.1	110.1	110.1	111.0	112.3	111.3	112.4	112.8	112.1	112.4	112.5
17 Transportation equipment	37	9.8	107.2	108.0	102.1	102.8	104.4	94.7	103.5	107.9	105.1	109.0	111.0	108.9	107.6	110.7
18 Motor vehicles and parts	371	4.7	104.9	103.2	99.7	99.0	98.7	76.8	94.1	103.5	95.8	104.0	108.0	102.7	100.9	108.5
19 Autos and light trucks	....	2.3	105.0	102.9	99.9	97.6	99.0	65.7	91.8	106.7	94.6	104.3	111.6	103.8	100.9	115.2
20 Aerospace and miscellaneous transportation equipment	372–6,9	5.1	109.3	112.3	104.3	106.3	109.6	111.0	111.9	111.9	113.4	113.5	113.8	114.5	113.6	112.7
21 Instruments	38	3.3	116.4	116.2	116.1	115.6	114.8	116.0	116.2	115.7	115.8	116.5	115.0	116.1	117.1	117.6
22 Miscellaneous manufacturers	39	1.2	114.9	116.2	116.9	117.0	116.4	117.0	118.1	118.6	118.6	119.1	119.6	120.4	122.7	124.3
23 **Nondurable**	....	**37.2**	**106.4**	**106.0**	**107.2**	**107.3**	**106.7**	**107.5**	**108.3**	**107.2**	**107.5**	**107.4**	**107.6**	**108.1**	**108.1**	**108.3**
24 Foods	20	8.8	105.5	105.4	106.8	107.4	108.0	106.8	107.4	107.1	107.0	106.8	106.1	106.4	107.0	107.8
25 Tobacco products	21	1.0	99.7	93.3	99.7	98.8	98.5	101.3	102.3	100.0	98.8	97.2	95.6	97.8	95.4	94.0
26 Textile mill products	22	1.8	101.9	101.5	101.9	99.3	99.8	100.6	103.0	99.8	100.9	102.7	103.6	102.8	101.8	101.2
27 Apparel products	23	2.4	104.3	104.5	103.9	103.7	102.6	102.4	102.1	99.8	98.7	99.2	99.3	99.3	99.3	99.0
28 Paper and products	26	3.6	103.2	102.2	105.3	104.1	103.4	103.8	105.0	102.8	105.3	104.0	104.2	107.8	105.5	105.0
29 Printing and publishing	27	6.4	108.5	109.4	109.3	109.6	109.6	110.7	112.1	111.4	112.0	112.8	112.0	111.8	111.6	111.5
30 Chemicals and products	28	8.6	108.5	107.5	109.4	109.8	107.6	109.9	110.5	109.5	110.3	109.2	110.3	110.5	111.2	112.0
31 Petroleum products	29	1.3	106.1	108.7	106.9	109.3	104.3	108.6	112.0	109.1	106.8	104.6	106.5	110.5	109.6	110.5
32 Rubber and plastic products	30	3.0	108.9	108.5	108.8	109.1	110.1	110.7	109.1	109.8	109.0	110.9	112.8	112.3	112.5	112.7
33 Leather and products	31	.3	103.7	103.5	102.2	99.4	103.0	104.3	102.9	103.3	102.6	103.5	102.0	103.2	104.8	103.3
34 **Mining**	....	**7.9**	**100.5**	**101.6**	**100.7**	**101.2**	**100.1**	**101.7**	**101.0**	**101.1**	**102.9**	**102.2**	**102.2**	**103.5**	**101.8**	**102.1**
35 Metal	10	.3	141.4	145.4	143.2	145.9	155.5	144.8	143.4	141.4	152.7	148.7	156.7	163.7	162.1	160.6
36 Coal	11,12	1.2	105.7	109.6	109.9	108.1	103.5	114.1	111.9	112.9	114.2	110.0	113.5	118.5	110.2	113.3
37 Oil and gas extraction	13	5.7	95.5	95.9	94.3	95.5	94.0	94.4	94.1	94.6	95.7	96.0	94.6	94.8	94.5	94.4
38 Stone and earth minerals	14	.7	113.9	114.1	118.0	115.8	119.7	121.2	120.0	116.5	120.2	119.9	121.1	122.0	120.3	120.5
39 **Utilities**	....	**7.6**	**107.1**	**105.9**	**107.4**	**108.3**	**116.1**	**106.8**	**104.0**	**106.2**	**106.7**	**107.1**	**109.7**	**109.4**	**110.8**	**111.8**
40 Electric	491,3PT	6.0	108.1	107.1	109.7	109.5	116.3	108.3	107.1	109.7	109.7	110.3	113.1	112.1	113.8	114.9
41 Gas	492,3PT	1.6	103.0	101.0	99.1	103.9	115.6	101.2	92.3	93.3	95.5	95.2	97.4	99.1	99.9	100.5
SPECIAL AGGREGATES																
42 Manufacturing excluding motor vehicles and parts	....	79.8	109.2	109.5	108.9	109.4	109.3	109.9	110.5	110.2	110.3	110.7	111.0	111.5	111.8	111.6
43 Manufacturing excluding office and computing machines	....	82.0	108.1	108.1	107.7	107.9	107.7	107.1	108.6	108.7	108.3	109.2	109.6	109.7	109.9	110.1
		Gross value (billions of 1982 dollars, annual rates)														
MAJOR MARKET																
44 **Products, total**	....	**1734.8**	**1,889.8**	**1,894.3**	**1,878.3**	**1,896.9**	**1,905.5**	**1,863.6**	**1,903.3**	**1,922.6**	**1,906.2**	**1,922.2**	**1,937.0**	**1,927.4**	**1,931.2**	**1,948.7**
45 Final	....	1350.9	1,480.1	1,486.2	1,465.6	1,482.8	1,492.5	1,447.9	1,488.3	1,507.5	1,493.9	1,506.0	1,523.4	1,512.9	1,517.2	1,536.4
46 Consumer goods	....	833.4	884.6	878.8	883.2	889.0	898.6	864.3	888.6	893.4	883.9	885.9	893.8	888.8	889.1	903.3
47 Equipment	....	517.5	595.5	607.5	582.4	593.8	594.0	583.6	599.8	614.1	610.0	620.1	629.6	624.1	628.1	633.1
48 Intermediate	....	384.0	409.7	408.1	412.7	414.1	413.0	415.7	415.0	415.1	412.3	416.2	413.6	414.5	414.0	412.4

1. These data also appear in the Board's G.17 (419) release. For requests see address inside front cover.
A major revision of the industrial production index and the capacity utilization rates was released in April 1990. See "Industrial Production: 1989 Developments and Historical Revision," *Federal Reserve Bulletin*, vol. 76 (April 1990), pp. 187–204.

2.14 HOUSING AND CONSTRUCTION

Monthly figures are at seasonally adjusted annual rates except as noted.

Item	1987	1988	1989	1989		1990							
				Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July[r]	Aug.
	Private residential real estate activity (thousands of units)												
NEW UNITS													
1 Permits authorized	1,535	1,456	1,339	1,364	1,416	1,739	1,297	1,232	1,108	1,065	1,108	1,082	1,050
2 1-family	1,024	994	932	984	984	985	974	912	813	802	796	780	762
3 2-or-more-family	511	462	407	380	432	754	323	320	295	263	312	302	288
4 Started	1,621	1,488	1,376	1,347	1,273	1,568	1,488	1,307	1,216	1,206	1,189	1,153	1,142
5 1-family	1,146	1,081	1,003	1,010	931	1,099	1,154	996	898	897	889	875	841
6 2-or-more-family	474	407	373	337	342	469	334	311	318	309	300	278	301
7 Under construction, end of period[1]	987	919	850	881	886	892	900	887	876	857	849	836	827
8 1-family	591	570	535	558	567	571	575	567	559	546	540	531	525
9 2-or-more-family	397	350	315	323	319	321	325	320	317	311	309	305	302
10 Completed	1,669	1,530	1,423	1,486	1,302	1,443	1,351	1,378	1,295	1,363	1,295	1,280	1,262
11 1-family	1,123	1,085	1,026	1,078	933	1,031	1,041	1,037	942	1,008	946	963	904
12 2-or-more-family	546	445	396	408	369	412	310	341	353	355	349	317	358
13 Mobile homes shipped	233	218	198	189	189	195	200	193	189	191	191	184	195
Merchant builder activity in 1-family units													
14 Number sold	672	675	650	687	633	613	606	558	533	536	559	558	550
15 Number for sale, end of period[1]	366	367	362	363	362	365	366	363	363	360[r]	354	350	343
Price (thousands of dollars)[2]													
Median													
16 Units sold	104.7	113.3	120.4	125.0	125.2	125.0	126.9	119.4	130.0	125.0	125.0	120.0	120.2
Average													
17 Units sold	127.9	139.0	148.3	151.4	154.3	151.7	150.9	144.6	153.4	150.6[r]	150.4	150.2	148.1
EXISTING UNITS (1-family)													
18 Number sold	3,530	3,594	3,439	3,560	3,560	3,520	3,400	3,400	3,330	3,300	3,330	3,330	3,500
Price of units sold (thousands of dollars)[2]													
19 Median	85.6	89.2	93.0	93.1	92.5	96.3	95.2	96.3	95.6	95.6	97.5	98.3	97.1
20 Average	106.2	112.5	118.0	117.9	118.1	120.0	118.3	119.5	117.8	118.7	121.1	122.0	120.5
	Value of new construction[3] (millions of dollars)												
CONSTRUCTION													
21 Total put in place	**410,209**	**422,076**	**432,068**	**433,381**	**431,995**	**445,959**	**455,571**	**457,272**	**444,737[r]**	**443,805[r]**	**441,088**	**442,358**	**442,529**
22 Private	319,641	327,102	333,514	329,847	325,011	338,078	343,118	347,366	338,780[r]	333,992[r]	329,556	333,904	327,415
23 Residential	194,656	198,101	196,551	190,855	189,636	200,149	203,013	206,868	200,234[r]	196,055[r]	189,462	189,125	186,936
24 Nonresidential, total	124,985	129,001	136,963	138,992	135,375	137,929	140,105	140,498	138,546[r]	137,937[r]	140,094	144,779	140,479
Buildings													
25 Industrial	13,707	14,931	18,506	19,134	18,863	19,680	21,072	21,086	21,039[r]	20,847[r]	20,405	23,656	20,683
26 Commercial	55,448	58,104	59,389	59,627	57,090	57,376	58,748	57,210	55,765[r]	54,698[r]	56,581	57,181	55,789
27 Other	15,464	17,278	17,848	18,160	16,612	17,706	16,964	17,646	18,227[r]	18,379[r]	19,272	19,801	19,927
28 Public utilities and other	40,366	38,688	41,220	42,071	42,810	43,167	43,321	44,556	43,515[r]	44,013[r]	43,836	44,141	44,080
29 Public	90,566	94,971	98,551	103,534	106,984	107,881	112,453	109,906	105,957[r]	109,813[r]	111,532	108,454	115,113
30 Military	4,327	3,579	3,520	3,664	3,552	3,838	3,886	5,099	5,057[r]	5,459[r]	5,868	5,026	5,040
31 Highway	26,958	30,140	29,502	30,376	33,450	31,901	37,018	32,374	29,714[r]	30,658[r]	30,311	28,818	31,398
32 *Conservation and development*	5,519	4,726	4,969	4,916	5,371	5,192	5,559	4,996	4,979[r]	5,504[r]	3,958	4,403	4,350
33 Other	53,762	56,526	60,560	64,578	64,611	66,950	65,990	67,437	66,207[r]	68,192[r]	71,395	70,207	74,325

1. Not at annual rates.
2. Not seasonally adjusted.
3. Value of new construction data in recent periods may not be strictly comparable with data in 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 Bureau in July 1976.

NOTE. Census Bureau 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 16,000 jurisdictions beginning with 1978.

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 (at annual rate)				Change from 1 month earlier					Index level Sept. 1990
	1989 Sept.	1990 Sept.	1989	1990			1990					
			Dec.	Mar.	June	Sept.	May	June	July	Aug.	Sept.	
CONSUMER PRICES[2] (1982–84 = 100)												
1 **All items**	**4.3**	**6.2**	**4.9**	**8.5**	**3.5**	**7.9**	**.2**	**.5**	**.4**	**.8**	**.8**	**132.7**
2 Food	4.9	5.6	5.5	11.4	2.1	3.7	.0	.8	.4	.3	.2	133.2
3 Energy items	4.4	13.5	3.9	14.8	−2.0	42.7	−.7	.6	−.7	4.3	5.6	108.8
4 All items less food and energy	4.3	5.5	4.7	7.5	3.9	5.7	.3	.4	.6	.5	.3	137.2
5 Commodities	2.7	3.7	3.4	7.8	.7	2.9	.1	.1	.3	.0	.4	124.5
6 Services	5.0	6.4	5.7	7.2	5.5	7.2	.4	.6	.7	.8	.3	144.5
PRODUCER PRICES (1982 = 100)												
7 Finished goods	4.6	5.9	5.0	7.1	.3	11.7	.1	.2	−.1	1.3	1.6	120.3
8 Consumer foods	3.0	4.7	12.4	10.6	−2.9	−.3	.3[r]	−.2[r]	.0	.8	−.9	124.1
9 Consumer energy	12.1	24.4	−5.3	24.7	−14.3	137.4	−1.5[r]	−1.6[r]	−.5	9.5	13.8	82.0
10 Other consumer goods	4.5	3.9	4.2	3.5	5.1	2.5	.4	.7	−.2	.2	.6	129.0
11 Capital equipment	4.0	3.4	2.0	4.0	1.7	6.0	.1[r]	.2[r]	.3	.3	.8	122.9
12 Intermediate materials[3]	3.7	3.7	−.4	2.5	−1.1	14.2	.0[r]	−.3[r]	−.1	1.5	1.9	116.4
13 Excluding energy	2.9	1.1	−1.0	1.0	.7	4.0	.1	−.1	.1	.3	.6	121.4
Crude materials												
14 Foods	−2.8	1.7	19.2	9.1	−11.5	−6.6	−2.4[r]	.0[r]	1.0	−.9	−1.8	110.8
15 Energy	17.6	28.6	13.2	.5	−38.9	293.7	1.9[r]	−6.7[r]	−.1	25.5	12.4	97.9
16 Other	3.2	2.1	−15.3	4.0	10.9	10.9	1.1[r]	−1.0[r]	.9	1.8	−.1	140.6

1. Not seasonally adjusted.
2. Figures for consumer prices are those for all urban consumers and reflect a rental equivalence measure of homeownership after 1982.
3. Excludes intermediate materials for food manufacturing and manufactured animal feeds.

SOURCE. Bureau of Labor Statistics.

2.16 GROSS NATIONAL PRODUCT AND INCOME

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

Account	1987	1988	1989	1989		1990		
				Q3	Q4	Q1	Q2	Q3
GROSS NATIONAL PRODUCT								
1 **Total**	**4,515.6**	**4,873.7**	**5,200.8**	**5,238.6**	**5,289.3**	**5,375.4**	**5,443.3**	**5,514.4**
By source								
2 Personal consumption expenditures	3,009.4	3,238.2	3,450.1	3,484.3	3,518.5	3,588.1	3,622.7	3,700.6
3 Durable goods	423.4	457.5	474.6	487.1	471.2	492.1	478.4	483.1
4 Nondurable goods	1,001.3	1,060.0	1,130.0	1,137.3	1,148.8	1,174.7	1,179.0	1,202.8
5 Services	1,584.7	1,720.7	1,845.5	1,859.8	1,898.5	1,921.3	1,965.3	2,014.7
6 Gross private domestic investment	699.5	747.1	771.2	775.8	762.7	747.2	759.0	759.6
7 Fixed investment	671.2	720.8	742.9	746.9	737.7	758.9	745.6	750.9
8 Nonresidential	444.9	488.4	511.9	518.1	511.8	523.1	516.5	530.1
9 Structures	133.7	139.9	146.2	147.0	147.1	148.8	147.2	150.2
10 Producers' durable equipment	311.2	348.4	365.7	371.0	364.7	374.3	369.3	379.9
11 Residential structures	226.3	232.5	231.0	228.9	225.9	235.9	229.1	220.8
12 Change in business inventories	28.3	26.2	28.3	28.9	25.0	-11.8	13.4	8.8
13 Nonfarm	32.3	29.8	23.3	26.2	24.1	-17.0	13.0	7.8
14 Net exports of goods and services	-114.7	-74.1	-46.1	-49.3	-35.3	-30.0	-24.9	49.2
15 Exports	449.6	552.0	626.2	623.7	642.8	661.3	659.7	662.6
16 Imports	564.3	626.1	672.3	673.0	678.1	691.3	684.6	711.8
17 Government purchases of goods and services	921.4	962.5	1,025.6	1,027.8	1,043.3	1,070.1	1,086.4	1,103.4
18 Federal	381.3	380.3	400.0	399.2	399.9	410.6	421.9	425.4
19 State and local	540.2	582.3	625.6	628.6	643.4	659.6	664.6	678.0
By major type of product								
20 Final sales, total	4,487.3	4,847.5	5,172.5	5,209.7	5,264.3	5,387.2	5,429.9	5,505.6
21 Goods	1,788.4	1,935.1	2,072.7	2,090.2	2,085.9	2,111.0	2,146.6	2,160.8
22 Durable	780.5	860.2	906.7	922.1	907.4	919.9	930.1	941.6
23 Nondurable	1,007.9	1,074.9	1,166.1	1,168.1	1,178.6	1,191.2	1,216.4	1,219.2
24 Services	2,292.4	2,488.6	2,671.2	2,693.3	2,747.5	2,791.3	2,834.2	2,894.4
25 Structures	434.9	450.0	456.9	455.0	455.9	473.0	462.5	459.2
26 Change in business inventories	28.3	26.2	28.3	28.9	25.0	-11.8	13.4	8.8
27 Durable goods	22.9	19.9	11.9	6.6	13.2	-21.6	.0	6.9
28 Nondurable goods	5.4	6.4	16.4	22.2	11.9	9.8	13.4	1.9
MEMO								
29 **Total GNP in 1982 dollars**	**3,845.3**	**4,016.9**	**4,117.7**	**4,129.7**	**4,133.2**	**4,150.6**	**4,155.1**	**4,173.6**
NATIONAL INCOME								
30 **Total**	**3,660.3**	**3,984.9**	**4,223.3**	**4,232.1**	**4,267.1**	**4,350.3**	**4,411.3**	n.a.
31 Compensation of employees	2,686.4	2,905.1	3,079.0	3,095.2	3,128.6	3,180.4	3,232.5	3,276.1
32 Wages and salaries	2,249.7	2,431.1	2,573.2	2,586.6	2,612.7	2,651.6	2,696.3	2,733.3
33 Government and government enterprises	419.4	446.6	476.6	479.9	486.7	497.1	505.7	511.3
34 Other	1,830.3	1,984.5	2,096.6	2,106.7	2,126.0	2,154.5	2,190.6	2,222.0
35 Supplement to wages and salaries	436.6	474.0	505.8	508.6	515.9	528.8	536.1	542.8
36 Employer contributions for social insurance	227.2	248.5	263.9	265.1	268.4	276.0	279.7	282.7
37 Other labor income	209.4	225.5	241.9	243.5	247.5	252.8	256.4	260.0
38 Proprietors' income[1]	323.4	354.2	379.3	368.1	381.7	404.0	401.7	398.0
39 Business and professional[1]	280.6	310.5	330.7	329.5	336.0	346.6	350.8	355.2
40 Farm[1]	42.8	43.7	48.6	38.7	45.7	57.4	51.0	42.8
41 *Rental income of persons*[2]	13.7	16.3	8.2	5.8	4.1	5.5	4.3	7.6
42 Corporate profits[1]	308.3	337.6	311.6	306.7	290.9	296.8	306.6	n.a.
43 Profits before tax[3]	275.3	316.7	307.7	291.4	289.8	296.9	299.3	n.a.
44 Inventory valuation adjustment	-19.4	-27.0	-21.7	-6.1	-14.5	11.4	.5	-30.6
45 Capital consumption adjustment	52.4	47.8	25.5	21.4	15.6	11.3	7.7	2.3
46 Net interest	328.6	371.8	445.1	456.2	461.7	463.6	466.2	468.9

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. *Survey of Current Business* (Department of Commerce).

2.17 PERSONAL INCOME AND SAVING

Billions of current dollars; quarterly data are at seasonally adjusted annual rates. Exceptions noted.

Account	1987	1988	1989	1989		1990		
				Q3	Q4	Q1	Q2	Q3
PERSONAL INCOME AND SAVING								
1 **Total personal income**	**3,766.4**	**4,070.8**	**4,384.3**	**4,402.8**	**4,469.2**	**4,562.8**	**4,622.2**	**4,677.7**
2 Wage and salary disbursements	2,249.7	2,431.1	2,573.2	2,586.6	2,612.7	2,651.6	2,696.3	2,733.3
3 Commodity-producing industries	649.9	696.4	720.6	722.3	721.4	724.6	731.1	735.1
4 Manufacturing	490.3	524.0	541.8	543.2	540.9	541.2	548.1	551.2
5 Distributive industries	531.8	572.0	604.7	607.1	614.6	627.0	637.3	642.4
6 Service industries	648.5	716.2	771.4	777.4	790.0	802.9	822.2	844.6
7 Government and government enterprises	419.4	446.6	476.6	479.9	486.7	497.1	505.7	511.3
8 Other labor income	209.4	225.5	241.9	243.5	247.5	252.8	256.4	260.0
9 Proprietors' income[1]	323.4	354.2	379.3	368.1	381.7	404.0	401.7	398.0
10 Business and professional[1]	280.6	310.5	330.7	329.5	336.0	346.6	350.8	355.2
11 Farm[1]	42.8	43.7	48.6	38.7	45.7	57.4	51.0	42.8
12 Rental income of persons[2]	13.7	16.3	8.2	5.8	4.1	5.5	4.3	7.6
13 Dividends	91.8	102.2	114.4	115.7	118.2	120.5	122.9	124.9
14 Personal interest income	501.3	547.9	643.2	655.2	664.9	670.5	678.0	686.4
15 Transfer payments	549.9	587.7	636.9	641.8	655.9	680.9	686.7	696.0
16 Old-age survivors, disability, and health insurance benefits	282.9	300.5	325.3	328.3	334.1	347.2	347.6	350.2
17 LESS: Personal contributions for social insurance	172.9	194.1	212.8	214.0	215.8	222.9	224.1	228.6
18 EQUALS: Personal income	3,766.4	4,070.8	4,384.3	4,402.8	4,469.2	4,562.8	4,622.2	4,677.7
19 LESS: Personal tax and nontax payments	571.6	591.6	658.8	659.5	669.6	675.1	696.5	709.0
20 EQUALS: Disposable personal income	3,194.7	3,479.2	3,725.5	3,743.4	3,799.6	3,887.7	3,925.7	3,968.6
21 LESS: Personal outlays	3,102.2	3,333.6	3,553.7	3,588.8	3,625.5	3,696.4	3,730.6	3,809.2
22 EQUALS: Personal saving	92.5	145.6	171.8	154.5	174.1	191.3	195.1	159.4
MEMO								
Per capita (1982 dollars)								
23 Gross national product	15,759.4	16,302.4	16,550.2	16,578.5	16,546.0	16,575.9	16,554.2	16,575.1
24 Personal consumption expenditures	10,310.7	10,578.3	10,678.5	10,739.9	10,688.2	10,692.1	10,672.5	10,733.5
25 Disposable personal income	10,946.0	11,368.0	11,531.0	11,538.0	11,541.0	11,586.0	11,564.0	11,511.0
26 Saving rate (percent)	2.9	4.2	4.6	4.1	4.6	4.9	5.0	4.0
GROSS SAVING								
27 **Gross saving**	**555.5**	**656.1**	**691.5**	**692.4**	**674.8**	**664.8**	**679.3**	n.a.
28 Gross private saving	662.6	751.3	779.3	776.0	786.4	795.0	806.7	n.a.
29 Personal saving	92.5	145.6	171.8	154.5	174.1	191.3	195.1	159.4
30 Undistributed corporate profits[1]	83.2	91.4	53.0	53.9	39.8	36.7	40.5	n.a.
31 Corporate inventory valuation adjustment	−19.4	−27.0	−21.7	−6.1	−14.5	−11.4	−.5	−30.6
Capital consumption allowances								
32 Corporate	303.2	322.1	346.4	351.6	356.5	356.7	359.7	365.2
33 Noncorporate	183.8	192.2	208.0	215.9	216.0	210.3	211.4	213.6
34 Government surplus, or deficit (−), national income and product accounts	−107.1	−95.3	−87.8	−83.6	−111.6	−130.2	−127.3	n.a.
35 Federal	−158.2	−141.7	−134.3	−131.7	−150.1	−168.3	−166.0	n.a.
36 State and local	51.0	46.5	46.4	48.1	38.5	38.1	38.6	n.a.
37 **Gross investment**	**544.9**	**627.8**	**674.4**	**676.1**	**671.8**	**665.6**	**676.1**	**656.1**
38 Gross private domestic	699.5	747.1	771.2	775.8	762.7	747.2	759.0	759.6
39 Net foreign	−154.6	−119.2	−96.8	−99.7	−90.9	−81.6	−82.9	−103.6
40 **Statistical discrepancy**	**−10.6**	**−28.2**	**−17.0**	**−16.2**	**−3.0**	**.7**	**−3.2**	n.a.

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

SOURCE. *Survey of Current Business* (Department of Commerce).

3.10 U.S. INTERNATIONAL TRANSACTIONS Summary

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

Item credits or debits	1987	1988	1989	1989 Q2	1989 Q3	1989 Q4	1990 Q1[r]	1990 Q2[p]
1 Balance on current account	−162,315	−128,862	−110,035	−28,649	−27,591	−26,692	−21,668	−21,844
2 Not seasonally adjusted	....	....	....	−27,528	−31,620	−27,926	−17,922	−20,314
3 Merchandise trade balance[2]	−159,500	−126,986	−114,864	−28,222	−29,803	−28,746	−26,283	−22,575
4 Merchandise exports	250,266	320,337	360,465	91,111	89,349	91,738	96,262	96,741
5 Merchandise imports	−409,766	−447,323	−475,329	−119,333	−119,152	−120,484	−122,545	−119,316
6 Military transactions, net	−3,530	−5,452	−6,319	−1,667	−1,114	−1,776	−1,287	−1,342
7 Investment income, net	5,326	1,610	−913	−1,957	17	561	1,995	−637
8 Other service transactions, net	9,964	16,971	26,783	6,203	6,839	7,900	7,292	7,423
9 Remittances, pensions, and other transfers	−4,299	−4,261	−3,758	−962	−909	−889	−983	−855
10 U.S. government grants	−10,276	−10,744	−10,963	−2,044	−2,621	−3,742	−2,402	−3,858
11 Change in U.S. government assets, other than official reserve assets, net (increase, −)	997	2,969	1,185	−303	574	−47	−659	−624
12 Change in U.S. official reserve assets (increase, −)	9,149	−3,912	−25,293	−12,095	−5,996	3,202	−3,177	371
13 Gold	0	0	0	0	0	0	0	0
14 Special drawing rights (SDRs)	−509	127	−535	68	−211	−204	−247	−216
15 Reserve position in International Monetary Fund	2,070	1,025	471	−159	337	−23	234	493
16 Foreign currencies	7,588	−5,064	−25,229	−12,004	−6,122	−2,975	−3,164	94
17 Change in U.S. private assets abroad (increase, −)	−73,092	−83,232	−102,953	11,017	−38,654	−45,496	36,713	−26,190
18 Bank-reported claims[3]	−42,119	−56,322	−50,684	26,829	−21,269	−32,658	52,353	−12,118
19 Nonbank-reported claims	5,324	−2,847	1,391	−2,384	1,877	47	1,202	....
20 U.S. purchase of foreign securities, net	−5,251	−7,846	−21,938	−6,144	−9,623	−4,109	−7,496	−10,939
21 U.S. direct investments abroad, net	−31,046	−16,217	−31,722	−7,284	9,639	−8,776	−9,346	−3,133
22 Change in foreign official assets in United States (increase, +)	45,210	39,515	8,823	−4,961	13,003	−7,016	−8,203	6,284
23 U.S. Treasury securities	43,238	41,741	333	−9,726	12,771	−7,342	−5,897	3,092
24 Other U.S. government obligations	1,564	1,309	1,383	−97	190	569	−521	346
25 Other U.S. government liabilities[4]	−2,503	−710	332	470	−350	412	−381	1,147
26 Other U.S. liabilities reported by U.S. banks[3]	3,918	−319	4,940	3,820	251	−820	−1,278	1,953
27 Other foreign official assets[5]	−1,007	−2,506	1,835	572	643	165	−126	254
28 Change in foreign private assets in United States (increase, +)	173,260	181,926	205,829	7,755	61,133	76,336	−24,786	15,673
29 U.S. bank-reported liabilities[3]	89,026	70,235	61,199	−20,806	27,845	36,674	−32,264	2,867
30 U.S. nonbank-reported liabilities	2,863	6,664	2,867	−407	−2,175	1,732	290	....
31 Foreign private purchases of U.S. Treasury securities, net	−7,643	20,239	29,951	2,339	12,618	5,671	−835	2,880
32 Foreign purchases of other U.S. securities, net	42,120	26,353	39,568	9,574	10,470	10,793	2,486	4,919
33 Foreign direct investments in United States, net	46,894	58,435	72,244	17,055	12,375	21,466	5,537	5,007
34 Allocation of SDRs	0	0	0	0	0	0	0	0
35 Discrepancy	6,790	−8,404	22,443	27,236	−2,469	6,117	21,780	26,330
36 Owing to seasonal adjustments	....	....	....	−1,697	−4,953	3,560	2,804	−1,036
37 Statistical discrepancy in recorded data before seasonal adjustment	6,790	−8,404	22,443	28,933	2,484	2,558	18,976	27,366
MEMO								
Changes in official assets								
38 U.S. official reserve assets (increase, −)	9,149	−3,912	−25,293	−12,095	−5,996	−3,202	−3,177	371
39 Foreign official assets in United States (increase, +) excluding line 25	47,713	40,225	8,491	5,431	13,353	−7,428	−7,822	5,137
40 Change in Organization of Petroleum Exporting Countries official assets in United States (part of line 22 above)	−9,956	−2,996	10,713	460	4,532	1,379	2,953	242

1. Seasonal factors are not calculated for lines 6, 10, 12–16, 18–20, 22–34, and 38–41.
2. Data are on an international accounts (IA) basis. Differs from the Census basis data, shown in table 3.11, for reasons of coverage and timing. Military exports are excluded from merchandise data and are included in line 6.
3. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.
4. Primarily associated with military sales contracts and other transactions arranged with or through foreign official agencies.
5. Consists of investments in U.S. corporate stocks and in debt securities of private corporations and state and local governments.

NOTE. Data are from Bureau of Economic Analysis, *Survey of Current Business* (Department of Commerce).

3.11 U.S. FOREIGN TRADE[1]

Millions of dollars; monthly data are seasonally adjusted.

Item	1987	1988	1989	1990 Feb.	Mar.	Apr.	May	June	July[r]	Aug.[p]
1 EXPORTS of domestic and foreign merchandise excluding grant-aid shipments, f.a.s. value	254,073	322,427	363,812	31,576	33,266	32,058	32,774	34,221	32,125	32,633
GENERAL IMPORTS including merchandise for immediate consumption plus entries into bonded warehouses										
2 Customs value	406,241	440,952	473,211	38,672	41,636	39,364	40,543	39,561	41,244	41,970
Trade balance										
3 **Customs value**	**−152,169**	**−118,526**	**−109,399**	**−7,096**	**−8,370**	**−7,306**	**−7,770**	**−5,340**	**−9,119**	**−9,336**

1. The Census basis data differ from merchandise trade data shown in table 3.10, U.S. International Transactions Summary, for reasons of coverage and timing. On the *export side*, the largest adjustment is the exclusion of military sales (which are combined with other military transactions and reported separately in the "service account" in table 3.10, line 6). On the *import side*, additions are made for gold, ship purchases, imports of electricity from Canada, and other transactions; military payments are excluded and shown separately as indicated above. As of Jan. 1, 1987 census data are released 45 days after the end of the month; the previous month is revised to reflect late documents. Total exports and the trade balance reflect adjustments for undocumented exports to Canada.

SOURCE. FT900 "Summary of U.S. Export and Import Merchandise Trade" (Department of Commerce, Bureau of the Census).

3.12 U.S. RESERVE ASSETS

Millions of dollars, end of period

Type	1987	1988	1989	1990 Mar.	Apr.	May	June	July	Aug.	Sept.[p]
1 **Total**	**45,798**	**47,802**	**74,609**	**76,303**	**76,283**	**77,028**	**77,298**	**77,906**	**78,909**	**80,024**
2 Gold stock, including Exchange Stabilization Fund[1]	11,078	11,057	11,059	11,060	11,060	11,065	11,065	11,064	11,065	11,063
3 Special drawing rights[2,3]	10,283	9,637	9,951	10,092	10,103	10,396	10,490	10,699	10,780	10,666
4 Reserve position in International Monetary Fund[2]	11,349	9,745	9,048	8,727	8,687	8,764	8,449	8,686	8,890	8,881
5 Foreign currencies[4]	13,088	17,363	44,551	46,424	46,433	46,803	47,294	47,457	48,174	49,414

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. Gold stock is valued at $42.22 per fine troy ounce.
2. Beginning July 1974, the IMF adopted a technique for valuing the SDR based on a weighted average of exchange rates for the currencies of member countries. From July 1974 through December 1980, 16 currencies were used; from January 1981, 5 currencies have been used. The U.S. SDR holdings and reserve position in the IMF also are valued on this basis beginning July 1974.
3. Includes allocations by the International Monetary Fund of SDRs as follows: $867 million on Jan. 1, 1970; $717 million on Jan. 1, 1971; $710 million on Jan. 1, 1972; $1,139 million on Jan. 1, 1979; $1,152 million on Jan. 1, 1980; and $1,093 million on Jan. 1, 1981; plus 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

Assets	1987	1988	1989	1990 Mar.	Apr.	May	June	July	Aug.	Sept.[p]
1 Deposits	244	347	589	300	402	309	368	279	337	360
Assets held in custody										
2 U.S. Treasury securities[2]	195,126	232,547	224,911	250,447	252,759	253,691	255,651	256,585	261,051	261,321
3 Earmarked gold[3]	13,919	13,636	13,456	13,458	13,458	13,460	13,433	13,422	13,412	13,419

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 payable in dollars and in foreign currencies at face value.
3. Earmarked gold and the gold stock are valued at $42.22 per fine troy ounce. Earmarked gold is gold held for foreign and international accounts and is not included in the gold stock of the United States.

3.14 FOREIGN BRANCHES OF U.S. BANKS Balance Sheet Data[1]

Millions of dollars, end of period

Asset account	1987	1988	1989	1990						
				Feb.	Mar.	Apr.	May	June	July	Aug.
	All foreign countries									
1 **Total, all currencies**	**518,618**	**505,595**	**545,366**	**553,815**	**535,059**	**535,886**	**541,439**	**524,010**	**531,418[r]**	**551,135**
2 Claims on United States	138,034	169,111	198,835	188,700	176,096	177,104	182,224	179,258	174,583	178,236
3 Parent bank	105,845	129,856	157,092	145,156	135,172	133,573	140,751	138,384	133,682	137,558
4 Other banks in United States	16,416	14,918	17,042	18,064	15,511	17,965	15,647	15,166	15,239	14,500
5 Nonbanks	15,773	24,337	24,701	25,480	25,413	25,566	25,826	25,708	25,662	26,178
6 Claims on foreigners	342,520	299,728	300,575	313,934	308,117	307,470	306,058	293,730	305,005[r]	313,914
7 Other branches of parent bank	122,155	107,179	113,810	122,457	120,488	118,835	116,640	108,464	115,520[r]	121,855
8 Banks	108,859	96,932	90,703	94,065	89,837	90,812	90,422	85,780	86,007	88,822
9 Public borrowers	21,832	17,163	16,456	15,148	15,973	16,217	16,172	16,323	16,703	16,208
10 Nonbank foreigners	89,674	78,454	79,606	82,264	81,819	81,606	82,824	83,163	86,775	87,029
11 Other assets	38,064	36,756	45,956	51,181	50,846	51,312	53,157	51,022	51,830[r]	58,985
12 **Total payable in U.S. dollars**	**350,107**	**357,573**	**382,717**	**375,511**	**358,543**	**360,224**	**363,128**	**350,310**	**346,515[r]**	**358,106**
13 Claims on United States	132,023	163,456	191,184	180,738	168,833	169,996	173,887	171,551	166,294	169,714
14 Parent bank	103,251	126,929	152,294	139,920	130,350	129,162	135,211	133,167	128,066	131,994
15 Other banks in United States	14,657	14,167	16,386	17,187	14,992	17,209	14,818	14,575	14,375	13,513
16 Nonbanks	14,115	22,360	22,504	23,631	23,491	23,625	23,858	23,809	23,853	24,207
17 Claims on foreigners	202,428	177,685	169,690	172,132	167,616	168,419	167,630	158,652	158,090[r]	163,441
18 Other branches of parent bank	88,284	80,736	82,949	87,403	85,028	84,930	83,381	76,410	79,408[r]	82,882
19 Banks	63,707	54,884	48,396	46,582	43,408	43,814	44,449	42,918	39,019	40,725
20 Public borrowers	14,730	12,131	10,961	10,529	11,110	11,191	10,912	10,956	10,652	10,927
21 Nonbank foreigners	35,707	29,934	27,384	27,618	28,070	28,484	28,888	28,368	29,011[r]	28,907
22 Other assets	15,656	16,432	21,843	22,641	22,094	21,809	21,611	20,107	22,131[r]	24,951
	United Kingdom									
23 **Total, all currencies**	**158,695**	**156,835**	**161,947**	**169,727**	**167,162**	**173,127**	**177,947**	**167,885**	**175,254[r]**	**184,933**
24 Claims on United States	32,518	40,089	39,212	40,161	38,809	42,366	43,247	39,904	40,418	40,092
25 Parent bank	27,350	34,243	35,847	36,311	34,648	37,572	39,089	35,924	36,564	36,140
26 Other banks in United States	1,259	1,123	1,058	1,365	1,301	1,262	747	730	894	1,037
27 Nonbanks	3,909	4,723	2,307	2,485	2,860	3,532	3,411	3,250	2,960	2,915
28 Claims on foreigners	115,700	106,388	107,657	110,911	109,227	111,175	114,800	108,080	114,254[r]	118,423
29 Other branches of parent bank	39,903	35,625	37,728	38,410	39,636	41,613	43,358	38,068	41,181[r]	43,581
30 Banks	36,735	36,765	36,159	36,488	34,803	35,224	35,730	34,194	35,085	37,623
31 Public borrowers	4,752	4,019	3,293	3,076	3,857	3,980	3,943	3,740	3,619	3,757
32 Nonbank foreigners	34,310	29,979	30,477	32,937	30,931	30,358	31,769	32,078	34,369	33,462
33 Other assets	10,477	10,358	15,078	18,655	19,126	19,586	19,900	19,901	20,582[r]	26,418
34 **Total payable in U.S. dollars**	**100,574**	**103,503**	**103,427**	**103,752**	**101,024**	**107,483**	**110,186**	**100,887**	**103,047[r]**	**107,192**
35 Claims on United States	30,439	38,012	36,404	37,006	35,752	39,091	39,374	36,158	36,230	35,979
36 Parent bank	26,304	33,252	34,329	34,462	32,697	35,663	36,712	33,509	33,716	33,585
37 Other banks in United States	1,044	964	843	1,036	1,122	1,041	521	552	681	721
38 Nonbanks	3,091	3,796	1,232	1,508	1,933	2,387	2,141	2,097	1,833	1,673
39 Claims on foreigners	64,560	60,472	59,062	58,763	57,166	60,165	63,025	57,802	58,278[r]	60,390
40 Other branches of parent bank	28,635	28,474	29,872	30,224	30,421	32,885	34,441	30,050	31,220[r]	32,976
41 Banks	19,188	18,494	16,579	15,984	13,748	14,141	14,635	14,625	13,621	14,570
42 Public borrowers	3,313	2,840	2,371	2,266	3,074	3,131	3,114	2,942	2,839	2,896
43 Nonbank foreigners	13,424	10,664	10,240	10,289	9,923	10,008	10,835	10,185	10,598	9,948
44 Other assets	5,575	5,019	7,961	7,983	8,106	8,227	7,787	6,927	8,539[r]	10,823
	Bahamas and Caymans									
45 **Total, all currencies**	**160,321**	**170,639**	**176,006**	**164,908**	**155,145**	**150,767**	**154,851**	**154,354**	**145,813**	**150,592**
46 Claims on United States	85,318	105,320	124,205	114,263	105,466	102,184	105,617	107,244	99,918	103,521
47 Parent bank	60,048	73,409	87,882	76,475	70,535	65,084	69,807	72,115	64,748	68,507
48 Other banks in United States	14,277	13,145	15,071	15,827	13,564	15,902	14,079	13,603	13,412	12,625
49 Nonbanks	10,993	18,766	21,252	21,961	21,367	21,198	21,731	21,526	21,758	22,389
50 Claims on foreigners	70,162	58,393	44,168	43,162	42,393	41,467	42,147	39,812	38,393	39,595
51 Other branches of parent bank	21,277	17,954	11,309	14,409	13,171	13,306	12,917	11,906	11,947	12,203
52 Banks	33,751	28,268	22,611	19,595	19,370	18,499	19,947	18,492	16,761	17,543
53 Public borrowers	7,428	5,830	5,217	4,753	4,684	4,490	4,350	4,393	4,307	4,554
54 Nonbank foreigners	7,706	6,341	5,031	4,405	5,168	5,172	4,933	5,021	5,378	5,295
55 Other assets	4,841	6,926	7,633	7,483	7,286	7,116	7,087	7,298	7,502	7,476
56 **Total payable in U.S. dollars**	**151,434**	**163,518**	**170,780**	**159,484**	**150,061**	**145,994**	**149,467**	**149,943**	**140,966**	**146,000**

1. Beginning with June 1984 data, reported claims held by foreign branches have been reduced by an increase in the reporting threshold for "shell" branches from $50 million to $150 million equivalent in total assets, the threshold now applicable to all reporting branches.

3.14—Continued

Liability account	1987	1988	1989	1990 Feb.	Mar.	Apr.	May	June	July	Aug.
				All foreign countries						
57 **Total, all currencies**	**518,618**	**505,595**	**545,366**	**553,815**	**535,059**	**535,886**	**541,439**	**524,010**	**531,418[r]**	**551,135**
58 Negotiable CDs	30,929	28,511	23,500	23,620	21,767	24,113	25,452	23,504	21,805[r]	23,342
59 To United States	161,390	185,577	197,239	181,164	173,675	168,669	169,791	169,769	163,117	167,307
60 Parent bank	87,606	114,720	138,412	119,967	114,170	109,642	109,831	113,151	105,243	109,715
61 Other banks in United States	20,355	14,737	11,704	11,990	10,799	11,782	10,272	9,092	9,454	10,264
62 Nonbanks	53,429	56,120	47,123	49,207	48,706	47,245	49,688	47,526	48,420	47,328
63 To foreigners	304,803	270,923	296,850	317,318	309,756	313,446	315,058	299,951	314,503	320,852
64 Other branches of parent bank	124,601	111,267	119,591	126,786	124,084	120,405	120,722	113,653	119,476	124,510
65 Banks	87,274	72,842	76,452	77,449	75,017	77,875	78,681	73,896	77,940	79,366
66 Official institutions	19,564	15,183	16,750	20,637	17,704	20,683	19,710	17,637	19,718	17,777
67 Nonbank foreigners	73,364	71,631	84,057	92,446	92,951	94,483	95,945	94,765	97,369	99,199
68 Other liabilities	21,496	20,584	27,777	31,713	29,861	29,658	31,138	30,786	31,993[r]	39,634
69 **Total payable in U.S. dollars**	**361,438**	**367,483**	**396,613**	**385,634**	**369,306**	**368,626**	**369,505**	**358,681**	**355,782[r]**	**365,759**
70 Negotiable CDs	26,768	24,045	19,619	18,783	17,084	19,601	20,579	18,928	16,519[r]	18,013
71 To United States	148,442	173,190	187,286	169,669	162,606	157,579	157,851	158,173	150,785	155,068
72 Parent bank	81,783	107,150	132,563	113,487	108,128	103,252	103,389	106,818	98,770	103,252
73 Other banks in United States	18,951	13,468	10,519	10,684	9,296	10,415	8,855	7,741	7,884	8,791
74 Nonbanks	47,708	52,572	44,204	45,498	45,182	43,912	45,607	43,614	44,131	43,025
75 To foreigners	177,711	160,766	176,460	183,378	176,939	178,035	177,888	168,642	174,616	177,009
76 Other branches of parent bank	90,469	84,021	87,636	90,360	86,908	84,090	84,415	78,646	81,332	84,139
77 Banks	35,065	28,493	30,537	28,741	27,639	29,207	28,265	27,434	28,045	29,000
78 Official institutions	12,409	8,224	9,873	11,740	9,248	11,909	11,480	9,066	10,613	9,669
79 Nonbank foreigners	39,768	40,028	48,414	52,537	53,144	52,829	53,728	53,496	54,626	54,201
80 Other liabilities	8,517	9,482	13,248	13,804	12,677	13,411	13,187	12,938	13,862[r]	15,669
				United Kingdom						
81 **Total, all currencies**	**158,695**	**156,835**	**161,947**	**169,727**	**167,162**	**173,127**	**177,947**	**167,885**	**175,254[r]**	**184,933**
82 Negotiable CDs	26,988	24,528	20,056	19,656	18,266	20,535	21,846	19,672	17,795[r]	19,128
83 To United States	23,470	36,784	36,036	32,686	32,780	33,931	33,755	32,291	32,320	33,365
84 Parent bank	13,223	27,849	29,726	23,752	22,970	23,339	23,179	23,158	21,952	23,399
85 Other banks in United States	1,536	2,037	1,256	2,115	1,827	1,841	1,847	1,615	1,626	1,535
86 Nonbanks	8,711	6,898	5,054	6,819	7,983	8,751	8,729	7,518	8,742	8,431
87 To foreigners	98,689	86,026	92,307	101,565	101,160	103,362	106,138	99,279	107,533	108,947
88 Other branches of parent bank	33,078	26,812	27,397	28,074	29,848	28,581	29,193	26,506	28,944	28,967
89 Banks	34,290	30,609	29,780	32,110	29,116	31,026	31,580	28,575	32,420	34,647
90 Official institutions	11,015	7,873	8,551	10,758	9,184	10,829	11,409	10,263	11,314	9,902
91 Nonbank foreigners	20,306	20,732	26,579	30,623	33,012	32,926	33,956	33,935	34,855	35,431
92 Other liabilities	9,548	9,497	13,548	15,820	14,956	15,299	16,208	16,643	17,606[r]	23,493
93 **Total payable in U.S. dollars**	**102,550**	**105,907**	**108,178**	**106,416**	**103,544**	**109,708**	**110,595**	**101,530**	**104,372[r]**	**108,532**
94 Negotiable CDs	24,926	22,063	18,143	16,910	15,660	17,936	19,012	17,233	14,831[r]	16,183
95 To United States	17,752	32,588	33,056	28,817	29,383	30,386	29,666	28,160	27,967	28,779
96 Parent bank	12,026	26,404	28,812	22,513	22,219	22,446	22,339	22,190	21,208	22,423
97 Other banks in United States	1,308	1,752	1,065	1,807	1,552	1,553	1,456	1,325	1,175	1,228
98 Nonbanks	4,418	4,432	3,179	4,497	5,612	6,387	5,871	4,645	5,584	5,128
99 To foreigners	55,919	47,083	50,517	53,751	52,095	54,371	55,163	49,672	54,591	54,827
100 Other branches of parent bank	22,334	18,561	18,384	18,556	19,182	18,799	18,589	16,199	17,408	17,347
101 Banks	15,580	13,407	12,244	11,920	9,976	11,233	11,007	9,911	11,251	13,042
102 Official institutions	7,530	4,348	5,454	6,717	5,192	6,703	7,264	5,305	6,515	5,463
103 Nonbank foreigners	10,475	10,767	14,435	16,558	17,745	17,636	18,303	18,257	19,417	18,975
104 Other liabilities	3,953	4,173	6,462	6,938	6,406	7,015	6,754	6,465	6,983[r]	8,743
				Bahamas and Caymans						
105 **Total, all currencies**	**160,321**	**170,639**	**176,006**	**164,908**	**155,145**	**150,767**	**154,851**	**154,354**	**145,813**	**150,592**
106 Negotiable CDs	885	953	678	671	522	524	528	535	548	553
107 To United States	113,950	122,332	124,859	113,137	108,003	101,024	103,655	103,592	95,746	100,519
108 Parent bank	53,239	62,894	75,188	64,085	61,528	55,311	57,136	58,880	51,257	55,989
109 Other banks in United States	17,224	11,494	8,883	8,198	7,310	8,544	6,991	5,984	6,228	7,039
110 Nonbanks	43,487	47,944	40,788	40,854	39,165	37,169	39,528	38,728	38,261	37,491
111 To foreigners	43,815	45,161	47,382	48,726	44,314	46,741	48,410	47,613	47,010	46,922
112 Other branches of parent bank	19,185	23,686	23,414	25,110	20,778	22,446	25,535	24,184	24,560	24,965
113 Banks	10,769	8,336	8,823	8,059	7,983	8,617	8,154	8,969	8,120	7,469
114 Official institutions	1,504	1,074	1,097	1,290	1,078	1,247	962	960	999	943
115 Nonbank foreigners	12,357	12,065	14,048	14,267	14,475	14,431	13,759	13,500	13,331	13,545
116 Other liabilities	1,671	2,193	3,087	2,374	2,306	2,478	2,258	2,614	2,509	2,598
117 **Total payable in U.S. dollars**	**152,927**	**162,950**	**171,250**	**160,212**	**150,758**	**146,259**	**149,707**	**149,680**	**140,377**	**145,567**

3.15 SELECTED U.S. LIABILITIES TO FOREIGN OFFICIAL INSTITUTIONS

Millions of dollars, end of period

Item	1988r	1989r	1990						
			Feb.r	Mar.r	Apr.r	Mayr	Juner	Julyr	Aug.p
1 **Total**[1]	**304,132**	**312,457**	**304,434**	**302,096**	**307,820**	**308,397**	**309,541**	**312,312**	**320,218**
By type									
2 Liabilities reported by banks in the United States[2]	31,519	36,481	33,896	35,553	36,642	36,747	37,471	38,596	39,286
3 U.S. Treasury bills and certificates[3]	103,722	76,985	73,099	73,039	69,454	72,322	71,804	72,694	72,803
U.S. Treasury bonds and notes									
4 Marketable	152,429	179,264	178,149	174,411	179,476	177,092	178,016	178,747	185,549
5 Nonmarketable[4]	523	568	576	580	3,596	3,620	3,644	3,668	3,692
6 U.S. securities other than U.S. Treasury securities[5]	15,939	19,159	18,714	18,513	18,652	18,616	18,606	18,607	18,888
By area									
7 Western Europe[1]	123,752	133,417	132,779	135,691	141,102	142,405	146,928	149,467	151,792
8 Canada	9,513	9,482	7,905	8,315	7,809	6,550	6,961	8,415	11,083
9 Latin America and Caribbean	10,030	8,740	8,260	9,151	9,066	9,147	10,200	9,975	11,190
10 Asia	151,887	153,338	147,232	141,068	142,899	141,490	136,325	135,693	136,801
11 Africa	1,403	1,030	1,025	936	895	1,074	946	917	1,697
12 Other countries[6]	7,548	6,453	7,233	6,936	6,047	7,731	8,183	7,848	7,655

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 (including those payable in foreign currencies through 1974) and Treasury bills issued to official institutions of foreign countries.
4. Excludes notes issued to foreign official nonreserve agencies. Includes bonds and notes payable in foreign currencies.
5. Debt securities of U.S. government corporations and federally sponsored agencies, and U.S. corporate stocks and bonds.
6. Includes countries in Oceania and Eastern Europe.

NOTE. Based on Treasury Department data and on data reported to the Treasury Department by banks (including Federal Reserve Banks) and securities dealers in the United States.

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

Millions of dollars, end of period

Item	1986	1987	1988	1989		1990	
				Sept.r	Dec.r	Mar.	June
1 Banks' own liabilities	29,702	55,438	74,980	73,755	67,805	63,105	68,140
2 Banks' own claims	26,180	51,271	68,983	70,328	65,127	60,999	66,626
3 Deposits	14,129	18,861	25,100	22,962	20,491	21,456	21,046
4 Other claims	12,052	32,410	43,884	47,366	44,636	39,543	45,580
5 Claims of banks' domestic customers[2]	2,507	551	364	3,044	3,507	1,190	928

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

Holder and type of liability	1987	1988	1989	1990 Feb.	Mar.r	Apr.r	May	Juner	Julyr	Aug.p
1 **All foreigners**	**618,874**	**685,339**	**736,627r**	**697,815r**	**703,562**	**702,923**	**715,613r**	**707,464**	**719,552**	**737,579**
2 Banks' own liabilities	470,070	514,532	577,247r	539,568r	543,292	547,193	552,438r	544,196	554,208	569,421
3 Demand deposits	22,383	21,863	22,080r	20,847r	20,474	21,096	20,578	20,365	19,735	20,729
4 Time deposits[2]	148,374	152,164	168,735r	156,437r	154,865	148,984	151,063r	151,525	154,491	156,619
5 Other[3]	51,677	51,366	67,650r	58,611r	60,658	65,990	65,367r	64,646	66,130	73,781
6 Own foreign offices[4]	247,635	289,138	318,782r	303,674r	307,295	311,123	315,430r	307,660	313,853	318,293
7 Banks' custody liabilities[5]	148,804	170,807	159,380	158,246	160,270	155,730	163,175	163,267	165,344	168,158
8 U.S. Treasury bills and certificates[6]	101,743	115,056	91,100	88,032	88,015	83,649	88,908	90,082	91,975	93,601
9 Other negotiable and readily transferable instruments[7]	16,776	16,426	19,526	18,655	18,809	18,132	18,531	17,865	17,509	16,985
10 Other	30,285	39,325	48,754	51,560	53,446	53,948	55,737	55,320	55,860	57,572
11 **Nonmonetary international and regional organizations**[8]	**4,464**	**3,224**	**4,772**	**3,765**	**4,896**	**5,727**	**4,558**	**5,018**	**4,112**	**4,288**
12 Banks' own liabilities	2,702	2,527	3,156	2,218	3,334	3,781	2,913	3,619	2,790	2,329
13 Demand deposits	124	71	96	55	156	52	28	29	46	244
14 Time deposits[2]	1,538	1,183	927	624	1,137	2,025	773	1,416	1,038	1,296
15 Other[3]	1,040	1,272	2,133	1,539	2,041	1,704	2,112	2,174	1,707	782
16 Banks' custody liabilities[5]	1,761	698	1,616	1,547	1,562	1,947	1,645	1,399	1,322	1,959
17 U.S. Treasury bills and certificates[6]	265	57	197	160	191	190	174	147	148	1,095
18 Other negotiable and readily transferable instruments[7]	1,497	641	1,417	1,387	1,371	1,740	1,463	1,253	1,159	819
19 Other	0	0	2	0	0	17	8	0	15	45
20 **Official institutions**[9]	**120,667**	**135,241**	**113,466r**	**106,994r**	**108,592**	**106,096**	**109,069r**	**109,275**	**111,290**	**112,089**
21 Banks' own liabilities	28,703	27,109	31,092r	30,705r	31,711	33,864	33,395r	33,378	34,850	35,250
22 Demand deposits	1,757	1,917	2,196	1,654	1,826	2,066	1,644	1,613	1,520	1,916
23 Time deposits[2]	12,843	9,767	10,495r	10,694r	9,730	10,939	11,178	10,179	11,509	11,054
24 Other[3]	14,103	15,425	18,401r	18,358r	20,155	20,859	20,572r	21,586	21,820	22,281
25 Banks' custody liabilities[5]	91,965	108,132	82,373	76,289	76,881	72,231	75,674	75,896	76,440	76,839
26 U.S. Treasury bills and certificates[6]	88,829	103,722	76,985	73,099	73,039	69,454	72,322	71,804	72,694	72,803
27 Other negotiable and readily transferable instruments[7]	2,990	4,130	5,028	2,892	3,671	2,605	3,158	3,650	3,596	3,685
28 Other	146	280	361	298	171	173	195	443	150	351
29 **Banks**[10]	**414,280**	**459,523**	**514,721r**	**485,669r**	**489,851**	**492,708**	**503,137r**	**496,903**	**507,149**	**524,364**
30 Banks' own liabilities	371,665	409,501	454,206r	422,180r	423,858	426,048	432,438r	424,810	433,738	449,365
31 Unaffiliated foreign banks	124,030	120,362	135,425r	118,506r	116,562	114,925	117,009r	117,151	119,885	131,079
32 Demand deposits	10,898	9,948	10,325r	10,069r	9,625	9,864	9,673	9,503	9,236	9,804
33 Time deposits[2]	79,717	80,189	90,557	74,971r	75,389	68,703	71,159r	73,243	74,889	78,365
34 Other[3]	33,415	30,226	34,543r	33,465r	31,548	36,357	36,177r	34,405	35,760	42,910
35 Own foreign offices[4]	247,635	289,138	318,782r	303,674r	307,295	311,123	315,430r	307,660	313,853	318,286
36 Banks' custody liabilities[5]	42,615	50,022	60,514	63,489	65,993	66,660	70,699	72,093	73,411	74,999
37 U.S. Treasury bills and certificates[6]	9,134	7,602	9,367	9,342	9,359	9,374	11,578	13,502	13,961	13,855
38 Other negotiable and readily transferable instruments[7]	5,392	5,725	5,124	4,918	5,390	5,437	5,616	5,757	5,760	5,366
39 Other	28,089	36,694	46,023	49,229	51,244	51,850	53,504	52,833	53,690	55,779
40 **Other foreigners**	**79,463**	**87,351**	**103,669r**	**101,386r**	**100,223**	**98,391**	**98,848r**	**96,268**	**97,001**	**96,838**
41 Banks' own liabilities	67,000	75,396	88,793r	84,465r	84,389	83,500	83,692r	82,389	82,831	82,478
42 Demand deposits	9,604	9,928	9,463r	9,069r	8,867	9,114	9,232	9,220	8,932	8,765
43 Time deposits[2]	54,277	61,025	66,757r	70,148	68,608	67,318	67,953r	66,687	67,056	65,905
44 Other[3]	3,119	4,443	12,573	5,249r	6,914	7,069	6,506	6,481	6,843	7,808
45 Banks' custody liabilities[5]	12,463	11,956	14,877	16,921	15,834	14,891	15,157	13,879	14,170	14,360
46 U.S. Treasury bills and certificates[6]	3,515	3,675	4,551	5,431	5,425	4,632	4,834	4,630	5,173	5,849
47 Other negotiable and readily transferable instruments[7]	6,898	5,929	7,958	9,457	8,378	8,350	8,293	7,205	6,993	7,115
48 Other	2,050	2,351	2,368	2,033	2,031	1,909	2,030	2,044	2,004	1,396
49 MEMO: Negotiable time certificates of deposit in custody for foreigners	7,314	6,425	7,203	8,457	7,634	7,183	7,282	6,429	5,911	5,713

1. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.
2. Excludes negotiable time certificates of deposit, which are included in "Other negotiable and readily transferable instruments."
3. Includes borrowing under repurchase agreements.
4. U.S. banks: includes amounts due to own foreign branches and foreign subsidiaries consolidated in "Consolidated Report of Condition" filed with bank regulatory agencies. Agencies, branches, and majority-owned subsidiaries of foreign banks: principally amounts due to head office or parent foreign bank, and foreign branches, agencies, or wholly owned subsidiaries of 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.
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, and the Inter-American and Asian Development Banks. Data exclude "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—Continued

Area and country	1987	1988	1989	1990						
				Feb.	Mar.	Apr.	May	June^r	July^r	Aug.^p
1 **Total**	**618,874**	**685,339**	**736,627^r**	**697,815^r**	**703,562^r**	**702,923^r**	**715,613^r**	**707,464**	**719,552**	**737,579**
2 **Foreign countries**	**614,411**	**682,115**	**731,855^r**	**694,050^r**	**698,666^r**	**697,195^r**	**711,055^r**	**702,446**	**715,440**	**733,291**
3 Europe	234,641	231,912	237,453	224,837^r	225,210^r	229,675	236,551^r	234,112	235,831	244,759
4 Austria	920	1,155	1,233	1,609^r	1,493^r	1,549	1,373	1,531	1,497	1,543
5 Belgium-Luxembourg	9,347	10,022	10,611	11,707^r	12,319^r	10,128	9,507	10,047	10,564	11,380
6 Denmark	760	2,200	1,415	1,244	1,760	2,244^r	2,152	2,411	2,581	2,237
7 Finland	377	285	570	614	431	464	314	387	485	465
8 France	29,835	24,777	26,903	21,844^r	21,900^r	24,263	23,103	23,566	23,106	24,223
9 Germany	7,022	6,772	7,578	8,718	7,488	8,798^r	8,030	8,076	7,571	7,559
10 Greece	689	672	1,028^r	1,035^r	906	879	860	833	873	937
11 Italy	12,073	14,599	16,169	11,977	12,728	14,138	16,347	16,779	17,107	17,070
12 Netherlands	5,014	5,316	6,613	8,226	9,454	7,731	8,166	7,617	5,967	6,149
13 Norway	1,362	1,559	2,401	997	2,619	1,454	1,582	2,420	1,792	2,186
14 Portugal	801	903	2,407	2,285	2,385	2,354	2,359	3,082	3,073	2,891
15 Spain	2,621	5,494	4,364	4,280	4,911	4,230	4,535	4,391	4,919	4,402
16 Sweden	1,379	1,284	1,491	1,468	1,374^r	1,689^r	1,655^r	1,769	1,586	2,013
17 Switzerland	33,766	34,199	34,496	32,962^r	33,890^r	33,244	35,260	34,780	33,797	34,655
18 Turkey	703	1,012	1,818	886	1,039	1,459^r	1,641	1,596	1,654	2,081
19 United Kingdom	116,852	111,811	102,362	99,771^r	96,966^r	99,376	104,624	98,530	100,856	107,923
20 Yugoslavia	710	529	1,474	1,402	1,613	1,599	1,934	2,169	2,435	2,260
21 Other Western Europe[1]	9,798	8,598	13,563	12,168^r	10,494^r	12,239^r	11,423^r	12,360	14,373	13,182
22 U.S.S.R	32	138	350	376	141	446	158	75	257	46
23 Other Eastern Europe[2]	582	591	608^r	1,266^r	1,299	1,392^r	1,529	1,695	1,339	1,556
24 Canada	30,095	21,062	18,865^r	21,331^r	18,538^r	19,485^r	19,900^r	19,956	20,049	21,116
25 Latin America and Caribbean	220,372	271,146	310,948^r	306,320^r	313,158^r	309,109^r	315,674^r	312,782	316,555	319,992
26 Argentina	5,006	7,804	7,304	7,496	8,036	8,235	8,346	7,993	8,160	7,842
27 Bahamas	74,767	86,863	99,341^r	95,055^r	98,492^r	90,331^r	98,658^r	99,255	98,290	101,647
28 Bermuda	2,344	2,621	2,884	2,239	2,308	2,807	2,514	3,072	2,825	2,661
29 Brazil	4,005	5,314	6,334	7,128	7,281^r	6,729	6,088	6,110	6,082	6,865
30 British West Indies	81,494	113,840	138,263	136,135^r	139,120^r	143,264	142,129^r	137,069	142,266	141,383
31 Chile	2,210	2,936	3,212	3,143^r	3,261	3,418	3,517	3,449	3,540	3,552
32 Colombia	4,204	4,374	4,653	4,610	4,510	4,404	4,471	4,508	4,473	4,343
33 Cuba	12	10	10	10	9	9	10	11	15	11
34 Ecuador	1,082	1,379	1,391	1,325	1,337	1,334	1,367	1,368	1,348	1,348
35 Guatemala	1,082	1,195	1,312	1,362	1,403	1,451	1,473	1,473	1,523	1,497
36 Jamaica	160	269	209	217	245	224	215	224	221	213
37 Mexico	14,480	15,185	15,423^r	15,824^r	15,269^r	15,085^r	15,116	16,141	16,055	16,337
38 Netherlands Antilles	4,975	6,420	6,310	6,470	6,412	6,460	6,806	6,628	6,810	6,668
39 Panama	7,414	4,353	4,361	4,743	4,766	4,749	4,540^r	4,544	4,384	4,624
40 Peru	1,275	1,671	1,984	1,975	1,836	1,703	1,532^r	1,473	1,405	1,369
41 Uruguay	1,582	1,898	2,284	2,397	2,513	2,575	2,560	2,529	2,560	2,526
42 Venezuela	9,048	9,147	9,468	9,661^r	9,916^r	9,673^r	9,717	10,292	9,827	10,228
43 Other	5,234	5,868	6,206^r	6,531^r	6,446^r	6,659^r	6,614^r	6,645	6,772	6,878
44 Asia	121,288	147,838	156,201^r	132,258^r	133,230^r	131,027^r	129,147^r	126,265	134,114	137,558
China										
45 Mainland	1,162	1,895	1,773^r	1,473^r	1,578^r	1,844^r	1,785^r	1,871	1,890	2,319
46 Taiwan	21,503	26,058	19,588^r	17,937^r	15,579^r	15,440^r	15,174^r	11,006	12,610	12,638
47 Hong Kong	10,180	12,248	12,416^r	11,150^r	11,615^r	12,277^r	12,896^r	12,369	13,315	13,823
48 India	582	699	780	762	1,033	1,013	1,148	966	908	806
49 Indonesia	1,404	1,180	1,281	1,174	1,545	1,560	1,192	1,520	1,367	1,120
50 Israel	1,292	1,461	1,243	894	1,497	1,311^r	1,227^r	1,202	1,112	1,115
51 Japan	54,322	74,015	81,184^r	65,136^r	66,430^r	65,581^r	62,101^r	62,367	66,293	68,663
52 Korea	1,637	2,541	3,215^r	2,563^r	2,331^r	2,120^r	2,049^r	2,121	2,157	2,316
53 Philippines	1,085	1,163	1,766^r	1,265^r	1,216^r	1,193^r	1,191^r	1,329	1,313	1,349
54 Thailand	1,345	1,236	2,093	2,524	1,930	1,595	1,973	2,125	2,745	2,232
55 Middle-East oil-exporting countries[3]	13,988	12,083	13,370^r	12,621^r	12,452^r	11,626	13,049^r	13,076	14,047	14,744
56 Other	12,788	13,260	17,491^r	14,758^r	16,024^r	15,466	15,362	16,313	16,358	16,432
57 Africa	3,945	3,991	3,823	3,778	3,644	3,722	3,778	3,650	3,411	5,063
58 Egypt	1,151	911	686	722	601	595	646	592	583	1,505
59 Morocco	194	68	78	95	80	111	86	81	95	77
60 South Africa	202	437	205	261	277	236	241	318	239	331
61 Zaire	67	85	86	77	74	70	66	41	38	43
62 Oil-exporting countries[4]	1,014	1,017	1,121^r	1,110	1,048	936	1,016	890	873	1,072
63 Other	1,316	1,474	1,648	1,513	1,564^r	1,775	1,722	1,728	1,584	2,035
64 Other countries	4,070	6,165	4,564^r	5,524^r	4,887^r	4,176^r	6,005^r	5,680	5,479	4,803
65 Australia	3,327	5,293	3,867	4,798	3,994	3,469	5,250	5,052	4,891	4,122
66 All other	744	872	697^r	726^r	893^r	707^r	755^r	628	588	681
67 Nonmonetary international and regional organizations	4,464	3,224	4,772	3,765	4,896	5,727	4,558	5,018	4,112	4,288
68 International[5]	2,830	2,503	3,825	2,765	3,634	4,147	3,393	3,883	2,981	3,151
69 Latin American regional	1,272	589	684	655	949	1,123	912	920	812	567
70 Other regional[6]	362	133	263	345	313	457	253	215	319	571

1. Includes the Bank for International Settlements and Eastern European countries that are not listed in line 23.
2. Comprises Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania.
3. *Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and* United Arab Emirates (Trucial States).
4. Comprises Algeria, Gabon, Libya, and Nigeria.
5. Excludes "holdings of dollars" of the International Monetary Fund.
6. Asian, African, Middle Eastern, and European regional organizations, *except the Bank for International Settlements, which is included in* "Other Western 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 and country	1987	1988	1989	1990						
				Feb.	Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[p]
1 **Total**	**459,877**	**491,165**	**533,992[r]**	**499,631[r]**	**487,989**	**488,844**	**489,028**	**489,245**	**488,782**	**494,078**
2 **Foreign countries**	**456,472**	**489,094**	**530,553[r]**	**495,557[r]**	**484,036**	**484,452**	**484,443**	**485,050**	**484,492**	**490,662**
3 Europe	102,348	116,928	119,024[r]	104,327[r]	104,298	105,154	103,615	102,394	102,360	106,089
4 Austria	793	483	415	429	500	592	420	337	399	287
5 Belgium-Luxembourg	9,397	8,515	6,478	7,063	6,361	6,330	6,765	5,611	6,744	6,625
6 Denmark	717	483	582	635	608	750	1,004	590	503	676
7 Finland	1,010	1,065	1,027	1,218	1,153	1,025	931	1,035	1,112	1,177
8 France	13,548	13,243	16,146	16,392	15,631	16,087	16,224	14,794	13,746	14,273
9 Germany	2,039	2,329	2,865	2,762	2,783	2,476	3,045	2,870	2,591	2,740
10 Greece	462	433	788	773	664	622	597	514	529	610
11 Italy	7,460	7,936	6,662	5,377	5,050	4,230	4,758	5,133	4,615	4,500
12 Netherlands	2,619	2,541	1,904	1,567	2,142	2,027	1,968	2,041	1,754	1,647
13 Norway	934	455	609	672	777	918	761	745	687	716
14 Portugal	477	261	376	288	273	381	407	540	543	411
15 Spain	1,853	1,823	1,930	2,040	2,241	1,726	1,897	2,084	2,125	2,107
16 Sweden	2,254	1,977	1,773	2,158	2,236	2,206	2,711	2,614	3,361	3,384
17 Switzerland	2,718	3,895	6,141	4,922	5,056	4,826	4,999	5,249	4,297	3,736
18 Turkey	1,680	1,233	1,071	1,088	1,123	1,120	1,138	1,230	1,186	1,377
19 United Kingdom	50,823	65,706	65,527[r]	52,286[r]	53,100	55,604	52,333	53,577	54,803	58,546
20 Yugoslavia	1,700	1,390	1,329	1,158	1,157	1,121	1,128	1,095	1,070	1,029
21 Other Western Europe[2]	619	1,152	1,302	1,271	1,183	970	786	804	960	694
22 U.S.S.R.	389	1,255	1,179	1,322	1,356	1,322	945	754	565	624
23 Other Eastern Europe[3]	852	754	921	905	904	820	800	777	769	928
24 Canada	25,368	18,889	15,450[r]	16,793[r]	15,081	15,234	16,355	16,492	16,391	15,432
25 Latin America and Caribbean	214,789	214,264	230,392[r]	220,252[r]	210,443	200,361	205,853	208,825	200,224	203,796
26 Argentina	11,996	11,826	9,270	8,718	8,189	8,025	7,689	7,600	7,166	7,099
27 Bahamas	64,587	66,954	77,921	71,891	69,095	63,937	70,508	66,913	66,923	67,754
28 Bermuda	471	483	1,315	401	425	443	774	1,830	1,988	2,476
29 Brazil	25,897	25,735	23,749	23,210	21,885	21,849	21,793	20,699	20,186	18,892
30 British West Indies	50,042	55,888	68,709[r]	70,052[r]	72,412	67,706	67,564	74,590	66,425	70,784
31 Chile	6,308	5,217	4,353	4,208	4,079	3,715	3,630	3,453	3,493	3,405
32 Colombia	2,740	2,944	2,784	2,610	2,720	2,649	2,624	2,596	2,541	2,703
33 Cuba	1	1	1	0	0	0	0	0	1	2
34 Ecuador	2,286	2,075	1,688	1,570	1,536	1,527	1,503	1,523	1,515	1,506
35 Guatemala[4]	144	198	197	200	208	207	206	188	196	208
36 Jamaica[4]	188	212	297	274	265	260	260	258	262	258
37 Mexico	29,532	24,637	23,376[r]	21,370[r]	14,268	14,734	14,529	14,665	15,120	14,937
38 Netherlands Antilles	980	1,306	1,921	1,726[r]	1,692	1,759	1,630	1,722	1,873	1,631
39 Panama	4,744	2,521	1,740	1,688	1,722	1,733	1,643	1,598	1,491	1,508
40 Peru	1,329	1,013	771	752	733	721	679	683	661	631
41 Uruguay	963	910	928	935	926	886	876	842	843	818
42 Venezuela	10,843	10,733	9,647	8,956	8,528	8,405	8,251	8,136	8,064	7,661
43 Other Latin America and Caribbean	1,738	1,612	1,726	1,692[r]	1,760	1,805	1,693	1,527	1,476	1,523
44 Asia	106,096	130,881	157,444[r]	145,303[r]	145,906	155,553	150,172	148,963	158,082	157,749
China										
Mainland	968	762	634	619	599	674	517	537	554	586
46 Taiwan	4,592	4,184	2,776	1,824	2,016	1,890	1,941	1,946	1,583	2,025
47 Hong Kong	8,218	10,143	11,128	6,605	7,418	8,965	9,563	9,271	9,434	9,472
48 India	510	560	621	892	721	588	579	802	852	625
49 Indonesia	580	674	651	611	604	560	599	801	814	835
50 Israel	1,363	1,136	813	774[r]	761	746	738	777	738	785
51 Japan	68,658	90,149	111,270	108,352	108,554	117,560	108,245	107,671	114,683	114,808
52 Korea	5,148	5,213	5,323[r]	4,902[r]	5,042	5,011	5,186	5,128	5,515	5,596
53 Philippines	2,071	1,876	1,344	1,163	1,204	1,221	1,351	1,357	1,342	1,369
54 Thailand	496	848	1,140	1,052	992	1,073	1,202	1,279	1,267	1,245
55 Middle East oil-exporting countries[5]	4,858	6,213	10,149	9,475[r]	8,929	8,376	9,577	10,816	12,318	10,658
56 Other Asia	8,635	9,122	11,594	9,035	9,066	8,891	10,674	8,576	8,981	9,746
57 Africa	4,742	5,718	5,890	5,967	5,984	5,953	5,913	5,787	5,557	5,660
58 Egypt	521	507	502	493	474	491	488	469	421	449
59 Morocco	542	511	559	588	581	596	587	565	544	539
60 South Africa	1,507	1,681	1,628	1,629	1,648	1,632	1,639	1,573	1,560	1,571
61 Zaire	15	17	16	17	25	19	20	21	20	19
62 Oil-exporting countries[6]	1,003	1,523	1,648	1,749	1,749	1,705	1,665	1,649	1,604	1,586
63 Other	1,153	1,479	1,537	1,491	1,507	1,509	1,515	1,511	1,408	1,496
64 Other countries	3,129	2,413	2,354	2,914	2,324	2,195	2,535	2,590	1,878	1,937
65 Australia	2,100	1,520	1,781	2,015	1,632	1,551	1,657	1,712	1,422	1,303
66 All other	1,029	894	573	900	692	644	878	878	456	634
67 Nonmonetary international and regional organizations[7]	3,404	2,071	3,439	4,074	3,954	4,393	4,585	4,195	4,291	3,416

1. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.
2. Includes the Bank for International Settlements. Beginning April 1978, also includes Eastern European countries not listed in line 23.
3. Beginning April 1978 comprises Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania.
4. Included in "Other Latin America and Caribbean" through March 1978.
5. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
6. Comprises Algeria, Gabon, Libya, and Nigeria.
7. Excludes the Bank for International Settlements, which is included in "Other Western 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	1987	1988	1989^{r}	1990						
				Feb.^{r}	Mar.^{r}	Apr.^{r}	May^{r}	June^{r}	July^{r}	Aug.^{p}
1 **Total**	**497,635**	**538,689**	**592,401**	....	**541,152**	....	....	**548,135**	....	....
2 Banks' own claims on foreigners	459,877	491,165	533,992	499,631	487,989	488,844	489,028	489,245	488,782	494,078
3 Foreign public borrowers	64,605	62,658	60,073	57,129	51,755	51,355	50,804	49,139	47,593	46,406
4 Own foreign offices[2]	224,727	257,436	295,980	284,014	274,886	274,354	275,178	280,016	274,722	273,502
5 Unaffiliated foreign banks	127,609	129,425	134,854	120,311	123,186	125,318	125,908	121,706	129,114	137,596
6 Deposits	60,687	65,898	78,184	67,737	70,551	72,633	72,566	68,309	73,189	79,774
7 Other	66,922	63,527	56,670	52,574	52,635	52,685	53,342	53,397	55,925	57,821
8 All other foreigners	42,936	41,646	43,084	38,177	38,162	37,818	37,138	38,384	37,353	36,574
9 Claims of banks' domestic customers[3]	37,758	47,524	58,409	....	53,163	....	....	58,890	....	....
10 Deposits	3,692	8,289	12,834	....	16,788	....	....	15,499	....	....
11 Negotiable and readily transferable instruments[4]	26,696	25,700	30,983	....	22,020	....	....	27,451	....	....
12 Outstanding collections and other claims	7,370	13,535	14,591	....	14,354	....	....	15,940	....	....
13 MEMO: Customer liability on acceptances	23,107	19,596	12,753	....	13,563	....	....	12,943	....	....
Dollar deposits in banks abroad, reported by nonbanking business enterprises in the United States[5]	40,909	45,565^{r}	45,675	45,645	42,112	39,272	41,517	40,182	40,137	n.a.

1. Data for banks' own claims are given on a monthly basis, but the data for claims of banks' own domestic customers are available on a quarterly basis only. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.
2. *U.S. banks:* includes amounts due from own foreign branches and foreign subsidiaries consolidated in "Consolidated Report of Condition" filed with bank regulatory agencies. *Agencies, branches, and majority-owned subsidiaries of foreign banks:* principally amounts due from head office or parent foreign bank, and foreign branches, agencies, or wholly owned subsidiaries of head office or parent foreign bank.
3. Assets owned by customers of the reporting bank located in the United States that represent claims on foreigners held by reporting banks for the account of their domestic customers.
4. Principally negotiable time certificates of deposit and bankers acceptances.
5. Includes demand and time deposits and negotiable and nonnegotiable certificates of deposit denominated in U.S. dollars issued by banks abroad. For description of changes in data reported by nonbanks, see July 1979 *Bulletin*, p. 550.

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	1986	1987	1988	1989		1990	
				Sept.	Dec.	Mar.	June^{p}
1 **Total**	**232,295**	**235,130**	**233,184**	**234,112**	**237,648^{r}**	**213,670**	**211,062**
By borrower							
2 Maturity of 1 year or less[2]	160,555	163,997	172,634	170,682^{r}	177,896^{r}	160,087	157,458
3 Foreign public borrowers	24,842	25,889	26,562	24,102	23,483	22,725	19,421
4 All other foreigners	135,714	138,108	146,071	146,581^{r}	154,413^{r}	137,362	138,037
5 Maturity over 1 year[2]	71,740	71,133	60,550	63,429^{r}	59,752^{r}	53,584	53,603
6 Foreign public borrowers	39,103	38,625	35,291	38,134^{r}	35,822	30,050	31,069
7 All other foreigners	32,637	32,507	25,259	25,295	23,931^{r}	23,533	22,534
By area							
Maturity of 1 year or less[2]							
8 Europe	61,784	59,027	55,909	54,525^{r}	53,912^{r}	48,368	49,101
9 Canada	5,895	5,680	6,282	6,236	5,886	5,694	5,579
10 Latin America and Caribbean	56,271	56,535	57,991	52,227	52,989^{r}	46,719	44,323
11 Asia	29,457	35,919	46,224	50,445	57,766	51,744	50,729
12 Africa	2,882	2,833	3,337	3,514	3,225	3,165	2,991
13 All other[3]	4,267	4,003	2,891	3,735	4,118	4,396	4,734
Maturity of over 1 year[2]							
14 Europe	6,737	6,696	4,666	4,662^{r}	4,121^{r}	4,407	4,326
15 Canada	1,925	2,661	1,922	2,459	2,353	2,702	2,860
16 Latin America and Caribbean	56,719	53,817	47,547	49,046	45,818^{r}	37,668	35,924
17 Asia	4,043	3,830	3,613	4,203	4,142	5,479	7,036
18 Africa	1,539	1,747	2,301	2,475	2,633	2,764	2,739
19 All other[3]	777	2,381	501	584	684	564	718

1. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.
2. Remaining time to maturity.
3. Includes nonmonetary international and regional organizations.

3.21 CLAIMS ON FOREIGN COUNTRIES Held by U.S. Offices and Foreign Branches of U.S.-Chartered Banks[1,2]

Billions of dollars, end of period

Area or country	1986	1987	1988			1989				1990	
			June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
1 **Total**	**386.5**	**382.4**	**351.9**	**354.0**	**346.3**	**346.1**	**340.0**	**346.2**	**338.3[r]**	**334.4[r]**	**322.9[r]**
2 G-10 countries and Switzerland	156.6	159.7	150.7	148.7	152.7	145.4	145.1	146.4	152.9[r]	147.1[r]	139.7[r]
3 Belgium-Luxembourg	8.4	10.0	9.2	9.5	9.0	8.6	7.8	6.9	6.3	6.6	6.2
4 France	13.6	13.7	10.9	10.3	10.5	11.2	10.8	11.1	11.7	10.5	10.3
5 Germany	11.6	12.6	10.6	9.2	10.3	10.2	10.6	10.4	10.5	11.2	11.2
6 Italy	9.0	7.5	6.3	5.6	6.8	5.2	6.1	6.8	7.4	6.0	5.5
7 Netherlands	4.6	4.1	3.2	2.9	2.7	2.8	2.8	2.4	3.1	3.1	2.7
8 Sweden	2.4	2.1	1.9	1.9	1.8	2.3	1.8	2.0	2.0	2.1	2.3
9 Switzerland	5.8	5.6	5.6	5.2	5.4	5.1	5.4	6.1	7.1	6.3	6.4
10 United Kingdom	70.9	68.8	70.4	67.6	66.2	65.6	64.5	63.7	67.2[r]	64.0[r]	59.9[r]
11 Canada	5.2	5.5	5.3	4.9	5.0	4.0	5.1	5.9	5.4	4.8	5.2[r]
12 Japan	25.1	29.8	27.3	31.6	34.9	30.5	30.2	31.0	32.2	32.6[r]	29.9
13 Other developed countries	26.1	26.4	24.0	23.0	21.0	21.1	21.2	21.0	20.7	23.1	22.6
14 Austria	1.7	1.9	1.6	1.6	1.5	1.4	1.7	1.5	1.5	1.5	1.5
15 Denmark	1.7	1.7	1.1	1.2	1.1	1.1	1.4	1.1	1.1	1.1	1.1
16 Finland	1.4	1.2	1.2	1.3	1.1	1.0	1.0	1.1	1.0	1.1	.9
17 Greece	2.3	2.0	2.1	2.1	1.8	2.1	2.3	2.4	2.5	2.6	2.7
18 Norway	2.4	2.2	1.9	2.0	1.8	1.6	1.8	1.4	1.4	1.7	1.4
19 Portugal	.9	.6	.4	.4	.4	.4	.6	.4	.4	.4	.8
20 Spain	5.8	8.0	7.2	6.3	6.2	6.6	6.2	6.9	7.1	8.3	7.9
21 Turkey	2.0	2.0	1.8	1.6	1.5	1.3	1.1	1.2	1.2	1.3	1.4
22 Other Western Europe	1.5	1.6	1.7	1.9	1.3	1.1	1.1	1.0	.7	1.0	1.1
23 South Africa	3.0	2.9	2.8	2.7	2.4	2.2	2.1	2.1	2.0	2.0	1.9
24 Australia	3.4	2.4	2.2	1.8	1.8	2.4	1.9	2.1	1.6	2.1	1.9
25 OPEC countries[3]	19.4	17.4	17.0	17.9	16.6	16.2	16.1	16.2	17.1	15.5[r]	15.4
26 Ecuador	2.2	1.9	1.8	1.8	1.7	1.6	1.5	1.5	1.3	1.2	1.2
27 Venezuela	8.7	8.1	8.0	7.9	7.9	7.9	7.5	7.4	7.0	6.1	6.0
28 Indonesia	2.5	1.9	1.8	1.8	1.7	1.7	1.9	2.0	2.0	2.1	2.0
29 Middle East countries	4.3	3.6	3.5	4.6	3.4	3.3	3.4	3.5	5.0	4.3[r]	4.4
30 African countries	1.8	1.9	1.9	1.9	1.9	1.7	1.6	1.9	1.7	1.8	1.8
31 Non-OPEC developing countries	99.6	97.8	91.8	87.2	85.3	85.9	83.4	81.2	77.5	68.8[r]	67.7[r]
Latin America											
32 Argentina	9.5	9.5	9.5	9.3	9.0	8.5	7.9	7.6	6.3	5.5	5.1
33 Brazil	25.3	24.7	23.7	22.4	22.4	22.8	22.1	20.9	19.0	17.5	17.2
34 Chile	7.1	6.9	6.4	6.3	5.6	5.7	5.2	4.9	4.6	4.3	3.7
35 Colombia	2.1	2.0	2.2	2.1	2.1	1.9	1.7	1.6	1.8	1.8	1.7
36 Mexico	24.0	23.5	21.1	20.4	18.8	18.3	17.7	17.2	17.7	12.8[r]	13.0[r]
37 Peru	1.4	1.1	.9	.8	.8	.7	.6	.6	.6	.5	.5
38 Other Latin America	3.1	2.8	2.6	2.5	2.6	2.7	2.6	2.9	2.8	2.7	2.4
Asia											
China											
39 Mainland	.4	.3	.4	.2	.3	.5	.3	.3	.3	.3	.2
40 Taiwan	4.9	8.2	4.9	3.2	3.7	4.9	5.2	5.0	4.5	3.8	3.6
41 India	1.2	1.9	2.3	2.0	2.1	2.6	2.4	2.7	3.1	3.5	3.6
42 Israel	1.5	1.0	1.0	1.0	1.2	.9	.8	.7	.7	.6	.6
43 Korea (South)	6.7	5.0	5.9	6.0	6.1	6.1	6.6	6.5	5.9	5.3	5.6
44 Malaysia	2.1	1.5	1.5	1.7	1.6	1.7	1.6	1.7	1.7	1.8	1.8
45 Philippines	5.4	5.2	4.9	4.7	4.5	4.4	4.4	4.0	4.1	3.7	3.9
46 Thailand	.9	.7	1.1	1.2	1.1	1.0	1.0	1.3	1.3	1.1	1.3
47 Other Asia	.7	.7	.8	.8	.9	.8	.8	1.0	1.0	1.2	1.1
Africa											
48 Egypt	.7	.6	.6	.5	.4	.5	.6	.5	.4	.4	.5
49 Morocco	.9	.9	.9	.8	.9	.9	.9	.8	.9	.9	.9
50 Zaire	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
51 Other Africa[4]	1.6	1.3	1.2	1.2	1.1	1.1	1.1	1.0	1.0	.9	.9
52 Eastern Europe	3.5	3.2	3.3	3.1	3.6	3.5	3.4	3.5	3.5	3.4	3.0
53 U.S.S.R.	.1	.3	.4	.4	.7	.7	.6	.8	.7	.8	.4
54 Yugoslavia	2.0	1.8	1.9	1.8	1.8	1.7	1.7	1.7	1.6	1.4	1.4
55 Other	1.4	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.3	1.3	1.2
56 Offshore banking centers	61.5	54.5	43.0	47.3	44.2	48.5	43.1	49.2	36.6	42.9[r]	38.9
57 Bahamas	22.4	17.3	8.9	12.9	11.0	15.8	11.0	11.4	5.5	9.3	8.5
58 Bermuda	.6	.6	1.0	.9	.9	1.1	.7	1.3	1.7	.9	2.2
59 Cayman Islands and other British West Indies	12.3	13.5	10.3	11.9	12.9	12.0	10.8	15.3	8.9	10.9	7.3
60 Netherlands Antilles	1.8	1.2	1.2	1.2	1.0	.9	1.0	1.1	2.3	2.6	2.3
61 Panama[5]	4.0	3.7	3.0	2.6	2.5	2.2	1.9	1.5	1.4	1.3	1.4
62 Lebanon	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
63 Hong Kong	11.1	11.2	11.6	10.5	9.6	9.6	10.4	10.7	9.7	9.8	10.0
64 Singapore	9.2	7.0	6.9	7.0	6.1	6.8	7.3	7.8	7.0	8.0	7.0
65 Others[6]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66 Miscellaneous and unallocated[7]	19.8	23.2	22.2	26.7	22.6	25.0	27.4	28.5	29.8	33.2[r]	35.5[r]

1. The banking offices covered by these data are the U.S. offices and foreign branches of U.S.-owned banks and of U.S. subsidiaries of foreign-owned banks. Offices *not* covered include (1) U.S. agencies and branches of foreign banks, and (2) foreign subsidiaries of U.S. banks. To minimize 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. The data in this table combine foreign branch claims in table 3.14 (the sum of lines 7 through 10) with the claims of U.S. offices in table 3.18 (excluding those held by agencies and branches of foreign banks and those constituting claims on own foreign branches).

2. Beginning with June 1984 data, reported claims held by foreign branches have been reduced by an increase in the reporting threshold for "shell" branches from $50 million to $150 million equivalent in total assets, the threshold now applicable to all reporting branches.

3. This group comprises the 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).

4. Excludes Liberia.

5. Includes Canal Zone beginning December 1979.

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[1]

Millions of dollars, end of period

	Type, and area or country	1986	1987	1988r	1989				1990	
					Mar.r	June	Sept.	Dec.r	Mar.	Junep
1	**Total**	**25,587**	**28,302**	**32,938**	**38,513**	**38,460r**	**36,523r**	**38,429**	**38,518r**	**39,855**
2	Payable in dollars	21,749	22,785	27,320	32,706	33,372r	31,685r	33,585	34,229r	35,072
3	Payable in foreign currencies	3,838	5,517	5,618	5,806	5,088r	4,838	4,845	4,289r	4,783
	By type									
4	Financial liabilities	12,133	12,424	14,507	18,744	18,427r	17,117r	18,380	17,802r	19,769
5	Payable in dollars	9,609	8,643	10,608	14,648	14,551r	13,289r	14,478	14,589r	16,097
6	Payable in foreign currencies	2,524	3,781	3,900	4,096	3,875r	3,829	3,902	3,213r	3,672
7	Commercial liabilities	13,454	15,878	18,431	19,768	20,034r	19,406r	20,050	20,716r	20,086
8	Trade payables	6,450	7,305	6,505	7,094	6,510r	6,902r	7,373	7,275r	6,850
9	Advance receipts and other liabilities	7,004	8,573	11,926	12,674	13,524	12,503	12,676	13,440	13,237
10	Payable in dollars	12,140	14,142	16,712	18,058	18,821r	18,397r	19,107	19,639r	18,975
11	Payable in foreign currencies	1,314	1,737	1,719	1,711	1,213	1,009	943	1,076	1,111
	By area or country									
	Financial liabilities									
12	Europe	7,917	8,320	9,962	13,854	12,575r	11,197r	11,622	10,925r	12,026
13	Belgium-Luxembourg	270	213	289	320	357	308	340	333	347
14	France	661	382	359	224	257r	242r	258	217r	156
15	Germany	368	551	699	561	618r	590r	523	482r	601
16	Netherlands	542	866	880	874	835r	853	946	865	934
17	Switzerland	646	558	1,033	954	938r	799r	541	529r	667
18	United Kingdom	5,140	5,557	6,533	10,721	9,402r	8,207r	8,742	8,212r	8,759
19	Canada	399	360	388	616	626r	575r	573	476r	329
20	Latin America and Caribbean	1,944	1,189	839	677	1,262r	1,367r	1,268	1,814r	2,508
21	Bahamas	614	318	184	189	165	186	157	237	249
22	Bermuda	4	0	0	0	7r	7r	17	0	0
23	Brazil	32	25	0	0	0	0	0	0	0
24	British West Indies	1,146	778	645	471	661r	743r	635	1,096r	1,717
25	Mexico	22	13	1	15	17	4	6	5	4
26	Venezuela	0	0	0	0	0	0	0	0	0
27	Asia	1,805	2,451	3,312	3,591	3,863r	3,878	4,814	4,483r	4,848
28	Japan	1,398	2,042	2,563	2,825	3,100	3,130	3,963	3,445	3,846
29	Middle East oil-exporting countries[2]	8	8	3	1	12	2	2	3	5
30	Africa	1	4	2	5	3	4	2	3	3
31	Oil-exporting countries[3]	1	1	0	3	2	2	0	0	1
32	All other[4]	67	100	4	2	97	97	100	102	55
	Commercial liabilities									
33	Europe	4,446	5,516	7,305	7,834	7,778	8,319	8,883	9,133r	8,304
34	Belgium-Luxembourg	101	132	158	122	114	137	178	233	295
35	France	352	426	455	552	535	806	871	881	926
36	Germany	715	909	1,699	1,373	1,190	1,183	1,362	1,143	959
37	Netherlands	424	423	587	667	688	548	699	688	606
38	Switzerland	385	559	417	446	447	531	621	583	607
39	United Kingdom	1,341	1,599	2,065	2,585	2,709	2,703	2,618	2,925r	2,434
40	Canada	1,405	1,301	1,217	1,163	1,133	1,189	1,067	1,124	1,260
41	Latin America and Caribbean	924	864	1,090	1,253	1,673r	1,086r	1,187	1,304r	1,277
42	Bahamas	32	18	49	35	34	27	41	37	22
43	Bermuda	156	168	286	426	388	305	308	516	412
44	Brazil	61	46	95	103	541	113	100	116	106
45	British West Indies	49	19	34	31	42	30	27	18	29
46	Mexico	217	189	217	250	235r	220r	304	241r	285
47	Venezuela	216	162	114	114	131	107	154	85	119
48	Asia	5,080	6,565	6,915	7,318	7,045r	7,086r	7,038	6,885r	6,970
49	Japan	2,042	2,578	3,094	3,059	2,708	2,674	2,772	2,624	3,088
50	Middle East oil-exporting countries[2,5]	1,679	1,964	1,385	1,520	1,482r	1,442r	1,401	1,393r	1,125
51	Africa	619	574	576	700	762r	648r	844	753r	885
52	Oil-exporting countries[3]	197	135	202	272	263r	255r	307	263r	277
53	All other[4]	980	1,057	1,328	1,499	1,642	1,077	1,031	1,517	1,390

1. For a description of the changes in the International Statistics tables, see July 1979 *Bulletin*, p. 550.
2. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
3. Comprises Algeria, Gabon, Libya, and Nigeria.
4. Includes nonmonetary international and regional organizations.
5. Revisions include a reclassification of transactions, which also affects the totals for Asia and the grand totals.

3.23 CLAIMS ON UNAFFILIATED FOREIGNERS Reported by Nonbanking Business Enterprises in the United States[1]

Millions of dollars, end of period

	Type, and area or country	1986	1987	1988r	1989				1990	
					Mar.r	June	Sept.	Dec.r	Mar.r	Junep
1	**Total**	**36,265**	**30,964**	**33,874**	**31,873**	**34,088r**	**31,738r**	**31,085**	**29,488**	**31,050**
2	Payable in dollars	33,867	28,502	31,494	29,514	31,871r	29,513r	28,706	27,334	28,746
3	Payable in foreign currencies	2,399	2,462	2,381	2,359	2,217r	2,225	2,379	2,154	2,304
	By type									
4	Financial claims	26,273	20,363	21,739	19,734	21,617r	18,827r	17,388	16,286	17,494
5	Deposits	19,916	14,894	15,642	14,594	16,500r	12,143r	10,435	10,458	9,871
6	Payable in dollars	19,331	13,765	14,543	13,680	15,581r	11,278r	9,460	9,564	8,774
7	Payable in foreign currencies	585	1,128	1,099	914	919r	866r	975	893	1,097
8	Other financial claims	6,357	5,470	6,097	5,140	5,117r	6,684r	6,953	5,828	7,623
9	Payable in dollars	5,005	4,656	5,320	4,202	4,380r	5,822r	6,199	5,140	6,929
10	Payable in foreign currencies	1,352	814	777	938	737r	862	754	688	694
11	Commercial claims	9,992	10,600	12,136	12,139	12,471r	12,912r	13,697	13,202	13,556
12	Trade receivables	8,783	9,535	11,061	10,877	11,039r	11,427r	12,084	11,610	11,865
13	Advance payments and other claims	1,209	1,065	1,075	1,262	1,432	1,485	1,612	1,593	1,691
14	Payable in dollars	9,530	10,081	11,630	11,632	11,911r	12,414r	13,047	12,630	13,043
15	Payable in foreign currencies	462	519	505	507	560	498	650	573	513
	By area or country									
	Financial claims									
16	Europe	10,744	9,531	10,169	9,018	8,616r	7,253r	6,861	6,727	9,179
17	Belgium-Luxembourg	41	7	18	22	161	166	28	22	127
18	France	138	332	203	193	176r	166r	153	199	142
19	Germany	116	102	120	112	149r	120r	195	507	94
20	Netherlands	151	350	348	384	297	292	303	315	332
21	Switzerland	185	65	218	241	68r	111	95	123	138
22	United Kingdom	9,855	8,467	8,929	7,769	7,468r	6,169r	5,850	5,358	8,139
23	Canada	4,808	2,844	2,325	2,175	2,568r	2,356r	1,934	1,803	1,993
24	Latin America and Caribbean	9,291	7,012	8,139	7,504	9,319r	8,315r	7,428	6,903	5,404
25	Bahamas	2,628	1,994	1,846	2,183	1,875r	1,699r	1,516	1,599	920
26	Bermuda	6	7	19	25	33	33	7	4	3
27	Brazil	86	63	47	49	78	70	224	79	84
28	British West Indies	6,078	4,433	5,742	4,826	6,923r	6,125r	5,268	4,806	4,001
29	Mexico	174	172	151	117	114	105	94	152	153
30	Venezuela	21	19	21	25	31	36	20	21	20
31	Asia	1,317	879	844	895	995r	801	831	763	815
32	Japan	999	605	574	571	525r	440	439	416	473
33	Middle East oil-exporting countries[2]	7	8	5	8	8	7	8	7	6
34	Africa	85	65	106	89	80	75	140	67	62
35	Oil-exporting countries[3]	28	7	10	8	8	8	12	11	8
36	All other[4]	28	33	155	52	40r	27	195	23	41
	Commercial claims									
37	Europe	3,725	4,180	5,170	5,094	5,290	5,423	6,160	6,025	6,118
38	Belgium-Luxembourg	133	178	189	214	205	220	241	219	207
39	France	431	650	670	786	770	824	948	957	902
40	Germany	444	562	667	689	675	688	689	690	661
41	Netherlands	164	133	212	164	413	396	478	450	475
42	Switzerland	217	185	344	264	231	222	305	270	235
43	United Kingdom	999	1,073	1,323	1,301	1,371	1,396	1,570	1,690	1,654
44	Canada	934	936	983	1,124	1,181	1,278	1,058	1,091	1,108
45	Latin America and Caribbean	1,857	1,930	2,239	2,118	2,100	2,131	2,161	2,046	2,199
46	Bahamas	28	19	36	34	13	10	57	22	17
47	Bermuda	193	170	230	234	238	270	323	242	283
48	Brazil	234	226	298	277	314	232	286	226	230
49	British West Indies	39	26	22	23	30	33	36	38	46
50	Mexico	412	368	461	485	438	508	508	524	593
51	Venezuela	237	283	227	213	229	188	146	187	220
52	Asia	2,755	2,915	2,979	3,113	3,143r	3,299r	3,513	3,249	3,369
53	Japan	881	1,158	946	1,042	998	1,177	1,185	1,061	1,046
54	Middle East oil-exporting countries[2]	563	450	446	437	430	406	508	432	412
55	Africa	500	401	434	394	407	398r	418	425	402
56	Oil-exporting countries[3]	139	144	122	95	111	87r	107	89	98
57	All other[4]	222	238	331	297	350	381	386	367	360

1. For a description of the changes in the International Statistics tables, see July 1979 *Bulletin*, p. 550.
2. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
3. Comprises Algeria, Gabon, Libya, and Nigeria.
4. Includes nonmonetary international and regional organizations.

3.24 FOREIGN TRANSACTIONS IN SECURITIES

Millions of dollars

Transactions, and area or country	1988	1989	1990	1990						
			Jan.–Aug.	Feb.	Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[p]
	U.S. corporate securities									
STOCKS										
1 Foreign purchases	181,185	213,535[r]	126,641	13,465[r]	16,430	11,457	15,231	18,211	17,447	20,652
2 Foreign sales	183,185	203,537	133,627	13,692	19,117	12,356	17,717	18,584	16,080	21,950
3 **Net purchases, or sales (–)**	**–2,000**	**9,998[r]**	**–6,986**	**–226[r]**	**–2,687**	**–899**	**–2,486**	**–372**	**1,367**	**–1,298**
4 **Foreign countries**	**–1,825**	**10,232[r]**	**–7,149**	**–227[r]**	**–2,733**	**–937**	**–2,543**	**–336**	**1,315**	**–1,335**
5 Europe	–3,350	471[r]	–5,010	–141[r]	–990	–666	–1,048	–590	–12	–1,379
6 France	–281	–708	–747	–157	7	–85	–189	32	–25	–175
7 Germany	218	–830	–128	4[r]	105	6	–57	–66	–41	–119
8 Netherlands	–535	167	–274	–38	48	–25	–20	–83	–30	–107
9 Switzerland	–2,243	–3,274[r]	–2,113	–242	–441	–221	–347	–198	–170	–253
10 United Kingdom	–954	3,729	–1,605	184[r]	–720	–99	–200	–114	255	–637
11 Canada	1,087	–845	28	51	–163	–212	–101	88	174	330
12 Latin America and Caribbean	1,238	3,089	–773	–178	–208	–27	90	–14	–90	–234
13 Middle East[1]	–2,474	3,531	–770	93	–425	116	–593	–85	–36	187
14 Other Asia	1,365	3,586[r]	–449	–30	–921	–55	–904	243	1,056	–69
15 Japan	1,922	3,340	–458	–104	–764	–92	–750	212	851	22
16 Africa	188	131	–11	–34	1	–2	0	–7	13	16
17 Other countries	121	268	–164	12	–27	–91	13	30	211	–186
18 **Nonmonetary international and regional organizations**	**–176**	**–234**	**163**	**1**	**46**	**38**	**57**	**–37**	**52**	**37**
BONDS[2]										
19 Foreign purchases	86,381	120,540	81,395	10,297	9,248	8,355	8,467	12,572	10,923	12,009
20 Foreign sales	58,417	86,510	66,721	8,059[r]	8,636	7,643	6,347	8,456	7,519	12,252
21 ***Net purchases, or sales (–)***	**27,964**	**34,031**	**14,674**	**2,238[r]**	**612**	**712**	**2,120**	**4,116**	**3,404**	**–243**
22 **Foreign countries**	**28,506**	**33,678**	**14,916**	**2,211[r]**	**451**	**705**	**2,195**	**4,084**	**3,366**	**–213**
23 Europe	17,239	19,848	9,653	16[r]	340	864	781	3,380	1,996	1,080
24 France	143	372	488	9	5	–58	108	293	54	–40
25 Germany	1,344	–238	–173	–253	–15	–40	–39	82	33	172
26 Netherlands	1,514	850	112	15	–11	–2	33	37	37	45
27 Switzerland	505	–165	687	55[r]	–185	59	83	186	570	–238
28 United Kingdom	13,084	18,459	8,444	326[r]	585	1,013	495	2,761	1,145	925
29 Canada	711	1,116	1,839	474	183	353	198	292	70	91
30 Latin America and Caribbean	1,931	3,686	3,356	883	313	411	508	578	273	–103
31 Middle East[1]	–178	–182	193	100	36	–2	251	–120	17	–176
32 Other Asia	8,900	9,063	–41	796	–461	–993	440	11	999	–986
33 Japan	7,686	6,331	308	1,103	–419	–1,044	331	–131	930	–632
34 Africa	–8	56	82	36	–8	48	8	2	–4	–1
35 Other countries	–89	91	–167	–93[r]	48	24	9	–59	15	–118
36 **Nonmonetary international and regional organizations**	**–542**	**353**	**–242**	**27**	**160**	**6**	**–76**	**32**	**39**	**–31**
	Foreign securities									
37 Stocks, net purchases, or sales (–)[3]	–1,959	–13,097[r]	–7,542	–981	–91	–869	–2,422	–2,756	–1,117	–77
38 Foreign purchases	75,356	109,789	88,182	10,483[r]	11,775	8,368	9,785	11,027	11,376	12,383
39 Foreign sales[3]	77,315	122,886[r]	95,725	11,465[r]	11,866	9,237	12,207	13,783	12,493	12,460
40 Bonds, net purchases, or sales (–)	–7,434	–6,049	–15,204	–159	–9,605	–1,830	–1,867	–2,030	–324	55
41 Foreign purchases	218,521	234,215	186,558	20,671	22,375	20,184	25,879	25,658	23,443	29,836
42 Foreign sales	225,955	240,264	201,763	20,830	31,981	22,015	27,746	27,688	23,767	29,781
43 **Net purchases, or sales (–), of stocks and bonds**	**–9,393**	**–19,145[r]**	**–22,747**	**–1,140[r]**	**–9,697**	**–2,699**	**–4,289**	**–4,786**	**–1,441**	**–22**
44 **Foreign countries**	**–9,873**	**–19,178[r]**	**–21,306**	**–1,229**	**–8,096**	**–2,849**	**–4,085**	**–4,333**	**–1,471**	**–464**
45 Europe	–7,864	–17,811[r]	–7,960	–1,227[r]	–306	–666	–1,888	–3,646	–383	–1,243
46 Canada	–3,747	–4,180	–4,420	–144	–1,323	–1,797	–721	–219	–328	170
47 Latin America and Caribbean	1,384	426	–6,230	161	–6,648	–171	252	418	–222	–54
48 Asia	979	2,540[r]	–1,834	–307	693	–341	–1,403	–1,073	–125	611
49 Africa	–54	93	–111	9	–1	–28	6	8	–83	–8
50 *Other countries*	–571	–246	–751	277	–511	154	–331	180	–330	60
51 **Nonmonetary international and regional organizations**	**480**	**33**	**–1,440**	**89**	**–1,601**	**150**	**–205**	**–453**	**30**	**442**

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. As a result of the merger of a U.S. and U.K. company in July 1989, the former stockholders of the U.S. company received $5,453 million in shares of the new combined U.K. company. This transaction is not reflected in the data above.

3.25 MARKETABLE U.S. TREASURY BONDS AND NOTES Foreign Transactions

Millions of dollars

Country or area	1988	1989	1990 Jan.–Aug.	1990 Feb.	Mar.^r	Apr.^r	May^r	June^r	July^r	Aug.^p
	Transactions, net purchases or sales (–) during period[1]									
1 **Estimated total[2]**	**48,832**	**54,269^r**	**7,604**	**901^r**	**–8,446**	**3,224**	**–2,744**	**3,554**	**5,496**	**4,661**
2 Foreign countries[2]	48,170	52,367^r	7,890	1,242^r	–8,251	4,215	–3,154	3,249	5,339	4,020
3 Europe[2]	14,319	36,286^r	6,886	1,776^r	–2,361	6,150	–3,787	2,587	3,657	–2,125
4 Belgium–Luxembourg	923	1,048	184	–337	–256	458	115	270	180	–391
5 Germany[2]	–5,268	7,904	2,283	1,672	–475	633	306	–1,061	–1	1,424
6 Netherlands	–356	–1,141	108	–1,400	–411	749	–263	313	196	1,253
7 Sweden	–323	693^r	20	159^r	39	264	–254	–34	133	–266
8 Switzerland[2]	–1,074	1,097	–1,251	–5	–251	422	–189	–19	–799	–128
9 United Kingdom	9,640	20,198	–646	1,641^r	–326	2,271	–3,545	1,894	1,051	–3,776
10 Other Western Europe	10,786	6,508^r	6,168	46^r	–684	1,344	43	1,223	2,897	–252
11 Eastern Europe	–10	–21	17	0	0	6	0	0	0	11
12 Canada	3,761	701	–2,742	–2,137	–1,383	110	–1,752	367	1,418	1,177
13 Latin America and Caribbean	713	490	7,208	91	672	2,134	478	914	1,934	1,319
14 Venezuela	–109	311	–49	–48	38	–49	71	48	–1	0
15 Other Latin America and Caribbean	1,130	–297	3,499	16	270	–35	610	1,021	1,060	295
16 Netherlands Antilles	–308	475	3,758	123	365	2,218	–204	–154	874	1,023
17 Asia	27,603	13,335^r	–3,067	2,149^r	–4,785	–3,880	2,026	–1,086	–1,677	3,354
18 Japan	21,750	1,719^r	–5,167	768^r	–5,351	–6,111	2,234	–469	161	2,376
19 Africa	–13	116	93	13	–43	–4	–8	52	17	57
20 All other	1,786	1,439	–488	–650	–351	–294	–110	416	–9	239
21 Nonmonetary international and regional organizations	661	1,902	–286	–341	–196	–991	410	305	158	641
22 International	1,106	1,473	18	–286	–92	–528	403	462	–25	444
23 Latin America regional	–31	231	40	–11	–26	74	25	–109	25	25
Memo										
24 Foreign countries[2]	48,170	52,367^r	7,890	1,242^r	–8,251	4,215	–3,154	3,249	5,339	4,020
25 Official institutions	26,624	26,835^r	6,285	–1,493^r	–3,738	5,066	–2,384	924	731	6,802
26 Other foreign[2]	21,546	25,532^r	1,605	2,735^r	–4,512	–851	–770	2,325	4,608	–2,781
Oil-exporting countries										
27 Middle East[3]	1,963	8,148	529	970	1,020	668	–188	–439	–2,095	–323
28 Africa[4]	1	–1	–0	0	0	0	0	0	0	0

1. Estimated official and private transactions in marketable U.S. Treasury securities with an original maturity of more than 1 year. Data are based on monthly transactions reports. Excludes nonmarketable U.S. Treasury bonds and notes held by official institutions of foreign countries.
2. Includes U.S. Treasury notes publicly issued to private foreign residents denominated in foreign currencies.
3. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
4. Comprises Algeria, Gabon, Libya, and Nigeria.

3.26 DISCOUNT RATES OF FOREIGN CENTRAL BANKS

Percent per year

Country	Rate on Oct. 30, 1990		Country	Rate on Oct. 30, 1990		Country	Rate on Oct. 30, 1990	
	Percent	Month effective		Percent	Month effective		Percent	Month effective
Austria	6.5	Oct. 1989	France[1]	9.5	Apr. 1990	Norway	8.0	June 1983
Belgium	10.25	Oct. 1989	Germany, Fed. Rep. of	6.0	Oct. 1989	Switzerland	6.0	Oct. 1989
Canada	12.66	Oct. 1990	Italy	12.5	May 1990	United Kingdom[2]	....	....
Denmark	10.5	Oct. 1989	Japan	6.0	Aug. 1990			
			Netherlands	7.0	Oct. 1989			

1. As of the end of February 1981, the rate is that at which the Bank of France discounts Treasury bills for 7 to 10 days.
2. Minimum lending rate suspended as of Aug. 20, 1981.
NOTE. Rates shown are mainly those at which the central bank either discounts or makes advances against eligible commercial paper and/or government commercial banks or brokers. For countries with more than one rate applicable to such discounts or advances, the rate shown is the one at which it is understood the central bank transacts the largest proportion of its credit operations.

3.27 FOREIGN SHORT-TERM INTEREST RATES

Percent per year, averages of daily figures

Country, or type	1987	1988	1989	1990 Apr.	May	June	July	Aug.	Sept.[r]	Oct.
1 Eurodollars	7.07	7.85	9.16	8.44	8.35	8.23	8.09	7.99	8.07	8.06
2 United Kingdom	9.65	10.28	13.87	15.17	15.11	14.95	14.92	14.95	14.88	14.02
3 Canada	8.38	9.63	12.20	13.59	13.77	13.76	13.58	13.13	12.63	12.58
4 Germany	3.97	4.28	7.04	8.20	8.27	8.24	8.17	8.36	8.39	8.51
5 Switzerland	3.67	2.94	6.83	9.01	8.78	8.71	8.81	8.71	8.11	7.88
6 Netherlands	5.24	4.72	7.28	8.46	8.37	8.26	8.16	8.44	8.42	8.39
7 France	8.14	7.80	9.27	9.92	9.70	9.94	9.91	10.03	10.24	9.92
8 Italy	11.15	11.04	12.44	12.11	12.09	11.33	11.38	11.49	10.65	11.40
9 Belgium	7.01	6.69	8.65	10.19	9.90	9.63	9.30	9.30	9.04	8.89
10 Japan	3.87	3.96	4.73	6.62	6.84	6.86	7.02	7.15	7.41	7.53

NOTE. Rates are for 3-month interbank loans except for Canada, finance company paper; Belgium, 3-month Treasury bills; and Japan, Gensaki rate.

3.28 FOREIGN EXCHANGE RATES[1]

Currency units per dollar

Country/currency	1987	1988	1989	1990 May	June	July	Aug.	Sept.[r]	Oct.
1 Australia/dollar[2]	70.137	78.409	79.186	76.106	77.903	79.076	80.871	82.512	80.060
2 Austria/schilling	12.649	12.357	13.236	11.699	11.843	11.520	11.044	11.044	10.719
3 Belgium/franc	37.358	36.785	39.409	34.325	34.602	33.715	32.280	32.282	31.373
4 Canada/dollar	1.3259	1.2306	1.1842	1.1747	1.1730	1.1570	1.1448	1.1583	1.1600
5 China, P.R./yuan	3.7314	3.7314	3.7673	4.7339	4.7339	4.7339	4.7339	4.7342	4.7339
6 Denmark/krone	6.8478	6.7412	7.3210	6.3349	6.4080	6.2339	6.0033	5.9961	5.8117
7 Finland/markka	4.4037	4.1933	4.2963	3.9270	3.9561	3.8386	3.7051	3.7113	3.6187
8 France/franc	6.0122	5.9595	6.3802	5.5989	5.6613	5.4924	5.2680	5.2575	5.1032
9 Germany/deutsche mark	1.7981	1.7570	1.8808	1.6630	1.6832	1.6375	1.5702	1.5701	1.5238
10 Greece/drachma	135.47	142.00	162.60	163.82	164.78	160.59	154.82	154.93	153.17
11 Hong Kong/dollar	7.7986	7.8072	7.8008	7.7877	7.7855	7.7704	7.7707	7.7647	7.7722
12 India/rupee	12.943	13.900	16.213	17.325	17.421	17.412	17.347	17.860	18.074
13 Ireland/punt[2]	148.79	152.49	141.80	161.21	159.28	163.75	170.86	170.91	176.04
14 Italy/lira	1,297.03	1,302.39	1,372.28	1,221.93	1,235.60	1,199.65	1,157.07	1,172.87	1,141.62
15 Japan/yen	144.60	128.17	138.07	154.04	153.70	149.04	147.46	138.44	129.59
16 Malaysia/ringgit	2.5186	2.6190	2.7079	2.7024	2.7104	2.7051	2.6956	2.6959	2.6995
17 Netherlands/guilder	2.0264	1.9778	2.1219	1.8704	1.8946	1.8452	1.7692	1.7699	1.7180
18 New Zealand/dollar[2]	59.328	65.560	59.354	57.293	58.254	59.147	61.294	62.077	61.129
19 Norway/krone	6.7409	6.5243	6.9131	6.4477	6.4700	6.2925	6.0810	6.0735	5.8241
20 Portugal/escudo	141.20	144.27	157.53	147.08	147.90	143.93	138.71	139.18	134.41
21 Singapore/dollar	2.1059	2.0133	1.9511	1.8589	1.8471	1.8193	1.7905	1.7671	1.7257
22 South Africa/rand	2.0385	2.2770	2.6214	2.6468	2.6592	2.6253	2.5734	2.5712	2.5445
23 South Korea/won	825.94	734.52	674.29	711.85	718.07	718.75	718.26	717.87	717.76
24 Spain/peseta	123.54	116.53	118.44	103.98	103.91	100.41	96.90	98.49	95.59
25 Sri Lanka/rupee	29.472	31.820	35.947	40.023	40.018	40.018	40.007	39.953	40.285
26 Sweden/krona	6.3469	6.1370	6.4559	6.0560	6.0896	5.9470	5.7754	5.7663	5.6411
27 Switzerland/franc	1.4918	1.4643	1.6369	1.4198	1.4250	1.3924	1.3076	1.3069	1.2818
28 Taiwan/dollar	31.753	28.636	26.407	26.961	27.391	27.163	27.291	27.302	27.288
29 Thailand/baht	25.775	25.312	25.725	25.928	25.876	25.706	25.579	25.376	25.130
30 United Kingdom/pound[2]	163.98	178.13	163.82	167.74	171.03	180.98	190.13	187.94	194.56
MEMO									
31 United States/dollar[3]	96.94	92.72	98.60	92.04	92.43	89.68	86.55	86.10	83.43

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) release. For address, see inside front cover.
2. Value in U.S. cents.
3. Index of weighted-average exchange value of U.S. dollar against the currencies of 10 industrial countries. The weight for each of the 10 countries is the 1972–76 average world trade of that country divided by the average world trade of all 10 countries combined. Series revised as of August 1978 (see *Federal Reserve Bulletin*, vol. 64, August 1978, p. 700).

Guide to Tabular Presentation, Statistical Releases, and Special Tables

Guide to Tabular Presentation

Symbols and Abbreviations

c	Corrected	0	Calculated to be zero
e	Estimated	n.a.	Not available
p	Preliminary	n.e.c.	Not elsewhere classified
r	Revised (Notation appears on column heading when about half of the figures in that column are changed.)	IPCs	Individuals, partnerships, and corporations
		REITs	Real estate investment trusts
*	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)	RPs	Repurchase agreements
		SMSAs	Standard metropolitan statistical areas
		. . .	Cell not applicable

General Information

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.

In some of the tables, details do not add to totals because of rounding.

Statistical Releases—List Published Semiannually, with Latest Bulletin *Reference*

Special Tables—Published Irregularly, with Latest Bulletin *Reference*

Special tables follow.

4.23 TERMS OF LENDING AT COMMERCIAL BANKS Survey of Loans Made, May 7–11, 1990[1]▲

A. Commercial and Industrial Loans

Characteristic	Amount of loans (thousands of dollars)	Average size (thousands of dollars)	Weighted average maturity[2]	Loan rate (percent)			Loans made under commitment (percent)	Participation loans (percent)	Most common base pricing rate[6]
			Days	Weighted average effective[3]	Standard error[4]	Interquartile range[5]			
ALL BANKS									
1 Overnight[7]	12,476,765	6,754	*	9.19	.06	8.80–9.47	65.4	8.7	Fed funds
2 One month and under	7,033,812	736	16	9.63	.13	9.00–9.94	82.0	21.4	Other
3 Fixed rate	4,843,216	1,063	16	9.56	.07	9.00–9.80	79.9	28.3	Other
4 Floating rate	2,190,596	438	15	9.78	.28	9.01–10.31	86.8	6.0	Domestic
5 Over one month and under a year	10,853,112	144	117	10.45	.18	9.37–11.57	75.6	20.3	Prime
6 Fixed rate	5,991,956	173	83	10.06	.20	9.24–10.95	72.3	27.2	Foreign
7 Floating rate	4,861,157	119	159	10.94	.18	9.95–11.87	79.6	11.7	Prime
8 Demand[8]	12,849,791	198	*	10.51	.13	9.31–11.57	81.4	9.0	Prime
9 Fixed rate	2,103,986	295	*	9.48	.14	8.84–10.13	74.7	19.6	Domestic
10 Floating rate	10,745,805	186	*	10.71	.14	9.87–11.63	82.7	6.9	Prime
11 **Total short term**	**43,213,481**	**284**	**46**	**9.97**	**.15**	**8.98–10.64**	**75.4**	**13.8**	**Prime**
12 Fixed rate (thousands of dollars)	25,415,658	528	25	9.49	.09	8.91–9.80	70.6	17.7	Fed funds
13 1–24	255,737	7	119	12.34	.18	11.63–13.03	30.9	.1	Prime
14 25–49	111,594	33	108	11.54	.13	10.52–12.50	33.2	.1	Prime
15 50–99	188,104	63	164	11.74	.23	10.79–12.75	44.8	.4	Prime
16 100–499	455,028	208	133	9.69	.33	9.44–11.52	61.3	3.9	Prime
17 500–999	482,145	693	46	9.46	.20	7.75–10.50	56.6	7.1	Other
18 1000 and over	23,923,050	7,364	21	9.43	.04	8.91–9.69	71.8	18.6	Fed funds
19 Floating rate (thousands of dollars)	17,797,824	171	114	10.66	.16	9.47–11.63	82.3	8.1	Prime
20 1–24	495,087	10	171	12.19	.08	11.57–12.75	75.2	2.0	Prime
21 25–49	519,633	34	155	11.90	.06	11.30–12.68	82.9	2.3	Prime
22 50–99	944,865	67	158	11.78	.07	11.02–12.19	85.1	3.4	Prime
23 100–499	3,469,881	198	159	11.43	.06	10.52–12.13	83.9	6.8	Prime
24 500–999	1,739,135	646	187	11.08	.09	10.47–11.57	84.2	10.1	Prime
25 1000 and over	10,629,223	4,247	76	10.11	.14	9.04–10.92	81.6	9.3	Prime
			Months						
26 **Total long term**	**4,879,449**	**231**	**44**	**11.08**	**.13**	**10.38–12.01**	**71.3**	**13.8**	**Prime**
27 Fixed rate (thousands of dollars)	1,101,443	148	46	10.50	.24	9.34–11.57	66.6	4.8	None
28 1–99	120,464	18	34	11.99	.17	11.46–12.96	14.5	.0	Prime
29 100–499	164,633	267	67	11.56	.24	11.35–12.40	58.7	5.2	None
30 500–999	81,750	762	76	11.39	.33	10.47–12.52	36.9	27.4	Prime
31 1000 and over	734,594	4,564	40	9.93	.25	9.25–10.52	80.2	2.9	Other
32 Floating rate (thousands of dollars)	3,778,007	276	43	11.25	.13	10.52–12.01	72.7	16.4	Prime
33 1–99	259,014	29	40	12.05	.08	11.46–12.75	47.6	3.6	Prime
34 100–499	698,300	200	46	11.66	.11	11.02–12.19	66.4	14.0	Prime
35 500–999	491,127	700	37	11.14	.08	10.47–11.63	69.3	12.6	Prime
36 1000 and over	2,329,567	3,775	43	11.06	.20	10.47–12.01	78.1	19.3	Prime
			Days	Loan rate (percent)		Prime rate[10]			
				Effective[3]	Nominal[9]				
LOANS MADE BELOW PRIME[11]									
37 Overnight[7]	11,989,002	8,931	*	9.12	8.73	10.00	64.3	9.0	
38 One month and under	5,938,327	2,784	14	9.31	8.91	10.01	81.0	21.2	
39 Over one month and under a year	5,582,471	691	91	9.37	9.00	10.12	75.5	28.9	
40 Demand[8]	4,627,334	1,008	*	9.11	8.79	10.05	69.6	12.7	
41 **Total short term**	**28,137,134**	**1,743**	**26**	**9.21**	**8.83**	**10.03**	**70.9**	**16.1**	
42 Fixed rate	21,770,974	2,337	19	9.18	8.81	10.02	69.0	18.5	
43 Floating rate	6,366,160	932	66	9.30	8.92	10.10	77.3	8.1	
			Months						
44 **Total long term**	**1,329,863**	**575**	**43**	**9.76**	**9.40**	**10.55**	**82.0**	**31.4**	
45 Fixed rate	584,098	516	36	9.36	9.10	10.10	81.9	8.9	
46 Floating rate	745,765	632	48	10.07	9.63	10.91	82.0	49.1	

For notes see end of table.

4.23 TERMS OF LENDING AT COMMERCIAL BANKS Survey of Loans Made, May 7–11, 1990[1]—Continued
A. Commercial and Industrial Loans—Continued

Characteristic	Amount of loans (thousands of dollars)	Average size (thousands of dollars)	Weighted average maturity[2]	Loan rate (percent)			Loans made under commitment (percent)	Participation loans (percent)	Most common base pricing rate[6]
			Days	Weighted average effective[3]	Standard error[4]	Interquartile range[5]			
LARGE BANKS									
1 Overnight[7]	11,620,868	8,671	*	9.19	.07	8.80–9.34	63.6	9.3	Fed funds
2 One month and under	5,222,770	3,176	16	9.52	.11	8.86–9.80	79.3	26.1	Domestic
3 Fixed rate	3,458,240	5,207	17	9.55	.09	8.86–9.88	75.3	37.2	Foreign
4 Floating rate	1,764,530	1,800	14	9.45	.29	8.83–9.72	87.2	4.3	Domestic
5 Over one month and under a year	6,675,842	1,077	90	10.13	.15	9.27–10.92	81.1	26.6	Foreign
6 Fixed rate	4,534,940	3,475	71	9.97	.20	9.24–10.59	77.1	32.8	Foreign
7 Floating rate	2,140,901	437	130	10.46	.10	9.43–11.56	89.5	13.4	Prime
8 Demand[8]	7,612,207	441	*	10.28	.17	9.09–11.16	74.4	11.2	Prime
9 Fixed rate	1,196,682	771	*	9.39	.22	8.49–10.00	66.5	32.0	Domestic
10 Floating rate	6,415,525	403	*	10.45	.19	9.20–11.49	75.9	7.3	Prime
11 **Total short term**	**31,131,687**	**1,177**	**30**	**9.71**	**.08**	**8.94–10.38**	**72.6**	**16.3**	**Fed Funds**
12 Fixed rate (thousands of dollars)	20,810,465	4,283	20	9.43	.09	8.91–9.69	68.7	20.4	Fed funds
13 1–24	8,667	10	121	11.55	.23	11.00–12.00	30.9	1.3	Prime
14 25–49	11,422	34	112	11.21	.21	10.50–12.00	35.0	1.2	Prime
15 50–99	18,517	67	86	11.12	.30	10.96–11.63	49.8	2.7	Prime
16 100–499	150,105	232	60	10.44	.21	9.65–11.07	68.3	5.8	Prime
17 500–999	200,451	676	23	10.10	.18	9.48–10.53	83.8	10.8	None
18 1000 and over	20,421,302	8,355	20	9.42	.08	8.90–9.69	68.6	20.6	Fed funds
19 *Floating rate (thousands of dollars)*	10,321,222	478	77	10.28	.13	9.11–11.07	80.6	8.1	Prime
20 1–24	79,402	11	161	11.82	.07	11.02–12.68	84.9	.9	Prime
21 25–49	111,098	34	152	11.74	.07	11.02–12.40	89.3	1.1	Prime
22 50–99	220,298	67	146	11.56	.08	10.75–12.13	90.6	1.5	Prime
23 100–499	1,096,644	202	141	11.19	.05	10.47–11.63	92.0	5.1	Prime
24 500–999	635,055	650	158	10.91	.02	10.47–11.46	91.7	8.1	Prime
25 1000 and over	8,178,724	5,222	64	10.04	.17	9.03–10.75	77.8	8.8	Prime
			Months						
26 **Total long term**	**2,527,128**	**786**	**43**	**10.88**	**.14**	**10.14–11.98**	**91.3**	**6.2**	**Prime**
27 Fixed rate (thousands of dollars)	509,771	1,096	41	10.00	.33	8.93–10.65	80.9	1.4	Foreign
28 1–99	8,079	31	50	11.87	.14	10.70–12.75	28.5	.0	None
29 100–499	19,183	244	53	10.93	.43	10.47–11.57	36.6	7.9	None
30 500–999	22,096	755	41	10.73	.35	10.21–11.57	88.9	10.8	Foreign
31 1000 and over	460,412	4,897	41	9.90	.35	8.80–10.14	83.2	.8	Foreign
32 Floating rate (thousands of dollars)	2,017,358	734	44	11.10	.12	10.47–12.01	93.9	7.4	Prime
33 1–99	38,758	38	38	11.82	.10	10.94–12.47	85.9	8.8	Prime
34 100–499	224,672	228	39	11.40	.04	10.52–12.01	89.6	13.2	Prime
35 500–999	232,072	686	41	11.09	.09	10.47–11.57	89.6	10.8	Prime
36 1000 and over	1,521,856	3,803	45	11.04	.21	10.47–12.01	95.4	5.9	Prime
			Days	Loan rate (percent)		Prime rate[10]			
				Effective[3]	Nominal[9]				
LOANS MADE BELOW PRIME[11]									
37 Overnight[7]	11,150,963	9,811	*	9.13	8.74	10.00	62.3	9.7	
38 One month and under	4,542,416	6,373	14	9.26	8.87	10.00	77.3	24.9	
39 Over one month and under a year	4,211,408	4,427	80	9.40	9.03	10.00	77.4	33.4	
40 Demand[8]	3,354,839	3,566	*	9.07	8.77	10.00	60.6	14.9	
41 **Total short term**	**23,259,626**	**6,217**	**21**	**9.19**	**8.82**	**10.00**	**67.7**	**17.7**	
42 Fixed rate	18,327,924	7,005	17	9.20	8.82	10.00	66.1	21.0	
43 Floating rate	4,931,702	4,384	46	9.17	8.80	10.00	73.9	5.7	
			Months						
44 **Total long term**	**662,359**	**3,552**	**37**	**9.30**	**9.03**	**10.00**	**89.2**	**6.4**	
45 Fixed rate	361,634	3,601	33	9.27	9.10	10.00	80.4	9.4	
46 Floating rate	300,726	3,496	42	9.33	8.95	10.00	99.8	2.8	

For notes see end of table.

4.23—Continued

A. Commercial and Industrial Loans—Continued

Characteristic	Amount of loans (thousands of dollars)	Average size (thousands of dollars)	Weighted average maturity[2]	Loan rate (percent)			Loans made under commitment (percent)	Participation loans (percent)	Most common base pricing rate[6]
			Days	Weighted average effective[3]	Standard error[4]	Interquartile range[5]			
OTHER BANKS									
1 Overnight[7]	855,897	1,688	*	9.10	.08	8.86–9.24	89.4	.0	Domestic
2 One month and under	1,811,042	229	14	9.94	.19	9.27–10.48	89.9	7.8	Other
3 Fixed rate	1,384,976	356	12	9.57	.12	9.13–9.59	91.3	6.2	Other
4 *Floating rate*	*426,066*	*106*	20	*11.14*	.26	*10.48–12.19*	85.1	13.0	*Prime*
5 Over one month and under a year	4,177,271	60	159	10.97	.24	10.25–12.13	66.7	10.1	Prime
6 *Fixed rate*	*1,457,015*	44	118	*10.33*	.34	9.35–11.84	57.0	9.7	Other
7 Floating rate	2,720,255	75	182	11.32	.25	10.47–12.19	71.9	10.3	Prime
8 Demand[8]	5,237,584	110	*	10.83	.13	10.38–11.63	91.4	5.9	Prime
9 Fixed rate	907,305	163	*	9.61	.16	9.06–10.47	85.5	3.1	Other
10 Floating rate	4,330,280	103	*	11.09	.08	10.47–11.85	92.7	6.5	Prime
11 **Total short term**	**12,081,794**	**96**	**101**	**10.62**	**.10**	**9.40–11.63**	**82.5**	**7.2**	**Prime**
12 Fixed rate (thousands of dollars)	4,605,193	106	51	9.73	.13	9.03–10.47	79.0	5.6	Other
13 1–24	247,070	7	119	12.37	.14	11.68–13.09	30.9	.0	Prime
14 25–49	100,172	33	108	11.58	.18	10.52–12.50	33.0	.0	Prime
15 50–99	169,588	62	167	11.80	.26	10.79–12.75	44.3	.1	Prime
16 100–499	304,922	198	159	9.32	.63	9.27–11.78	57.8	3.0	Other
17 500–999	281,693	707	59	9.01	.37	7.75–10.14	37.2	4.4	Other
18 1000 and over	3,501,748	4,355	27	9.49	.04	9.01–9.62	90.6	6.7	Other
19 *Floating rate (thousands of dollars)*	7,476,602	91	*160*	11.17	.10	10.47–12.04	84.7	8.2	*Prime*
20 1–24	415,685	9	172	12.26	.08	11.57–12.75	73.4	2.2	Prime
21 25–49	408,535	34	156	11.94	.07	11.46–12.68	81.2	2.6	Prime
22 50–99	724,567	66	161	11.85	.07	11.07–12.40	83.5	4.0	Prime
23 100–499	2,373,237	196	164	11.54	.05	10.79–12.19	80.2	7.6	Prime
24 500–999	1,104,080	643	198	11.17	.17	10.47–11.63	79.8	11.2	Prime
25 1000 and over	2,450,499	2,617	124	10.32	.21	9.18–11.02	94.0	10.8	Prime
			Months						
26 **Total long term**	**2,352,321**	**131**	**44**	**11.30**	**.16**	**10.52–12.13**	**49.9**	**21.9**	**Prime**
27 Fixed rate (thousands of dollars)	591,672	85	50	10.94	.31	9.58–12.06	54.3	7.6	Other
28 1–99	112,385	18	33	12.00	.34	11.46–12.96	13.5	.0	Prime
29 100–499	145,450	271	68	11.64	.25	11.35–12.68	61.6	4.8	None
30 500–999	59,654	764	88	11.64	.47	10.92–13.24	17.7	33.5	Prime
31 1000 and over	274,182	4,096	40	9.98	.39	9.34–10.52	75.1	6.6	Other
32 *Floating rate (thousands of dollars)*	1,760,649	*161*	*41*	*11.42*	.20	*10.86–12.13*	48.4	26.7	*Prime*
33 1–99	220,256	28	41	12.09	.09	11.50–12.75	40.9	2.7	Prime
34 100–499	473,628	189	49	11.78	.20	11.07–12.19	55.4	14.4	Prime
35 500–999	259,055	712	33	11.18	.15	10.52–11.63	51.1	14.2	Prime
36 1000 and over	807,711	3.724	40	11.10	.33	10.47–11.57	45.6	44.6	Prime
			Days	Loan rate (percent)		Prime rate[10]			
				Effective[3]	Nominal[9]				
LOANS MADE BELOW PRIME[11]									
37 Overnight[7]	838,040	4,071	*	9.05	8.66	10.00	89.8	.0	
38 One month and under	1,395,911	983	11	9.47	9.06	10.06	93.0	9.2	
39 Over one month and under a year	1,371,063	192	127	9.28	8.91	10.49	69.6	15.2	
40 Demand[8]	1,272,494	349	*	9.24	8.85	10.19	93.2	6.7	
41 **Total short term**	**6,877,508**	**393**	**53**	**9.28**	**8.89**	**10.20**	**85.9**	**8.7**	
42 Fixed rate	3,443,049	514	31	9.10	8.72	10.11	84.7	5.3	
43 Floating rate	1,434,458	252	131	9.73	9.32	10.44	89.0	16.7	
			Months						
44 **Total long term**	**667,503**	**314**	**49**	**10.21**	**9.76**	**11.10**	**74.8**	**56.3**	
45 Fixed rate	222,464	216	42	9.50	9.10	10.25	84.4	8.1	
46 Floating rate	445,039	407	53	10.57	10.10	11.52	69.9	80.4	

For notes see end of table.

4.23 TERMS OF LENDING AT COMMERCIAL BANKS Survey of Loans Made, May 7–11, 1990—Continued
B. Loans to Farmers[12]

Characteristic	Size class of loans (thousands)						
	All sizes	$1–9	$10–24	$25–49	$50–99	$100–249	$250 and over
ALL BANKS							
1 Amount of loans (thousands of dollars)	$ 1,205,164	$ 134,100	$ 164,734	$ 141,636	$ 139,673	$ 144,669	$ 480,352
2 Number of loans	56,179	36,759	11,447	4,212	2,179	1,056	526
3 Weighted average maturity (months)[2]	13.8	8.7	12.9	14.1	15.1	19.2	13.7
4 Weighted average interest rate (percent)[3]	11.79	12.45	12.30	12.06	12.14	11.69	11.29
5 Standard error[4]	.37	.24	.25	.21	.18	.39	.64
6 Interquartile range[5]	11.07–12.47	11.96–12.92	11.63–12.75	11.63–12.75	11.57–12.69	11.05–12.47	10.61–12.13
By purpose of loan							
7 Feeder livestock	11.64	12.30	12.07	12.07	12.24	11.49	11.46
8 Other livestock	12.20	12.60	12.41	12.35	12.74	12.11	*
9 Other current operating expenses	11.97	12.42	12.35	11.93	12.02	11.64	11.06
10 Farm machinery and equipment	12.43	12.74	12.33	12.49	11.83	*	*
11 Farm real estate	12.00	12.01	11.95	12.06	11.50	11.91	*
12 Other	11.30	12.36	12.25	12.17	12.27	11.67	10.83
Percentage of amount of loans							
13 With floating rates	73.6	55.4	62.9	66.5	60.5	80.6	86.1
14 Made under commitment	71.6	60.9	63.5	56.9	61.3	72.9	84.3
By purpose of loan							
15 Feeder livestock	25.4	7.4	10.0	13.4	21.7	19.1	42.3
16 Other livestock	5.6	10.0	6.5	2.9	8.4	11.8	*
17 Other current operating expenses	39.5	68.5	65.6	52.7	48.8	44.7	14.2
18 Farm machinery and equipment	3.8	8.6	7.3	11.0	1.9	*	*
19 Farm real estate	7.5	1.3	3.7	7.3	4.6	4.4	*
20 Other	18.2	4.2	6.8	12.8	14.7	19.3	28.4
LARGE FARM LENDERS[12]							
1 Amount of loans (thousands of dollars)	$ 688,060	$ 24,324	$ 40,626	$ 42,369	$ 55,026	$ 88,939	$ 436,776
2 Number of loans	11,923	6,114	2,743	1,241	831	591	403
3 Weighted average maturity (months)[2]	9.5	8.0	10.4	10.8	9.3	9.3	9.4
4 Weighted average interest rate (percent)[3]	11.43	12.21	12.05	11.80	11.78	11.54	11.22
5 Standard error[4]	.36	.22	.24	.12	.16	.06	.48
6 Interquartile range[5]	10.75–12.13	11.57–12.75	11.46–12.68	11.25–12.36	11.31–12.19	10.92–12.00	10.56–12.13
By purpose of loan							
7 Feeder livestock	11.46	12.11	12.00	11.75	11.88	11.54	11.37
8 Other livestock	11.64	12.56	12.27	12.38	12.26	12.26	*
9 Other current operating expenses	11.50	12.20	11.98	11.81	11.79	11.39	10.92
10 Farm machinery and equipment	11.98	12.53	12.11	11.84	11.80	*	*
11 Farm real estate	12.07	11.89	*	*	12.00	11.91	*
12 Other	11.03	12.17	12.34	11.71	11.42	11.48	10.83
Percentage of amount of loans							
13 With floating rates	87.4	86.8	87.8	92.6	90.2	95.9	84.7
14 Made under commitment	84.0	84.7	82.0	84.4	82.7	85.8	84.0
By purpose of loan							
15 Feeder livestock	33.5	12.0	14.6	25.4	24.8	27.9	39.5
16 Other livestock	3.2	4.2	5.4	2.6	3.0	5.5	13.8
17 Other current operating expenses	26.6	68.8	64.1	47.3	49.9	36.5	*
18 Farm machinery and equipment	1.3	2.5	3.5	4.3	2.4	*	
19 Farm real estate	9.4	1.5	*	*	4.4	7.1	*
20 Other	26.1	11.0	11.0	18.4	15.6	21.9	31.2
OTHER BANKS[12]							
1 Amount of loans (thousands of dollars)	$ 517,104	$ 109,776	$ 124,108	$ 99,267	$ 84,647	$ 55,730	*
2 Number of loans	44,256	30,645	8,704	2,971	1,348	465	*
3 Weighted average maturity (months)[2]	17.1	8.8	13.5	15.0	17.4	28.3	*
4 Weighted average interest rate (percent)[3]	12.28	12.50	12.39	12.18	12.37	11.92	*
5 Standard error[4]	.06	.08	.05	.17	.06	.38	*
6 Interquartile range[5]	11.63–12.75	12.05–13.03	11.81–12.75	11.70–12.82	11.73–12.96	11.35–12.75	*
By purpose of loan							
7 Feeder livestock	12.16	12.38	12.10	*	*	*	*
8 Other livestock	12.46	12.60	12.45	*	*	*	*
9 Other current operating expenses	12.27	12.47	12.47	11.98	12.18	11.90	*
10 Farm machinery and equipment	12.54	12.76	12.36	12.58	*	*	*
11 Farm real estate	11.81	*	11.93	*	*	*	*
12 Other	12.48	12.54	12.18	*	*	*	*

For notes see end of table.

4.23—Continued
B. Loans to Farmers[12]—Continued

Characteristic	Size class of loans (thousands)						
	All sizes	$1–9	$10–24	$25–49	$50–99	$100–249	$250 and over
Percentage of amount of loans							
13 With floating rates	55.3	48.5	54.8	55.3	41.2	*	*
14 Made under commitment	55.1	55.6	57.5	45.2	47.4	*	*
By purpose of loan							
15 Feeder livestock	14.7	6.3	8.5	*	*	*	*
16 Other livestock	8.9	11.3	6.9	*	*	*	*
17 Other current operating expenses	56.6	68.4	66.1	55.0	48.0	57.7	*
18 Farm machinery and equipment	7.1	10.0	8.5	13.8	*	*	*
19 Farm real estate	5.0	*	4.5	*	*	*	*
20 Other	7.8	2.7	5.5	*	*	*	*

*Fewer than 10 sample loans.

1. The survey of terms of bank lending to business collects data on gross loan extensions made during the first full business week in the mid-month of each quarter by a sample of 340 commercial banks of all sizes. A subsample of 250 banks also report loans to farmers. The sample data are blown up to estimate the lending terms at all insured commercial banks during that week. The estimated terms of bank lending are not intended for use in collecting the terms of loans extended over the entire quarter or residing in the portfolios of those banks. Mortgage loans, purchased loans, foreign loans, and loans of less than $1,000 are excluded from the survey.

As of Dec. 31, 1989, assets of most of the large banks were at least $7.0 billion. For all insured banks total assets averaged $250 million.

2. Average maturities are weighted by loan size and exclude demand loans.

3. Effective (compounded) annual interest rates are calculated from the stated rate and other terms of the loan and weighted by loan size.

4. The chances are about two out of three that the average rate shown would differ by less than this amount from the average rate that would be found by a complete survey of lending at all banks.

5. The interquartile range shows the interest rate range that encompasses the middle 50 percent of the total dollar amount of loans made.

6. The most common base rate is that rate used to price the largest dollar volume of loans. Base pricing rates include the prime rate (sometimes referred to as a bank's "basic" or "reference" rate); the federal funds rate; domestic money market rates other than the federal funds rate; foreign money market rates; and other base rates not included in the foregoing classifications.

7. Overnight loans are loans that mature on the following business day.

8. Demand loans have no stated date of maturity.

9. Nominal (not compounded) annual interest rates are calculated from survey data on the stated rate and other terms of the loan and weighted by loan size.

10. The prime rate reported by each bank is weighted by the volume of loans extended and then averaged.

11. The proportion of loans made at rates below prime may vary substantially from the proportion of such loans outstanding in banks' portfolios.

12. Among banks reporting loans to farmers (Table B), most "large banks" (survey strata 1 to 2) had over $20 million in farm loans, and most "other banks" (survey strata 3 to 5) had farm loans below $20 million.

The survey of terms of bank lending to farmers now includes loans secured by farm real estate. In addition, the categories describing the purpose of farm loans have now been expanded to include "purchase or improve farm real estate." In previous surveys, the purpose of such loans was reported as "other."

4.23 TERMS OF LENDING AT COMMERCIAL BANKS Survey of Loans Made, August 6–10, 1990[1]

A. Commercial and Industrial Loans

Characteristic	Amount of loans (thousands of dollars)	Average size (thousands of dollars)	Weighted average maturity[2]	Loan rate (percent)			Loans made under commitment (percent)	Participation loans (percent)	Most common base pricing rate[6]
			Days	Weighted average effective[3]	Standard error[4]	Interquartile range[5]			
ALL BANKS									
1 Overnight[7]	14,105,344	6,834	*	9.03	.07	8.71–9.24	55.7	12.4	Fed Funds
2 One month and under	8,880,639	1,131	17	9.44	.15	8.73–9.68	88.2	13.7	Domestic
3 Fixed rate	5,882,226	1,384	18	9.28	.17	8.71–9.48	84.4	13.3	Domestic
4 Floating rate	2,998,413	833	17	9.74	.18	8.86–10.48	95.6	14.6	Domestic
5 Over one month and under a year	11,147,077	168	135	10.14	.19	8.87–11.30	82.8	11.9	Prime
6 Fixed rate	5,560,459	202	101	9.71	.19	8.70–10.47	81.5	13.3	Other
7 Floating rate	5,586,617	144	169	10.56	.21	9.42–11.57	84.1	10.5	Prime
8 Demand[8]	11,352,304	195	*	10.40	.15	9.12–11.35	80.2	8.3	Prime
9 Fixed rate	2,307,754	413	*	9.41	.11	8.68–10.00	82.6	22.1	Fed Funds
10 Floating rate	9,044,550	172	*	10.66	.16	9.73–11.57	79.5	4.8	Prime
11 **Total short term**	**45,485,364**	**338**	**49**	**9.72**	**.16**	**8.79–10.52**	**74.8**	**11.5**	**Fed Funds**
12 Fixed rate (thousands of dollars)	27,855,783	706	27	9.25	.10	8.71–9.43	69.2	13.6	Fed Funds
13 1–24	208,602	8	119	12.21	.26	11.19–13.10	28.6	.9	Other
14 25–49	110,198	35	110	12.40	.29	11.63–13.30	34.3	.0	Prime
15 50–99	122,524	64	106	11.57	.16	10.55–12.41	37.9	.9	Prime
16 100–499	485,093	193	81	10.52	.11	9.92–11.52	48.2	3.3	Prime
17 500–999	496,049	648	74	10.00	.18	9.04–10.56	75.9	6.7	Other
18 1000 and over	26,433,318	7,452	24	9.17	.06	8.70–9.35	70.0	14.1	Fed Funds
19 Floating rate (thousands of dollars)	17,629,581	185	116	10.47	.18	9.31–11.47	83.7	8.3	Prime
20 1–24	454,671	10	159	12.10	.10	11.46–12.75	75.2	1.8	Prime
21 25–49	512,746	34	181	11.77	.05	11.07–12.31	78.4	1.2	Prime
22 50–99	848,400	67	176	11.64	.05	11.02–12.19	86.9	4.2	Prime
23 100–499	3,303,540	203	184	11.39	.06	10.52–11.91	87.2	6.4	Prime
24 500–999	1,547,820	665	170	11.06	.05	10.47–11.63	87.2	7.5	Prime
25 1000 and over	10,962,404	4,646	89	9.89	.14	8.86–10.66	82.5	9.9	Prime
			Months						
26 **Total long term**	**4,583,101**	**247**	**42**	**10.72**	**.20**	**9.73–11.63**	**70.7**	**6.9**	**Prime**
27 Fixed rate (thousands of dollars)	1,282,981	160	42	10.31	.31	8.95–11.57	66.1	3.9	Other
28 1–99	115,008	17	48	12.15	.18	11.07–12.75	20.1	.1	Prime
29 100–499	165,101	185	44	11.62	.25	11.02–12.41	30.6	26.2	Other
30 500–999	47,352	661	42	10.42	.36	9.11–11.43	93.1	6.6	Other
31 1000 and over	955,521	5,135	41	9.86	.27	8.79–10.88	76.4	.3	Foreign
32 Floating rate (thousands of dollars)	3,300,120	313	42	10.88	.23	10.38–11.85	72.4	8.1	Prime
33 1–99	177,952	25	44	12.08	.11	11.35–12.68	56.4	5.0	Prime
34 100–499	529,497	218	39	11.34	.08	10.52–12.01	75.2	9.4	Prime
35 500–999	308,667	682	42	11.20	.14	10.52–11.63	73.5	9.5	Prime
36 1000 and over	2,284,004	3,483	43	10.64	.37	9.73–11.63	72.9	7.9	Prime
			Days	Loan rate (percent)		Prime rate[10]			
				Effective[3]	Nominal[9]				
LOANS MADE BELOW PRIME[11]									
37 Overnight[7]	13,446,713	8,761	*	8.95	8.57	10.00	55.0	13.0	
38 One month and under	7,270,241	4,592	16	9.04	8.66	10.00	87.5	10.8	
39 Over one month and under a year	6,236,325	709	121	9.12	8.79	10.09	87.4	13.4	
40 Demand[8]	4,348,107	1,221	*	9.02	8.72	10.07	67.4	14.3	
41 **Total short term**	**31,301,386**	**2,022**	**33**	**9.02**	**8.66**	**10.03**	**70.7**	**12.7**	
42 Fixed rate	24,658,959	2,654	23	8.99	8.63	10.01	68.5	14.5	
43 Floating rate	6,642,427	1,073	85	9.12	8.77	10.09	78.9	6.1	
			Months						
44 **Total long term**	**1,369,561**	**1,159**	**39**	**9.05**	**8.73**	**10.07**	**70.5**	**7.0**	
45 Fixed rate	632,006	842	40	9.05	8.79	10.02	69.9	3.0	
46 Floating rate	737,555	1,709	38	9.04	8.69	10.11	71.0	10.5	

For notes see end of table.

4.23 TERMS OF LENDING AT COMMERCIAL BANKS Survey of Loans Made, August 6–10, 1990[1]—Continued

A. Commercial and Industrial Loans—Continued

Characteristic	Amount of loans (thousands of dollars)	Average size (thousands of dollars)	Weighted average maturity[2]	Loan rate (percent)			Loans made under commitment (percent)	Participation loans (percent)	Most common base pricing rate[6]
			Days	Weighted average effective[3]	Standard error[4]	Interquartile range[5]			
LARGE BANKS									
1 Overnight[7]	12,774,027	8,107	*	9.03	.08	8.71–9.21	51.4	13.6	Fed Funds
2 One month and under	6,547,458	4,368	17	9.40	.17	8.79–9.57	87.5	11.6	Domestic
3 Fixed rate	4,208,382	5,562	17	9.34	.18	8.80–9.60	82.8	15.4	Domestic
4 Floating rate	2,339,077	3,151	16	9.51	.27	8.73–9.50	95.8	4.7	Domestic
5 Over one month and under a year	6,873,909	1,105	107	9.72	.15	8.72–10.52	91.3	10.8	Foreign
6 Fixed rate	3,963,118	2,936	82	9.52	.17	8.69–10.06	88.1	12.7	Foreign
7 Floating rate	2,910,791	598	142	10.01	.30	8.86–11.07	95.7	8.3	Prime
8 Demand[8]	6,579,448	361	*	10.11	.21	8.89–11.02	71.4	9.3	Prime
9 Fixed rate	1,332,742	1,005	*	9.23	.09	8.56–9.72	78.2	25.6	Domestic
10 Floating rate	5,246,707	310	*	10.34	.22	9.11–11.08	69.7	5.1	Prime
11 **Total short term**	**32,774,842**	**1,190**	**33**	**9.47**	**.10**	**8.73–9.91**	**71.0**	**11.8**	**Fed Funds**
12 Fixed rate (thousands of dollars)	22,278,268	4,449	20	9.19	.10	8.71–9.38	65.4	14.5	Fed Funds
13 1–24	8,360	10	127	11.34	.40	10.52–12.00	28.1	.8	Prime
14 25–49	8,267	33	89	11.18	.45	10.68–12.00	38.3	.5	Prime
15 50–99	17,922	66	93	11.02	.14	10.48–11.50	58.2	1.0	Prime
16 100–499	156,534	238	50	10.21	.11	9.27–11.00	66.2	4.9	Prime
17 500–999	234,613	684	48	9.79	.09	8.97–10.54	75.1	9.7	Other
18 1000 and over	21,852,572	8,252	19	9.17	.10	8.71–9.35	65.4	14.7	Fed Funds
19 Floating rate (thousands of dollars)	10,496,574	466	86	10.06	.23	8.91–11.02	82.7	5.9	Prime
20 1–24	85,556	11	169	11.72	.14	11.02–12.40	84.8	.7	Prime
21 25–49	123,023	34	165	11.63	.07	11.02–12.19	89.8	1.3	Prime
22 50–99	238,072	67	157	11.51	.06	10.75–12.13	90.9	1.7	Prime
23 100–499	1,073,783	202	177	11.16	.04	10.47–11.63	91.3	3.6	Prime
24 500–999	644,368	661	172	10.89	.04	10.47–11.57	91.1	7.3	Prime
25 1000 and over	8,331,773	5,904	74	9.77	.22	8.81–10.52	80.6	6.3	Prime
			Months						
26 **Total long term**	**2,892,992**	**773**	**45**	**10.44**	**.22**	**9.32–11.42**	**86.1**	**6.7**	**Prime**
27 Fixed rate (thousands of dollars)	739,598	735	44	9.63	.22	8.77–10.61	78.5	.4	Foreign
28 1–99	12,383	17	40	11.60	.24	10.75–12.40	17.4	.0	None
29 100–499	20,326	218	67	10.66	.33	9.56–12.13	76.8	8.2	None
30 500–999	32,874	703	39	10.39	.43	9.00–11.50	95.2	3.6	Other
31 1000 and over	674,015	5,213	44	9.53	.26	8.75–10.47	78.9	.0	Foreign
32 Floating rate (thousands of dollars)	2,153,395	786	46	10.71	.29	10.25–11.57	88.7	8.9	Prime
33 1–99	35,474	36	37	11.80	.14	11.02–12.25	86.3	5.5	Prime
34 100–499	243,027	227	38	11.24	.11	10.47–11.99	87.1	9.0	Prime
35 500–999	164,740	668	46	11.06	.20	10.47–11.57	89.7	11.9	Prime
36 1000 and over	1,710,154	3,901	47	10.58	.36	9.99–11.46	88.9	8.7	Prime
			Days	Loan rate (percent)		Prime rate[10]			
				Effective[3]	Nominal[9]				
LOANS MADE BELOW PRIME[11]									
37 Overnight[7]	12,169,369	9,272	*	8.95	8.57	10.00	50.5	14.3	
38 One month and under	5,560,725	7,360	15	9.05	8.67	10.00	86.2	11.7	
39 Over one month and under a year	4,663,150	3,977	97	9.05	8.71	10.00	90.4	10.2	
40 Demand[8]	2,991,314	2,946	*	8.90	8.63	10.01	53.4	13.2	
41 **Total short term**	**25,384,557**	**5,965**	**25**	**8.98**	**8.63**	**10.00**	**66.0**	**12.9**	
42 Fixed rate	20,054,172	6,605	18	8.98	8.62	10.00	63.3	15.3	
43 Floating rate	5,330,385	4,370	62	9.01	8.67	10.01	76.3	3.6	
			Months						
44 **Total long term**	**1,020,291**	**2,629**	**39**	**9.07**	**8.77**	**10.00**	**80.6**	**8.0**	
45 Fixed rate	483,147	2,084	39	8.86	8.64	10.00	78.6	3.2	
46 Floating rate	537,144	3,437	39	9.26	8.89	10.01	82.3	12.2	

For notes see end of table.

4.23—Continued

A. Commercial and Industrial Loans—Continued

Characteristic	Amount of loans (thousands of dollars)	Average size (thousands of dollars)	Weighted average maturity[2]	Loan rate (percent)			Loans made under commitment (percent)	Participation loans (percent)	Most common base pricing rate[6]
			Days	Weighted average effective[3]	Standard error[4]	Interquartile range[5]			
OTHER BANKS									
1 Overnight[7]	1,331,318	2,726	*	9.03	.11	8.73–9.31	97.6	.3	Fed Funds
2 One month and under	2,333,181	367	19	9.54	.23	8.69–10.48	90.3	19.8	Prime
3 Fixed rate	1,673,844	479	18	9.14	.29	8.58–9.34	88.5	8.0	Domestic
4 Floating rate	659,336	231	22	10.54	.18	10.47–10.52	94.9	49.7	Prime
5 Over one month and under a year	4,273,168	71	179	10.80	.17	9.64–11.63	69.2	13.6	Prime
6 Fixed rate	1,597,341	61	149	10.19	.27	8.71–11.52	65.3	14.8	Other
7 Floating rate	2,675,826	79	198	11.16	.17	10.47–11.85	71.5	12.9	Prime
8 Demand[8]	4,772,855	119	*	10.81	.17	10.24–11.63	92.2	7.1	Prime
9 Fixed rate	975,012	229	*	9.65	.16	8.98–10.24	88.6	17.3	Other
10 Floating rate	3,797,843	106	*	11.10	.15	10.47–11.85	93.2	4.4	Prime
11 Total short term	**12,710,522**	**119**	**102**	**10.38**	**.14**	**9.03–11.57**	**84.7**	**10.9**	**Prime**
12 Fixed rate (thousands of dollars)	5,577,516	162	59	9.50	.15	8.70–9.91	84.0	9.8	Other
13 1–24	200,241	7	119	12.25	.19	11.41–13.10	28.6	.9	Other
14 25–49	101,931	35	111	12.50	.13	11.74–13.30	34.0	.0	Prime
15 50–99	104,602	63	107	11.66	.15	10.88–12.41	34.4	.8	Prime
16 100–499	328,560	177	94	10.67	.17	10.38–11.52	39.7	2.6	Prime
17 500–999	261,436	619	96	10.19	.37	9.16–11.02	76.7	4.0	Other
18 1000 and over	4,580,746	5,095	49	9.14	.09	8.67–9.38	92.3	11.4	Other
19 Floating rate (thousands of dollars)	7,133,006	98	163	11.07	.13	10.47–11.66	85.2	11.8	Prime
20 1–24	369,115	10	158	12.19	.05	11.57–12.75	72.9	2.1	Prime
21 25–49	389,722	34	183	11.81	.03	11.30–12.40	74.8	1.2	Prime
22 50–99	610,328	67	179	11.69	.04	11.02–12.19	85.4	5.2	Prime
23 100–499	2,229,757	203	186	11.49	.07	10.79–12.13	85.3	7.8	Prime
24 500–999	903,453	668	169	11.17	.06	10.47–11.73	84.4	7.6	Prime
25 1000 and over	2,630,631	2,774	139	10.28	.14	9.52–11.02	88.6	21.1	Prime
			Months						
26 Total long term	**1,690,109**	**114**	**37**	**11.21**	**.29**	**10.47–12.19**	**44.3**	**7.3**	**Prime**
27 Fixed rate (thousands of dollars)	543,383	78	39	11.24	.31	10.29–11.91	49.1	8.6	Other
28 1–99	102,625	17	49	12.22	.21	11.07–12.75	20.4	.2	Prime
29 100–499	144,775	181	41	11.75	.25	11.07–12.47	24.1	28.8	Other
30 500–999	14,478	583	49	10.50	.78	10.52–11.18	88.2	13.5	Other
31 1000 and over	281,506	4,958	34	10.67	.55	9.71–11.63	70.5	1.1	Other
32 Floating rate (thousands of dollars)	1,146,726	147	36	11.19	.37	10.52–12.28	42.0	6.6	Prime
33 1–99	142,478	24	46	12.15	.10	11.57–12.68	48.9	4.8	Prime
34 100–499	286,470	211	41	11.43	.12	11.02–12.13	65.0	9.7	Prime
35 500–999	143,927	699	38	11.36	.19	10.52–12.13	55.0	6.9	Prime
36 1000 and over	573,850	2,640	31	10.80	.67	9.73–12.68	25.5	5.5	Prime
			Days	Loan rate (percent)		Prime rate[10]			
				Effective[3]	Nominal[9]				
LOANS MADE BELOW PRIME[11]									
37 Overnight[7]	1,277,344	5,747	*	8.96	8.58	10.00	97.5	.0	
38 One month and under	1,709,516	2,065	18	9.00	8.63	10.01	91.9	8.0	
39 Over one month and under a year	1,573,176	206	194	9.35	9.00	10.35	78.5	22.9	
40 Demand[8]	1,356,793	533	*	9.31	8.92	10.18	98.0	16.5	
41 Total short term	**5,916,829**	**527**	**74**	**9.16**	**8.78**	**10.14**	**91.0**	**12.2**	
42 Fixed rate	4,604,787	736	52	9.04	8.68	10.05	91.4	11.0	
43 Floating rate	1,312,042	264	183	9.56	9.17	10.45	89.3	16.3	
			Months						
44 Total long term	**349,270**	**440**	**37**	**8.98**	**8.62**	**10.27**	**41.1**	**4.3**	
45 Fixed rate	148,859	287	40	9.65	9.25	10.09	41.8	2.0	
46 Floating rate	200,411	728	34	8.48	8.15	10.41	40.5	6.0	

For notes see end of table.

4.23 TERMS OF LENDING AT COMMERCIAL BANKS Survey of Loans Made, August 6–10, 1990—Continued

B. Loans to Farmers[12]

Characteristic	Size class of loans (thousands)						
	All sizes	$1–9	$10–24	$25–49	$50–99	$100–249	$250 and over
ALL BANKS							
1 Amount of loans (thousands of dollars)	$ 1,606,333	$ 118,640	$ 144,270	$ 133,238	$ 123,367	$ 167,011	$ 919,807
2 Number of loans	51,734	34,246	9,868	3,949	1,901	1,165	605
3 Weighted average maturity (months)[2]	6.6	6.8	7.8	11.0	8.5	13.6	2.8
4 Weighted average interest rate (percent)[3]	10.95	12.56	12.41	12.20	11.89	11.80	10.05
5 Standard error[4]	.31	.23	.15	.34	.29	.30	.48
6 Interquartile range[5]	9.44–12.19	12.10–12.96	11.83–12.86	11.57–12.75	11.19–12.64	11.30–12.36	8.60–11.35
By purpose of loan							
7 Feeder livestock	11.49	12.82	12.41	12.02	12.15	11.69	11.24
8 Other livestock	12.37	13.09	12.72	12.44	12.55	12.29	11.40
9 Other current operating expenses	11.17	12.48	12.43	12.30	11.83	11.65	9.70
10 Farm machinery and equipment	12.43	12.69	12.42	12.45	*	*	*
11 Farm real estate	11.61	12.84	12.24	11.38	*	*	*
12 Other	9.79	12.38	12.09	12.11	11.30	12.02	9.37
Percentage of amount of loans							
13 With floating rates	61.6	54.3	64.7	75.5	68.4	77.5	56.2
14 Made under commitment	84.2	59.2	63.5	70.8	70.8	74.9	96.0
By purpose of loan							
15 Feeder livestock	24.6	7.2	10.3	20.5	27.6	27.8	28.6
16 Other livestock	4.3	6.4	5.6	8.2	8.5	13.4	1.0
17 Other current operating expenses	39.8	72.6	67.5	54.7	46.1	37.4	28.6
18 Farm machinery and equipment	1.7	7.1	5.9	3.1	*	*	*
19 Farm real estate	2.0	1.5	3.7	5.2	*	*	*
20 Other	27.7	5.2	6.9	8.3	14.1	16.6	40.4
LARGE FARM LENDERS[12]							
1 Amount of loans (thousands of dollars)	$ 1,070,693	$ 18,727	$ 29,076	$ 36,866	$ 47,096	$ 92,996	$ 845,933
2 Number of loans	9,880	5,055	1,996	1,071	704	618	436
3 Weighted average maturity (months)[2]	3.7	6.2	7.7	6.8	7.1	6.5	2.7
4 Weighted average interest rate (percent)[3]	10.30	12.24	11.90	11.72	11.59	11.48	9.94
5 Standard error[4]	.25	.19	.07	.23	.10	.09	.34
6 Interquartile range[5]	8.60–11.63	11.63–12.75	11.35–12.47	11.08–12.19	11.02–12.19	11.00–11.91	8.60–11.09
By purpose of loan							
7 Feeder livestock	11.29	12.21	11.82	11.75	11.63	11.43	11.22
8 Other livestock	11.49	12.06	12.07	11.70	11.64	*	11.40
9 Other current operating expenses	10.21	12.25	11.93	11.70	11.53	11.42	9.47
10 Farm machinery and equipment	12.21	13.07	12.04	*	*	*	*
11 Farm real estate	11.56	12.30	11.35	*	*	*	*
12 Other	9.49	12.12	11.88	11.72	11.59	11.62	9.25
Percentage of amount of loans							
13 With floating rates	60.3	87.9	89.9	92.4	88.2	90.4	52.4
14 Made under commitment	93.5	83.2	83.7	89.5	81.8	86.5	95.7
By purpose of loan							
15 Feeder livestock	28.7	8.6	13.2	24.5	31.9	31.2	29.4
16 Other livestock	1.7	3.8	2.5	3.0	3.0	*	1.1
17 Other current operating expenses	31.2	70.5	59.5	56.0	42.9	45.1	26.0
18 Farm machinery and equipment	.3	2.1	3.1	*	*	*	*
19 Farm real estate	1.3	1.2	1.5	*	*	*	*
20 Other	36.9	13.9	20.1	13.0	20.8	17.4	42.1
OTHER BANKS[12]							
1 Amount of loans (thousands of dollars)	$ 535,640	$ 99,913	$ 115,194	$ 96,372	$ 76,271	$ 74,016	*
2 Number of loans	41,854	29,191	7,872	2,878	1,197	547	*
3 Weighted average maturity (months)[2]	10.2	6.9	7.8	12.1	9.1	20.9	*
4 Weighted average interest rate (percent)[3]	12.24	12.62	12.54	12.38	12.08	12.20	*
5 Standard error[4]	.17	.12	.12	.24	.26	.28	*
6 Interquartile range[5]	11.63–12.75	12.18–13.03	12.04–13.03	11.63–12.97	11.40–12.87	11.75–12.48	*
By purpose of loan							
7 Feeder livestock	12.23	12.97	12.62	12.16	12.57	*	*
8 Other livestock	12.68	13.20	12.78	12.52	*	*	*
9 Other current operating expenses	12.21	12.52	12.54	12.54	12.00	*	*
10 Farm machinery and equipment	12.46	12.67	12.46	*	*	*	*
11 Farm real estate	11.65	12.92	12.33	*	*	*	*
12 Other	12.16	12.57	*	*	*	*	*

For notes see end of table.

4.23—Continued

B. Loans to Farmers[12]—Continued

Characteristic	Size class of loans (thousands)						
	All sizes	$1–9	$10–24	$25–49	$50–99	$100–249	$250 and over
Percentage of amount of loans							
13 With floating rates	64.2	48.0	58.3	69.1	56.2	61.3	*
14 Made under commitment	65.5	54.7	58.5	63.6	63.9	60.4	*
By purpose of loan							
15 Feeder livestock	16.3	7.0	9.6	18.9	24.9	*	*
16 Other livestock	9.5	6.8	6.4	10.2	*	*	*
17 Other current operating expenses	57.1	73.0	69.6	54.2	48.1	*	*
18 Farm machinery and equipment	4.6	8.1	6.7	*	*	*	*
19 Farm real estate	3.3	1.5	4.3	*	*	*	*
20 Other	9.2	3.6	*	*	*	*	*

*Fewer than 10 sample loans.

1. The survey of terms of bank lending to business collects data on gross loan extensions made during the first full business week in the mid-month of each quarter by a sample of 340 commercial banks of all sizes. A sample of 250 banks reports loans to farmers. The sample data are blown up to estimate the lending terms at all insured commercial banks during that week. The estimated terms of bank lending are not intended for use in collecting the terms of loans extended over the entire quarter or residing in the portfolios of those banks. Mortgage loans, purchased loans, foreign loans, and loans of less than $1,000 are excluded from the survey.

As of Dec. 31, 1989, assets of most of the large banks were at least $7.0 billion. For all insured banks total assets averaged $250 million.

2. Average maturities are weighted by loan size and exclude demand loans.

3. Effective (compounded) annual interest rates are calculated from the stated rate and other terms of the loan and weighted by loan size.

4. The chances are about two out of three that the average rate shown would differ by less than this amount from the average rate that would be found by a complete survey of lending at all banks.

5. The interquartile range shows the interest rate range that encompasses the middle 50 percent of the total dollar amount of loans made.

6. The most common base rate is that rate used to price the largest dollar volume of loans. Base pricing rates include the prime rate (sometimes referred to as a bank's "basic" or "reference" rate); the federal funds rate; domestic money market rates other than the federal funds rate; foreign money market rates; and other base rates not included in the foregoing classifications.

7. Overnight loans are loans that mature on the following business day.

8. Demand loans have no stated date of maturity.

9. Nominal (not compounded) annual interest rates are calculated from survey data on the stated rate and other terms of the loan and weighted by loan size.

10. The prime rate reported by each bank is weighted by the volume of loans extended and then averaged.

11. The proportion of loans made at rates below prime may vary substantially from the proportion of such loans outstanding in banks' portfolios.

12. Among banks reporting loans to farmers (Table B), most "large banks" (survey strata 1 to 2) had over $20 million in farm loans, and most "other banks" (survey strata 3 to 5) had farm loans below $20 million.

The survey of terms of bank lending to farmers now includes loans secured by farm real estate. In addition, the categories describing the purpose of farm loans have now been expanded to include "purchase or improve farm real estate." In previous surveys, the purpose of such loans was reported as "other."

4.30 ASSETS AND LIABILITIES of U.S. Branches and Agencies of Foreign Banks, June 30, 1990[1]

Millions of dollars

Item	All states[2]		New York		California		Illinois	
	Total including IBF's	IBF's only[3]	Total including IBF's	IBF's only[3]	Total including IBF's	IBF's only[3]	Total including IBF's	IBF's only[3]
1 **Total assets[4]**	**574,238**	**249,563**	**419,154**	**198,685**	**85,865**	**27,038**	**40,913**	**13,698**
2 Claims on nonrelated parties	508,256	195,106	368,595	155,971	77,782	20,273	40,537	13,150
3 Cash and balances due from depository institutions	132,638	109,927	111,202	91,250	8,748	8,019	10,723	9,383
4 Cash items in process of collection and unposted debits	1,222	0	1,169	0	27	0	4	0
5 Currency and coin (U.S. and foreign)	23	n.a.	17	n.a.	1	n.a.	1	n.a.
6 Balances with depository institutions in United States	66,524	46,603	55,405	37,822	4,758	4,117	5,688	4,422
7 U.S. branches and agencies of other foreign banks *(including their IBFs)*	58,381	43,748	48,811	35,312	4,182	3,995	4,930	4,226
8 Other depository institutions in United States (including their IBFs)	8,142	2,856	6,594	2,510	575	122	758	197
9 Balances with banks in foreign countries and with foreign central banks	64,042	63,323	53,957	53,428	3,905	3,902	4,980	4,961
10 Foreign branches of U.S. banks	1,850	1,778	1,707	1,636	74	74	60	60
11 Other banks in foreign countries and foreign central banks	62,192	61,545	52,250	51,792	3,831	3,828	4,921	4,901
12 Balances with Federal Reserve Banks	828	n.a.	654	n.a.	57	n.a.	49	n.a.
13 **Total securities and loans**	**310,651**	**74,712**	**205,963**	**55,878**	**59,148**	**11,191**	**27,227**	**3,372**
14 Total securities, book value	43,660	13,523	38,174	11,630	3,634	1,273	1,208	537
15 U.S. Treasury	8,917	n.a.	8,640	n.a.	55	n.a.	161	n.a.
16 Obligations of U.S. government agencies and corporations	6,001	n.a.	5,764	n.a.	142	n.a.	22	n.a.
17 Other bonds, notes, debentures and corporate stock (including state and local securities)	28,742	13,523	23,770	11,630	3,437	1,273	1,025	537
18 Federal funds sold and securities purchased under agreements to resell	15,226	3,693	13,843	3,481	752	143	215	0
19 U.S. branches and agencies of other foreign banks	9,919	2,414	9,077	2,349	533	57	162	0
20 Commercial banks in United States	2,053	33	1,747	33	95	0	13	0
21 Other	3,253	1,245	3,018	1,099	124	86	41	0
22 Total loans, gross	267,176	61,227	167,915	44,282	55,560	9,922	26,028	2,835
23 Less: Unearned income on loans	186	38	125	35	46	3	10	0
24 Equals: Loans, net	266,991	61,189	167,790	44,248	55,514	9,918	26,018	2,835
Total loans, gross, by category								
25 Real estate loans	38,720	368	20,334	191	11,753	136	4,155	35
26 Loans to depository institutions	60,215	31,346	41,433	19,579	12,219	7,543	4,396	2,483
27 Commercial banks in United States (including IBFs)	37,725	10,891	25,288	5,192	8,750	4,182	3,141	1,243
28 U.S. branches and agencies of other foreign banks	32,224	10,276	20,793	4,738	8,307	4,073	2,623	1,208
29 Other commercial banks in United States	5,501	615	4,495	453	443	109	518	35
30 Other depository institutions in United States (including IBFs)	157	0	92	0	64	0	0	0
31 Banks in foreign countries	22,333	20,455	16,052	14,388	3,405	3,361	1,255	1,241
32 Foreign branches of U.S. banks	456	455	359	359	67	67	24	24
33 Other banks in foreign countries	21,877	19,999	15,693	14,029	3,338	3,294	1,231	1,217
34 Other financial institutions	7,545	891	5,470	726	977	125	609	27
35 Commercial and industrial loans	138,314	14,536	82,693	12,166	29,006	1,693	16,382	220
36 U.S. addressees (domicile)	119,142	200	68,020	85	26,230	105	15,989	10
37 Non-U.S. addressees (domicile)	19,173	14,335	14,673	12,081	2,776	1,588	393	210
38 Acceptances of other banks	1,985	52	1,388	52	389	0	157	0
39 U.S. banks	852	0	729	0	64	0	12	0
40 Foreign banks	1,133	52	660	52	324	0	145	0
41 Loans to foreign governments and official institutions (including foreign central banks)	14,840	13,691	12,161	11,240	501	425	83	69
42 Loans for purchasing or carrying securities (secured and unsecured)	2,870	5	2,240	5	630	0	0	0
43 All other loans	2,687	338	2,196	322	85	0	246	0
44 All other assets	49,742	6,775	37,587	5,362	9,133	919	2,373	395
45 Customers' liability on acceptances outstanding	28,567	n.a.	20,883	n.a.	6,703	n.a.	762	n.a.
46 U.S. addressees (domicile)	19,487	n.a.	12,726	n.a.	5,974	n.a.	760	n.a.
47 Non-U.S. addressees (domicile)	9,080	n.a.	8,158	n.a.	729	n.a.	2	n.a.
48 Other assets including other claims on nonrelated parties	21,175	6,775	16,704	5,362	2,431	919	1,611	395
49 Net due from related depository institutions[5]	65,982	54,457	50,559	42,714	8,083	6,765	376	548
50 Net due from head office and other related depository institutions[5]	65,982	n.a.	50,559	n.a.	8,083	n.a.	376	n.a.
51 Net due from establishing entity, head offices, and other related depository institutions[5]	n.a.	54,457	n.a.	42,714	n.a.	6,765	n.a.	548
52 **Total liabilities[4]**	**574,238**	**249,563**	**419,154**	**198,685**	**85,865**	**27,038**	**40,913**	**13,698**
53 Liabilities to nonrelated parties	509,011	216,778	387,794	177,610	77,675	23,097	27,439	8,690

4.30—Continued

Millions of dollars

Item	All states[2]		New York		California		Illinois	
	Total excluding IBF's	IBF's only[3]	Total excluding IBF's	IBF's only[3]	Total excluding IBF's	IBF's only[3]	Total excluding IBF's	IBF's only[3]
54 Total deposits and credit balances	76,900	167,300	64,086	147,300	3,790	10,829	3,034	2,586
55 Individuals, partnerships, and corporations	60,136	15,663	49,144	9,647	2,896	445	2,374	43
56 U.S. addressees (domicile)	46,065	302	40,615	286	1,042	15	1,521	1
57 Non-U.S. addressees (domicile)	14,071	15,361	8,529	9,361	1,853	430	853	42
58 Commercial banks in United States (including IBFs)	11,460	50,935	9,922	44,981	813	4,808	644	748
59 U.S. branches and agencies of other foreign banks	5,319	45,607	4,949	40,575	6	4,164	357	598
60 Other commercial banks in United States	6,141	5,327	4,973	4,406	807	643	288	150
61 Banks in foreign countries	2,046	89,253	1,924	81,712	11	5,264	2	1,775
62 Foreign branches of U.S. banks	183	6,579	183	5,979	0	349	0	234
63 Other banks in foreign countries	1,863	82,673	1,741	75,733	11	4,915	2	1,541
64 Foreign governments and official institutions (including foreign central banks)	946	11,402	878	10,912	18	313	2	21
65 All other deposits and credit balances	1,773	48	1,739	48	22	0	1	0
66 Certified and official checks	539	n.a.	479	n.a.	31	n.a.	10	n.a.
67 Transaction accounts and credit balances (excluding IBFs)	7,562		6,490		268		222	
68 Individuals, partnerships, and corporations	4,730		3,837		221		208	
69 U.S. addressees (domicile)	3,324		2,817		187		204	
70 Non-U.S. addressees (domicile)	1,406		1,021		34		3	
71 Commercial banks in United States (including IBFs)	266		257		1		0	
72 U.S. branches and agencies of other foreign banks	82		81		0		0	
73 Other commercial banks in United States	184	n.a.	176	n.a.	1	n.a.	0	n.a.
74 Banks in foreign countries	1,327		1,252		11		2	
75 Foreign branches of U.S. banks	23		23		0		0	
76 Other banks in foreign countries	1,304		1,229		11		2	
77 Foreign governments and official institutions (including foreign central banks)	313		288		2		1	
78 All other deposits and credit balances	387		376		3		1	
79 Certified and official checks	539		479		31		10	
80 Demand deposits (included in transaction accounts and credit balances)	6,581		5,753		191		201	
81 Individuals, partnerships, and corporations	4,186		3,525		148		187	
82 U.S. addressees (domicile)	3,048		2,655		125		184	
83 Non-U.S. addressees (domicile)	1,138		870		22		3	
84 Commercial banks in United States (including IBF)s	117		108		0		0	
85 U.S. branches and agencies of other foreign banks	14		13		0		0	
86 Other commercial banks in United States	103	n.a.	95	n.a.	0	n.a.	0	n.a.
87 Banks in foreign countries	1,126		1,057		10		2	
88 Foreign branches of U.S. banks	7		7		0		0	
89 Other banks in foreign countries	1,118		1,050		10		2	
90 Foreign governments and official institutions (including foreign central banks)	258		233		2		1	
91 All other deposits and credit balances	356		350		1		1	
92 Certified and official checks	539		479		31		10	
93 Non-transaction accounts (including MMDAs, excluding IBFs)	69,338		57,596		3,522		2,812	
94 Individuals, partnerships, and corporations	55,406		45,307		2,674		2,166	
95 U.S. addressees (domicile)	42,741		37,798		855		1,317	
96 Non-U.S. addressees (domicile)	12,665		7,509		1,819		849	
97 Commercial banks in United States (including IBFs)	11,194		9,665		812		644	
98 U.S. branches and agencies of other foreign banks	5,237		4,868		6		357	
99 Other commercial banks in United States	5,957	n.a.	4,797	n.a.	807	n.a.	288	n.a.
100 Banks in foreign countries	719		671		0		0	
101 Foreign branches of U.S. banks	160		160		0		0	
102 Other banks in foreign countries	559		512		0		0	
103 Foreign governments and official institutions (including foreign central banks)	633		590		16		1	
104 All other deposits and credit balances	1,385		1,362		19		1	
105 IBF deposit liabilities		167,300		147,300		10,829		2,586
106 Individuals, partnerships, and corporations		15,663		9,647		445		43
107 U.S. addressees (domicile)		302		286		15		1
108 Non-U.S. addressees (domicile)		15,361		9,361		430		42
109 Commercial banks in United States (including IBFs)		50,935		44,981		4,808		748
110 U.S. branches and agencies of other foreign banks		45,607		40,575		4,164		598
111 Other commercial banks in United States	n.a.	5,327	n.a.	4,406	n.a.	643	n.a.	150
112 Banks in foreign countries		89,253		81,712		5,264		1,775
113 Foreign branches of U.S. banks		6,579		5,979		349		234
114 Other banks in foreign countries		82,673		75,733		4,915		1,541
115 Foreign governments and official institutions (including foreign central banks)		11,402		10,912		313		21
116 All other deposits and credit balances		48		48		0		0

For notes see end of table.

4.30 ASSETS AND LIABILITIES of U.S. Branches and Agencies of Foreign Banks, June 30, 1990[1]—Continued

Millions of dollars

Item	All states[2]		New York		California		Illinois	
	Total including IBF's	IBF's only[3]	Total including IBF's	IBF's only[3]	Total including IBF's	IBF's only[3]	Total including IBF's	IBF's only[3]
117 Federal funds purchased and securities sold under agreements to repurchase	77,617	5,932	55,542	4,360	14,390	1,095	6,757	441
118 U.S. branches and agencies of other foreign banks	15,816	1,806	9,972	864	3,976	634	1,822	309
119 Other commercial banks in United States	30,990	231	19,971	166	6,746	50	3,685	15
120 Other	30,811	3,895	25,599	3,330	3,668	412	1,249	118
121 Other borrowed money	133,500	37,770	79,762	21,252	38,926	10,446	12,927	5,400
122 Owed to nonrelated commercial banks in United States (including IBFs)	76,357	13,658	41,537	4,996	26,063	5,943	7,421	2,160
123 Owed to U.S. offices of nonrelated U.S. banks	31,851	2,290	17,056	887	10,616	950	3,575	212
124 *Owed to U.S. branches and agencies of nonrelated foreign banks*	44,506	11,368	24,481	4,109	15,447	4,993	3,846	1,949
125 Owed to nonrelated banks in foreign countries	22,571	22,031	14,735	14,271	4,472	4,408	3,247	3,239
126 Owed to foreign branches of nonrelated U.S. banks	1,946	1,897	1,020	971	654	654	212	212
127 Owed to foreign offices of nonrelated foreign banks	20,625	20,135	13,715	13,299	3,818	3,755	3,035	3,027
128 Owed to others	34,572	2,080	23,490	1,985	8,392	95	2,258	0
129 All other liabilities	53,694	5,777	41,104	4,698	9,740	727	2,134	263
130 Branch or agency liability on acceptances executed and outstanding	34,543	n.a.	25,943	n.a.	7,341	n.a.	821	n.a.
131 Other liabilities to nonrelated parties	19,151	5,777	15,161	4,698	2,399	727	1,314	263
132 Net due to related depository institutions[5]	65,227	32,785	31,360	21,075	8,190	3,941	13,474	5,008
133 Net due to head office and other related depository institutions[5]	65,227	n.a.	31,360	n.a.	8,190	n.a.	13,474	n.a.
134 Net due to establishing entity, head office, and other related depository institutions[5]	n.a.	32,785	n.a.	21,075	n.a.	3,941	n.a.	5,008
MEMO								
135 Non-interest bearing balances with commercial banks in United States	1,734	14	1,482	14	103	0	77	0
136 Holding of commercial paper included in total loans	1,215		951		223		37	
137 Holding of own acceptances included in commercial and industrial loans	2,619		1,951		402		103	
138 Commercial and industrial loans with remaining maturity of one year or less	74,057		42,967		16,316		8,929	
139 *Predetermined interest rates*	42,437	n.a.	22,743	n.a.	10,822	n.a.	5,240	n.a.
140 Floating interest rates	31,621		20,223		5,493		3,689	
141 Commercial and industrial loans with remaining maturity of more than one year	64,257		39,726		12,690		7,453	
142 Predetermined interest rates	21,359		13,193		4,064		3,170	
143 Floating interest rates	42,897		26,533		8,626		4,283	

4.30—Continued

Millions of dollars

Item	All states[2] Total excluding IBFs	All states[2] IBFs only[3]	New York Total excluding IBFs	New York IBFs only[3]	California Total excluding IBFs	California IBFs only[3]	Illinois Total excluding IBFs	Illinois IBFs only[3]
144 Components of total nontransaction accounts, included in total deposits and credit balances of nontransactional accounts, including IBFs	84,228	↑	73,012	↑	3,897	↑	2,802	↑
145 Time CDs in denominations of $100,000 or more	48,570		40,851		2,510		1,360	
146 Other time deposits in denominations of $100,000 or more	15,262	n.a.	13,166	n.a.	719	n.a.	1,224	n.a.
147 Time CDs in denominations of $100,000 or more with remaining maturity of more than 12 months	20,397	↓	18,995	↓	669	↓	218	↓
	All states[2] Total including IBFs	**All states[2] IBFs only[3]**	**New York Total including IBFs**	**New York IBFs only[3]**	**California Total including IBFs**	**California IBFs only[3]**	**Illinois Total including IBFs**	**Illinois IBFs only[3]**
148 Market value of securities held	41,943	13,769	36,293	11,919	3,444	1,232	1,600	536
149 Immediately available funds with a maturity greater than one day included in other borrowed money	80,344	n.a.	47,082	n.a.	25,242	n.a.	6,778	n.a.
150 Number of reports filed[6]	555	0	254	0	131	0	54	0

1. Data are aggregates of categories reported on the quarterly form FFIEC 002, "Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks." Details may not add to totals because of rounding. This form was first used for reporting data as of June 30, 1980, and was revised as of December 31, 1985. From November 1972 through May 1980, U.S. branches and agencies of foreign banks had filed a monthly FR 886a report. Aggregate data from that report were available through the Federal Reserve statistical release G.11, last issued on July 10, 1980. Data in this table and in the G.11 tables are not strictly comparable because of differences in reporting panels and in definitions of balance sheet items.
2. Includes the District of Columbia.
3. Effective December 1981, the Federal Reserve Board amended Regulations D and Q to permit banking offices located in the United States to operate International Banking Facilities (IBFs). As of December 31, 1985 data for IBFs are reported in a separate column. These data are either included in or excluded from the total columns as indicated in the headings. The notation "n.a." indicates that no IBF data re reported for that item, either because the item is not an eligible IBF asset or liability or because that level of detail is not reported for IBFs. From December 1981 through September 1985, IBF data were included in all applicable items reported.
4. Total assets and total liabilities include *net* balances, if any, due from or due to related banking institutions in the United States and in foreign countries (see footnote 5). On the former monthly branch and agencyu report, available through the G.11 statistical release, *gross* balances were included in total assets and total liabilities. Therefopre, total asset and total liability figures in this table are not comparable to those in the G.11 tables.
5. "Related banking institutions" includes the foreign head office and other U.S. and foreign branches and agencies of the bank, the bank's parent holding company, and majority-owned banking subsidiaries of the bank and of its parent holding company (including subsidiaries owned both directly and indirectly).
6. In some cases two or more offices of a foreign bank within the same metropolitan area file a consolidated report.

Federal Reserve Board of Governors

ALAN GREENSPAN, *Chairman*

MARTHA R. SEGER
WAYNE D. ANGELL

OFFICE OF BOARD MEMBERS

JOSEPH R. COYNE, *Assistant to the Board*
DONALD J. WINN, *Assistant to the Board*
BOB STAHLY MOORE, *Special Assistant to the Board*
DIANE E. WERNEKE, *Special Assistant to the Board*

LEGAL DIVISION

J. VIRGIL MATTINGLY, JR., *General Counsel*
RICHARD M. ASHTON, *Associate General Counsel*
OLIVER IRELAND, *Associate General Counsel*
RICKI R. TIGERT, *Associate General Counsel*
SCOTT G. ALVAREZ, *Assistant General Counsel*
MARYELLEN A. BROWN, *Assistant to the General Counsel*

OFFICE OF THE SECRETARY

WILLIAM W. WILES, *Secretary*
JENNIFER J. JOHNSON, *Associate Secretary*
BARBARA R. LOWREY, *Associate Secretary*

DIVISION OF CONSUMER AND COMMUNITY AFFAIRS

GRIFFITH L. GARWOOD, *Director*
GLENN E. LONEY, *Assistant Director*
ELLEN MALAND, *Assistant Director*
DOLORES S. SMITH, *Assistant Director*

DIVISION OF BANKING SUPERVISION AND REGULATION

WILLIAM TAYLOR, *Staff Director*
DON E. KLINE, *Associate Director*
FREDERICK M. STRUBLE, *Associate Director*
WILLIAM A. RYBACK, *Deputy Associate Director*
STEPHEN C. SCHEMERING, *Deputy Associate Director*
RICHARD SPILLENKOTHEN, *Deputy Associate Director*
HERBERT A. BIERN, *Assistant Director*
JOE M. CLEAVER, *Assistant Director*
ROGER T. COLE, *Assistant Director*
JAMES I. GARNER, *Assistant Director*
JAMES D. GOETZINGER, *Assistant Director*
MICHAEL G. MARTINSON, *Assistant Director*
ROBERT S. PLOTKIN, *Assistant Director*
SIDNEY M. SUSSAN, *Assistant Director*
LAURA M. HOMER, *Securities Credit Officer*

DIVISION OF INTERNATIONAL FINANCE

EDWIN M. TRUMAN, *Staff Director*
LARRY J. PROMISEL, *Senior Associate Director*
CHARLES J. SIEGMAN, *Senior Associate Director*
DAVID H. HOWARD, *Deputy Associate Director*
ROBERT F. GEMMILL, *Staff Adviser*
DONALD B. ADAMS, *Assistant Director*
DALE W. HENDERSON, *Assistant Director*
PETER HOOPER III, *Assistant Director*
KAREN H. JOHNSON, *Assistant Director*
RALPH W. SMITH, JR., *Assistant Director*

DIVISION OF RESEARCH AND STATISTICS

MICHAEL J. PRELL, *Director*
EDWARD C. ETTIN, *Deputy Director*
THOMAS D. SIMPSON, *Associate Director*
LAWRENCE SLIFMAN, *Associate Director*
DAVID J. STOCKTON, *Associate Director*
MARTHA BETHEA, *Deputy Associate Director*
PETER A. TINSLEY, *Deputy Associate Director*
MYRON L. KWAST, *Assistant Director*
PATRICK M. PARKINSON, *Assistant Director*
MARTHA S. SCANLON, *Assistant Director*
JOYCE K. ZICKLER, *Assistant Director*
LEVON H. GARABEDIAN, *Assistant Director (Administration)*

DIVISION OF MONETARY AFFAIRS

DONALD L. KOHN, *Director*
DAVID E. LINDSEY, *Deputy Director*
BRIAN F. MADIGAN, *Assistant Director*
RICHARD D. PORTER, *Assistant Director*
NORMAND R.V. BERNARD, *Special Assistant to the Board*

OFFICE OF THE INSPECTOR GENERAL

BRENT L. BOWEN, *Inspector General*
BARRY R. SNYDER, *Assistant Inspector General*

and Official Staff

EDWARD W. KELLEY, JR.
JOHN P. LAWARE
DAVID W. MULLINS, JR.

OFFICE OF STAFF DIRECTOR FOR MANAGEMENT

S. DAVID FROST, *Staff Director*
WILLIAM SCHNEIDER, *Special Assignment: Project Director, National Information Center*
PORTIA W. THOMPSON, *Equal Employment Opportunity Programs Officer*

DIVISION OF HUMAN RESOURCES MANAGEMENT

DAVID L. SHANNON, *Director*
JOHN R. WEIS, *Associate Director*
ANTHONY V. DIGIOIA, *Assistant Director*
JOSEPH H. HAYES, JR., *Assistant Director*
FRED HOROWITZ, *Assistant Director*

OFFICE OF THE CONTROLLER

GEORGE E. LIVINGSTON, *Controller*
STEPHEN J. CLARK, *Assistant Controller (Programs and Budgets)*
DARRELL R. PAULEY, *Assistant Controller (Finance)*

DIVISION OF SUPPORT SERVICES

ROBERT E. FRAZIER, *Director*
GEORGE M. LOPEZ, *Assistant Director*
DAVID L. WILLIAMS, *Assistant Director*

OFFICE OF THE EXECUTIVE DIRECTOR FOR INFORMATION RESOURCES MANAGEMENT

ALLEN E. BEUTEL, *Executive Director*
STEPHEN R. MALPHRUS, *Deputy Executive Director*
MARIANNE M. EMERSON, *Assistant Director*
EDWARD T. MULRENIN, *Assistant Director for Special Projects*

DIVISION OF HARDWARE AND SOFTWARE SYSTEMS

BRUCE M. BEARDSLEY, *Director*
DAY W. RADEBAUGH, JR., *Assistant Director*
ELIZABETH B. RIGGS, *Assistant Director*

DIVISION OF APPLICATIONS DEVELOPMENT AND STATISTICAL SERVICES

WILLIAM R. JONES, *Director*
ROBERT J. ZEMEL, *Associate Director*
PO KYUNG KIM, *Assistant Director*
RAYMOND H. MASSEY, *Assistant Director*
RICHARD C. STEVENS, *Assistant Director*

OFFICE OF STAFF DIRECTOR FOR FEDERAL RESERVE BANK ACTIVITIES

THEODORE E. ALLISON, *Staff Director*

DIVISION OF FEDERAL RESERVE BANK OPERATIONS

CLYDE H. FARNSWORTH, JR., *Director*
DAVID L. ROBINSON, *Associate Director*
BRUCE J. SUMMERS, *Associate Director*
CHARLES W. BENNETT, *Assistant Director*
JACK DENNIS, JR., *Assistant Director*
EARL G. HAMILTON, *Assistant Director*
JOHN H. PARRISH, *Assistant Director*
LOUISE L. ROSEMAN, *Assistant Director*
FLORENCE M. YOUNG, *Assistant Director*

Federal Open Market Committee

FEDERAL OPEN MARKET COMMITTEE

MEMBERS

ALAN GREENSPAN, *Chairman*
E. GERALD CORRIGAN, *Vice Chairman*

WAYNE D. ANGELL
EDWARD G. BOEHNE
ROBERT H. BOYKIN
W. LEE HOSKINS
EDWARD W. KELLEY, JR.
JOHN P. LAWARE
DAVID W. MULLINS, JR.
MARTHA R. SEGER
GARY H. STERN

ALTERNATE MEMBERS

ROBERT P. BLACK
ROBERT P. FORRESTAL
SILAS KEEHN
JAMES H. OLTMAN
ROBERT T. PARRY

STAFF

DONALD L. KOHN, *Secretary and Economist*
NORMAND R.V. BERNARD, *Assistant Secretary*
GARY P. GILLUM, *Deputy Assistant Secretary*
J. VIRGIL MATTINGLY, JR., *General Counsel*
ERNEST T. PATRIKIS, *Deputy General Counsel*
MICHAEL J. PRELL, *Economist*
EDWIN M. TRUMAN, *Economist*
JOHN M. DAVIS, *Associate Economist*
RICHARD G. DAVIS, *Associate Economist*
RICHARD W. LANG, *Associate Economist*
DAVID E. LINDSEY, *Associate Economist*
LARRY J. PROMISEL, *Associate Economist*
ARTHUR J. ROLNICK, *Associate Economist*
HARVEY ROSENBLUM, *Associate Economist*
CHARLES J. SIEGMAN, *Associate Economist*
THOMAS D. SIMPSON, *Associate Economist*
DAVID J. STOCKTON, *Associate Economist*

PETER D. STERNLIGHT, *Manager for Domestic Operations, System Open Market Account*
SAM Y. CROSS, *Manager for Foreign Operations, System Open Market Account*

FEDERAL ADVISORY COUNCIL

THOMAS H. O'BRIEN, *President*
PAUL HAZEN, *Vice President*

IRA STEPANIAN, First District
WILLARD C. BUTCHER, Second District
TERRENCE A. LARSEN, Third District
THOMAS H. O'BRIEN, Fourth District
FREDERICK DEANE, JR., Fifth District
VACANCY, Sixth District
B. KENNETH WEST, Seventh District
DAN W. MITCHELL, Eighth District
LLOYD P. JOHNSON, Ninth District
JORDAN L. HAINES, Tenth District
RONALD G. STEINHART, Eleventh District
PAUL HAZEN, Twelfth District

HERBERT V. PROCHNOW, *Secretary*
WILLIAM J. KORSVIK, *Associate Secretary*

and Advisory Councils

CONSUMER ADVISORY COUNCIL

WILLIAM E. ODOM, Dearborn, Michigan, *Chairman*
JAMES W. HEAD, Berkeley, California, *Vice Chairman*

GEORGE H. BRAASCH, Oakbrook, Illinois
BETTY TOM CHU, Arcadia, California
CLIFF E. COOK, Tacoma, Washington
JERRY D. CRAFT, Atlanta, Georgia
DONALD C. DAY, Boston, Massachusetts
R.B. (JOE) DEAN, JR., Columbia, South Carolina
WILLIAM C. DUNKELBERG, Philadelphia, Pennsylvania
JAMES FLETCHER, Chicago, Illinois
GEORGE C. GALSTER, Wooster, Ohio
E. THOMAS GARMAN, Blacksburg, Virginia
DEBORAH B. GOLDBERG, Washington, D.C.
MICHAEL M. GREENFIELD, St. Louis, Missouri
ROBERT A. HESS, Washington, D.C.
BARBARA KAUFMAN, San Francisco, California
KATHLEEN E. KEEST, Boston, Massachusetts
A.J. (JACK) KING, Kalispell, Montana
COLLEEN D. MCCARTHY, Kansas City, Missouri
MICHELLE S. MEIER, Washington, D.C.
LINDA K. PAGE, Worthington, Ohio
BERNARD F. PARKER, JR., Detroit, Michigan
SANDRA PHILLIPS, Pittsburgh, Pennsylvania
VINCENT P. QUAYLE, Baltimore, Maryland
CLIFFORD N. ROSENTHAL, New York, New York
ALAN M. SILBERSTEIN, New York, New York
RALPH E. SPURGIN, Columbus, Ohio
NANCY HARVEY STEORTS, Dallas, Texas
DAVID P. WARD, Chester, New Jersey
LAWRENCE WINTHROP, Portland, Oregon

THRIFT INSTITUTIONS ADVISORY COUNCIL

DONALD B. SHACKELFORD, Columbus, Ohio, *President*
MARION O. SANDLER, Oakland, California, *Vice President*

CHARLOTTE CHAMBERLAIN, Los Angeles, California
DAVID L. HATFIELD, Kalamazoo, Michigan
LYNN W. HODGE, Greenwood, South Carolina
ADAM A. JAHNS, Chicago, Illinois
H.C. KLEIN, Jacksonville, Arkansas
ELLIOT K. KNUTSON, Seattle, Washington
JOHN WM. LAISLE, Oklahoma City, Oklahoma
PHILIP E. LAMB, Springfield, Massachusetts
CHARLES B. STUZIN, Miami, Florida

Federal Reserve Board Publications

For ordering assistance, write PUBLICATIONS SERVICES, MS-138, Board of Governors of the Federal Reserve System, Washington, D.C. 20551 or telephone (202) 452-3244 or FAX (202) 452-3102. *When a charge is indicated, payment should accompany request and be made payable to the Board of Governors of the Federal Reserve System. Payment from foreign residents should be drawn on a U.S. bank.*

THE FEDERAL RESERVE SYSTEM—PURPOSES AND FUNCTIONS. 1984. 120 pp.
ANNUAL REPORT.
ANNUAL REPORT: BUDGET REVIEW, 1988–89.
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.
BANKING AND MONETARY STATISTICS. 1914-1941. (Reprint of Part I only) 1976. 682 pp. $5.00.
ANNUAL STATISTICAL DIGEST

1974–78.	1980. 305 pp. $10.00 per copy.
1981.	1982. 239 pp. $ 6.50 per copy.
1982.	1983. 266 pp. $ 7.50 per copy.
1983.	1984. 264 pp. $11.50 per copy.
1984.	1985. 254 pp. $12.50 per copy.
1985.	1986. 231 pp. $15.00 per copy.
1986.	1987. 288 pp. $15.00 per copy.
1987.	1988. 272 pp. $15.00 per copy.
1988.	1989. 256 pp. $25.00 per copy.

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.
THE FEDERAL RESERVE ACT and other statutory provisions affecting the Federal Reserve System, as amended through August 1988. 608 pp. $10.00.
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 $2.25; 10 or more of same volume to one address, $2.00 each.
INTRODUCTION TO FLOW OF FUNDS. 1980. 68 pp. $1.50 each; 10 or more to one address, $1.25 each.
FEDERAL RESERVE REGULATORY SERVICE. Looseleaf; updated at least 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. 3 vols. (Contains all three 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.
THE U.S. ECONOMY IN AN INTERDEPENDENT WORLD: A MULTICOUNTRY MODEL, May 1984. 590 pp. $14.50 each.
WELCOME TO THE FEDERAL RESERVE. March 1989. 14 pp.
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.

CONSUMER 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
Federal Reserve Glossary
A Guide to Business Credit for Women, Minorities, and Small Businesses
How to File A Consumer Credit Complaint
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
Organization and Advisory Committees
A Consumer's Guide to Mortgage Lock-Ins
A Consumer's Guide to Mortgage Settlement Costs
A Consumer's Guide to Mortgage Refinancing
Home Mortgages: Understanding the Process and Your Rights
Making Deposits: When Will Your Money Be Available?
When Your Home is on the Line: What You Should Know About Home Equity Lines of Credit

PAMPHLETS FOR FINANCIAL INSTITUTIONS

Short pamphlets on regulatory compliance, primarily suitable for banks, bank holding companies, and creditors.

Limit of 50 copies

The Board of Directors' Opportunities in Community Reinvestment
The Board of Directors' Role in Consumer Law Compliance
Combined Construction/Permanent Loan Disclosure and Regulation Z
Community Development Corporations and the Federal Reserve
Construction Loan Disclosures and Regulation Z
Finance Charges Under Regulation Z
How to Determine the Credit Needs of Your Community
Regulation Z: The Right of Rescission

The Right to Financial Privacy Act
Signature Rules in Community Property States: Regulation B
Signature Rules: Regulation B
Timing Requirements for Adverse Action Notices: Regulation B
What An Adverse Action Notice Must Contain: Regulation B
Understanding Prepaid Finance Charges: Regulation Z

STAFF STUDIES: Summaries Only 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 114–145 are out of print.

146. THE ROLE OF THE PRIME RATE IN THE PRICING OF BUSINESS LOANS BY COMMERCIAL BANKS, 1977–84, by Thomas F. Brady. November 1985. 25 pp.
147. REVISIONS IN THE MONETARY SERVICES (DIVISIA) INDEXES OF THE MONETARY AGGREGATES, by Helen T. Farr and Deborah Johnson. December 1985. 42 pp.
148. THE MACROECONOMIC AND SECTORAL EFFECTS OF THE ECONOMIC RECOVERY TAX ACT: SOME SIMULATION RESULTS, by Flint Brayton and Peter B. Clark. December 1985. 17 pp.
149. THE OPERATING PERFORMANCE OF ACQUIRED FIRMS IN BANKING BEFORE AND AFTER ACQUISITION, by Stephen A. Rhoades. April 1986. 32 pp.
150. STATISTICAL COST ACCOUNTING MODELS IN BANKING: A REEXAMINATION AND AN APPLICATION, by John T. Rose and John D. Wolken. May 1986. 13 pp.
151. RESPONSES TO DEREGULATION: RETAIL DEPOSIT PRICING FROM 1983 THROUGH 1985, by Patrick I. Mahoney, Alice P. White, Paul F. O'Brien, and Mary M. McLaughlin. January 1987. 30 pp.
152. DETERMINANTS OF CORPORATE MERGER ACTIVITY: A REVIEW OF THE LITERATURE, by Mark J. Warshawsky. April 1987. 18 pp.
153. STOCK MARKET VOLATILITY, by Carolyn D. Davis and Alice P. White. September 1987. 14 pp.
154. THE EFFECTS ON CONSUMERS AND CREDITORS OF PROPOSED CEILINGS ON CREDIT CARD INTEREST RATES, by Glenn B. Canner and James T. Fergus. October 1987. 26 pp.
155. THE FUNDING OF PRIVATE PENSION PLANS, by Mark J. Warshawsky. November 1987. 25 pp.
156. INTERNATIONAL TRENDS FOR U.S. BANKS AND BANKING MARKETS, by James V. Houpt. May 1988. 47 pp.
157. M2 PER UNIT OF POTENTIAL GNP AS AN ANCHOR FOR THE PRICE LEVEL, by Jeffrey J. Hallman, Richard D. Porter, and David H. Small. April 1989. 28 pp.
158. THE ADEQUACY AND CONSISTENCY OF MARGIN REQUIREMENTS IN THE MARKETS FOR STOCKS AND DERIVATIVE PRODUCTS, by Mark J. Warshawsky with the assistance of Dietrich Earnhart. September 1989. 23 pp.
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.

REPRINTS OF Bulletin *ARTICLES*

Most of the articles reprinted do not exceed 12 pages.

Limit of 10 copies

Recent Developments in the Bankers Acceptance Market. 1/86.
The Use of Cash and Transaction Accounts by American Families. 2/86.
Financial Characteristics of High-Income Families. 3/86.
Prices, Profit Margins, and Exchange Rates. 6/86.
Agricultural Banks under Stress. 7/86.
Foreign Lending by Banks: A Guide to International and U.S. Statistics. 10/86.
Recent Developments in Corporate Finance. 11/86.
Measuring the Foreign-Exchange Value of the Dollar. 6/87.
Changes in Consumer Installment Debt: Evidence from the 1983 and 1986 Surveys of Consumer Finances. 10/87.
Home Equity Lines of Credit. 6/88.
Mutual Recognition: Integration of the Financial Sector in the European Community. 9/89.
The Activities of Japanese Banks in the United Kingdom and in the United States, 1980–88. 2/90.
Industrial Production: 1989 Developments and Historical Revision. 4/90.
U.S. International Transactions in 1989. 5/90.
Recent Developments in Industrial Capacity and Utilization. 6/90.
Developments Affecting the Profitability of Commercial Banks. 7/90.
Recent Developments in Corporate Finance. 8/90.

Anticipated Schedule of Release Dates for Periodic Releases—Board of Governors of the Federal Reserve System[1] *(Payment must accompany requests.)*

Weekly Releases	*Annual rate*	*Approximate release days*	*Date of period to which data refer*
☐ Aggregate Reserves of Depository Institutions and the Monetary Base. H.3 (502) [1.20]	$15.00	Thursday	Week ended previous Wednesday
☐ Actions of the Board: Applications and Reports Received. H.2 (501)	$35.00	Friday	Week ended previous Saturday
☐ Assets and Liabilities of Insured Domestically Chartered and Foreign Related Banking Institutions. H.8 (510) [1.25]	$15.00	Monday	Wednesday, 3 weeks earlier
☐ Factors Affecting Reserves of Depository Institutions and Condition Statement of Federal Reserve Banks. H.4.1 (503) [1.11]	$15.00	Thursday	Week ended previous Wednesday
☐ Foreign Exchange Rates. H.10 (512) [3.28]	$15.00	Monday	Week ended previous Friday
☐ Money Stock, Liquid Assets, and Debt Measures. H.6 (508) [1.21]	$35.00	Thursday	Week ended Monday of previous week
☐ Selected Borrowings in Immediately Available Funds of Large Commercial Banks. H.5 (507) [1.13]	$15.00	Wednesday	Week ended Thursday of previous week
☐ Selected Interest Rates. H.15 (519) [1.35]	$15.00	Monday	Week ended previous Saturday
☐ Weekly Consolidated Condition Report of Large Commercial Banks, and Domestic Subsidiaries. H.4.2 (504) [1.26, 1.28, 1.29, 1.30]	$15.00	Friday	Wednesday, 1 week earlier

Monthly Releases

☐ Consumer Installment Credit. G.19 (421) [1.55, 1.56]	$ 5.00	5th working day of month	2nd month previous
☐ Debits and Deposit Turnover at Commercial Banks. G.6 (406) [1.22]	$ 5.00	12th of month	Previous month
☐ Finance Companies. G.20 (422) [1.51, 1.52]	$ 5.00	5th working day of month	2nd month previous
☐ Foreign Exchange Rates. G.5 (405) [3.28]	$ 5.00	1st of month	Previous month
☐ Industrial Production and Capacity Utilization G.17 (419) [2.12, 2.13]	$15.00	Midmonth	Previous month
☐ Loans and Securities at all Commercial Banks. G.7 (407) [1.23]	$ 5.00	3rd week of month	Previous month
☐ Major Nondeposit Funds of Commercial Banks. G.10 (411) [1.24]	$ 5.00	3rd week of month	Previous month
☐ Research Library—Recent Acquisitions. G.15 (417)	Free of charge	1st of month	Previous month
☐ Selected Interest Rates. G.13 (415) [1.35]	$ 5.00	3rd working day of month	Previous month

1. Release dates are those anticipated or usually met. However, please note that for some releases there is normally a certain variability 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.

The respective *Bulletin* tables that report the data are designated in brackets.

Quarterly Releases	*Annual rate*	*Approximate release days*	*Date of period to which data refer*
☐ Agricultural Finance Databook. E.15 (125)	$ 5.00	End of March, June, September, and December	January, April, July, and October
☐ Country Exposure Lending Survey. E.16 (126)	$ 5.00	January, April, July, and October	Previous 3 months
☐ Flow of Funds: Seasonally Adjusted and Unadjusted. Z.1 (780) [1.58, 1.59]	$15.00	23rd of February, May, August, and November	Previous quarter
☐ Flow of Funds Summary Statistics Z.7 (788) [1.57, 1.58]	$ 5.00	15th of February, May, August, and November	Previous quarter
☐ Geographical Distribution of Assets and Liabilities of Major Foreign Branches of U.S. Banks. E.11 (121)	$ 5.00	15th of March, June, September, and December	Previous quarter
☐ Survey of Terms of Bank Lending to Business. E.2 (111) [1.34]	$ 5.00	Midmonth of March, June, September, and December	February, May, August, and November
☐ List of OTC Margin Stocks. E.7 (117)	$ 5.00	January, April, July, and October	February, May, August, and November
Semiannual Releases			
☐ Balance Sheets for the U.S. Economy. C.9 (108)	$ 5.00	October and April	Previous year
☐ Report on the Terms of Credit Card Plans. E.5 (115)	$ 5.00	March and August	January and June
Annual Releases			
☐ Aggregate Summaries of Annual Surveys of Securities Credit Extension. C.2 (101)	$ 5.00	February	End of previous June

Index to Statistical Tables

References are to pages A3–A85 although the prefix "A" is omitted in this index

Index to Volume 76

GUIDE TO PAGE REFERENCES IN MONTHLY ISSUES

Issue	Text	"A" Pages	Index to tables	Issue	Text	"A" pages	Index to tables
January	1-38	1-77	84-85	July	477-592	1-70	78-79
February	39-106	1-79	86-87	August	593-710	1-70	82-83
March	107-186	1-89	96-97	September	711-800	1-87	94-95
April	187-266	1-70	78-79	October	801-890	1-73	80-81
May	267-410	1-70	78-79	November	891-984	1-70	78-79
June	411-476	1-81	90-91	December	985-1072	1-85	94-95

The "A" pages consist of statistical tables and reference information.

Statistical tables are indexed separately (see p. A94 of this issue).

Federal Reserve Banks, Branches, and Offices

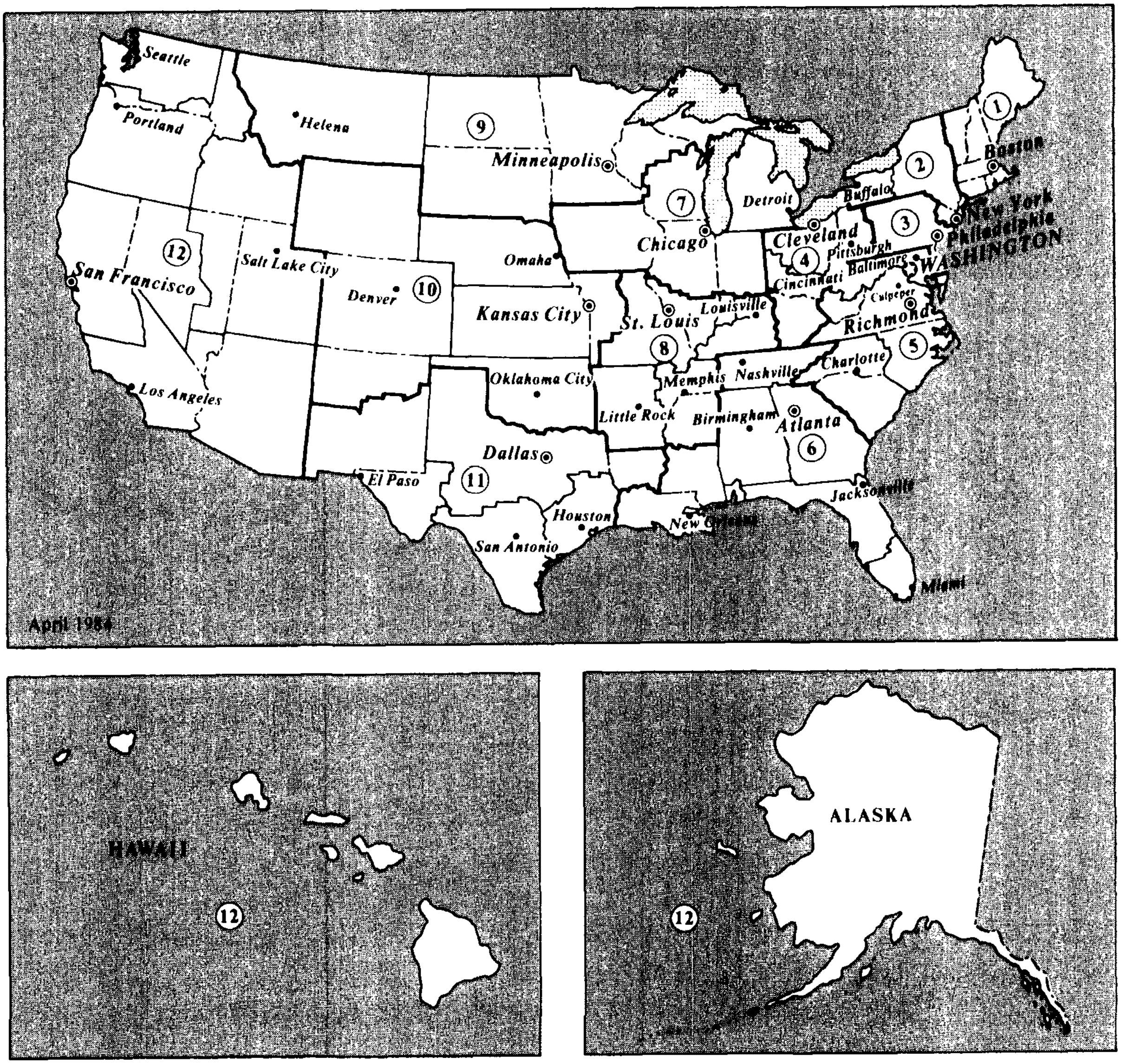
FEDERAL RESERVE BANK branch, or *facility*	Zip	Chairman Deputy Chairman	President First Vice President	Vice President in charge of branch
BOSTON*	02106	Richard N. Cooper	Richard F. Syron	
		Richard L. Taylor	Robert W. Eisenmenger	
NEW YORK*	10045	Cyrus R. Vance	E. Gerald Corrigan	
		Ellen V. Futter	James H. Oltman	
Buffalo	14240	Mary Ann Lambertsen		James O. Aston
PHILADELPHIA	19105	Peter A. Benoliel	Edward G. Boehne	
		Gunnar E. Sarsten	William H. Stone, Jr.	
CLEVELAND*	44101	Charles W. Parry	W. Lee Hoskins	
		John R. Miller	William H. Hendricks	
Cincinnati	45201	Kate Ireland		Charles A. Cerino[1]
Pittsburgh	15230	Robert P. Bozzone		Harold J. Swart[1]
RICHMOND*	23219	Hanne M. Merriman	Robert P. Black	
		Anne Marie Whittemore	Jimmie R. Monhollon	
Baltimore	21203	John R. Hardesty, Jr.		Robert D. McTeer, Jr.[1]
Charlotte	28230	William E. Masters		Albert D. Tinkelenberg[1]
Culpeper Communications and Records Center	*22701*			John G. Stoides[1]
ATLANTA	30303	Larry L. Prince	Robert P. Forrestal	
		Edwin A. Huston	Jack Guynn	Donald E. Nelson
Birmingham	35283	A. G. Trammell		Fred R. Herr[1]
Jacksonville	32231	Lana Jane Lewis-Brent		James D. Hawkins[1]
Miami	33152	Robert D. Apelgren		James T. Curry III
Nashville	37203	Victoria B. Jackson		Melvyn K. Purcell
New Orleans	70161	Andre M. Rubenstein		Robert J. Musso
CHICAGO*	60690	Marcus Alexis	Silas Keehn	
		Charles S. McNeer	Daniel M. Doyle	
Detroit	48231	Phyllis E. Peters		Roby L. Sloan[1]
ST. LOUIS	63166	H. Edwin Trusheim	Thomas C. Melzer	
		Robert H. Quenon	James R. Bowen	
Little Rock	72203	L. Dickson Flake		Karl W. Ashman
Louisville	40232	Raymond M. Burse		Howard Wells
Memphis	38101	Katherine H. Smythe		Ray Laurence
MINNEAPOLIS	55480	Michael W. Wright	Gary H. Stern	
		Delbert W. Johnson	Thomas E. Gainor	
Helena	59601	J. Frank Gardner		John D. Johnson
KANSAS CITY	64198	Fred W. Lyons, Jr.	Roger Guffey	
		Burton A. Dole, Jr.	Henry R. Czerwinski	
Denver	80217	Barbara B. Grogan		Kent M. Scott
Oklahoma City	73125	John F. Snodgrass		David J. France
Omaha	68102	Herman Cain		Harold L. Shewmaker
DALLAS	75222	Bobby R. Inman	Robert H. Boykin	
		Hugh G. Robinson	William H. Wallace	Tony J. Salvaggio[1]
El Paso	79999	Donald G. Stevens		Sammie C. Clay
Houston	77252	Andrew L. Jefferson, Jr.		Robert Smith, III[1]
San Antonio	78295	Roger R. Hemminghaus		Thomas H. Robertson
SAN FRANCISCO	94120	Robert F. Erburu	Robert T. Parry	
		Carolyn S. Chambers	Carl E. Powell	
Los Angeles	90051	Yvonne B. Burke		Thomas C. Warren[2]
Portland	97208	William A. Hilliard		Angelo S. Carella[1]
Salt Lake City	84125	Don M. Wheeler		E. Ronald Liggett[1]
Seattle	98124	Bruce R. Kennedy		Gerald R. Kelly[1]

*Additional offices of these Banks are located at Lewiston, Maine 04240; Windsor Locks, Connecticut 06096; Cranford, New Jersey 07016; Jericho, New York 11753; Utica at Oriskany, New York 13424; Columbus, Ohio 43216; Columbia, South Carolina 29210; Charleston, West Virginia 25311; Des Moines, Iowa 50306; Indianapolis, Indiana 46204; and Milwaukee, Wisconsin 53202.

1. Senior Vice President.
2. Executive Vice President.

The Federal Reserve System

Boundaries of Federal Reserve Districts and Their Branch Territories



LEGEND

- Boundaries of Federal Reserve Districts
- Boundaries of Federal Reserve Branch Territories
- Board of Governors of the Federal Reserve System
- Federal Reserve Bank Cities
- Federal Reserve Branch Cities
- Federal Reserve Bank Facility