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Table of Contents

403 *THE PROFITABILITY OF INSURED COMMERCIAL BANKS IN 1987*

Huge provisions made by large banks for possible loan losses were the key to an unprecedented drop in the profitability of U.S.-chartered insured commercial banks in 1987.

419 *IMPLEMENTING MONETARY POLICY*

The Federal Reserve's policy goals and operating procedures have drawn increasing attention in recent years. This article examines the formulation and implementation of policy in some detail.

430 *TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS*

On balance, from the end of January to the end of April, the dollar declined 1½ percent on a trade-weighted basis in terms of the other Group of Ten currencies, as measured by the index developed by the staff of the Federal Reserve Board.

435 *INDUSTRIAL PRODUCTION*

Industrial production increased an estimated 0.7 percent in April.

437 *STATEMENTS TO CONGRESS*

Wayne D. Angell and Edward W. Kelley, Jr., Members, Board of Governors of the Federal Reserve System, discuss and review the Federal Reserve System's 1988 expenses and budget and say that the existing budget processes are working well in controlling costs, while at the same time encouraging improvements in the quality of services, before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs, May 3, 1988.

445 Alan Greenspan, Chairman, Board of Governors, discusses the Working Group report to the President on financial markets and their points of vulnerability;he says that in the end, we must be prepared to accept a different pattern of behavior in our equity markets, and our objective must be to enhance their ability to change and withstand bouts of volatility, before the Subcommittee on Telecommunications and Finance of the Committee on Energy and Commerce, U.S. House of Representatives, May 19, 1988. (Chairman Greenspan presented identical testimony before the Senate Committee on Banking, Housing, and Urban Affairs, May 24, 1988, and before the House Committee on Agriculture, June 14, 1988.)

450 Michael Bradfield, General Counsel, Board of Governors, reviews the banking law aspects of the U.S.-Canada Free Trade Agreement (FTA), which aims to allow financial institutions of both countries to operate freely in each other's markets with equality of competitive opportunity, before the House Committee on Banking, Finance and Urban Affairs, May 24, 1988.

453 Governor Angell presents the views of the Board on the application of federal margin regulations to equities and equity-related futures and options and says that the Federal Reserve fully endorses a consistent approach to setting margin requirements in the cash, futures, and options markets for equities, before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs, May 25, 1988.

458 H. Robert Heller, Member, Board of Governors, reviews the general conditions and

trends affecting the health of our nation's banking organizations and then discusses some financial and supervisory issues and some of the the supervisory steps taken by the Federal Reserve to improve conditions in the banking system, before the Senate Committee on Banking, Housing, and Urban Affairs, May 25, 1988.

466 *ANNOUNCEMENTS*

New Regulation CC issued.

Nominations sought for appointments to the Consumer Advisory Council.

Proposed amendment to Regulation C issued.

Publication of the Board's *74th Annual Report, 1987*.

Three state banks admitted to the Federal Reserve System.

468 *RECORD OF POLICY ACTIONS OF THE FEDERAL OPEN MARKET COMMITTEE*

At its meeting on March 29, 1988, the Committee adopted a directive that called for a slight increase in the degree of pressure on reserve positions. With regard to operating procedures, the Committee agreed that some flexibility might continue to be needed in the day-to-day conduct of open market operations. Taking account of conditions in financial markets, somewhat greater or somewhat lesser reserve restraint would be acceptable depending on the strength of the business expansion, indications of inflation, the performance of the dollar in foreign exchange markets, and the behavior of the monetary aggregates. The reserve conditions contemplated by the Committee were expected to be consistent with growth in both M2 and M3 over the period from March through June at annual rates of about 6 to 7 percent. The members agreed that the intermeeting range for the federal funds rate should be left unchanged at 4 to 8 percent.

475 *LEGAL DEVELOPMENTS*

Various bank holding company, bank service corporation, and bank merger orders; and pending cases.

A1 *FINANCIAL AND BUSINESS STATISTICS*

A3 Domestic Financial Statistics
A44 Domestic Nonfinancial Statistics
A53 International Statistics

A69 *GUIDE TO TABULAR PRESENTATION, STATISTICAL RELEASES, AND SPECIAL TABLES*

A70 *BOARD OF GOVERNORS AND STAFF*

A72 *FEDERAL OPEN MARKET COMMITTEE AND STAFF; ADVISORY COUNCILS*

A74 *FEDERAL RESERVE BOARD PUBLICATIONS*

A77 *SCHEDULE OF RELEASE DATES FOR PERIODIC RELEASES*

A79 *INDEX TO STATISTICAL TABLES*

A81 *FEDERAL RESERVE BANKS, BRANCHES, AND OFFICES*

A82 *MAP OF FEDERAL RESERVE SYSTEM*

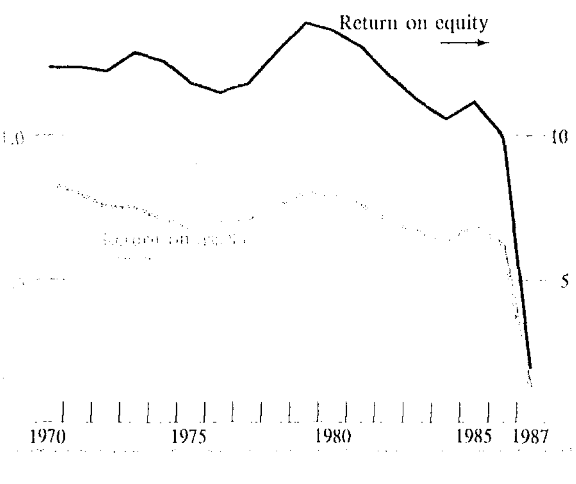
The Profitability of Insured Commercial Banks in 1987

Mary M. McLaughlin and Martin H. Wolfson, of the Board's Division of Monetary Affairs, prepared this article. Linda Rosenberg provided research assistance.

Huge provisions made by large banks for possible loan losses were the key to an unprecedented drop in the profitability of U.S.-chartered insured commercial banks in 1987. The provisions, which were largely to cover troubled loans to developing countries, sharply reduced the industry's return on assets and its ratio of equity capital to assets. Moreover, problems with energy and, especially, real estate loans continued to plague commercial banks in the Southwest, the locale of most of last year's record 182 failures of commercial banks insured by the Federal Deposit Insurance Corporation. More than 2,000 banks—one-sixth of the total—finished the year in the red. But as deep as the problems of some of the nation's banks are, there were some bright spots last year, notably an upturn in the performance of agricultural banks.

The loss provisions at large banks cut the industry's returns on assets and equity in 1987 to about one-fifth of their 1986 levels (chart 1). In 1987 the return on assets after tax fell one-half percentage point; virtually all of this was attributable to the rise in loss provisions, from 0.78 percent of assets in 1986 to 1.26 percent in 1987 (table 1). (Unless otherwise noted, the data in this article reflect the foreign and domestic operations of banks on a fully consolidated basis.) These allocations reduce earnings and, if larger than current income, also deplete existing equity capital. On balance, the other major determinants of profitability were little changed last year. The net interest margin remained at its 1986 level. The increase of noninterest income relative to noninterest expense (other than loss provisions) was enough to about offset a retreat from the extraordinary level of gains on sales of investment securities in 1986.

1. Net income after taxes



Trends in Profitability and Capital

Bank profitability last year varied distinctly by type of business and size of bank. In contrast to a $15 billion loss on its international operations, the industry's overall profits on its domestic business rose $3 billion in 1987, to 0.64 percent of assets. All sizes of banks shared in the domestic gains. For the more than 250 banks with foreign offices, the return on assets attributed to domestic operations rose 11 basis points in 1987, to 0.57 percent. The profitability of banks without foreign offices rose 4 basis points, to 0.74 percent; the turnaround in farm lending contributed to this improvement.

Provisioning for domestic loan losses fell relative to assets at banks of all sizes. But this drop was most pronounced at large banks, where provisioning fell to 0.43 percent of assets; correspondingly, income attributable to domestic op-

[illegible]

Item	1983	1984	1985	1986	1987
Gross interest income	9.63	10.23	9.45	8.38	8.21
Gross interest expense	6.38	6.97	6.06	5.10	4.94
Net interest margin	3.25	3.26	3.38	3.27	3.27
Noninterest income	1.03	1.19	1.33	1.40	1.55
Loss provisions	.47	.57	.68	.78	1.26
Other noninterest expense	2.96	3.05	3.18	3.23	3.31
Securities gains or losses (−)	.00	−.01	.06	.14	.05
Income before tax	.85	.83	.90	.80	.30
Taxes[3]	.18	.19	.21	.19	.18
Extraordinary items	.00	.01	.01	.01	.01
Net income	.67	.64	.70	.62	.12
Cash dividends declared	.33	.32	.33	.33	.36
Net retained earnings	.34	.32	.37	.29	−.24
MEMO					
Net interest margin, taxable equivalent[4]	3.60	3.73	3.77	3.68	3.50

1. Assets are fully consolidated and net of loss reserves.
2. For the period before 1984, data are averages for call dates in December of the preceding year and in June and December of the current year. For 1984, data are averages for call dates at the beginning and end of the year only. For the period after 1984, data are averages for the call date in December of the preceding year and all four call dates in the current year.
3. Includes all taxes estimated to be due on income, extraordinary gains, and security gains.
4. For each bank with profits before tax greater than zero, income from state and local obligations was increased by $[(t/(1-t)]$ times the lesser of profits before tax or interest earned on state and local obligations, where t is the marginal federal income tax rate. This adjustment approximates the equivalent pretax return on state and local obligations.

erations rose more at the large banks than at other banks, to 0.62 percent.

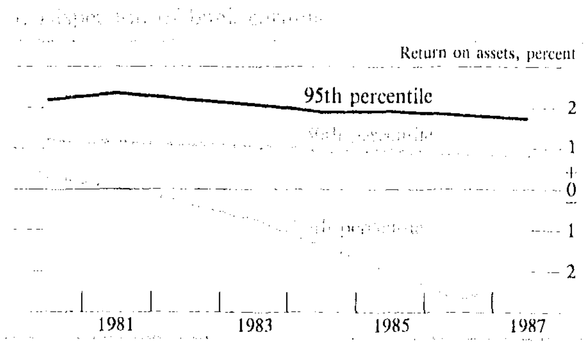
On the other hand, in their consolidated worldwide operations banks showed generally lower profitability. (Complete dollar figures for the components of net income are given in table A.1.) However, the situation was far from uniform among various size groups of banks (table 2). The largest banks suffered the steepest decline in profits, primarily because of decisions to increase substantially their loan-loss reserves for credits to developing countries and because of Brazil's moratorium on interest payments. By contrast, the profits of smaller banks, unhampered by foreign credits, were relatively higher.

The change in performance of the nine largest money center banks was the most pronounced of all the size groups in 1987. Their consolidated return on assets dropped 1⅓ percentage points, to −0.86 percent, and their return on equity fell almost 30 percentage points, to −19.37 percent. A sharp rise in interest expense, which decreased their net interest margin, was offset entirely by an increase in net noninterest income. Hence, the unusually large loss provisions were directly reflected in the return on assets.

Large banks (those, other than the money centers, with assets of more than $5 billion) also lost money last year. Half of their rise of 15 basis points in net interest margin was offset by lowered net noninterest income. Loss provisions twice the size of those in 1986 left these banks with profits before tax barely above zero; taxes left net income slightly negative. International operations accounted for almost two-thirds of their loss provisions and for all of the increase in provisions in 1987. The profits from the domestic operations of these banks were overwhelmed by losses from foreign business.

In contrast, banks with assets of between $300 million and $5 billion continued to be profitable last year, although their return on assets fell 17 basis points, to 0.59 percent. This decline stemmed in equal parts from higher loss provisions, smaller capital gains on securities, and greater tax payments.

At banks with assets of less than $300 million, profits after tax rose 8 basis points in 1987, to 0.66 percent of assets. This class was the only one to lower its loss provisions, an action that more than offset the group's smaller capital gains. A significant contribution to improvement at small banks was the reversal of the fortunes of agricultural banks, nearly all of which belong to



banks located in eastern states, lacking a concentration of energy and problem real estate loans, have performed better on average than those in states west of the Mississippi River.

Notwithstanding the marked improvements in some areas and the sharp downturns in others, the dispersion of overall bank earnings narrowed in 1987 (chart 3). The bottom 5 percent of commercial banks, while still performing very poorly, showed a distinct uptick. The top 5 percent of all commercial banks did quite well again last year, with returns on assets of 1¾ percent, and the median bank still earned almost 1 percent on assets. The widened discrepancy between this median and the weighted mean for the industry (the latter shown in chart 1) is due to the concentration of losses in 1987 among a relatively small number of large banks.

Despite the considerable losses recorded at large banks, banks of all sizes paid dividends in 1987 at a rate slightly above the 1986 pace, thereby contributing to huge reductions of retained income and the erosion of equity capital (table 3). Many banks with depressed earnings continued to pay dividends, apparently counting on a turnaround in profitability and reluctant to further erode the price of their stock and thus their future ability to raise equity capital.

In 1987, equity capital for all banks fell to 6.14 percent of assets, from 6.48 percent in 1986. Most of this change reflected the nearly $6 billion decline in equity capital at large banks, which was due largely to their provisioning for losses on loans and leases. The effect on primary capital was mostly one of changing composition: the decline in equity was about balanced by the increase in loss reserves. (The decline in equity was somewhat less than the increase in loss reserves because banks were able to book deferred tax benefits.) Equity capital fell to 75 percent of primary capital last year, down from about 85 percent in recent years.

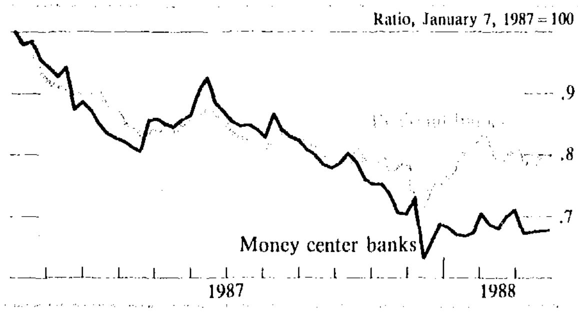
The weak performance of bank profits and continued concerns about asset quality were reflected in the price of bank stocks, which lagged the broad market (chart 4). The stock prices of money center banks dipped relative to the S&P 500 index after Brazil ceased payments on its debts in February 1987, but they recovered after the May announcement of large provisions for their developing-country debt. Since the end of last year, the stock prices of regional banks have improved relative to the S&P 500, perhaps because of further provisioning and some write-offs of loans to developing countries.

Millions of dollars, except as noted

Item	1983	1984	1985	1986	1987
Retained earnings[1]					
All banks	7,651	7,795	9,348	8,069	−7,057
Large banks[2]	1,967	2,239	4,177	4,121	−10,117
Net change in equity capital					
All banks	10,738	14,940	15,399	16,103	2,382
Large banks[2]	3,717	6,095	5,559	7,446	−5,551
Retained earnings as a share of net change in equity capital (percent)					
All banks	71	52	61	50	...
Large banks[2]	53	37	75	55	...

1. Net income less cash dividends declared on preferred and common stock.

2. Banks with fully consolidated assets of $5 billion or more at year-end, net of loss reserves.



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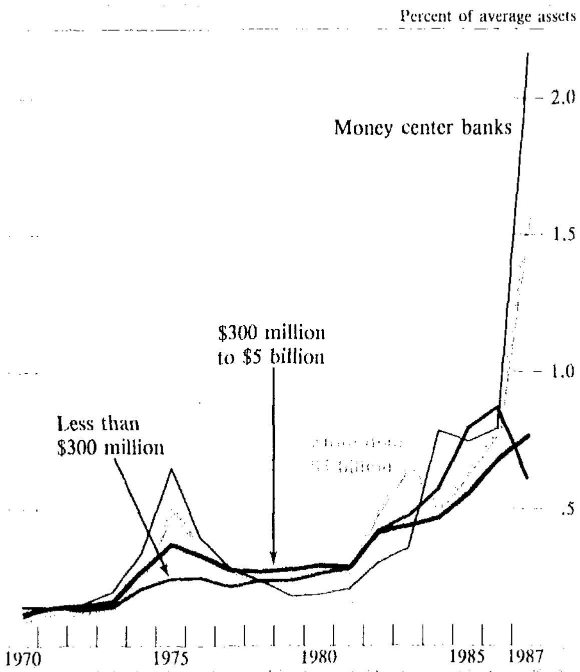


ASSET QUALITY

Although loss provisions generally have been rising throughout the 1980s, last year they were an extraordinary 1.26 percent of average assets (table 1). More than 70 percent of all provisions were accounted for by banks with assets of $5 billion or more (table 4). Also, provisions as a percent of average assets were significantly higher for the larger size groups (chart 5).

After Citicorp's second-quarter announcement of a $3 billion loss provision for loans to developing countries, the holding companies of the other money center banks announced similar rates of provisioning. Although the banks do not distinguish on their call reports the specific reasons for loss provisions, the money center banks attributed 92 percent of their total provisions in 1987 to the general category of international operations; for other large banks with foreign offices, the comparable figure is 63 percent. Other published data indicate that the money center banking organizations added $11 billion to reserves for losses on developing-country debt.

In contrast, the provisions of the banks with assets of less than $300 million fell, from $5.8 billion in 1986 to $4 billion in 1987. Nonetheless,

Millions of dollars, except as noted

Year and asset size of bank[1]	Losses charged	Recoveries	Net charge-offs: Amount	Net charge-offs: Percent of loans[2]	Loss provisions
1986					
All banks	19,225	3,025	16,200	1.01	21,538
Less than $300 million	5,621	801	4,820	1.36	5,774
$300 million to $5 billion	4,396	713	3,683	.86	5,060
$5 billion or more					
Money center banks	4,395	700	3,695	.94	5,124
Other	4,813	811	4,002	.92	5,580
1987					
All banks	19,608	3,624	15,984	.94	36,337
Less than $300 million	4,386	847	3,539	1.00	4,105
$300 million to $5 billion	5,276	837	4,438	.91	6,218
$5 billion or more					
Money center banks	4,120	1,024	3,096	.80	14,062
Others	5,826	916	4,911	1.03	11,952

1. Size categories are based on year-end fully consolidated assets net of loss reserves.

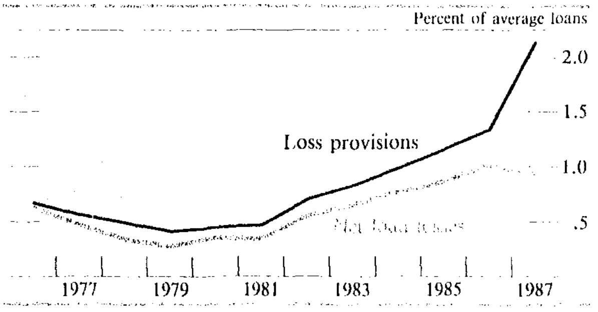
2. See table 1, note 2.

even at the smallest banks the pace of provisioning was still high by historical standards (chart 5). In part, the better experience of the smaller banks was due to a decline in loss provisions at agricultural banks, which reflected a recovery in the farm economy. Provisions fell to 0.65 percent of assets, about half the 1986 level. However, the improvement was not confined to agricultural banks; other small banks also lowered their loss provisions, from 0.78 percent of average assets in 1986 to 0.61 percent in 1987.

In recent years, the deteriorating quality of their energy and real estate loan portfolios had forced banks in Texas, Oklahoma, and Louisiana to increase dramatically their pace of loss provisioning. In 1987, however, aggregate loss provisions relative to assets in these states declined 21 basis points, to 1.55 percent. Nonetheless, the rate remained quite high, and large banks did not share in the improvement: their provisions climbed to 2.03 percent of average assets, from 1.91 percent in 1986.

Historically, loss provisions have tended to move in alignment in the same period with loans charged off, net of recoveries (chart 6). Loan charge-offs reduce the reserve for loan losses on the balance sheet; thus, by taking provisions generally in line with current-period charge-offs, banks are able to maintain the level of their outstanding loan loss reserves. Indeed, over the 1980s, banks gradually built up the level of loss reserves by provisioning at rates somewhat in excess of current charge-offs. In 1987, however, the amount by which loss provisions exceeded charge-offs rose substantially. Even as provisions were soaring to record levels relative to loans, the rate of net charge-offs declined for the first year since 1981.

6. Net loan losses and provisions



These disparate movements are explained by the banks' strategies toward loans to developing countries and by a slowing of the rate of write-offs in most other loan categories. The decline in loan losses was most dramatic for agricultural banks: net charge-offs as a percent of average loans fell by nearly half, from 2.24 percent in 1986 to 1.28 percent in 1987. For banks with more than $300 million in assets (the only group for which comparable loan-loss data by category are available), the charge-off ratio declined for domestic business loans and remained roughly constant for consumer loans. Losses continued to increase, however, for real estate and foreign loans, including loans to foreign governments. Nonetheless, the foreign charge-offs (which also include loans to borrowers in industrial countries) were far less than announced loss provisions for loans to developing countries.

Although some loans to these countries have been charged off, mostly by regional banks, the vast majority remain on the books of commercial banks. Other methods of reducing loan exposure, such as debt-for-equity swaps, secondary market sales, and the recent initiative by Mexico to trade new bonds backed by zero-coupon U.S. Treasury securities for current loans discounted to market value, have had a relatively limited effect. Thus, as reported in the Federal Reserve's Country Exposure Lending Survey, the total claims of U.S. banks on 30 countries that recently refinanced their external debts declined by 6 percent in 1987, to $88.2 billion. This small decline indicates that actual losses and other liquidations of loans to developing countries in 1987 were less than the substantial increases in loss reserves related to these loans.

The outlook for asset quality remains clouded by the condition of loans to developing countries and the continuing increase in nonperforming loans. Nonaccrual loans, a type of nonperforming loan in which interest payments are recorded only when actual cash payments are received, increased from 2.30 percent of total loans in 1986 to 3.01 percent in 1987. For the money center banks, the ratio of nonaccrual to total loans increased from 3.47 percent to 5.76 percent, and it also rose at other large banks. By contrast, agricultural banks and others with assets of less than $300 million saw this ratio fall.

5. Selected assets as a percent of total assets, all insured commercial banks, 1983–87[1]

Item	1983	1984	1985	1986	1987
Interest-earning assets	85.95	85.74	86.05	86.02	86.62
Loans	56.46	57.66	58.51	57.86	58.36
Securities	17.47	17.57	17.58	18.29	18.57
U.S. government	9.79	9.89	9.50	9.26	10.04
State and local government	6.84	6.76	6.99	7.49	6.25
Other bonds and stocks	.83	.93	1.08	1.55	2.28
Gross federal funds sold and reverse repurchase agreements	4.34	4.17	4.43	4.72	4.43
Interest-bearing deposits	7.69	6.33	5.53	5.15	5.26
MEMO					
Loss reserves	.63	.70	.80	.92	1.36
Average assets (billions of dollars)	2,245	2,401	2,559	2,753	2,882

1. See table 1, notes 1 and 2.

Net Interest Margin

Despite generally rising interest rates for most of the year, interest rates for 1987 on average were lower than they were during 1986. As a result, both gross interest income and gross interest expense, as a percentage of average assets, fell in 1987. For all banks the net interest margin (interest income minus interest expense) remained at 3.27 percent of average assets from 1986 to 1987.

However, the net interest margin on a taxable equivalent basis fell, from 3.68 percent in 1986 to 3.50 percent in 1987 (table 1). The taxable equivalent margin is derived by adjusting the yield on holdings of tax-exempt obligations to recognize the tax savings they provide to profitable banks. This margin fell relative to the unadjusted margin for two reasons. First, lower corporate income tax rates in 1987 reduced the taxable-equivalent margin by 6 basis points. Second, the lower percentage of tax-exempt securities in banks' portfolios in 1987 reduced the amount by which taxable-equivalent interest income exceeded unadjusted interest income. The Tax Reform Act of 1986 eliminated the deduction from taxable income of 80 percent of the interest costs of funding most tax-exempt obligations acquired after August 7, 1986. Purchases of tax-exempt instruments therefore are generally no longer attractive to banks, and, as the instruments acquired on or before August 7 have matured, holdings of tax-exempt securities have contracted. For example, holdings of state and local government securities (the largest category of tax-exempt assets) fell from 7.49 percent of total average assets in 1986 to 6.25 percent in 1987 (table 5).

Differences in portfolio structure in 1987 had large effects on each component of the net interest margin. The decline in the taxable-equivalent return on securities in 1987, 141 basis points, as discussed above, was much steeper than the decline in the return on loans, 40 basis points (table 6). This difference held across the four size classes (table A.2). Thus, the largest banks,

6. Rates of return on selected consolidated assets, all insured commercial banks, 1983–87[1]

Percent

Item	1983	1984	1985	1986	1987
Securities, total	9.83	9.95	9.27	8.34	7.89
State and local government	7.04	7.50	7.42	7.20	7.27
Loans, gross	12.69	13.65	12.07	10.84	10.44
Net of loss provisions	11.59	12.54	10.87	9.46	8.25
Taxable equivalent[2]					
Total securities	12.06	12.18	11.45	10.52	9.11
State and local government	12.58	13.44	13.05	12.51	10.93
Total securities and gross loans	12.41	13.31	11.93	10.77	10.12

1. Calculated as described in the "Technical Note," FEDERAL RESERVE BULLETIN, vol. 65 (September 1979), p. 704, for years through 1984. For years after 1984, rates of return are derived from income items and quarterly average balance sheet data.
2. See table 1, note 4.

whose ratio of loans to securities is much higher than that of the smaller banks, suffered a much smaller decline in their total interest income (on a taxable-equivalent basis) during 1987 than did the smaller banks. For banks with less than $300 million in assets, interest income as a percent of assets declined 64 basis points; for banks with assets of $5 billion or more, it declined only 11 basis points, and for money center banks, only 13 basis points.

The relative gain for the largest banks was reduced somewhat because loans as a percentage of average assets increased for the smallest banks last year, reversing the decline that occurred in 1986. Also, the relative importance of loans in the portfolios of the money center banks declined in 1987, as they have for the past three years.

Loans for the banking industry as a whole grew slightly faster than overall assets in 1987 (table 5). This upturn was due primarily to strong growth in real estate loans, boosted by the increasing popularity of home equity loans. As a percentage of assets, commercial and industrial loans on the books of the nation's banks continued to decline, and consumer loans were relatively flat after several years of rapid growth (table A.2). For the money center banks, commercial and industrial loans have fallen steadily from 32 percent of average assets in 1983 to 24 percent in 1987, a trend reflecting in part the sales of loans. This decline has been responsible for the overall shrinkage in the percentage of loans in their portfolios, which occurred despite an increase in real estate and consumer loans as a share of assets over the five-year period.

Interest income for the largest banks was also reduced by the drag from nonaccrual loans. Loans to Brazil, which were on nonaccrual status for nearly all of 1987, were especially significant in reducing interest income for the money center banks. In light of the improving loan quality at (typically small) agricultural banks, the percentage of loans in nonaccrual status in 1987 varied directly with bank size class.

On the liability side of the balance sheet, the structure of bank portfolios in 1987 worked to the disadvantage of the largest banks. Money market liabilities—large time deposits, deposits in foreign offices, federal funds purchased and security repurchase agreements, and other borrowed money—amount to approximately one-third of total assets for the banking industry as a whole (table 7). By the same measure, these liabilities vary greatly by size class of bank, ranging from 13 percent for the smallest banks to 57 percent for the money center banks.

The category of other deposits in table 7—which cover retail-type deposits such as savings, small time, and money market deposit accounts—is equal to one-third of total assets for all banks. Here, too, the proportions are quite different among size groups. In fact, they are the mirror image of the structure of money market liabilities, with the smallest banks having the

7. Selected liabilities as a percentage of total assets, all insured commercial banks, 1983–87[1]

Item	1983	1984	1985	1986	1987
Deposit liabilities	77.68	77.93	77.30	76.72	76.42
In foreign offices	14.71	12.94	12.61	11.61	11.38
In domestic offices	62.97	64.99	64.69	65.11	65.04
Demand deposits	16.53	16.47	15.63	16.03	15.40
Other checkable deposits	4.03	4.34	4.57	5.21	6.01
Large time deposits[2]	12.15	12.23	11.46	10.76	10.60
Other deposits[3]	30.26	31.95	33.03	33.11	33.02
Gross federal funds purchased and repurchase agreements	7.81	7.51	7.68	8.25	8.06
Other borrowings	2.84	2.78	3.44	4.02	4.45
MEMO					
Money market liabilities[4]	37.51	35.46	35.19	34.63	34.48
Average assets (billions of dollars)	2,245	2,401	2,559	2,753	2,882

1. See table 1, notes 1 and 2.
2. Deposits of $100,000 or more.
3. Including savings, small time deposits, and money market deposit accounts.
4. Large time deposits issued by domestic offices, deposits issued by foreign offices, repurchase agreements, gross federal funds purchased, and other borrowings.

highest ratio of retail deposits, 52 percent, and the money center banks the smallest, 14 percent.

As noted above, interest rates on average were lower in 1987 than in 1986, even though they rose over much of last year. The increase in market rates during most of 1987 was reflected more in rates on money market liabilities than it was in rates on retail deposits, which tend to move sluggishly. Thus, rates paid for retail deposits fell by more than 1½ percentage points in 1987, whereas rates for money market liabilities either declined moderately, as they did for large certificates of deposit and federal funds purchased, or rose, as they did for foreign office deposits and other liabilities for borrowed money (table 8). Similar results hold for all size classes.

As a result of these developments, the smaller banks enjoyed a larger reduction in interest expense than did the larger banks. In fact, interest expenses of the money center banks rose ¼ percentage point.

To sum up, although the larger banks posted less of a decline in interest income from 1986 to 1987 than did the smaller banks, this relative advantage was mostly offset by less of a decrease in interest expense. Thus, in general, the change in the taxable-equivalent net interest margin did not differ significantly among size classes. The one exception was the money center banks. In their case, the significant increase in interest expense eroded their overall margin 40 basis points, which exceeded the range of 7 to 18 basis points for the other size classes.

[illegible]

Noninterest income rose twice as fast as did noninterest expense last year, although both continued the rapid climb evident throughout this decade, especially at very large banks. As a result, the negative spread between noninterest income and noninterest expense (excluding loss provisions) contracted in 1987 (table 1), leaving it at its narrowest since 1975. Large banks other than the money center banks were the only group for which expenses, especially those not related to salaries and premises, rose faster than income.

Both income and expense were almost unchanged relative to assets at banks with assets of less than $5 billion. Historically, salaries have been the largest component of noninterest expense and the biggest contributor to its growth. In 1987, these smaller banks for the first time had their wages and benefits decline relative to assets.

At the nine money center banks, both income and expense increased in 1987 at three times the rate for all commercial banks. Their income rose sharply because of trading gains and fees from foreign exchange transactions, gains and fees from assets held in trading accounts, and, especially, undifferentiated "other noninterest income." The latter, which accounted for half of the increase in noninterest income, was boosted by gains from sales of assets and from settle-

8. Rates paid for [illegible] liabilities, all insured commercial banks, 1983–87[1]

Percent

Item	1983	1984	1985	1986	1987
Interest-bearing deposits	9.32	9.92	8.20	6.98	5.82
Large certificates of deposit	8.90	10.67	8.72	7.31	6.86
Deposits in foreign offices[2]	10.32	12.62	9.48	7.78	7.90
Other deposits	9.11	8.84	7.66	6.67	5.10
Gross federal funds purchased and repurchase agreements	9.69	11.22	7.97	6.77	6.51
Other liabilities for borrowed money[3]	11.88	13.92	10.62	8.01	9.65
Total	**9.46**	**10.20**	**8.29**	**7.01**	**6.11**

1. Calculated as described in the "Technical Note," FEDERAL RESERVE BULLETIN, vol. 65 (September 1979), p. 704, for years through 1984. For years after 1984, rates are derived from expense items and quarterly average balance sheet data.

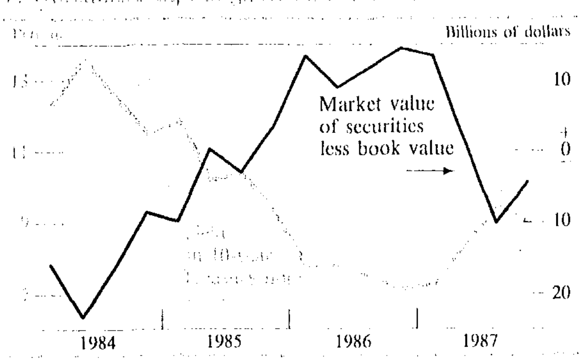
2. Series break after 1983. Reporting instructions classified international banking facilities as domestic offices until the end of 1983 and as foreign offices thereafter. Income data are not sufficiently detailed to allow construction of a consistent series on the new basis for rates of return as has been done for balance sheet data in other tables in this article.

3. Including subordinated notes and debentures.

ments from pension plans that were overfunded relative to benefit obligations. (Under current accounting rules, banks are allowed to settle the pension obligations by purchasing annuities and to count the amount of the overfunding as noninterest income.) "Other noninterest income" also benefited from the growth of off-balance-sheet activities such as swaps, loan sales, and commitments to purchase foreign currencies. Unlike smaller institutions, salaries at the money center banks accounted for almost half the growth in noninterest expense.

Capital gains on the sale of investment-account securities fell in 1987. Although the share of assets held in securities continued to be relatively high at banks with assets of less than $5 billion, their capital gains on these investments as a share of assets were only about half those at larger banks. Despite a large pool of unrealized capital gains at commercial banks at the start of 1987, the rising level of interest rates through the year reduced the market value of their securities holdings below book value by year-end (chart 7,

7. Unrealized capital gains on securities



where the general rise in rates is illustrated with the rate for 10-year Treasury notes).

In 1987, the proportion of assets held in investment securities grew throughout the banking industry. Banks of all sizes reduced their holdings of state and local obligations—largely a consequence of the 1986 tax legislation, as noted above—and increased their holdings of U.S. government and other securities.

DEVELOPMENTS IN EARLY 1988

The net income of most large banks in the first quarter of 1988 increased relative to the same period last year. Gains in operating income arose from lower loss provisions and greater earnings from fees and securities trading. Cost cutting programs begun last year, which at some banks involved extensive layoffs of employees and initially raised expenses, resulted in reduced noninterest expenses in the first three months of 1988. In addition, large banks took advantage of one-time gains such as asset sales and tax benefits realized from previous loss provisions for loans to developing countries.

The poor quality of real estate loans continued to plague large banks in Texas and required more federal assistance in the first quarter. The problems of developing-country debt, poor asset quality, and troubled banks have not disappeared; 68 commercial banks, representing $2.8 billion in assets, have been closed in 1988 as of the end of May.

A.1. Report of income, all insured commercial banks, 1983–87

Millions of dollars

Item	1983	1984	1985	1986	1987
Operating income, total	**239,255**	**274,255**	**275,741**	**269,152**	**281,215**
Interest, total	216,050	245,638	241,819	230,630	236,531
Loans	153,317	178,323	177,281	168,349	173,160
Balances with banks	16,738	16,556	13,660	11,139	11,872
Gross federal funds sold and reverse repurchase agreements	9,198	10,455	9,404	8,918	8,808
Securities (excluding trading accounts)	36,797	40,304	41,473	42,223	42,691
Tax-exempt	10,618	11,812	12,838	14,957	14,118
Taxable	26,179	28,492	28,635	27,266	28,573
Service charges on deposits	5,399	6,518	7,333	7,908	8,655
Other operating income[1]	17,806	22,099	26,590	30,613	36,029
Operating expense, total	**220,229**	**254,285**	**254,184**	**250,821**	**274,060**
Interest, total	143,210	167,334	155,212	140,489	142,325
Deposits	119,839	139,331	129,440	115,898	113,634
Large certificates of deposit	22,523	25,767	22,705	19,281	18,919
Deposits in foreign offices	29,021	35,782	30,117	24,440	25,945
Other deposits	68,295	77,782	76,618	72,177	68,770
Gross federal funds purchased and repurchase agreements	16,438	19,322	16,432	15,745	15,740
Other borrowed money[2]	6,934	8,681	9,342	8,846	12,950
Salaries, wages, and employee benefits	33,636	36,463	39,467	42,262	44,528
Occupancy expense[3]	11,100	12,095	13,474	14,564	15,301
Loss provisions	10,614	13,704	17,504	21,538	36,337
Other operating expense	21,661	24,689	28,526	31,968	35,569
Securities gains or losses (−)	−30	−146	1,506	3,785	1,394
Income before tax	18,995	19,824	23,063	22,115	8,548
Taxes	4,076	4,660	5,499	5,184	5,304
Extraordinary items	70	216	237	271	184
Net income	14,989	15,379	17,802	17,202	3,429
Cash dividends declared	7,338	7,584	8,455	9,133	10,486

1. Includes income from assets held in trading accounts.
2. Includes interest paid on balances in U.S. Treasury tax and loan accounts and on subordinated notes and debentures.
3. Occupancy expense for bank premises net of any rental income plus furniture and equipment expenses.

A.2. Portfolio composition, interest rates, and income and expenses, insured commercial banks, 1983–87[1]

A. All banks

Item	1983	1984	1985	1986	1987
	Balance sheet items as a percent of average consolidated assets				
Interest-earning assets	85.95	85.74	86.05	86.02	86.62
Loans	56.46	57.66	58.51	57.86	58.36
Commercial and industrial	22.54	22.52	22.26	20.96	20.05
Real estate	14.13	14.77	15.71	16.71	18.68
Consumer	9.17	9.97	10.80	11.06	11.10
Securities	17.47	17.57	17.58	18.29	18.57
U.S. government	9.79	9.89	9.50	9.26	10.04
State and local government	6.84	6.76	6.99	7.49	6.25
Other bonds and stocks	.83	.93	1.08	1.55	2.28
Gross federal funds sold and reverse repurchase agreements	4.34	4.17	4.43	4.72	4.43
Interest-bearing deposits	7.69	6.33	5.53	5.15	5.26
Deposit liabilities	77.68	77.93	77.30	76.72	76.42
In foreign offices	14.71	12.94	12.61	11.61	11.38
In domestic offices	62.97	64.99	64.69	65.11	65.04
Demand deposits	16.53	16.47	15.63	16.03	15.40
Other checkable deposits	4.03	4.34	4.57	5.21	6.01
Large time deposits	12.15	12.23	11.46	10.76	10.60
Other deposits	30.26	31.95	33.03	33.11	33.02
Gross federal funds purchased and repurchase agreements	7.81	7.51	7.68	8.25	8.06
Other borrowings	2.84	2.78	3.44	4.02	4.45
Memo					
Money market liabilities	37.51	35.46	35.19	34.63	34.48
Loss reserves	.63	.70	.80	.92	1.36
	Effective interest rate (percent)				
Rates earned					
Securities	9.83	9.95	9.27	8.34	7.89
State and local government	7.04	7.50	7.42	7.20	7.27
Loans, gross	12.69	13.65	12.07	10.84	10.44
Net of loss provisions	11.59	12.54	10.87	9.46	8.25
Taxable equivalent					
Securities	12.06	12.18	11.45	10.52	9.11
Securities and gross loans	12.41	13.31	11.93	10.77	10.12
Rates paid					
Interest-bearing deposits	9.32	9.92	8.20	6.98	5.82
Large certificates of deposit	8.90	10.67	8.72	7.31	6.86
Deposits in foreign offices	10.32	12.62	9.48	7.78	7.90
Other deposits	9.11	8.84	7.66	6.67	5.10
All interest-bearing liabilities	9.46	10.20	8.29	7.01	6.11
	Income and expenses as a percent of average net consolidated assets				
Gross interest income	9.63	10.23	9.45	8.38	8.21
Taxable equivalent	9.98	10.70	9.83	8.78	8.44
Gross interest expense	6.38	6.97	6.06	5.10	4.94
Net interest margin	3.25	3.26	3.38	3.27	3.27
Taxable equivalent	3.60	3.73	3.77	3.68	3.50
Noninterest income	1.03	1.19	1.33	1.40	1.55
Loss provisions	.47	.57	.68	.78	1.26
Other noninterest expense	2.96	3.05	3.18	3.23	3.31
Securities gains or losses (−)	.00	−.01	.06	.14	.05
Income before tax	.85	.83	.90	.80	.30
Taxes	.18	.19	.21	.19	.18
Extraordinary items	.00	.01	.01	.01	.01
Net income	.67	.64	.70	.62	.12
Cash dividends declared	.33	.32	.33	.33	.36
Net retained earnings	.34	.32	.37	.29	−.24
Memo					
Average assets (billions of dollars)	2,245	2,401	2,559	2,753	2,882
Number of banks	14,074	13,952	13,898	13,733	13,268

1. See notes to tables in the text.

A.2. Portfolio composition, interest rates, and income and expenses, insured commercial banks, 1983–87—Continued

B. Banks with less than $300 million in assets

Item	1983	1984	1985	1986	1987
	Balance sheet items as a percent of average consolidated assets				
Interest-earning assets	90.82	90.62	90.86	90.77	91.10
Loans	52.10	53.13	54.22	52.84	52.95
Commercial and industrial	14.27	14.51	15.00	14.01	13.22
Real estate	18.64	19.57	20.69	21.75	23.78
Consumer	12.44	12.57	12.78	12.15	11.51
Securities	29.75	29.22	28.23	27.89	28.45
U.S. government	18.89	19.16	18.39	17.73	18.71
State and local government	10.29	9.42	9.16	9.10	7.65
Other bonds and stocks	.57	.63	.68	1.06	2.09
Gross federal funds sold and reverse repurchase agreements	5.76	5.36	5.55	7.01	6.46
Interest-bearing deposits	3.21	2.92	2.86	3.03	3.25
Deposit liabilities	87.09	87.61	87.81	88.14	88.11
Demand deposits	17.56	16.73	15.39	15.03	14.41
Other checkable deposits	7.16	7.64	8.03	9.00	10.30
Large time deposits	10.79	11.05	11.61	11.40	10.94
Other deposits	51.55	52.13	52.68	52.65	52.44
Gross federal funds purchased and repurchase agreements	2.15	1.85	1.59	1.36	1.34
Other borrowings	.63	.49	.49	.50	.53
MEMO					
Money market liabilities	13.59	13.45	13.79	13.32	12.84
Loss reserves	.55	.60	.68	.77	.83
	Effective interest rate (percent)				
Rates earned					
Securities	10.37	10.44	9.61	8.69	7.88
State and local government	7.32	7.69	7.65	7.55	7.54
Loans, gross	13.36	13.96	12.50	11.52	10.85
Net of loss provisions	12.30	12.74	11.01	9.85	9.67
Taxable equivalent					
Securities	12.40	12.19	11.36	10.40	9.24
Securities and gross loans	12.99	13.33	12.11	11.13	10.28
Rates paid					
Interest-bearing deposits	9.06	9.48	7.92	6.91	5.47
Large certificates of deposit	9.12	10.92	8.67	7.31	6.54
Other deposits	9.06	9.23	7.79	6.84	5.31
All interest-bearing liabilities	9.02	9.49	7.92	6.91	5.50
	Income and expenses as a percent of average net consolidated assets				
Gross interest income	10.40	10.76	10.17	9.18	8.63
Taxable equivalent	10.94	11.27	10.66	9.66	9.02
Gross interest expense	6.25	6.68	5.98	5.20	4.67
Net interest margin	4.15	4.08	4.18	3.97	3.97
Taxable equivalent	4.69	4.59	4.68	4.45	4.36
Noninterest income	.74	.79	.81	.82	.83
Loss provisions	.48	.58	.79	.87	.62
Other noninterest expense	3.29	3.26	3.35	3.36	3.33
Securities gains or losses (−)	.00	−.01	.07	.15	.03
Income before tax	1.13	1.02	.92	.71	.89
Taxes	.20	.20	.19	.15	.25
Extraordinary items	.00	.01	.01	.02	.02
Net income	.93	.83	.74	.58	.66
Cash dividends declared	.40	.41	.43	.40	.41
Net retained earnings	.53	.42	.32	.19	.25
MEMO					
Average assets (billions of dollars)	607	638	652	664	665
Number of banks	13,381	13,218	13,100	12,871	12,410

A.2. Portfolio composition, interest rates, and income and expenses, insured commercial banks, 1983–87—Continued

C. Banks with $300 million to $5 billion in assets

Item	1983	1984	1985	1986	1987
	Balance sheet items as a percent of average consolidated assets				
Interest-earning assets	87.16	87.11	87.98	88.04	88.59
Loans	53.10	54.82	57.25	57.74	59.71
Commercial and industrial	18.45	19.02	19.32	18.70	18.53
Real estate	15.92	16.55	17.99	19.66	22.00
Consumer	11.78	12.68	13.93	13.96	14.27
Securities	20.85	21.40	21.56	21.66	20.96
U.S. government	11.30	11.51	11.09	10.43	11.04
State and local government	8.68	8.87	9.28	9.73	7.79
Other bonds and stocks	.86	1.02	1.19	1.50	2.14
Gross federal funds sold and reverse repurchase agreements	5.69	5.51	5.14	5.26	4.71
Interest-bearing deposits	7.52	5.38	4.03	3.38	3.21
Deposit liabilities	78.05	79.26	79.74	79.90	78.55
In foreign offices	3.90	2.91	2.69	2.42	2.51
In domestic offices	74.15	76.35	77.05	77.49	76.04
Demand deposits	20.48	20.24	18.72	18.68	17.43
Other checkable deposits	4.58	5.08	5.36	6.31	7.08
Large time deposits	14.63	14.04	13.57	12.55	12.54
Other deposits	34.47	36.99	39.41	39.95	39.00
Gross federal funds purchased and repurchase agreements	10.41	9.49	8.56	8.60	9.17
Other borrowings	2.12	1.88	2.33	2.27	3.02
MEMO					
Money market liabilities	31.06	28.31	27.14	25.84	27.24
Loss reserves	.65	.70	.77	.85	1.02
	Effective interest rate (percent)				
Rates earned					
Securities	9.53	9.62	9.01	8.14	7.66
U.S. government	11.52	11.27	10.34	9.13	8.01
State and local government	6.96	7.38	7.35	7.13	7.16
Other bonds and stocks	10.87	10.80	9.54	8.10	7.74
Loans, gross	12.47	13.33	11.94	10.89	10.37
Net of loss provisions	11.40	12.39	10.94	9.68	9.06
Taxable equivalent					
Securities	11.80	12.05	11.36	10.49	9.17
Securities and gross loans	12.18	12.97	11.79	10.78	10.06
Rates paid					
Interest-bearing deposits	8.74	9.25	7.82	6.77	5.46
Large certificates of deposit	8.72	10.55	8.55	7.23	6.77
Deposits in foreign offices	8.63	11.11	8.63	6.96	6.79
Other deposits	8.77	8.74	7.58	6.64	5.11
All interest-bearing liabilities	8.74	9.40	7.82	6.75	5.63
	Income and expenses as a percent of average net consolidated assets				
Gross interest income	9.41	9.93	9.41	8.52	8.23
Taxable equivalent	9.84	10.43	9.91	9.03	8.55
Gross interest expense	5.89	6.36	5.66	4.86	4.56
Net interest margin	3.52	3.57	3.75	3.66	3.67
Taxable equivalent	3.95	4.07	4.25	4.17	3.99
Noninterest income	1.23	1.30	1.34	1.29	1.33
Loss provisions	.44	.46	.56	.69	.77
Other noninterest expense	3.43	3.45	3.57	3.45	3.43
Securities gains or losses (−)	−.01	−.01	.04	.11	.04
Income before tax	.86	.95	1.00	.93	.84
Taxes	.12	.15	.18	.18	.26
Extraordinary items	.01	.01	.01	.01	.01
Net income	.75	.81	.83	.76	.59
Cash dividends declared	.35	.36	.37	.39	.41
Net retained earnings	.41	.45	.45	.37	.17
MEMO					
Average assets (billions of dollars)	614	640	685	738	808
Number of banks	640	668	724	779	776

A.2. Portfolio composition, interest rates, and income and expenses, insured commercial banks, 1983–87—Continued

D. Nine money center banks

Item	1983	1984	1985	1986	1987
	Balance sheet items as a percent of average consolidated assets				
Interest-earning assets	81.56	81.14	80.56	80.09	80.63
Loans	62.93	63.66	61.91	60.07	58.40
Commercial and industrial	32.31	31.78	29.46	26.49	24.22
Real estate	9.22	9.81	10.49	11.45	12.52
Consumer	4.72	5.28	5.78	6.13	5.99
Securities	6.39	6.68	7.15	8.49	9.38
U.S. government	2.60	2.33	2.31	2.28	2.75
State and local government	2.49	2.90	3.02	3.48	3.23
Other bonds and stocks	1.30	1.45	1.82	2.73	3.40
Gross federal funds sold and reverse repurchase agreements	2.52	2.51	3.54	3.62	3.95
Interest-bearing deposits	9.72	8.29	7.95	7.91	8.91
Deposit liabilities	72.18	72.08	70.74	69.92	70.15
In foreign offices	37.93	35.21	35.86	34.64	35.02
In domestic offices	34.25	36.88	34.88	35.28	35.12
Demand deposits	11.43	11.83	11.51	12.46	12.34
Other checkable deposits	1.19	1.24	1.30	1.63	2.03
Large time deposits	10.55	10.62	8.18	7.30	6.83
Other deposits	11.08	13.20	13.89	13.88	13.93
Gross federal funds purchased and repurchase agreements	7.86	7.42	7.66	8.17	6.87
Other borrowings	5.12	5.25	6.51	7.95	8.68
MEMO					
Money market liabilities	61.46	58.49	58.21	58.07	57.41
Loss reserves	.59	.69	.83	1.02	2.11
	Effective interest rate (percent)				
Rates earned					
Securities	9.56	9.72	9.41	8.51	8.48
U.S. government	11.92	11.58	10.51	9.07	8.51
State and local government	6.33	7.61	7.24	7.09	7.26
Other bonds and stocks	11.46	11.10	11.45	9.79	9.61
Loans, gross	12.64	13.85	12.08	10.53	10.41
Net of loss provisions	11.75	12.97	10.85	9.18	6.67
Taxable equivalent					
Securities	11.86	12.58	11.75	10.89	8.76
Securities and gross loans	12.32	13.73	12.05	10.58	10.18
Rates paid					
Interest-bearing deposits	10.23	11.06	8.91	7.41	6.70
Large certificates of deposit	8.96	10.70	9.07	7.45	7.33
Deposits in foreign offices	10.77	12.90	9.59	7.88	8.01
Other deposits	10.02	7.83	7.43	6.47	4.47
All interest-bearing liabilities	10.56	11.55	9.16	7.57	7.30
	Income and expenses as a percent of average net consolidated assets				
Gross interest income	9.40	10.22	9.10	7.85	7.90
Taxable equivalent	9.53	10.67	9.27	8.06	7.93
Gross interest expense	7.00	7.84	6.74	5.57	5.84
Net interest margin	2.40	2.38	2.36	2.28	2.06
Taxable equivalent	2.53	2.83	2.53	2.49	2.09
Noninterest income	1.12	1.42	1.75	2.02	2.51
Loss provisions	.36	.50	.75	.79	2.16
Other noninterest expense	2.34	2.54	2.71	2.96	3.19
Securities gains or losses (−)	.01	.02	.06	.13	.08
Income before tax	.84	.78	.71	.68	−.70
Taxes	.30	.26	.26	.22	.15
Extraordinary items	.00	.00	.00	.00	.00
Net income	.54	.52	.45	.46	−.86
Cash dividends declared	.27	.24	.25	.21	.28
Net retained earnings	.26	.29	.21	.25	−1.13
MEMO					
Average assets (billions of dollars)	578	590	618	645	650
Number of banks	9	9	9	9	9

A.2. Portfolio composition, interest rates, and income and expenses, insured commercial banks, 1983–87—Continued

E. Large banks other than money center banks

Item	1983	1984	1985	1986	1987
	Balance sheet items as a percent of average consolidated assets				
Interest-earning assets	83.38	83.35	84.28	84.88	85.78
Loans	58.63	59.87	61.07	60.68	61.60
Commercial and industrial	26.77	26.04	26.02	24.79	24.01
Real estate	11.88	12.40	13.09	13.72	16.05
Consumer	6.90	8.80	10.25	11.52	11.78
Securities	10.45	11.13	12.24	14.74	15.36
U.S. government	4.66	5.24	5.47	6.46	7.73
State and local government	5.24	5.30	6.13	7.30	6.00
Other bonds and stocks	.56	.59	.64	.97	1.64
Gross federal funds sold and reverse repurchase agreements	2.90	2.98	3.33	3.01	2.79
Interest-bearing deposits	11.40	9.38	7.64	6.46	6.03
Deposit liabilities	71.49	71.25	69.94	68.90	69.38
In foreign offices	19.53	15.76	13.57	10.97	10.28
In domestic offices	51.97	55.49	56.37	57.93	59.10
Demand deposits	16.29	16.79	16.61	17.48	16.76
Other checkable deposits	2.70	2.94	3.26	3.77	4.59
Large time deposits	12.63	13.24	12.28	11.45	11.49
Other deposits	20.35	22.52	24.21	25.22	26.25
Gross federal funds purchased and repurchase agreements	11.86	12.01	13.24	14.40	13.76
Other borrowings	3.90	3.86	4.75	5.55	5.71
MEMO					
Money market liabilities	47.92	44.86	43.84	42.37	41.24
Loss reserves	.74	.83	.92	1.06	1.54
	Effective interest rate (percent)				
Rates earned					
Securities	8.88	9.34	8.87	7.94	7.91
U.S. government	10.93	11.11	10.23	8.90	8.09
State and local government	6.93	7.31	7.25	6.92	7.14
Other bonds and stocks	11.03	12.34	11.66	9.48	10.02
Loans, gross	12.24	13.47	11.76	10.52	10.23
Net of loss provisions	10.79	12.01	10.69	9.16	7.62
Taxable equivalent					
Securities	11.63	12.16	11.70	10.60	9.01
Securities and gross loans	11.97	13.26	11.75	10.54	9.98
Rates paid					
Interest-bearing deposits	9.40	10.11	8.34	6.90	5.88
Large certificates of deposit	8.98	10.58	8.80	7.34	7.06
Deposits in foreign offices	9.71	12.28	9.37	7.67	7.83
Other deposits	9.44	8.73	7.68	6.47	5.02
All interest-bearing liabilities	9.67	10.56	8.34	6.87	6.18
	Income and expenses as a percent of average net consolidated assets				
Gross interest income	9.16	9.97	9.08	7.95	8.07
Taxable equivalent	9.42	10.37	9.42	8.35	8.24
Gross interest expense	6.42	7.08	5.92	4.84	4.81
Net interest margin	2.74	2.89	3.16	3.12	3.27
Taxable equivalent	3.00	3.29	3.50	3.51	3.44
Noninterest income	1.05	1.30	1.43	1.49	1.59
Loss provisions	0.66	.78	.64	.79	1.58
Other noninterest expense	2.66	2.90	3.04	3.10	3.27
Securities gains or losses (−)	−.01	−.02	.07	.16	.05
Income before tax	.45	.49	.96	.88	.06
Taxes	.08	.16	.23	.21	.08
Extraordinary items	.00	.01	.01	.01	.00
Net income	.36	.34	.74	.68	−.02
Cash dividends declared	.27	.24	.26	.32	.35
Net retained earnings	.10	.10	.48	.36	−.36
MEMO					
Average assets (billions of dollars)	445	534	605	707	759
Number of banks	44	57	65	74	73

Implementing Monetary Policy

This article was adapted from a paper that H. Robert Heller, Member, Board of Governors of the Federal Reserve System, delivered in April 1988 to the Seminar for Economic Policy at the University of Cologne, West Germany. The author wishes to thank Donald L. Kohn, David E. Lindsey, Brian F. Madigan, and William C. Whitesell for assistance in preparing the article, and Elizabeth J. Eberle for statistical help.

The Federal Reserve's policy goals and operating procedures have drawn increasing attention in recent years. This article examines the formulation and implementation of policy in some detail. It begins by describing the ultimate objectives that the Federal Reserve tries to attain and the use of intermediate targets in that process. It pays particular attention to the deterioration of the relation between money and other economic variables, such as prices and income. The article then describes the three operating procedures that have been devised in an attempt to implement policy efficiently and effectively: federal funds targeting, nonborrowed reserves targeting, and the borrowed reserves procedure. The paper concludes by discussing several policy issues that have arisen in recent years.

Policy Goals and Intermediate Targets

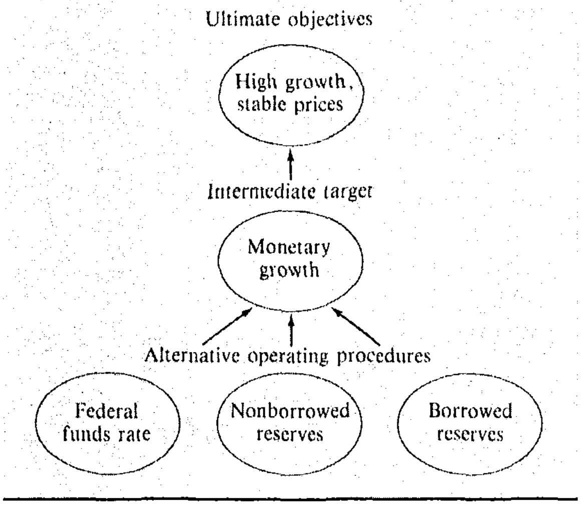
The ultimate objective of Federal Reserve policy is to foster economic growth in a framework of price stability. Price stability not only is an important goal in its own right; it also contributes to economic growth by reducing the uncertainty economic decisionmakers face. Greater certainty, in turn, will foster the efficient and effective use of human, man-made, and natural resources. Domestic price stability also will promote exchange rate stability and thereby support a balanced allocation of international resources.

A large literature supports the relationship between money on the one hand and prices and economic activity on the other. In particular, research has shown that over extended periods of time, money and prices maintain a reasonably stable relationship. The relationship between changes in money and changes in economic activity, while present, has been less certain and more transitory.

In such a framework, monetary policymakers can target the level of money supply and changes in it as an intermediate step to attaining the ultimate objectives. Such a procedure, clearly, has been the intent of the congressional mandate to the Federal Reserve to specify twice a year its targets for monetary growth. At the same time, members of the FOMC give their expectations regarding prices, economic growth, and unemployment.

The accompanying box illustrates this policymaking process. The attainment of high economic growth and stable prices are shown as the ultimate policy objectives. Monetary growth is

Implementing monetary policy



the intermediate target, whose attainment facilitates the achievement of the ultimate policy objectives. Alternative operating procedures that have been used to attain the intermediate target are federal funds targeting, nonborrowed reserves targeting, and the borrowed reserves procedure.

If the relationship between money and the ultimate objectives is very stable and predictable, an operating procedure that assures that the intermediate target is hit will also assure the attainment of the ultimate policy objectives.

DETERIORATING LINKS BETWEEN MONEY, INCOME, AND PRICES

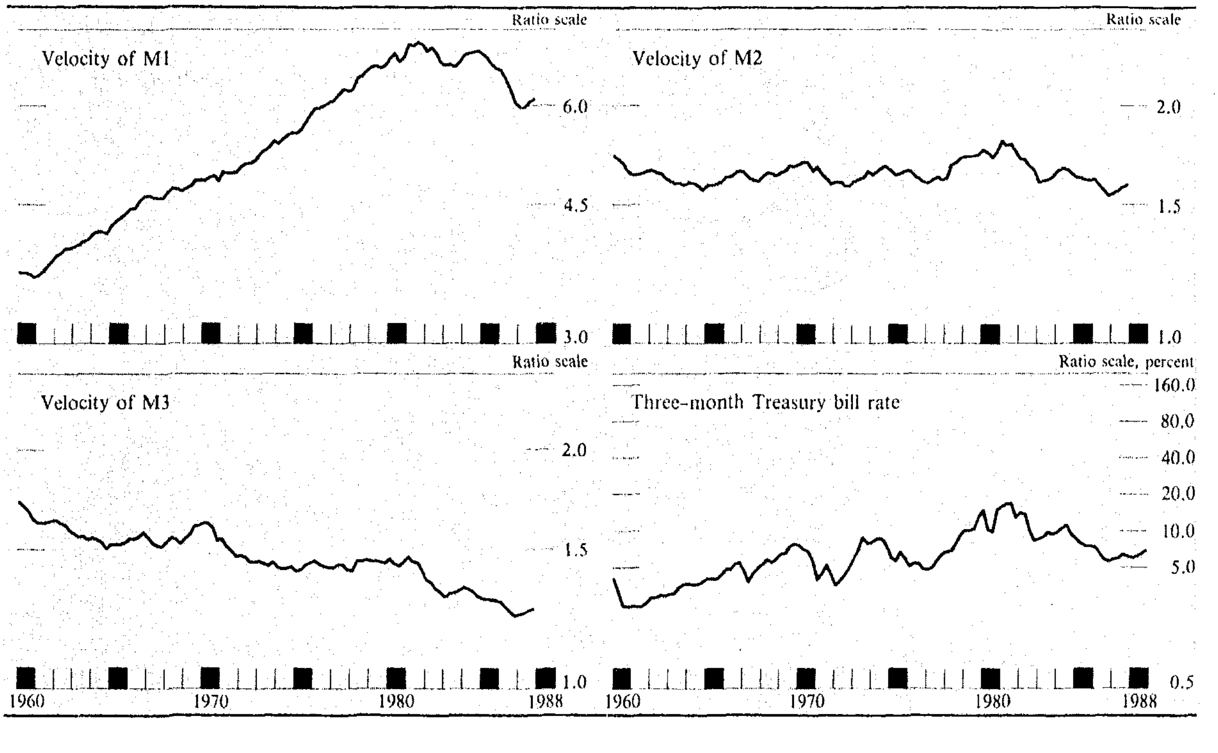
In the 1980s, the relationship between money, nominal income, and other macroeconomic variables has become less stable and less predictable. Consequently, simple monetary targeting also became a less reliable means to attain the ultimate objectives.

The deterioration in the money–income relationship is evident in the behavior of velocity, the ratio of gross national product to money. As chart 1 shows, the historical relationship between spending and the narrowly defined money supply, M1, departed from its long-term trend and became more volatile. Velocity also became more volatile for the more broadly defined monetary aggregates, M2 and M3.

Changes in velocity have coincided with financial innovations and changes in the regulatory environment, as well as sizable variations in interest rates. In particular, the introduction of money market mutual funds in the mid-1970s, and, beginning in the late 1970s, the deregulation of interest rates that banks and other depositories could pay on deposits, had a powerful influence on the character of many monetary assets and on the substitutability among them.

The deregulation of interest rates in the 1980s has spurred the demand for deposit balances because it reduced the opportunity cost of holding them. This effect has been particularly strong

1. Velocity of money and Treasury bill rate



Quarterly data.

for household transaction balances, on which interest was permitted to be paid for the first time.

At the same time, the ability of banks to pay interest on liquid money balances has made opportunity costs more variable over the short run, in percentage terms. This greater variability has come about because banks have been slow to adjust the rates paid on liquid retail accounts. For instance, if the interest rate on Treasury bills rises from 10 to 11 percent, the opportunity cost of an account that earns no interest increases only one-tenth. In contrast, the opportunity cost of an account that earns interest at a constant rate of 6 percent increases one-fourth. Moreover, some interest-earning checkable deposits are now held for saving motives, and savings balances appear to be more likely to shift into alternative investments when opportunity costs change.

The rise in interest rates in the late 1970s and early 1980s also stimulated awareness of the opportunity cost of holding money and magnified the interest sensitivity of the monetary aggregates.

Because of the uncertainty surrounding the behavior of transaction balances, and because of their now very high interest elasticity, the Federal Open Market Committee has not set a target range for M1 since 1986.

It has been suggested that the Committee target the monetary base, composed of currency and reserves, or M1-A, which is currency plus non-interest-earning demand deposits. These aggregates seem to have the advantage of a lower interest elasticity than M1 or M2, but questions remain concerning the closeness of the relation of each to U.S. economic activity.

The Federal Reserve staff has also evaluated experimental aggregates that incorporate innovative schemes for weighting monetary components. However, none of these alternative measures has been consistently superior with respect to all the attributes desirable in an intermediate target: controllability, stability of demand, and predictability of influence on income and prices.

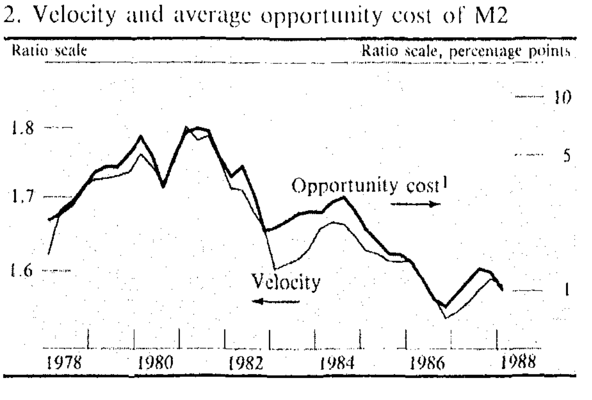
For the present, therefore, targets are set only for the broad monetary aggregates, M2 and M3. The velocities of these broader aggregates are not as interest sensitive as the velocity of M1. Part of the reason is that interest rates offered on the non-M1 deposits included in these broader aggregates are adjusted more quickly as market conditions change, and these aggregates internalize some of the asset shifts that make M1 so variable. Nevertheless, the opportunity costs of the broader aggregates, and thus their velocities, do vary with market rates.

The relationship between the opportunity cost of M2 and its velocity of circulation is depicted in chart 2 . The opportunity cost is defined as the interest rate on three-month Treasury bills minus the weighted average of interest rates paid on balances contained in M2. To allow for lags in the response of the demand for money to changing market conditions, a two-quarter moving average of this difference is used. The chart reveals a close relationship between velocity and opportunity costs.

Moreover, many of the more sizable deviations can be explained by specific occurrences. For example, the drop in M2 velocity in early 1983 occurred despite increases in opportunity costs because non-M2 funds were shifted into newly introduced deposit accounts that had no interest rate ceilings. Likewise, the decline in velocity in late 1986 reflected in part a bulge in money demand resulting from a heavy volume of asset sales that anticipated the implementation of tax reform legislation.

Because of the interest sensitivity of money demand, the range of interest rates that may be associated with acceptable economic performance is carefully considered in the process of arriving at money growth targets. Furthermore,

2. Velocity and average opportunity cost of M2



1. Two-quarter moving average of difference between rates on three-month Treasury bills and weighted average of rates on balances in M2.

aware that the relationship between monetary growth and short-run economic performance is less predictable than it was, the FOMC has allowed money to depart from its targeted path when doing so has seemed consistent with progress toward its ultimate objectives.

Responding to the increasing unpredictability of the link between money and economic performance, the FOMC widened the ranges of the annual growth rates for M2 and M3. For both aggregates, the range is 4 to 8 percent for 1988, compared with 5½ to 8½ percent last year.

To supplement frequent judgmental and econometric forecasts, other leading indicators of the course of the economy and of price pressures are carefully monitored, including lead times in orders for production materials, commodity prices, and financial variables such as relative interest rates and exchange rates. Monetary targeting nevertheless retains its usefulness, especially over the long run, because the link between trend money growth and the inflation rate is indisputable over extended periods of time.

The Operating Procedures

These developments in the money–spending relationship have implications for the choice of procedures to implement monetary policy. In the early 1980s, when the relationship still seemed reasonably stable, Federal Reserve open market operations were tied directly to the behavior of the monetary aggregates.

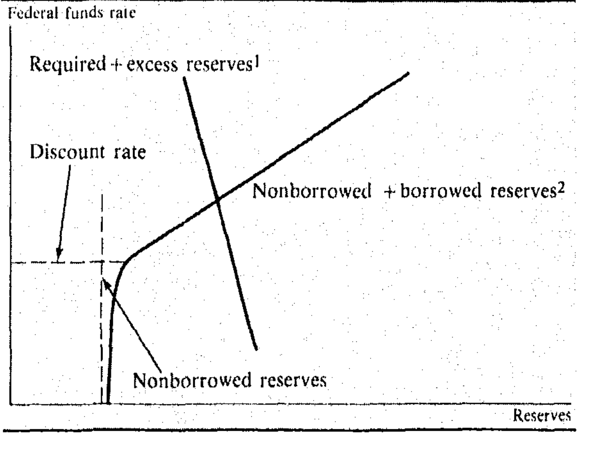
Since late 1982, however, in recognition of the looser connection that has come to prevail, the FOMC has used an operating procedure that eliminates the automatic responsiveness of conditions in reserve markets and interest rates more generally to divergences of the monetary aggregates from targets. This procedure relies more heavily on judgments about the strength of spending tendencies and inflationary pressures. It is best understood against a basic model of the market for reserves in the United States.

The Reserves Market

The demand for reserves is determined primarily by the banks' reserve requirements. Before February 1984, required reserves were fixed and known before any maintenance period, as they were based on actual money balances during a previous period. Since then, reserves required against transaction balances have been based on a virtually contemporaneous computation. In principle, therefore, required reserves could now respond to concurrent changes in the federal funds rate, which is the interest rate at which banks borrow and lend reserves, to the extent that that rate affected the demand for money contemporaneously. In practice, the demand for money and required reserves is not very interest elastic over the short span of a reserve-maintenance period; but the elasticity increases with the passage of time as depositors adjust to changing opportunity costs.

The accompanying diagram depicts a simple, stylized model of the reserves market that captures this demand behavior. The demand for reserves is shown to have a downward-sloping relation to the funds rate. This relation reflects the demand for reservable deposits on behalf of the public, the reserve requirements, and the willingness of banks to hold reserve surpluses. The supply of reserves is the quantity of nonborrowed reserves plus borrowings from the discount window. The nonborrowed portion is determined primarily by open market operations, although uncontrolled market factors such as currency withdrawals, Treasury balances, and

Reserves market



1. This schedule shifts with changes in the demand for reservable deposits or in the willingness of banks to hold reserve surpluses.
2. This schedule shifts with changes in open market operations, in the discount rate, or in banks' willingness or need to borrow.

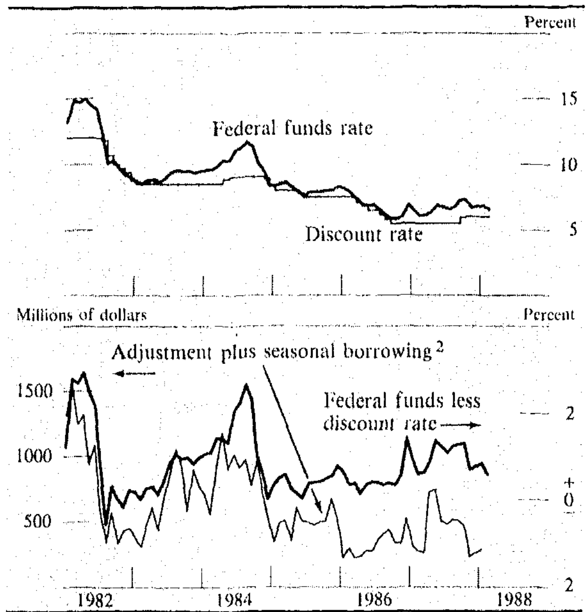
float play a role in the very short run. These factors are particularly important late in a reserve-maintenance period, when their effect on reserves can no longer be offset.

The discount window supplies three types of credit to depository institutions: adjustment, seasonal, and extended credit. Adjustment credit helps institutions meet temporary reserve needs, while seasonal loans mainly assist small institutions that have liquidity needs at particular times of the year because, for example, their loan portfolios are concentrated in agriculture or tourism. Extended credit is provided to institutions with longer-run operating difficulties. Extended credit is not interest sensitive, and it is normally treated as part of nonborrowed reserves for purposes of policy implementation.

While the Federal Reserve generally fixes its discount rate below market rates, it expects institutions to borrow from the discount window only when other sources of funds are not available on reasonable terms. Because credit is less expensive at the discount window than in the open market, it is rationed by administrative guidelines. Banks that seek discount window credit frequently are discouraged from continuing the pattern of balance-sheet management that gives rise to such needs. But banks are more willing to bear the implicit cost of using up their "privilege" of borrowing at the window when the spread between market rates and the discount rate is wide. For this reason, the demand for borrowed reserves rises as the spread widens, and thus the sum of borrowed plus nonborrowed reserves, as shown in the diagram, has an upward-sloping relation to the federal funds rate. The slope of this function changes because as the funds rate falls below the discount rate, borrowing drops to a small, nearly constant "frictional" amount, representing the needs of institutions temporarily unable to tap market sources. This schedule of borrowed plus nonborrowed reserves shifts with changes in open market operations, in the discount rate, and in banks' willingness or need to borrow.

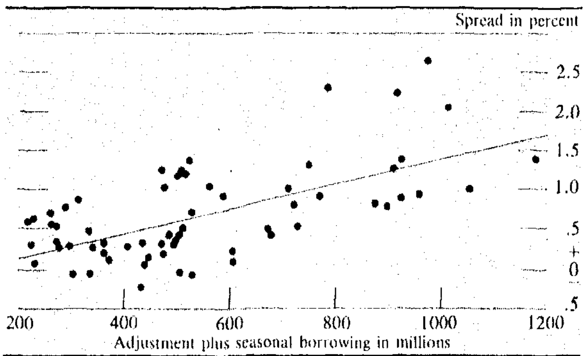
Chart 3 traces the relationship of adjustment plus seasonal borrowing to the spread between the funds rate and the discount rate since 1982. Chart 4 shows the relationship between borrowing and the spread in the form of a scatter

3. Relation of the spread between the federal funds rate and the discount rate and adjustment plus seasonal borrowing[1]



1. Monthly data.
2. Excludes special-situation borrowing.

4. Relation of discount window borrowing to the spread between the federal funds rate and the discount rate



Monthly data.

diagram. While the correlation between borrowing and the spread is clearly positive, the relationship is loose, indicating much random noise and some long-term shifts in the willingness of depository institutions to borrow from the discount window.

The Operating Directive

At each of its meetings, the Federal Open Market Committee establishes a short-run policy path that is intended to be broadly consistent with the long-run monetary targets and desired economic performance. The Committee then issues a directive to its agent, the Federal Reserve Bank of New York, concerning the conduct of open market operations during the six to eight weeks before the next meeting.

The directive identifies a controllable operating variable whose course will guide the day-to-day purchase and sale of securities by the Trading Desk of the Federal Reserve Bank of New York. The general course for this variable is specified in the "principal instruction" of the directive.

The directive also describes qualitatively how the short-run path for the control variable is to be altered if particular indicators of financial developments or economic performance diverge from expectations, and it identifies the scope within which the Desk may operate, in consultation with the Chairman, without convoking the full Committee.

Federal Funds Targeting

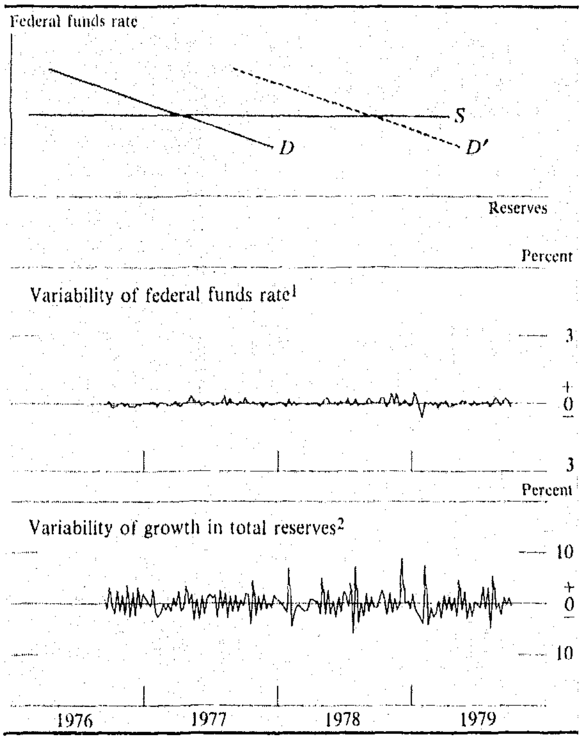
The FOMC began setting explicit intermediate monetary targets in 1970. For most of the following decade, it used the federal funds rate as its control instrument. The principal operating instruction of the policy directive specified a narrow band within which the funds rate was to be contained by open market interventions. For example, the directive issued following the FOMC meeting of September 1979 stated that open market "operations shall be directed at maintaining the weekly average federal funds rate within the range of 11¼ to 11¾ percent."

Under this procedure, the Desk automatically adjusted the provision of nonborrowed reserves whenever the federal funds rate tended to deviate from its target band. Thus, within a reserve period, changes in reserve market pressures tended to be fully offset, whether they were caused by shifts in demand for required reserves or excess reserves, a change in the willingness to borrow, or changes in market factors.

When money growth was faster than desired, the federal funds rate could be raised within its operating band, and if the excessive growth persisted the Committee raised the operating band so that higher rates would dampen money demand. When monetary growth was weak, the band was lowered.

As the top panel of chart 5 demonstrates, this practice meant that, absent a discretionary change in the intended rate, the supply curve of reserves was effectively horizontal at the specified federal funds rate. Shifts in the demand for reserves, such as from D to D', were fully accommodated. Under this procedure, one might expect a rather stable federal funds rate accompanied by marked fluctuations in reserves—and, indeed, that was the case. The middle panel of chart 5 shows that the federal funds rate fluctuated very little from its trend value during the last three years (1976–79) that this operating procedure was in effect. In contrast, as revealed in the bottom panel, the growth of total reserves fluctuated considerably around its mean value; that is, federal funds targeting resulted in rather stable movements in interest rates, but relatively

5. Federal funds targeting



S — Supply of total reserves.
D — Demand for required plus excess reserves.
1. Changes in the average weekly federal funds rate (in percent) are plotted as deviations from the mean change over the period.
2. The weekly growth rates of total reserves (in percent) are plotted as deviations from the average weekly growth rate over the period.

large fluctuations in reserves—and money—over the short run.

One of the problems of the federal funds operating procedure was that the FOMC did not always alter the funds rate promptly enough or sufficiently to keep monetary growth within the target ranges and consistent with long-term price stability.

Nonborrowed Reserves Targeting

In an environment of excessive inflation and rising inflationary expectations, the Federal Reserve announced in October 1979 that, to improve monetary control, it would begin using nonborrowed reserves rather than the federal funds rate as its short-run operating target. This change was reflected in the language of the policy directive. For example, the principal instruction of the directive following the July 1982 meeting stated that "the Committee seeks behavior of reserve aggregates consistent with growth of M1 and M2 from June to September at annual rates of about 5 percent and about 9 percent respectively." The funds rate was still mentioned, but the range allowed for it was quite wide—typically 4 or 5 percentage points.

Under nonborrowed reserves targeting, an initial implicit judgment about the level of interest rates likely to be consistent with desired monetary growth still had to be made. The implied federal funds rate then helped to determine an associated level of discount window borrowing, given the discount rate. Money growth targets were disaggregated by component and by size and type of depository institution, then translated into a path for required reserves, after account was taken of interbank deposits and other reservable deposits that are excluded from the measured money supply. An estimate of excess reserves was added to projected required reserves, and the initial assumption for the associated level of borrowing was subtracted; the result was a target path for nonborrowed reserves. The Desk used open market operations in order to aim at this target week by week.

The reserves-based procedure improved monetary control because it incorporated an automatic stabilizer for the growth of narrow measures of money. The FOMC no longer had to take active measures to adjust the federal funds rate when monetary growth deviated from its desired path; it merely had to keep nonborrowed reserves on target.

Excessive growth of transaction money would be reflected in required reserves that were larger than were expected, and it would be accommodated through an increase in total reserves only to the extent that banks increased their borrowing at the discount window. As they first bid for reserves in the market, banks would also force up the funds rate, and a general increase in rates would automatically help over time to push the quantity of money demanded back down toward its target path.

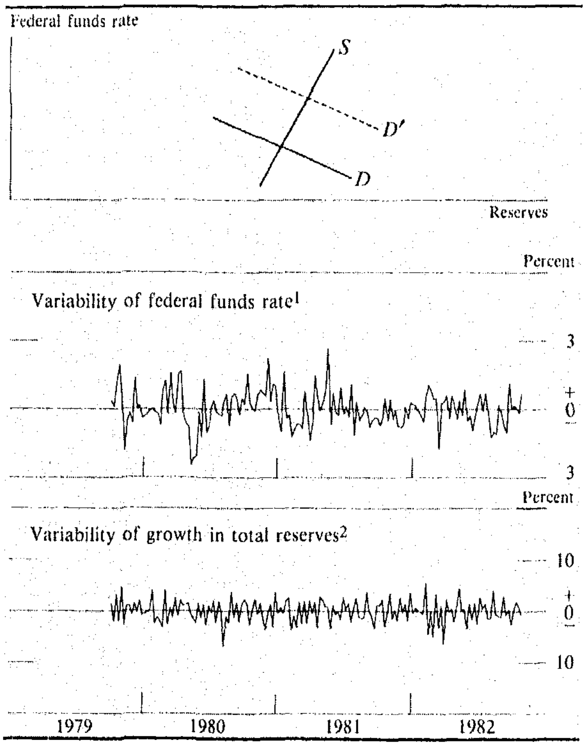
If money began growing below its desired path, required reserves, discount window borrowing, and the funds rate would all decline. Lower interest rates would eventually stimulate money demand and help push the aggregates back up toward their intended paths. Such adjustments would be faster if nonborrowed reserves were reduced when money growth was high or if they were increased when money growth was low, so that the short-run movement of the funds rate was amplified. In addition the discount rate could be changed. The resulting prompter and bigger interest rate responses were believed needed to keep money under closer medium-term control so as to reduce longer-term swings in interest rates.

A stylized version of nonborrowed reserves targeting is shown in the top panel of chart 6, in which the supply of total reserves is shown as an almost vertical line. Although the supply of nonborrowed reserves is held constant, total reserves respond to interest rates through discount credit. Shifts in the demand for reserves result in fluctuations of the federal funds rate, while movements in the quantity of reserves are damped by variations in interest rates that moderate divergences of money from target.

The middle and bottom panels of chart 6 show that the fluctuations in the federal funds rate were markedly larger than they were under the federal funds operating procedure discussed previously.

Reserve growth still varied substantially around the mean, but variations reflected changes in underlying conditions, such as credit

6. Nonborrowed reserves targeting



S — Supply of total reserves.
D — Demand for required plus excess reserves.
1. Changes in the average weekly federal funds rate (in percent) are plotted as deviations from the mean change over the period.
2. The weekly growth rates of total reserves (in percent) are plotted as deviations from the average weekly growth rate over the period.

controls and the onset of recession. The amplitude of reserve fluctuations was less than it would have been under the federal funds procedure.

As is to be expected, federal funds targeting results in a relatively stable funds rate and large changes in reserves, while reserves targeting results in relatively larger fluctuations in the federal funds rate and less pronounced swings in reserve growth.

An operating procedure based on nonborrowed reserves is, however, not advisable when the relationship of money to income is open to question. To achieve ultimate price and income objectives, shifts in the schedule of money demand unrelated to income movements have to be accommodated. For instance, an increase in the demand for transaction balances that does not stem from excessive spending nevertheless causes required reserves to rise. To prevent undesired increases in interest rates and a resulting restraint on spending in this situation, the short-run operating target for nonborrowed reserves *will* have to be raised to permit accommodation of the shift in demand. In addition, unforeseen changes in interest rates, due to changes in economic conditions, can cause changes in velocity and desired patterns of money growth.

Nonborrowed reserves targeting remained in effect from October 1979 until the autumn of 1982. During this period, which included a severe recession, the inflation rate fell dramatically, while interest rates were highly volatile. At the same time, regulatory changes and financial innovations made the demand for M1 very unstable, and the narrow aggregate was permitted to deviate from targeted paths.

The Borrowed Reserves Operating Procedure

Progressively over the summer and autumn of 1982, the Federal Reserve decided to de-emphasize M1 relative to M2 because the demand for M1 was expected to show further instability. In addition, a more flexible strategy was to be followed regarding monetary targeting in general, although the Board reaffirmed a long-run commitment to return to reasonable price stability by reducing the trend of monetary growth.

With regard to the short-run operating procedures, the automatic control implicit in nonborrowed reserves targeting gave way to a more judgmental approach. This shift led in early 1983 to the implementation of the borrowed reserves procedure, which is still in place today.

The language of the FOMC policy directive was modified slightly, to reflect the emphasis of the new procedure. For example, the principal instruction of the directive issued following the September 1987 meeting stated that "the Committee seeks to maintain the degree of pressure on reserve positions." By "pressure on reserve positions," the FOMC generally means the amount of reserves supplied through adjustment plus seasonal borrowing.

The FOMC sets a borrowing objective that it views as consistent with progress toward its goals for the monetary aggregates and the economy. The demands for required and excess reserves are forecast just as they were under the nonborrowed reserves procedure. The key difference is that, absent a discretionary change in the borrowing objective, subsequent movements in the demand for reserves are usually fully accommodated by changes in nonborrowed reserves, a procedure that permits the assumed level of borrowing to be realized.

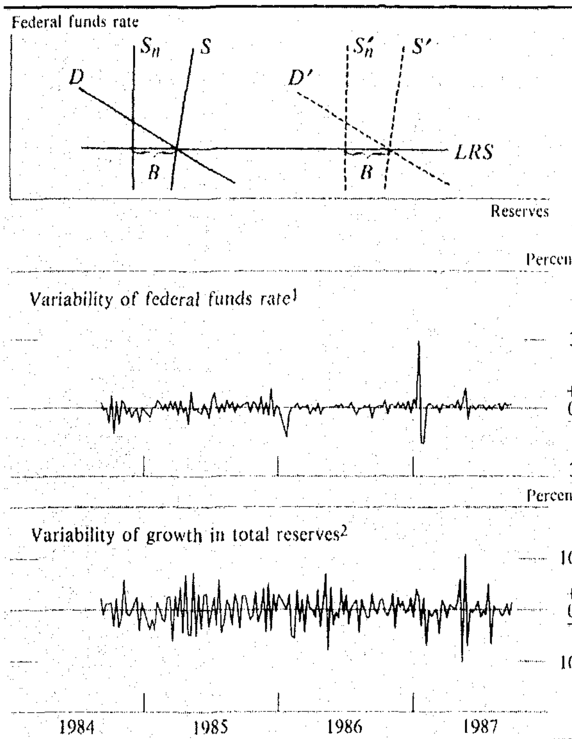
This operating procedure is depicted in the top panel of chart 7. If the demand for reserves, initially at D, shifts to D', the Trading Desk will accommodate it, thereby shifting the supply of nonborrowed reserves from S_n to S_n'. The corresponding supply schedule for total reserves is S', which includes borrowing of B. In effect, the long-run supply curve for reserves is the line LRS, and the federal funds rate is not affected by the increase in the demand for reserves.

In practice, the federal funds rate will vary in the short term. It will do so in response to a variety of factors, including changes in the willingness of depositories to use discount credit or in Federal Reserve policy, or shifts in the demand function. This observation is confirmed by the data plotted in the middle panel of chart 7. It shows that under this procedure the federal funds rate has been somewhat less stable than it was under the direct federal funds targeting approach (chart 5), but somewhat more stable than it was under the nonborrowed reserves targeting approach (chart 6).

While there are no marked differences among the fluctuations in reserves experienced under the three procedures, the fluctuations are slightly larger under the borrowed reserves procedure than they are under nonborrowed reserves targeting (see the bottom panel of chart 7.)

The borrowed reserves procedure has been a useful tool in implementing monetary policy. But, in contrast to nonborrowed reserves targeting, it has no automatic mechanism for controlling monetary growth. If money deviates from its forecast path, a discretionary change in the borrowing assumption is required to bring about the changes in money market conditions that will restore the aggregates to the path.[1]

7. Borrowed reserves procedure



S_n = Supply of nonborrowed reserves.
S = Supply of total reserves.
D = Demand for required plus excess reserves.
LRS = Long-run supply.
B = Borrowed reserves.

1. Changes in the average weekly federal funds rate (in percent) are plotted as deviations from the mean change over the period.
2. The weekly growth rates of total reserves (in percent) are plotted as deviations from the average weekly growth rate over the period.

To be sure, monetary growth has varied considerably since the procedure was instituted in late 1982: the annual growth rates of M1 and M2 have ranged from 5 to 16 percent and from 4 to 12 percent respectively. Nevertheless, the inflation rate has remained quite steady, averaging less than 4 percent per year since 1982, as measured by the fixed-weight GNP price index. During this period, the country has also enjoyed its longest peacetime expansion.

1. Changes in the borrowing assumption are made at times for technical reasons—that is, because of temporary disturbances in the relationship of borrowing to the spread between the federal funds rate and the discount rate. For example, problems with wire transfers could result in large short-term funding needs, or a holiday may cause an end-of-period surge in borrowing to spill over into the next reserve-maintenance period. The amount of such "special-situation borrowing" is largely unrelated to the spread, and the Desk treats it as a part of nonborrowed reserves for the purpose of policy implementation. In addition, the willingness of depositories to borrow from the discount window has sometimes changed, so that the borrowed reserves schedule has shifted. When such shifts persist, the FOMC may adjust its borrowing assumption.

Operating Adjustments between Meetings

The FOMC can modify the borrowing assumption it has set before the next meeting of the Committee for policy purposes, as well as for technical reasons. To guide the Desk's conduct of open market operations between meetings, the policy directive identifies the key variables whose performance could occasion a discretionary change in the degree of reserve pressure indicated by the principal instruction of the directive. Such variables include not only the behavior of the monetary aggregates, but also the pace of economic activity, inflationary pressures and inflation expectations, conditions in financial markets, and the foreign exchange value of the dollar. FOMC members often differ on the relative importance of these factors. The table indicates the consensus view by showing the order in which conditioning variables have appeared in recent policy directives.

RECENT POLICY ISSUES

As the table indicates, monetary growth and the strength of the business expansion were mentioned first among the variables conditioning the degree of reserve pressure the FOMC sought during 1985 and 1986. Because of concern about the persisting overvaluation of the U.S. dollar relative to the currencies of the country's major trading partners, conditions in foreign exchange markets assumed higher priority beginning in the late summer of 1985. In September of that year, the G-5 countries announced a new program of concerted currency interventions to promote a downward adjustment of the dollar. The dollar declined, sharply at times, throughout 1986.

In February 1987, the monetary authorities of the countries with the most important currencies announced that they would cooperate closely to help stabilize exchange rates around the levels then prevailing. Shortly thereafter, the dollar again came under sharp downward pressure, accompanied by higher inflation expectations and by fears of a withdrawal of foreign private investment and of a free fall in the currency's value. As a result, long-term interest rates, which had fallen for nearly three years, began to rise. As the table reveals, developments in foreign exchange markets were given the highest priority in conditioning reserve pressures at the FOMC meeting of March 1987. In the following weeks, as concerns mounted about the inflationary consequences of further declines in the dollar, cur-

1. Order in which policy variables conditioning reserve pressure appeared in the FOMC directive

Meetings	First	Second	Third	Fourth	Fifth
May 1985 to July 1985	Monetary aggregates	Strength of expansion	Inflation	Credit market conditions	Exchange rates
August 1985 to April 1986	Monetary aggregates	Strength of expansion	Exchange rates	Inflation	Credit market conditions
May 1986	Monetary aggregates	Strength of expansion	Financial market conditions	Exchange rates	...
July 1986 to February 1987	Monetary aggregates	Strength of expansion	Exchange rates	Inflation	Credit market conditions
March 1987	Exchange rates	Monetary aggregates	Strength of expansion	Inflation	Credit market conditions
May 1987	Inflation	Exchange rates	Monetary aggregates	Strength of expansion	...
July 1987	Inflation	Monetary aggregates	Strength of expansion	...	...
August 1987 to September 1987	Inflation	Strength of expansion	Exchange rates	Monetary aggregates	...
November 1987	Financial market conditions	Strength of expansion	Inflation	Exchange rates	Monetary aggregates
December 1987	Financial market conditions	Strength of expansion	Inflation	Exchange rates	Monetary aggregates

rency interventions were combined with a tightening of pressure on reserve positions and rising short-term interest rates in the United States. At the same time, monetary policy abroad was eased.

In the summer of 1987, concern about the possibility of accelerating inflation and of rising inflation expectations intensified. The economy then was growing fast enough to stimulate high and rising rates of resource utilization. In September, the Committee again decided to seek some firming of pressures on reserve positions, and the discount rate was increased.

When stock prices collapsed in mid-October, the resulting disturbances required a policy stance that ensured the liquidity and stability of the financial system. The FOMC not only eased the pressure on reserve positions, but also temporarily modified operating procedures to help calm financial markets. The modified approach gave more weight than usual to money market conditions, thereby minimizing the risk that the Committee's intentions would be misinterpreted. This shift in emphasis was also considered necessary because the normal relationship between discount window borrowing and the federal funds rate was apparently disrupted. In that period, fluctuations of the funds rate were held within a narrower band.

The FOMC recognized that open market operations might need to be especially sensitive and adaptable to changes in market conditions or in the economy. Further ease might be required to avoid a sharp decline in business activity. On the other hand, there were also risks that reductions in interest rates would intensify downward pressure on the dollar and thereby might trigger another crisis in domestic and international financial markets. Therefore, citing the "sensitive conditions in financial markets" and the "uncertainties in the economic outlook," the policy directives issued at the November and December FOMC meetings called for "a special degree of flexibility" in open market operations.

These changes in operating procedures and priorities were temporary, and as a measure of calm has been restored to financial markets and the relationship between reserve positions and money market conditions has returned closer to normal, the FOMC gradually has reverted to its former emphasis on reserve objectives.

Concluding Observations

The ultimate goal of monetary policy—a financial environment conducive to noninflationary economic growth—has remained unchanged over time. However, over the years the Federal Reserve has adapted its operating procedures in a flexible way to take account of developments in the economic and financial environment. These changes have been made to help the Federal Reserve to pursue better its long-run objective of noninflationary growth.

Treasury and Federal Reserve Foreign Exchange Operations

This quarterly report, covering the period February through April 1988, provides information on Treasury and System foreign exchange operations. It was prepared by Sam Y. Cross, Manager of Foreign Operations of the System Open Market Account and Executive Vice President in charge of the Foreign Group of the Federal Reserve Bank of New York.[1]

The dollar traded in a narrower range during the three-month period ending in April than it had in recent reporting periods, remaining above the record lows seen at the beginning of the year against the mark and the yen. On balance, however, from the end of January to the end of April, the dollar declined 1½ percent on a trade-weighted basis in terms of the other Group of Ten currencies, as measured by the index developed by the staff of the Federal Reserve Board. In particular, the dollar declined ¼ percent against the German mark, 2¼ percent against the Japanese yen, 3¾ percent against the Canadian dollar, and 5¾ percent against the British pound.

Among the main influences on the dollar during the period were the following: changing expectations about the U.S. economic outlook; shifting assessments about the progress of external adjustment, prompted by data on the U.S. trade deficit; growing perceptions in the market that official policy actions, including exchange market intervention, would be taken as needed to foster greater stability of exchange rates; and improving interest rate differentials for the dollar.

There were two brief episodes of U.S. intervention to support the dollar in the foreign exchange market during the period. The U.S. authorities first intervened toward the end of March, when the dollar came under selling pressure as the Japanese fiscal year was coming to a close. The second episode occurred in mid-April, when the dollar declined after the release of disappointing U.S. trade statistics for February.

1. The charts for the report are available on request from Publications Services, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

February to Early March

During February and early March, market participants sensed that the exchange markets for the dollar were relatively well balanced. They saw the extent of foreign participation in the U.S. Treasury's quarterly refunding in early February as an indication that private investors had regained sufficient confidence in dollar-denominated assets to finance the large U.S. current account deficit primarily by private capital inflows. They were also inclined to believe that the monetary authorities of the major industrial nations were firmly committed to fostering exchange rate stability. Traders had been impressed by the coordinated intervention operations conducted by the United States and other authorities at the beginning of the year. Dealers continued to expect that the United States and the other Group of Seven (G-7) authorities would intervene promptly and forcefully if necessary to counter any renewed sharp decline in the dollar. Market participants also interpreted Chairman Greenspan's testimony to the Congress as indicating that the U.S. monetary authorities would pay attention to exchange rates in administering monetary policy.

More fundamentally, many market participants became more confident that economic conditions warranted the dollar's staying around current levels for the months ahead. Though there were still some lingering concerns about the possibility of recession, traders were impressed with the resilience of U.S. output and employment after the October break in stock prices, and the prospect that interest differentials would move adversely for the dollar began to look increasingly remote. At the same time, some moderation of growth of U.S. domestic demand was seen as helping to curb the growth of U.S. imports and thereby sustaining the needed adjustment in the U.S. trade balance. The mid-February report that the U.S. trade deficit had narrowed again in December, this time to $12.2 billion, seemed to provide evidence that the economic adjustment process was on track.

Immediately after the release of these trade statistics, the dollar, after trading within a fairly narrow range in early February, moved up to reach its highs for the three-month period of DM1.7250, Y132.00, and $1.7275 against the pound on February 12. The dollar then drifted lower against these three currencies over the next several weeks and on Friday, March 4, closed in New York at DM1.6895, Y128.75, and $1.7750 respectively, almost unchanged from the levels at the beginning of the period.

With the dollar trading within a fairly narrow range against these currencies during February and early March, investors shifted funds to currencies that offered high yields. The Canadian dollar was one of the currencies to benefit as investors were attracted by favorable interest rate differentials relative to the U.S. dollar and the Bank of Canada's strong commitment to a further declaration of Canadian inflation.

Early to Mid-March

During early March several developments led market participants to question the official resolve to foster stability in exchange rates. On March 7, the British authorities chose not to resist the rise of sterling above the DM3.00 level against the mark, a level the Bank of England had defended with heavy intervention through much of the past year. Some market participants had apparently assumed that Britain's efforts to keep sterling from appreciating against the mark were associated with the commitments of the G-7 to foster exchange rate stability more generally. Britain's decision was, therefore, seen by those market participants as an indication of a move away from coordination of G-7 policy to stabilize exchange rates. A few days later, when the Bank of France temporarily let the franc decline within the European Monetary System in the face of a large order, some market observers saw this action as possible further evidence that the G-7 authorities might henceforth be prepared to allow more exchange rate movement.

About the same time, some market participants began to worry that the latest economic statistics were pointing to a new threat to the process of economic adjustment. Most notably, the report of a larger-than-expected increase in U.S. nonfarm employment in February, together with data showing increased consumer confidence and a rapid expansion of consumer credit, suggested that U.S. domestic demand was indeed stronger than had been previously expected. Market participants were concerned that, if these developments continued, the U.S. economy could soon reach capacity constraints that would choke off further export growth and provide new impetus to a rise in imports. In this environment, the dollar traded downward in early March, declining sharply against the pound and more gently against other foreign currencies.

The dollar's decline against most major foreign currencies paused in mid-March. Chairman

1. Federal Reserve reciprocal currency arrangements

Millions of dollars

Institution	Amount of facility, April 30, 1988
Austrian National Bank	250
National Bank of Belgium	1,000
Bank of Canada	2,000
National Bank of Denmark	250
Bank of England	3,000
Bank of France	2,000
German Federal Bank	6,000
Bank of Italy	3,000
Bank of Japan	5,000
Bank of Mexico	700
Netherlands Bank	500
Bank of Norway	250
Bank of Sweden	300
Swiss National Bank	4,000
Bank for International Settlements	
Dollars against Swiss francs	600
Dollars against other authorized European currencies	1,250
Total	30,100

2. Drawings and repayments by foreign central banks under special swap arrangement with the U.S. Treasury[1]

Millions of dollars; drawings or repayments (−)

Central bank drawing on the U.S. Treasury	Amount of facility	Outstanding, February 1, 1988	February	March	April	Outstanding, April 29, 1988
Central Bank of the Argentine Republic	550.0	(2)	390.0	160 −390	0	160.0

1. Data are on a value-date basis.
2. No facility.

Greenspan reiterated in congressional testimony the need to be alert to the possibility of a reemergence of inflation and suggested the U.S. monetary authorities might adopt a tighter monetary stance if needed. At the same time, interest rates rose in the United States, and short-term interest rate differentials favoring the dollar began to widen. Market observers were also reassured of the intentions of the G-7 monetary authorities to maintain stability in the exchange markets when the Bank of England lowered its money market dealing rates ½ percentage point on March 17 in a move thought to be designed to curb the attractiveness of sterling in the exchange market. Previously, Secretary Baker had indicated in congressional testimony that sterling's rise above DM3.00 was not inconsistent with the December 22 statement of the G-7. Of the major currencies, only the Canadian dollar continued to rise against the U.S. dollar as the former continued to benefit from fairly wide favorable interest rate differentials.

LATE MARCH

But in late March, the dollar did not regain the buoyancy it had demonstrated earlier. Although the trade figures for January showed that the U.S. trade deficit had declined again for the third consecutive month, the exchange market reaction to the statistics was subdued. Indeed, several market participants expressed concern that future trade figures would not show much improvement because of the strength of demand in the United States. In this environment, the dollar quickly lost the boost it had received immediately on the publication of the figures.

For the rest of March, market participants remained skeptical about the outlook for the dollar. Throughout this period, the Japanese yen was the currency that gained the greatest attention. Market observers were most impressed with the apparent ability of the Japanese economy to adjust. A boost in domestic demand had spurred the economy to grow at an annual rate of 7 percent during the fourth quarter of 1987, even as the Japanese trade surplus was declining in real terms. Traders also believed that the yen was temporarily being held down ahead of the Japanese fiscal year-end on March 31 because of certain tax and bookkeeping considerations. Market participants expected that the underlying strength of the Japanese economy and continuing balance of payments imbalances would cause the yen to move substantially higher once the fiscal year-end passed. Moreover, some market participants worried that Japanese financial institutions would sell their dollar assets soon after the year-end to shift their investments either to currencies with less currency risk or higher yields, or back into yen. As March came to a close and it became apparent that the accounting constraints were becoming less binding, traders moved to establish long yen positions against both the dollar and the mark.

Under these circumstances, the dollar resumed its decline in late March, dropping especially against the yen. By Friday, March 25, foreign exchange market conditions had deteriorated significantly, and a sharp decline in U.S. equity prices was interpreted in the market as evidence that Japanese investors had begun to liquidate dollar assets. In these circumstances, the U.S. monetary authorities intervened to limit the dollar's decline and to reassure the market, purchasing dollars against yen that day and again after the weekend on March 28. On March 29, when the dollar was moving higher, the Trading Desk of the Federal Reserve Bank of New York made further dollar purchases against yen to encourage the dollar's rise. Market participants were reassured by the intervention, and the dollar began to firm. The Desk's operations on these three days, totaling $318 million against yen, were undertaken in cooperation with the Bank of Japan.

APRIL

Foreign exchange markets in Europe and New York quieted with the approach of the long Easter weekend early in April. Nonetheless, market participants continued to express the view that Japanese investors would be unwilling to invest heavily abroad in their new fiscal year. Therefore, they questioned whether Japanese and possibly other foreign investors would have enough confidence in dollar-denominated assets to continue financing the U.S. current account deficit in the future. Thus, the dollar resumed its decline briefly and reached its lows for the three-month period of DM1.6480 and Y123.40 in Far Eastern trading on April 4. With the dollar also declining to $1.8950 against the pound, it was down 2, 3½, and 6¾ percent respectively from its opening levels in early February.

In the event, the expected heavy dollar sales did not materialize. Moreover, U.S. interest rates had risen further after the release on April 1 of data indicating an unexpectedly large increase in U.S. nonfarm employment for March. Market participants began to reassess the outlook for the dollar and to reconsider whether their earlier concerns about a lack of investor interest in dollar-denominated assets were overdone. As market participants became more assured that private capital inflows would continue to finance the U.S. current account deficit, the dollar started to move higher.

The dollar continued to move higher in subsequent days. As evidence of sustained U.S. economic growth accumulated, market perceptions that the U.S. monetary authorities had greater scope to tighten monetary policy strengthened. The larger-than-expected employment figures for March were followed on April 13 by a report of strong U.S. retail sales for the same month. In this context, interest rate differentials favoring the dollar widened further, and market participants interpreted the rise in federal funds rates in early April as an indication of a slight tightening in Federal Reserve policy.

Confidence in the firmness of international commitments to foster exchange rate stability was also growing. Traders looked forward to the forthcoming meeting of the G-7 industrial nations for a reaffirmation of official cooperation to stabilize exchange rates. On April 13, the official communiqué of the G-7 welcomed recent evidence that a correction of the world's external imbalances was under way and, as expected, reaffirmed the commitment of the G-7 to exchange rate stability.

A test of this commitment came the next day. To be sure, the announcement that the U.S. trade deficit had widened in February was a significant disappointment to the market and triggered an abrupt decline in dollar exchange rates. But market participants noted that the monetary authorities of the United States and other countries quickly intervened to stabilize the dollar. The U.S. monetary authorities bought a total of $240 million against marks and $260 million against yen on April 14 and 15 as the dollar briefly tested on April 14 its earlier low against the yen. The prompt and concerted response by the U.S. and foreign monetary authorities reassured the market. Consequently, after having edged slightly lower to DM1.6555 as well as to a three-month low of $1.9065 against the pound on April 18, the dollar soon stabilized.

For the remainder of April, the dollar was underpinned by expectations that U.S. interest rates might continue to rise. Market participants perceived an increasing convergence of the monetary policy stance needed for domestic stability and that needed for external adjustment. News of a sharp rise in U.S. consumer prices during March, followed by evidence of strong demand in the preliminary first-quarter U.S. GNP figures, increased market expectations that the Federal Reserve might tighten monetary policy. Statements by several Federal Reserve officials, expressing concerns about the potential risks for inflationary pressures of relatively tight labor markets and capacity constraints in some industries, reinforced these expectations. In these circumstances, the dollar moved gradually higher in late April. It also began to recover against the Canadian dollar from the low of CAN$1.2213 reached on April 20 to close the period at CAN$1.2285. The dollar closed the period at DM1.6775, Y125.10, and $1.8765 against the pound.

During the three-month period, the U.S. monetary authorities purchased a total of $818.0 million dollars, of which $240.0 million was against German marks and $578.0 million was against Japanese yen. The Federal Reserve provided the $240 million equivalent of German marks as well as $60 million equivalent of Japanese yen. The Treasury's Exchange Stabilization Fund (ESF) provided the remaining $518 million equivalent of Japanese yen.

As in the previous period, the U.S. authorities acquired yen in various ways, including $425.2 million equivalent of yen received through the sale of SDRs to other monetary authorities and $2.5 million equivalent of yen received as repayment of borrowings from the United States under the Supplemental Financing Facility of the International Monetary Fund.

In the February–April period, the Federal Reserve and the ESF realized profits of $89.9 million and $50.9 million respectively from foreign currency operations. As of the end of April, cumulative bookkeeping, or valuation gains on outstanding foreign currency balances, amounted to $1,753.6 million for the Federal Reserve and $1,318.2 million for the ESF. These valuation gains represented the increase in the dollar value of outstanding currency assets valued at end-of-period exchange rates, compared with the rates prevailing at the time the foreign currencies were acquired.

3. Net profits or losses (–) on U.S. Treasury and Federal Reserve current foreign exchange operations[1]

Millions of dollars

Period	Federal Reserve	U.S. Treasury Exchange Stabilization Fund
February 1, 1988–April 30, 1988	89.9	50.9
Valuation profits and losses on outstanding assets and liabilities as of April 29, 1988	1,753.6	1,318.2

1. Data are on a value-date basis.

The Federal Reserve and the ESF regularly invest their foreign currency balances in a variety of instruments that yield market-related rates of return and that have a high degree of quality and liquidity. A portion of the balances is invested in securities issued by foreign governments. As of the end of April, holdings of such securities by the Federal Reserve amounted to $1,024.9 million equivalent, and holdings by the Treasury amounted to the equivalent of $945.8 million.

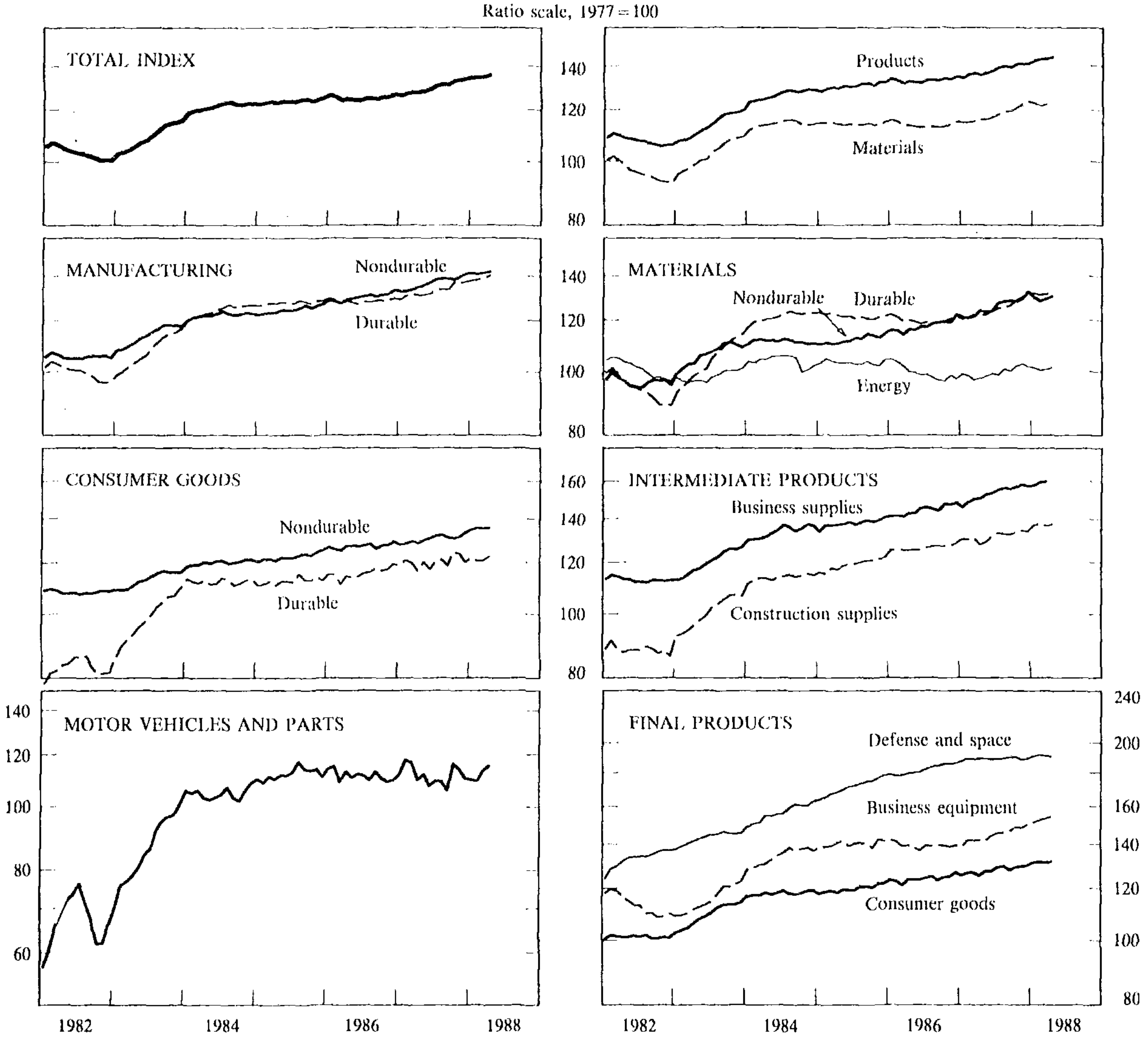
On February 23, 1988, the U.S. Treasury through the ESF provided a $550 million short-term financing facility to Argentina. This facility provided for two separate drawings: the first for an amount of up to $390 million and the second for an amount of up to $160 million. The Central Bank of the Argentine Republic drew $390 million on February 24 and the additional $160 million on March 11. The first drawing of $390 million was repaid on March 24. □

Industrial Production

Released for publication May 16

Industrial production increased 0.7 percent in April after having risen a revised 0.2 percent in March. Output of business equipment rose sharply again in April, continuing the rapid advance that began nearly a year earlier. Production of consumer goods picked up in April, owing largely to advances in auto assemblies and output of home goods. Materials production increased sharply and has now retraced the declines that occurred during the first two months of this year. At 135.6 percent of the 1977 annual average, the total index in April was 6.4 percent higher than it was a year earlier.

In market groups, production of consumer goods was up 0.5 percent in April as auto assemblies rose to an annual rate of 7.0 million units



All series are seasonally adjusted. Latest figures: April.

Group	1977 = 100		Percentage change from preceding month					Percentage change, Apr. 1987 to Apr. 1988
	1988		1987	1988				
	Mar.	Apr.	Dec.	Jan.	Feb.	Mar.	Apr.	
	Major market groups							
Total industrial production	**134.7**	**135.6**	**.5**	**.4**	**.0**	**.2**	**.7**	**6.4**
Products, total	143.6	144.3	.2	1.0	.5	.1	.5	6.3
Final products	141.9	142.6	.4	1.0	.4	.1	.5	6.1
Consumer goods	131.2	131.9	.3	1.1	.2	−.2	.5	5.1
Durable	120.8	122.3	−2.9	1.2	−.8	.0	1.3	4.8
Nondurable	135.1	135.4	1.4	1.1	.5	−.2	.2	5.2
Business equipment	153.2	154.5	1.0	.9	.8	.6	.9	8.8
Defense and space	190.9	190.6	.1	.9	.5	−.3	−.1	.8
Intermediate products	149.3	150.1	−.5	1.1	.9	−.2	.6	7.0
Construction supplies	136.6	137.2	−.3	2.3	.6	−.8	.4	7.0
Materials	122.5	123.6	1.0	−.6	−.7	.4	.9	6.6
	Major industry groups							
Manufacturing	140.0	140.9	.7	.3	.1	.3	.7	6.4
Durable	138.9	140.1	.4	.5	.3	.4	.9	7.0
Nondurable	141.5	142.0	1.2	.1	−.1	.2	.4	5.5
Mining	102.4	103.8	.1	−1.2	−1.6	.7	1.3	5.3
Utilities	114.4	113.5	1.3	3.1	.5	−1.1	−.8	7.1

NOTE. Indexes are seasonally adjusted.

from the 6.6 million unit rate in March. Output of home goods, particularly appliances, rebounded 1.5 percent in April; but because of sizable declines earlier this year, output still was below its fourth-quarter average. The continued, robust increases in production of business equipment have been widespread; in April, the largest gains occurred in automobiles for business use and in manufacturing equipment. Output of construction supplies, which surged in January, has changed little, on balance, during the past three months. The recent gains in the production of materials mainly reflect strength in the output of parts for durable consumer goods and for equipment, as well as a rebound in the output of nondurables, notably chemicals and textiles.

Total industrial production—Revisions

Estimates as shown last month and current estimates

Month	Index (1977=100)		Percentage change from previous months	
	Previous	Current	Previous	Current
January	134.4	134.4	.4	.4
February	134.4	134.4	.0	.0
March	134.6	134.7	.1	.2
April	...	135.6	...	.7

In industry groups, manufacturing output increased 0.7 percent in April. Durable manufacturing rose nearly 1 percent last month, reflecting widespread gains. Nondurable manufacturing was up 0.4 percent after having changed little over the previous three months. Mining output increased sharply in April, but production at utilities declined.

Statements to Congress

Statement by Wayne D. Angell and Edward W. Kelley, Jr., Members, Board of Governors of the Federal Reserve System, before the Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban Affairs of the U.S. House of Representatives, May 3, 1988.

We appreciate this opportunity to discuss and review the Federal Reserve System's 1988 expenses and budget with this subcommittee. Governor Kelley will be discussing the Board's budget, and my comments today will focus primarily on the Reserve Bank budgets and on several major initiatives that I believe will assist the Reserve Banks in controlling costs and in improving the quality of their services in the future. I will also have some brief comments on the Federal Reserve System as a whole.

The Board has recently made available to the public and to this subcommittee copies of our publication entitled *Annual Report: Budget Review, 1987–88* presenting detailed—but readable and convenient—information about spending plans for 1988. Some of the attached tables have been updated for an actual experience in 1987, and, therefore, small variations exist from data in that document.[1]

For 1988, the Federal Reserve System has budgeted operating expenses of $1,335.7 million, an increase of 4.5 percent over 1987 actual expenses. Before getting to the substance of our 1988 budget, I would remind the subcommittee of two aspects of Federal Reserve System operations that affect our budget in unusual ways. First, 40 percent of System expenses arise from services provided to depository institutions for which, by law, we charge fees adequate to cover all costs. Since additional costs of these services are more than covered by additional revenues, any increases in costs do not result in reduced earnings returned to the U.S. Treasury. In fact, since fees cover actual costs plus imputed taxes and return on capital (what we call the private sector adjustment factor) and the cost of float, our revenue from priced services offsets 49 percent of all our spending. Second, many fiscal agency operations are provided to the Treasury Department and other agencies on a reimbursable basis. Altogether, 58 percent of our total expenses are either recovered through pricing or are reimbursable.

1. The attachments to this statement are available on request from Publications Services, Board of Governors of the Federal Reseve System, Washington, D.C. 20551.

Historical Overview

It may be helpful to put the budget for 1988 in perspective by sketching the 10-year history of System expenses. Since 1978, Federal Reserve expenses increased at an average annual rate of 6.6 percent; System employment decreased by 442 or 1.8 percent; and volume increased 36 percent through 1987. Unit costs did increase as Federal Reserve volumes adjusted to pricing after implementation of the Monetary Control Act.

Since 1983, when the transition to pricing was completed, unit cost for the composite of all functions has declined 1.4 percent per year on average even while improvements have been made in the quality of services.

For priced services the decline has been particularly sharp, especially in the electronic payment areas in which equipment is more readily substituted for human resources and in which volume growth has been the greatest. In Commercial Checks, in which there has been a significant effort to improve the quality of services, there has been an increase in unit cost of 1.0 percent per year since 1983, although in the most recent year-over-year comparison, unit cost fell 2.2 percent.

For nonpriced cash operations—involving the distribution of currency and coin—the decline in unit cost has also been sharp; since 1983 the average decline has been 5.2 percent per year. In fiscal agency operations, also nonpriced, there has been an increase of 1.2 percent per year since 1983 but a significant decline in unit cost of 4.1 percent in the past year.

Recently, 1987 over 1986, we have seen a decrease in unit costs in all individual service areas as well as in the composite.

The impact of the long-term productivity gain is perhaps best seen in our trend in total Reserve Bank employment. In spite of significant growth in volumes of operations, major transition adjustments after new legislation, and rapid changes in the banking industry, actual employment has decreased from 1978 to 1987 by 469 employees.

In presenting our spending plans for 1988, I would like to mention that both the Reserve Bank budgets and the Board's budget must be approved by the Board of Governors and that Reserve Bank budgets must first be reviewed by the Committee on Federal Reserve Bank Activities. Governor Kelley oversees the Board's budget and I will turn to him for that discussion.

Board Budget

I am happy to discuss with you today the 1988 budget of the Board. Since the budget process of the Board has been discussed in testimony provided in earlier years, and since it is thoroughly covered in the *Annual Report: Budget Review, 1987–88*, which was distributed to you earlier this year, I will not go over the process in detail. Instead I will limit myself to the major themes of the 1988 budget, some trend information you may find useful, and a discussion of one of the more significant problems facing the Board.

The Board's budget is very carefully reviewed by my colleagues on the Board, and I am even more deeply involved in its preparation. I mention this to assure you that we have a very thorough process and that we use the budget as a key planning tool for operations. We think this effort is justified by the low levels of growth in the Board's expenses during a decade in which there has been significant growth in the volume of our work.

In this regard I would like to go over some basic data about the Board's budget. In December 1987 the Board approved a 1988 budget of $90.6 million. This amount was 5.0 percent greater than our 1987 expenses. While this increase was somewhat higher than the increases in the two preceding years, it was necessary in light of new initiatives facing the Board and some areas in which it was necessary to commit additional resources. There was no net increase in the number of positions in the 1988 budget.

Over the past 10 years the Board's expenses have grown an average of 6.4 percent per year. In real terms the increase has been less than 1 percent per year. The numbers of positions and employees provided in the 1988 budget are virtually identical to the numbers at the end of 1978 in spite of dramatic increases in the Board's work load. Examples of legislation that has affected the work load include the Financial Institutions Regulatory and Interest Rate Control Act (FIRA), the International Banking Act, and the Monetary Control Act, of which the latter probably had the greatest impact. A legislative item affecting the 1988 budget was the Expedited Funds Availability (EFA) title of the Competitive Equality Banking Act. Concerns, such as problems in the banking industry, the debt situation in less developed countries, and our growing foreign involvement, have also had an impact on our work load.

We have been able to hold the line on expenses and employment because of the dedication of our staff and an aggressive program to improve productivity through automation. As I mentioned earlier, the 1988 budget is 5.0 percent more than 1987 expenses. Much of this increase was for initiatives that could not be deferred. Factors leading to the increase in expenses included the following: continuing our efforts to automate key functions to improve productivity and our ability to respond rapidly to certain situations; investing in a program to reduce the costs of our currency distribution procedures; conducting special surveys to update and expand the volume of information available for monetary and economic policymaking; implementing the Competitive Equality Banking Act; and continuing our efforts to enhance the supervision function.

During 1987 the Board formally created an Office of the Inspector General (IG). This Office has nine positions; however, five of these positions were formerly assigned to our Internal Audit and Operations Review Programs. These programs were consolidated under the control of the IG. The creation of the IG Office was another factor in the size of the 1988 budget increment; however, we feel the Office will further strengthen the management control system at the Board.

The 1988 increment was not spread evenly throughout the Board's four functional areas. While some expenses, such as the 2 percent general pay increase and increases in health insurance rates, affected all four functions evenly, the initiatives approved in the budget had an uneven impact on the four areas.

In the Monetary Policy area the budget increment was 6.2 percent higher than 1987 actual expenses. This is identical to the average annual rate of increase from 1978 to 1988. The main causes of the 1988 increase were the surveys discussed earlier and incremental operating expenses for a work station network that was installed during 1987 in our Division of Research and Statistics. There was a net increase of one position in this area to absorb some of the increasing work load associated with the debt problems of less developed countries and with the nation's trade deficit.

The budget for the Supervision and Regulation area increased 2.1 percent. This increase is less than the 6.1 percent average annual rate of increase from 1978 to 1988. This increase supports three new positions to provide enhanced data management and analysis in the supervision area. The increasing complexity of the nation's financial industry requires that we take every opportunity to improve our ability to respond to complex questions rapidly.

The Board's budget to provide Services to Financial Institutions and the Public increased 31.8 percent in 1988, which is substantially higher than the average annual increase of 5.2 percent per year from 1978 to 1988. This is the smallest functional area at the Board. The major factor causing the 1988 increase is an automation initiative to improve the management of currency purchases and distribution. This improved management will allow us to reduce the volume of currency we purchase and lower transportation costs. Annual savings in the Currency Budget will more than offset the one-time cost of this increase. There are also costs associated with the Board's implementation of the provisions of the Competitive Equality Banking Act for improved funds availability.

The budget for System Policy Direction and Oversight increased 2.4 percent. This increase is substantially lower than the 7.6 percent average annual rate of increase experienced over the past 10 years. The 1988 increase is tied to the incremental costs associated with establishing the Office of the Inspector General in late 1987.

Overall, it has been our objective to limit expenses while ensuring that we are able to carry out our very important responsibilities. I believe that through careful management we have struck an appropriate balance.

A problem discussed in our testimony last year was our ability to attract and retain a high-quality staff. While we remain convinced that at this time we have such a staff, the growing disparity between our salary structure and that of competing institutions poses a threat to our long-term ability to maintain that quality.

As an interim step to combat the problem, we recently extended the salary ranges for several of our Federal Reserve grades. To date these adjustments have been quite limited, applying primarily to economists' and attorneys' entry salaries. At the same time, to avoid an unacceptable degree of compaction in the salary ranges for these job families between new hires and current staff, we have made some modest salary adjustments. We will continue to monitor this situation so that in the future we can, with confidence, assure this committee that we remain able to recruit and retain the first-rate staff that America's central bank must have.

At this point, I would return the presentation to Governor Angell for a discussion of the Reserve Bank budgets.

Reserve Bank Budgets

Planning for 1988 Reserve Bank budgets began early in 1987, when the staff developed a budget objective based on forecasts of Reserve Bank work loads and productivity. An objective to increase System expenses by no more than 4.9 percent, excluding expenses associated with EFA and a special research project that will be discussed later, was approved by the Board in July and was used by the Reserve Banks in developing their plans and budgets. At each of the 12 Reserve Banks, the proposed 1988 budget was given rigorous review (with the budget objective as guidance) by a committee of senior Bank officials, the First Vice President, and the President. The budget, as modified by these reviews, was also reviewed and approved by the Reserve Bank's Board of Directors, many of whose members are responsible in their private capacity for managing large organizations. In the fall, Reserve Bank budgets were submitted to the Board of Governors where they were analyzed and reviewed by the Committee on Federal Reserve Bank Activities, which held a separate meeting with each Reserve Bank President on the proposed budget. Both Governor Kelley and I serve on this committee.

As a result of the review process, the total budgeted expense of the Reserve Banks—both priced and nonpriced—was held to an increase of 4.3 percent over estimated 1987 expenditures. (Over actual 1987 expenses, the increase is now expected to be 4.5 percent since actual expenses for 1987 were less than those estimated at the time budgets were reviewed.) Again these increases exclude the cost of EFA and the special research project. The Reserve Banks' 1988 budgets are affected by the following System initiatives:

1. *Automation.* Automation initiatives in the System will add $3.9 million to operating costs in 1988. These initiatives are a direct result of the System's decision to put more emphasis on improving the reliability of its electronic payments services.

2. *Another part of this effort is contingency arrangements.* Back-up facilities are being established to handle data processing contingencies for critical operations including the transfer of funds and securities; such facilities will cost $2.9 million more in 1988 than they did in 1987. The most significant project is in the New York District and accounts for $2.6 million of the increment.

3. *Increased supervision.* The guidelines of the Board of Governors regarding the frequency of examinations and inspections of banks and bank holding companies and the demands for oversight of these institutions will continue to require more staff and higher operating costs in supervision and regulation: costs will rise $3.5 million in 1988, and employment in the supervision service will increase by 66 the average number of personnel (ANP), to 2,213 ANP.

4. *Improved cash operations.* Growth in the volume of currency handled by the Reserve Banks has provided an incentive for the Federal Reserve to seek more efficient ways of processing currency. These initiatives will result in an increase in the 1988 budget of $2.0 million and 50 ANP.

5. *Programs for the U.S. Treasury.* Expenses for centrally provided Treasury services are budgeted to increase $4.7 million, or 24.3 percent, with an increase of 82 ANP. Much of the increase is due to the first full year of operations of the Treasury Direct Access Book-Entry System (Treasury Direct) and the addition of reinvestment activity to that system. Also, the Federal Reserve is continuing the development of a Public Debt Accounting and Reporting System at an increase in cost of $0.3 million and is managing two savings bonds projects at a total cost of $0.4 million in 1988.

6. *Facilities.* Building projects will cost $6.6 million in 1988. Most of these expenses are associated with decisions made before 1987. New building projects account for about $1.4 million.

The total increase in 1988 expenses for these major initiatives is $23.6 million in 1988. If we were to exclude costs for these projects, the 1988 budget for Reserve Banks would be only 2.5 percent greater than expenses for 1987. Budgeting for these initiatives and at the same time keeping bottom line expense growth low (4.3 percent) was achieved by restrained growth or decreases in other areas. Indeed, staff increases for these initiatives were more than offset by staff decreases achieved through early retirement programs approved by the Board of Governors at seven Reserve Banks.

For a look at 1988 budgeted expenses on a program basis, I will discuss our four service lines in the order of their size.

Expenses for *Services to Financial Institutions and the Public* total $827.5 million and account for almost two-thirds of the Reserve Banks' 1988 budgets. Expenses are budgeted to increase 3.5

percent over actual 1987. Employment is budgeted to decline by 29 persons or 0.3 percent from 1987, even though volume increases are expected in all major operations.

Commercial check processing accounts for almost half of the budgeted expenses in this area and, at 5,150 ANP, about 60 percent of the staff. The increase in expenses in 1988 is expected to be only $7.3 million, or 1.8 percent, over actual 1987, with a decrease of 57 ANP. Even with a smaller staff, the System expects to handle a 2.7 percent increase in the annual number of checks processed, projected at 15.3 billion. Expenses associated with implementation of the Expedited Funds Availability Act are not included in these data.

Restraining the growth of check processing expenses are early retirement programs, the consolidation of operations, incentive pay for productivity increases, and a new contract for interdistrict shipping.

Expenses for currency processing ($121.5 million), which are expected to increase $6.0 million, or 5.2 percent, in 1988, will constitute nearly 15 percent of the budget in this area. Changes in staffing are expected to result in a net increase of 55 ANP, or 3.5 percent, because of sharp volume increases in some Districts. Overall volume is anticipated to increase 6.3 percent, with unit cost projected to rise 0.1 percent. New contracts for maintenance on the high-speed currency sorting machines will also raise costs in 1988. The increase in staff arising from higher volumes at some Districts is partially offset by a new currency handling process that will permit a reduction of 19 ANP.

Expenses for the automated clearinghouse service are budgeted to rise $5.2 million, or 8.4 percent. The change reflects a 16.6 percent expansion in volume and an adjustment in accounting to distribute the costs of data processing and data communications more accurately. A decrease of 3 ANP is budgeted.

The costs for funds transfer are expected to increase $1.9 million, or 3.3 percent, on balance, reflecting a 6.1 percent rise in volume, an additional 6 ANP, and a decrease due to a data processing and data communications accounting change.

Expenses for *Supervision and Regulation*, which total $183.4 million, are expected to increase $13.0 million, or 7.6 percent, over 1987. This area now accounts for 14.7 percent of total System expenses, compared with 12.8 percent in 1983. A staff level of 2,213 ANP is budgeted, an increase of 66, or 3.1 percent, over 1987.

The increase in costs is driven by changing circumstances in the banking industry. In some Districts, the condition of banks and bank holding companies subject to our supervision continues to require added supervisory resources. In addition, deregulation has led bank holding companies to develop new service and product lines, which call for more and better-trained examiners; moreover, firms throughout the industry are becoming larger and more complex.

As in the past, the Reserve Banks are attempting to use resources more efficiently by increasing the use of personal computers in the field and in the office, by accelerating the development of examiners, and by hiring persons with relevant experience.

Expenses for *Services to the U.S. Treasury and Other Government Agencies* are budgeted at $142.5 million, an increase of $6.8 million, or 5.0 percent, from 1987. This area accounts for approximately 11 percent of operating costs. Staffing is budgeted to decrease 36 ANP, or 2.0 percent, to 1,800 ANP.

Consolidation of operations and higher levels of automation contribute to controlling these costs. Several Districts are consolidating operations at one office. The Banks are seeking greater efficiency through the substitution of electronic ("book-entry") records for paper ("definitive") securities and through the use of high-speed sorting machines to process food coupons and savings bonds.

The most significant initiatives are in centrally provided Treasury services; expenses here are budgeted to increase $4.7 million, or 24.3 percent, and 82 ANP will be added to the staff. Much of this increase ($4 million and 54 ANP) occurs because 1988 is the first full year of operation for the Treasury Direct system and because reinvestment activity has been added to that system. Treasury Direct, which handles all purchases of government securities by individuals in book-entry form, is managed in Philadelphia with local operations in each District. Its expansion permits an offsetting decrease in the operation that handles definitive securities—"other Treasury issues"—for which staff is decreasing 52 ANP and expenses, $1.6 million.

Besides Treasury Direct, the increase in centrally provided Treasury services includes three programs in the Cleveland District, which will increase costs $0.7 million in 1988 but will, we expect, lead to long-run efficiencies.

Expenses for *Monetary and Economic Policy* at the Federal Reserve Banks total $91.7 million and account for approximately 7 percent of their 1988 budgets. Expenses are expected to increase $5.3 million, or 6.1 percent, over 1987. Employment will increase 13 ANP or 1.7 percent to 788.

The rise in cost reflects a net addition to staff, salary actions, and improvements in office automation. Staff members were added in New York for testing the replacement of an eight-year-old system used for open market trading, intensifying the monitoring and analysis of debt in less developed countries, and studying the feasibility of receiving data electronically from reporting institutions; in Atlanta for continuing a special effort to improve the quality of economic research; and in Dallas for supporting a southwestern economic development program.

A brief review of Reserve Bank expenses on an object of expense basis also might be useful to the subcommittee.

Personnel expenses consist of salaries for officers and employees, other expenses to compensate personnel, and retirement and other benefits. The major resource of the Reserve Banks is their people, and total personnel costs account for 62 percent of total Federal Reserve expenses. Personnel costs are expected to increase $32.6 million, or 4.4 percent, in 1988. Salaries—the major component of this category—are budgeted to increase 4.7 percent.

Salaries and other personnel expenses account for nearly 52 percent of the Banks' budgeted expenses and are expected to increase $23.3 million, or 3.7 percent, in 1988. Salaries are expected to increase 4.7 percent, while other personnel expenses are expected to decline 33.3 percent, primarily resulting from a reduction in the use of computer programmers on contract.

Each Federal Reserve office bases its salary structure for staff members other than officers on annual surveys of compensation offered by major employers in its community. Nationwide surveys are used to adjust the structure of officers' salaries.

Expenses for retirement and other benefits, which account for 10 percent of the Banks' budgeted expenses, are projected to increase $9.3 million, or 7.7 percent, in 1988. This increase reflects higher costs for hospital, medical, and dental insurance, along with the effect of large claims in several Districts; an increase in the tax rate for social security; an increase in benefits, reflecting payments to employees accepting early retirement; and resumption of normal group life insurance premiums (the Districts did not have to pay any in 1987).

Nonpersonnel expenses account for 38 percent of the Banks' expenses and are projected to increase 4.6 percent in 1988. Items within this category include the following.

Equipment expenses account for 13 percent of the Banks' expenses and are budgeted to increase 3.7 percent. Developments in priced services are mainly responsible for the rise in equipment costs: initiatives to meet the changing needs and demands of check collection; efforts to standardize automation and communication systems in response to the consolidation of financial institutions; progress toward encrypting communication links for various users of priced services; and continued work to expand and upgrade electronic networks that provide information to financial institutions.

Building expenses, which account for 9 percent of total expenses, are expected to increase 9.9 percent in 1988. Building renovations and repairs at Chicago, New York, Cleveland, and Dallas contribute to increases in depreciation, taxes on real estate, and utility expenses. Rental expenses are 21.6 percent higher, primarily because of a $2.8 million increase at New York. These increases will be partially offset by a decline in other building costs, as the majority of Districts incurred one-time, outside contractual expenses in 1987.

Shipping costs, which account for nearly 7 percent of 1988 budgeted expenses, will increase only 1.6 percent, as savings from a renegotiated contract for interdistrict transportation will offset an increase in postal rates.

Other nonpersonnel expenses will rise only 2.9 percent.

By their nature, capital outlays vary greatly from year to year. As depicted in the plans of the Reserve Banks for *capital spending* in 1988, outlays for buildings and for data processing and communications equipment continue to dominate Reserve Bank capital budgets.

SPECIAL BUDGET EMPHASIS

Before concluding my testimony I would like to mention briefly four initiatives that are of great importance to the Reserve Banks and that will have a major impact on Reserve Bank expenditures and operations into the next decade. The costs of the first two initiatives are outside the budget objective set for the Reserve Banks in 1988.

As you are aware, the Expedited Funds Availability Act (EFA) gives the Federal Reserve Board regulatory authority to improve the check collection and return systems. As a result of the EFA, the Reserve Banks are planning to implement several new services to expedite the handling of returned checks. The Board has proposed that the Reserve Banks begin to offer the new services to speed the return of unpaid checks beginning September 1, 1988. The costs associated with the implementation of EFA are not included in the 1988 Reserve Bank budgets because at the time the budget was approved the cost impact was unknown. Proposals from each Reserve Bank for operating and capital resources to implement EFA are currently under review. The operating expense impact of EFA is expected to be less than $15 million in 1988, with an increase of about 350 positions. An additional $15 million of capital expenditures will also be required. The costs of providing these return-item services are to be recovered through fees charged to users. Later this year the Board will approve prices for the new return-item services.

Besides the efforts to speed up the return of checks, the Board of Governors has authorized further research and development of digitized image processing of checks. The technology being developed, which relies on capturing check images electronically for computer storage and retrieval, has the potential for significant improvements in the handling of check and return-item processing both for the Federal Reserve and for depository institutions. Research since 1985 has demonstrated the feasibility of making a computerized image on one side of a check at high speed under laboratory conditions. The next phases will test the high-speed capture of both sides of checks plus the ability to store and retrieve the image data. These phases will be conducted under laboratory conditions with a limited volume of checks and then at a Reserve Bank under production conditions. Results will be shared with the financial community, where it might also offer widespread benefits in the storage and exchange of check images. This special project is budgeted to cost $6.2 million in 1988. These costs are recovered through check collection fees, and the costs of implementing digital image technology in the Reserve Banks on a full-scale permanent basis would also be recovered through check collection fees.

These two initiatives, $15 million for EFA implementation and $6.2 million for the check image project, bring the total budget for the Reserve Banks to $1,266.3 million, an increase of $74.5 million or 6.3 percent over actual 1987 expenses.

During the 1980s, the Federal Reserve System has placed increasing emphasis on the quality and reliability of its electronic payment services. This increasing emphasis is due to a number of factors, including the rapid growth in the volume and value of funds and securities transfers, the Payment System Risk Reduction Program, and the disruption caused by the 1985 operating outage at a money center bank in New York. The emphasis on improving the reliability of Fedwire operations has achieved results. During the first quarter of 1988, the Reserve Banks have improved their up-time performance for the critical hours of the funds transfer service and the book-entry securities transfer service. Work will continue on this effort and Reserve Bank initiatives to increase reliability of electronic payment services will cost the Reserve Banks an additional $2.9 million in 1988. These expenditures will be recovered through fees for electronic payment services. Significant expenditures to improve reliability will also be incurred in 1989 and beyond.

Since the late 1970s, the Federal Reserve has focused its efforts on providing contingency processing facilities to address both noncatastrophic and catastrophic operating outages. Procedures to address noncatastrophic outages are an integral part of Reserve Bank procedures. Each Reserve Bank has acquired redundant hardware—both mainframes and critical components, such as communications controllers. This redundancy permits Reserve Banks to transfer processing from failed, primary equipment to back-up equipment. To address software-related outages, the Reserve Banks have developed thorough testing procedures for both applications software that the System develops and environmental software supplied by vendors.

To address catastrophic operating outages, all Reserve Banks, except the New York Reserve Bank, currently rely upon the Contingency Processing Center (CPC) at Culpeper. The Reserve Banks have demonstrated that critical operations can be restored at the CPC and each Reserve Bank tests its capability twice each year. The time required to restore operations ranges from nine to forty-one hours. These timeframes are due to the time required to travel to Culpeper (two to sixteen hours) and the time required to load software, reestablish data bases, and reestablish communication connections with depository institutions (six to thirty-two hours). As a result, many Reserve Banks would not be able to restore operations on the day that an outage occurred.

To have same-day capabilities, the Federal Reserve Bank of New York has implemented a dedicated contingency processing center in Rockland County, New York. For the same reason other Reserve Banks have undertaken a study to determine the feasibility of providing back-up for each other. This approach, called the "buddy system," is expected to permit operations to be restored at a "buddy" site within four hours after a catastrophic outage is declared. In 1985 the Federal Reserve began a multiyear study on developing the Federal Reserve's electronic payment services in the 1990s and identifying a production system that would permit the Federal Reserve to satisfy the future needs of users of these services.

The Reserve Banks have made a major effort to improve the quality of currency in circulation and to reduce the cost of printing currency. The cost to the Reserve Banks for printing new currency is expected to decline from $164.2 million in 1987 to $156.3 million in 1988. This decline results from the improved ability of Reserve Banks—through improved sensors on currency processing machines—to recover substantial amounts of fit currency that previously would have been destroyed. This initiative has allowed the Reserve Banks to reduce the production demands being placed on the Bureau of Engraving and Printing, while simultaneously improving the quality of currency in circulation. Beginning in 1985 the System focused on developing a second generation of high-speed processing equipment. Installation of the second-generation processing equipment will begin in 1989 and the results should be improved Reserve Bank capability to detect fit from unfit currency, and faster processing of currency volume, which is currently growing at an annual rate of 9.0 percent. The budget for the Currency Equipment Development Program is $1.5 million in 1988.

Given the expanding volumes and new initiatives that we are currently undertaking, a particular concern of the Federal Reserve at this time is the depletion of its authorized fund for branch Federal Reserve buildings. The cumulative statutory limit on these funds is $140 million and has not been changed since 1974. Completion of the current building in Helena will, for all practical purposes, exhaust the fund and inhibit the Federal Reserve from undertaking modernization, renovation, expansion, or new facilities planning.

Our planning suggests that funds will be needed in the relatively near future to meet space requirements in Birmingham, Nashville, Salt Lake City, Houston, San Antonio, and El Paso. The expenditure of funds for branch buildings is largely recovered by the Federal Reserve through pricing of its services to financial institutions, as required by the Monetary Control Act. Thus, the building costs will be financed in large part by the private sector.

The House Banking Committee approved an increase in the branch building fund in 1984, but the provision was included in a bill that ultimately was not passed by the Congress. We believe that it is critical that the limitation be changed in the near future to allow the Federal Reserve to meet its future building needs for Branch facilities.

CONCLUSION

In closing, both Governor Kelley and I thank you for this opportunity to address the subcommittee on the Federal Reserve System budget. I would like to reemphasize that the existing budget processes are working well in controlling costs, while at the same time encouraging quality improvements. We welcome your comments and would be pleased to address any questions you may have on our budget. □

Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Subcommittee on Telecommunications and Finance of the Committee on Energy and Commerce, U.S. House of Representatives, May 19, 1988.

I am pleased to have this opportunity to appear before the Subcommittee on Telecommunications and Finance with my Working Group colleagues to discuss our report to the President on financial markets. In the period since last October's market break, we have learned a great deal more about the structure of our financial markets and their points of vulnerability. To this end, we have been aided by the many reports on the October plunge, including the one prepared by the Presidential task force headed by Senator Brady, and from numerous meetings with representatives from the private sector.

Moreover, considerable progress has been made at the government and private sector levels in addressing areas of weakness. This progress has been presented in considerable detail in the Working Group's report to the President, and I shall not use this occasion to recite the details. Our report is to be regarded as an interim submission, for we recognize that there is more work to be done. Some might be impatient with the pace at which our deliberations have proceeded, but it needs to be understood that we are dealing with a very complex system and inappropriate efforts to correct this system could leave us with weaker rather than stronger financial markets. We do not yet have answers to all of the questions that have been raised about ways to strengthen our markets, and we must recognize that it will take more time before our task is complete.

The proposals contained in the Working Group report represent, in my judgement, the proper approach to dealing with these issues. They reflect the "one market" valuation process as it applies to cash and derivative instruments for stocks, and thus the need for coherence and coordination. The proposals recognize the necessity for private sector solutions to many of the system's problems. They seek to take advantage of the private sector's expertise in the many complex components of the equity products market system and of the incentives that the exchanges, clearinghouses, and securities firms have for developing a safe and sound marketplace. Yet the proposals reflect, at the same time, the need for federal oversight and cooperation to ensure that rules and regulations in individual markets recognize and deal with interactions among markets and that contingency plans are in place should another emergency occur. Such an approach, I firmly believe, is the appropriate way of ensuring that our financial markets have the flexibility to adapt to inevitable change while limiting their vulnerability to breakdowns that could threaten our economy.

There is no avoiding the fact that, as our economy and financial system change, our financial markets are going to behave differently than they have in the past. We cannot realistically hope to turn back the clock and replicate behavior of the past. Rather, we need to understand better how the system is evolving and the consequences of such change. Our efforts need to focus on making sure that the financial system is more resilient to shocks rather than embarking on futile endeavors to artificially curb volatility.

The events of last October illustrated dramatically the many changes that have occurred in our market for equity products and the resulting vulnerabilities of the system. Some of those changes, such as the use of so-called portfolio insurance strategies based on the faulty premise of a high degree of market liquidity, have at least to a degree been corrected by the October experience. Other changes, such as the heavier dependence of market participants on high-speed computers and telecommunications devices and the growing role of institutions—as the public, in effect, delegates more of its asset management to professionals—are here to stay.

Greater reliance on advanced computers and telecommunications technology means that news bearing on asset values reaches portfolio managers simultaneously. And managers are able, and have the incentive, to react virtually instantaneously with their market orders. Institutional managers and other market professionals also can easily monitor prices across markets on a real time basis and can react quickly to any price disparities across the markets and corresponding arbitrage opportunities that may emerge.

The speed of information flow, together with the institutionalization of equity holdings, implies that new information can very promptly induce a heavy imbalance of orders on one side or the other of the market. Any resulting arbitrage opportunities will generate additional orders while ensuring that the price movements are spread across the various instruments and, increasingly, across borders. It is also worth noting that we routinely see the futures markets reacting to new information more rapidly than the cash markets. Some have concluded from this regularity that movements in futures prices thus must be causing movements in cash prices. However, the costs of adjusting portfolio positions are appreciably lower in the futures market and new positions can be taken more quickly. Hence, portfolio managers may be inclined naturally to transact in the futures market when new information is received, causing price movements to occur there first. Arbitrage activity acts to ensure that values in the cash market do not lag behind.

As I have noted in earlier testimony, we are dealing with a single valuation process for stocks, index futures, and options based on the underlying value of primary claims to corporate ownership. Index futures and options have value only to the extent that the corresponding stocks have value, and in a normally functioning marketplace the prices of all these instruments will reflect the values of the underlying equities. In these circumstances, it is a mistake to single out one segment of the broad marketplace as the culprit for large and rapid price movements when these price movements reflect economic fundamentals in the context of modern technology and the prominence of institutional investors. Moreover, given the integration of markets, efforts to curb one of the component markets may well have adverse consequences for the functioning of the other related markets as well as the overall efficiency of the financial system.

What many critics of equity derivatives fail to recognize is that the markets for these instruments have become so large not because of slick sales campaigns but because they are providing economic value to their users. By enabling pension funds and other institutional users to hedge and adjust positions quickly and inexpensively, these instruments have come to play an important role in portfolio management. The history of futures and options provides numerous examples of contracts that did not provide much economic value and consequently failed.

The delegation of asset management to professional managers has spurred growth of futures and options. The institutions that manage the assets of our retirement programs, nonprofit institutions, equity mutual funds, and various kinds of trusts seek to use all of the equity products to improve yields while limiting exposure to risk.

Reducing exposure to risk, of course, implies portfolio diversification. Thus, we should not be surprised to see that these investors manage highly diversified portfolios of equities approximating the market in composition. Moreover, in recognition of the weight of evidence pointing to only very minimal scope for improving portfolio returns by applying managerial resources to individual stock selection, many professional managers deal in baskets of stocks representing indexes, most notably the Standard & Poor's 500.

Thus, trading in baskets of stock representing indexes has been found to be a cost-effective means of achieving available returns on stock portfolios.

In this context, it is not surprising that institutional investors have come to rely heavily on index products in futures and options markets as a relatively low-cost means of adjusting their positions and as hedging devices. Today, futures market trading is dominated by such investors. A consequence, of course, is that new information bearing on equity values broadly will be promptly reflected in stock index futures and in those stocks making up the indexes.

Institutional investors also became major users of so-called portfolio insurance strategies before the October break, a factor that likely contributed to the high level of share prices. Equity holdings were expanded by such institutions on the mistaken belief that markets for cash and derivative instruments were sufficiently liquid to permit investors to trim their exposures promptly and limit losses. Many of these aggressive strategies were based on mathematical models and executed by computers. The inability to liquidate positions promptly last October, under the very circumstances these programs were designed to protect against, has led to a major scaling back of portfolio insurance strategies. Users found that such strategies can work to limit risk for individual portfolios under normal circumstances. However, if all try to do it simultaneously, the strategies will break down, since risk can be shifted from one investor to another but cannot be lowered for the total market.

The other type of program trading, index arbitrage, also has been curtailed. Cutbacks have partly reflected management decisions by some securities houses to withdraw from index arbitrage, at least in part to reassure customers, many of whom perceive such activity to be a source of volatility. The recent action by the New York Stock Exchange to restrict automated orders when the Dow Index moves 50 points or more also will further reduce the use of index arbitrage, especially in a declining market. We must recognize, however, that although efforts to artificially reduce program trading activity have found popular support, they come at a cost. Reduced arbitrage implies less connection between cash and futures markets and more price disparities across these markets. We learned last October that when large price disparities emerge this adds to confusion and doubt in the markets and uncertainty premiums in stock returns rise, adding to selling pressures. In other words, insufficient arbitrage between cash and futures can be a destabilizing force in a declining market.

The curtailment of portfolio insurance does imply reduced orders and less strain on system capacity in a declining market. Strains on system capacity and the associated uncertainties about execution, as we saw last October, can reinforce tendencies to withdraw from the markets; in the cash market for equities, for which there is a net long position overall, such withdrawal implies more sell orders and downward pressure on prices. The likelihood of a recurrence of such severe strains on system capacity also is being reduced through efforts of the exchanges and the over-the-counter market to augment capacity. The report of the Working Group lists a number of measures that have been taken or are in process. For example, the New York Stock Exchange is implementing a system that it expects will be able to handle comfortably a volume of 600 million shares per day by this summer and a billion shares by late 1989.

Another factor contributing to the stresses of last October were credit uncertainties—affecting clearinghouses, market makers, and brokers—and the need to finance outsized cash flows, resulting in part from the lack of coordination of margin payment and collection in the futures markets. The Working Group report notes that a great deal of progress has been made in the area of credit and clearing recently, and it recommends specific further actions to be taken, some of which may require legislation.

The sheer rapidity of the price decline in October, as I noted in earlier testimony, was a major factor contributing to the near-panic atmosphere on October 19, raising uncertainty premiums in share returns and adding to downward price momentum and pressures on execution capacity. Such a rapid price move leads to doubts about underlying values and efforts to withdraw from equities. Some investor survey results suggest that on October 19 many sellers were reacting to the large price declines themselves and to other panicky investors. The potential for greater rapidity of price moves is an implication of the combination of modern technology and the large institutional presence in the equity-related markets that I previously mentioned.

In recognition of this situation, the Working Group has proposed a coordinated intermarket circuit breaker that would be triggered by a decline in the Dow index of 250 points. The resulting trading halt is intended to give the markets a breather to digest available information and to provide time for offsetting buy orders to arrive on the floor and for credit arrangements to be worked out. We fully recognize that price limits can be destabilizing, but a coordinated circuit breaker that is known in advance is preferable to the disorderly process of halts in individual stocks and derivative markets that threatened to get completely out of control last October. The limits that we are proposing are sufficiently wide that they are expected to come into play very rarely—only when there is a major threat to the system.

Another important issue relating to the strength of our market systems that was addressed by the Working Group is the issue of margin. The Brady Task Force and others have proposed that margins be harmonized across the cash and derivative equity markets. Margins serve to protect against a breakdown in the markets resulting from a large price move that could threaten clearinghouses and brokerage firms. Achieving consistency in margins for individual stocks and options and index-based products must take into account differences in price behavior of these instruments and differences in their settlement periods. Because all stock prices do not move in unison, values of broad portfolios of stocks are less volatile than prices of individual stocks and thus prudential margins on index futures do not need to be as high as those on individual shares. In addition, the longer the settlement period, the larger is the potential cumulative price change and the greater is the risk exposure of the broker and clearinghouse. Futures contracts are cleared daily, and margin calls can be made several times a day, while the standard settlement period for shares is three days to a week. This consideration, too, would suggest a higher margin for individual stocks than for index futures.

The staff of the Working Group did a substantial amount of statistical analysis of this matter, which proved to be helpful in determining the extent to which maintenance margins at present are or are not harmonized for prudential purposes. The findings, which are presented in an appendix to the report, indicate that differences in price movements between individual stocks and broad indexes imply that a given degree of protection across all instruments requires that margins on individual stocks need to be about twice as high as those on broad indexes. This presupposes that settlement occurs on the same time schedule and that the level of price volatility that has prevailed since October continues into the future. In addition, an instrument settling in three days would need to have nearly twice as much margin as an instrument that settles in a single day. This evidence indicates that current maintenance margin levels for individual stocks and index futures—set by the self-regulatory organizations—are high enough to cover recent price movements more than 99 percent of the time. The degree of protection afforded by these very different levels of margin is surprisingly comparable across the markets.

Moreover, effective market protection against the consequences of a very large price movement also is enhanced by acceleration of margin calls by brokers when there are large price declines and by customers honoring obligations when the margin that they have deposited proves to be inadequate to cover very large price movements. Clearinghouses, in addition, are protected by member security deposits and other devices. Furthermore, the Working Group's recommendation on circuit breakers and on credit and clearing would add to protections in place by reducing financial system risks from the extreme price movements that are not in the 99 percent average.

Beyond achieving margin levels adequate for market integrity, it has been argued frequently that they should be set at levels that will reduce price volatility. In particular, it is thought that the lower levels of margin on options and futures foster greater leveraged speculation that in turn causes larger price fluctuations. This line of reasoning leads to the proposal that margins on derivative equity products be raised to levels more in line with those in the cash market.

The empirical evidence, which is vast and expanding rapidly, does not, on balance, lend much support to this argument. The available analyses, including work done by the Board's staff in recent years, provide no convincing evidence that margins affect price movements in any significant way in the cash or futures markets. For example, the volatility of stock prices has not been significantly lower since the imposition of margin requirements; and changes in initial margin requirements on stocks have not been followed by predictable or significant changes in stock prices.

Moreover, with the expanding opportunities for credit that have characterized developments in our financial markets for some time, those who wish to speculate are little constrained by margin levels. An individual who wishes to speculate in the market—a fairly rare event in the index-futures markets that are dominated by institutions and other professionals—can obtain funds through numerous other sources, including consumer loans, loans secured by collateral other than stocks, or by borrowing against home equity, perhaps through a home-equity line. Large institutional investors may borrow against their portfolios of securities or obtain letters of credit to meet margin requirements. Thus, while higher margin requirements may impose somewhat higher costs on transactions in particular markets, margin requirements are unlikely to reduce in any meaningful degree the total amount of leverage in the economy. Indeed, outstanding margin credit on stocks plus the value of open interest of stock-index futures represents about 2 percent of the market value of equity.

For these reasons, I believe that we should not be guided in the margin area by equalization for leveraging reasons. Implementing such an approach would only tend to give rise to a false sense of security about price movements at a time when, given the underlying economic setting and fundamental change in the structure of the equity markets, price movements may well remain larger than we had come to expect in earlier years. Raising margins will add indirectly to transactions costs, which will act to reduce trading volume and market liquidity. If this is what the Congress seeks, and I find it hard to believe that less liquid markets for equity-related instruments are consistent with congressional intent, then I would suggest a more direct approach—say, through a tax on transactions.

The prudential objectives regarding margin, on which most if not all can agree, are closely related to clearing and settlement. Adequate margins act to protect clearinghouses and brokers against customer default. But other measures also are needed to strengthen the clearing and settlement system, which, in the event, last October looked to be a potential point of vulnerability in the system. It has been proposed by the Brady Task Force and others that a comprehensive unified clearing system be established as the preferred solution to the problems revealed by last October's experience. This concept has considerable appeal, and it may be an objective worth pursuing over the longer run, to reduce strains and risks associated with intermarket positions of clearing members and their customers. A netting of intermarket positions might reduce liquidity strains on those having cross-market positions, and more comprehensive information on intermarket positions facilitates an assessment of the overall risk positions of the entity. But as the Working Group report notes, the achievement of a single unified clearing organization faces many obstacles at present, especially difficult legal questions regarding liability.

Meanwhile, as the Working Group report also notes, a number of steps already have been taken by the clearinghouses, or are planned, that will provide many of the benefits of unified clearing. For the major futures and options exchanges, daily pay and collection information by customers is now being shared and plans are under way to broaden this information sharing system. Also, progress is being made to assemble timely comprehensive information on the comprehensive positions of clearinghouse members. Other measures are being developed for timely confirmation of payments to settlement banks.

Let me conclude by saying that we have come a long way in the past seven months in identifying the vulnerabilities in our equity markets that contributed to the difficulties of last October. An impressive list of accomplishments has been made to date, and there is every reason to believe that procedures in place now will succeed in addressing many of the remaining issues. The Working Group intends to continue to play an active role in this process, and I believe that this will prove to be the most effective means for ensuring that progress is made in strengthening our financial markets and enabling them to adapt to inevitable change. In the end, we must be prepared to accept a different pattern of behavior in our equity markets, and our objective must be to enhance their ability to accommodate change and withstand bouts of volatility. As we continue to address these issues in the future, let us seek to preserve the vibrancy of our markets rather than run the risk of stifling them through overreaction to the events of last October.

We cannot provide an ironclad guarantee that there will not be another October 19 in our future. Unforeseen economic forces could, on their own, conceivably trigger such an event. If, however, we succeed in fully addressing the structural inadequacies of our financial markets, we can at least reduce the interaction between economic and structural forces and thereby reduce the even now very small probability of a replay of last October. □

Chairman Greenspan presented identical testimony before the Senate Committee on Banking, Housing, and Urban Affairs, May 24, 1988, and before the House Committee on Agriculture, June 14, 1988.

Statement by Michael Bradfield, General Counsel, Board of Governors of the Federal Reserve System before the Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives, May 24, 1988.

I am pleased to appear before this committee to discuss the banking law aspects of the U.S.–Canada Free Trade Agreement (FTA). The major purpose of the Financial Services Chapter of the FTA is to allow financial institutions of both countries to operate freely in each other's markets with equality of competitive opportunity. The aim is to assure that a financial institution from one country will receive no less favorable treatment in the markets of the other country than is available to a local entity.

Canadian and other foreign banks are already able to operate within the United States on the same basis as U.S. banking organizations. Thus, with the exception of one change to be enacted into U.S. banking law, which I will discuss later, legislative approval of the FTA would not result in changes in federal regulation of Canadian banks operating in the United States because in this country national treatment of foreign banks is the normal approach to regulation. The FTA aims at extending this type of treatment to U.S. banks operating in Canada, which are currently subject to significant restrictions on their Canadian operations.

Chapter 17 of the FTA contains four separate commitments of the United States with respect to the operations of Canadian-controlled financial institutions in this country: (1) to allow U.S. banking institutions to underwrite and deal in Canadian government debt obligations; (2) to provide for permanent grandfathering of the geographic location of Canadian banks in the United States; (3) to allow Canadian banks to have the benefit of the same rules as are applicable to U.S. banks with respect to underwriting and dealing in securities; and (4) to provide for the continuation of the same national treatment rules as are now applicable to Canadian banks. I will explain the commitments of the United States in the context of current U.S. banking regulation and the consequences, if any, of the implementation of such commitments.

Underwriting and Dealing in Canadian Government Securities

The first U.S. commitment involves an amendment to the Glass–Steagall Act that would permit U.S. banks to underwrite and deal in the debt obligations of the Canadian government and its political subdivisions to the extent those debt obligations carry the full financial backing of the Canadian governmental entities involved. The effect of this revision is to place Canadian government debt obligations on the same footing as comparable U.S., state, and local government securities. Such Canadian securities would be treated as so-called "bank eligible" securities, which all national banks, and state banks so authorized by their charters, may purchase for their own account, and underwrite and deal in without limitation under the Glass–Steagall Act. This revision would also allow U.S. branches and agencies of foreign banks to underwrite and deal in these Canadian government securities in the United States as they now can underwrite and deal in U.S. government securities.

The parallel treatment of U.S. and Canadian government securities extends to obligations not only of the Canadian federal government, but also to obligations of Canadian provincial and local governments. Currently, a U.S. bank may underwrite and deal in general debt obligations that are backed by the full faith and credit of state and local governments of the United States. The revision called for by the FTA provides that banks may also underwrite and deal in the debt obligations of Canadian provinces and local governments if they carry the financial backing of those governments to the same degree that U.S. state and local governments back, with their full faith and credit, the debt obligations that they issue.

With respect to the effect of this revision on the operations of bank holding companies under the Bank Holding Company Act, the Board has authorized nonbank subsidiaries of bank holding companies, including foreign banks, to underwrite and deal in "bank-eligible securities." Consequently, if the legislation implementing the FTA is enacted, bank holding company and foreign bank subsidiaries that have received Board approval to engage in government securities underwriting will be able to commence underwriting and dealing in Canadian government debt securities without need for further review by the Board. If, however, a bank holding company or foreign bank had not yet applied for and received approval under section 4 of the Bank Holding Company Act to engage in underwriting and dealing in government securities, it would have to do so before commencing underwriting and dealing in Canadian government securities.

Geographic Grandfathering of Canadian Banks in the United States

The second U.S commitment simply provides that the U.S. government will not change current law or practice with respect to interstate banking operations to a Canadian bank's disadvantage. Some background on this provision is appropriate. Before the passage of the International Banking Act of 1978, there were no federal restrictions on a foreign bank's ability to establish branches and agencies in many different states.

Consequently, many foreign banks, including some Canadian banks, established a multistate network of banking offices. Currently, 8 Canadian banks operate 15 subsidiary banks, 18 branches, and 14 agencies in the United States. Of these, 8 branches and 7 agencies are grandfathered.

The IBA grandfathered interstate branches and agencies but required a foreign bank to choose a "home state" and restricted the bank's ability to establish domestic deposit-taking branches outside that state. Foreign banks may expand outside their home states only through agencies and limited branches, which cannot accept domestic deposits. Article 1702:2 of the FTA provides that the United States will not change those rules to the detriment of Canadian banks.

National Treatment for Securities Activities

The third U.S. commitment provides that the United States shall accord Canadian-controlled financial institutions national treatment with respect to changes in the Glass–Steagall Act and any implementing regulations and administrative practices. This provision is consistent with current law and the proposals that are now before the Congress to amend the Glass-Steagall Act. As far as I am aware, none of those proposals discriminates against Canadian or other foreign banks with respect to their ability to conduct securities activities.

NATIONAL TREATMENT

The FTA also provides that the U.S. federal government, subject to Canada's commitment to consult and to liberalize its markets for U.S.-controlled institutions, shall continue to provide Canadian institutions with the rights and privileges they currently enjoy under federal law. I understand this to mean that the United States will continue to provide national treatment to Canadian banks operating in the United States. Canadian banks would not, however, have any greater privileges than would U.S. banks or bank holding companies. Thus, if there is a change in federal law that either expands or limits the powers or activities of U.S. banks or bank holding companies, the same benefits or restrictions will also apply to Canadian banks operating in the United States.

OTHER ISSUES

I understand that some questions have been raised concerning whether the FTA would create a mechanism by which banking organizations could engage indirectly in activities in the United States that are not otherwise permissible. As I understand the agreement, this would not be authorized. More specifically, it has been asked whether a U.S. bank holding company could, under the FTA, acquire a Canadian bank that owns a Canadian insurance company that engages in the insurance business in the United States, even though U.S. banks are not generally permitted to engage in insurance activities.

There is nothing in the FTA—apart from the provision permitting the underwriting and dealing in Canadian government debt obligations—that authorizes greater powers for bank holding companies than they currently have. Under the current regulatory framework a bank holding company may acquire an interest in a foreign company engaged in financial activities, including a foreign insurance company, with the prior approval of the Board. However, the statutes and regulations governing foreign activities of U.S. banking organizations, which will not be affected by passage of the activities of any foreign FTA, impose restrictions on the U.S. activities of any foreign companies that may be acquired.

The laws provide that a U.S. bank or bank holding company may invest in a foreign company that does not engage in any business in the United States except as an incident to its international or foreign business. The Board has interpreted "incidental" activities restrictively to include only those activities that may be performed by an Edge corporation in the United States.

An Edge corporation is a specialized international financing vehicle that may only engage in incidental foreign-related activities in the United States. The Board has not permitted general underwriting or brokering of insurance in the United States as an incidental activity. In one instance the Board permitted an Edge corporation to sell very limited insurance in the United States but only when the insurance covered international commercial risk, which is risk resident outside the United States. In sum, a bank holding company or bank cannot evade the prohibitions on U.S. nonbank activities through use of a foreign subsidiary, including a Canadian subsidiary.

This is also the case with respect to Canadian banks operating in the United States. If a Canadian bank has a branch, agency, or subsidiary bank in the United States, the Canadian bank is subject to the provisions of the Bank Holding Company Act with respect to nonbanking activities in the United States. The FTA does not override the Bank Holding Company Act to allow a foreign subsidiary of a Canadian bank to conduct U.S. activities not currently authorized.

You have also asked me to address the issue of the effects of the FTA on conflicting state laws as provided in section 4 of the draft implementing legislation. Section 4 states that the provisions of the FTA shall prevail over any conflicting state law, including any state law regulating or taxing the business of insurance. It appears that the provision has little relevance for the Financial Services Chapter. Article 1701 of the Financial Services Chapter specifically states that no other provision of the FTA confers rights or obligations on parties with respect to financial services, and that the provisions of chapter 17 shall not apply to any law enacted by a political subdivision of either the United States or Canada. Therefore, *the U.S. commitments apply only to* the United States government, including the commitment to continue to provide Canadian-controlled financial institutions with the rights and privileges they now have under federal law. By their terms, the U.S. commitments do not impose obligations on the states. Consequently, in my view, no federal–state conflicts would arise under chapter 17 that would require resolution under section 4.

In conclusion, I believe that the provisions of chapter 17 of the FTA on banking services would *not conflict with or require any change in the* current administration of applicable banking laws and regulations. □

Statement by Wayne D. Angell, Member, Board of Governors of the Federal Reserve System, before the Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban Affairs of the U.S. House of Representatives, May 25, 1988.

Thank you for this opportunity to present the views of the Federal Reserve Board on the application of federal margin regulations to equities and equity-related futures and options. The Report of the Brady Task Force and other major studies of the stock market crash have emphasized that these markets are, in effect, one market and that regulatory structures must be made consistent with this economic reality. In particular, these reports identified margin regulation as a critical intermarket regulatory issue on which greater consistency is needed. Margin regulation also was reviewed carefully by the Presidential Working Group on Financial Markets.

At the Federal Reserve we fully endorse the need for a consistent approach to setting margin requirements in the cash, futures, and options markets for equities. Indeed, we have been concerned about this issue since the introduction of stock-index futures in 1982. Shortly thereafter, the Board instructed its staff to prepare a thorough review and evaluation of federal margin regulations. The staff study was presented to the Congress early in 1985, along with a letter from the Board containing conclusions drawn from the study and recommendations regarding the appropriate regulatory structure for margins.

We have reviewed these recommendations in light of last October's stock market break and have found that our views have changed little. The Board continues to believe that the primary objective of federal margin regulation should be to ensure the financial integrity of the markets, and thereby ensure contract performance, by limiting credit exposures of brokers, banks, other lenders, and, importantly, clearinghouses. The Board does not believe that higher margins should be imposed in an attempt to limit stock price volatility. In the Board's view, a link between financial leverage and stock price volatility has not been firmly established. The Board is concerned that the imposition of higher margins to control speculation in futures and options could significantly reduce liquidity in these markets and thus diminish the economic benefits they provide in terms of hedging opportunities and price discovery.

In the wake of the October plunge, the various futures and options exchanges raised margins on equity-related instruments to levels that generally appear adequate to preserve market integrity. Although margins in the stock-index futures and options markets remain lower than those in the cash markets, they, nonetheless, provide protection against credit losses against all but the most extreme price movements. Lower margins in the derivative markets can provide such protection because futures investors are required to meet daily variation margin calls and because stock price indexes tend to be less volatile than prices of individual stocks. The various exchanges also have addressed the risks of extreme price movements by actions such as increasing clearing-fund guarantee deposits and enhancing their systems for collecting and paying intraday variation margin calls.

Nevertheless, the Board supports the expansion of the scope of federal oversight of margin policies to cover equity-related futures and options on futures. The integrity of the clearinghouses was maintained during the crash, and credit losses to brokers in these markets proved manageable. In the months before the stock market crash, however, margins in the stock-index futures and options markets provided less protection against potential credit losses than those in the cash markets. There is sufficient possibility that at some point self-regulatory organizations (SROs) might establish margins that would be inconsistent enough to present market problems or set them at levels that might present potential costs to other parties. Therefore, the Board believes that federal oversight is appropriate for ensuring that margins in the cash, futures, and options markets remain adequate and consistent.

The Board continues to believe, however, that the objective of maintaining market integrity can best be attained by delegating authority for setting margins to the various SROs—not only in the futures and options markets, but also in the cash markets. The role of federal authorities should be to monitor the actions of the SROs and to discourage actions that may pose a threat to market integrity. Should moral suasion prove unsuccessful, federal authorities should have the authority to veto such actions. The Board believes that the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) are in the best positions to monitor the margin-setting actions of the exchanges and clearinghouses they oversee. Both agencies have developed considerable expertise in the markets they regulate.

The regulation of margins clearly is a controversial issue. Some industry experts, federal regulators, and members of the Congress have made quite different recommendations for reform. This lack of consensus appears primarily to reflect differences in objectives. Consequently, the next part of my testimony will elaborate on the Board's views regarding the appropriate objectives in the current economic environment. I will then outline the implications of those objectives for appropriate levels of margins in the cash, futures, and options markets. Finally, I will discuss the Board's views on how margin regulations should be administered to ensure that the appropriate margins are established and maintained.

Objectives of Federal Margin Regulation

The Securities Exchange Act of 1934 gave the Federal Reserve Board the authority to regulate margins on all corporate securities. At that time, the Congress sought to achieve three main objectives through margin regulations: (1) to constrain the diversion of credit from productive uses in commerce, industry, and agriculture to speculation in the stock market; (2) to protect unsophisticated investors from using margin credit to establish excessively risky positions; and (3) to forestall excessive fluctuations in stock prices.

The Board has reviewed each of the main objectives sought by the Congress and is skeptical about either the need for, or the effectiveness of, margin regulations for these purposes. With regard to the first objective, the diversion of credit, the Board has concluded that margin regulations are not needed. The use of credit to finance purchases of stock does not reduce the amount of credit available to industry, commerce, or agriculture. The borrowed funds do not disappear; rather, they are transferred to the seller, who then reinvests the proceeds. If margin borrowings were very large, frictions in the credit markets might nonetheless have a small effect on the cost or availability of credit. But margin borrowings today are much smaller relative to the size of the economy or credit markets than they were in the early 1930s. For example, at year-end 1987, margin and other securities loans together accounted for little more than 1 percent of total credit outstanding in U.S. financial markets.

The Board acknowledges that margin requirements probably have contributed to achievement of the second objective, the protection of unsophisticated investors from overly aggressive brokers. Margin requirements, however, seem a very crude tool for this purpose; they constrain sophisticated as well as unsophisticated investors and hedging as well as speculation. The Board believes that continuing and legitimate concerns about broker misconduct can and should be addressed more directly and more effectively by rigorous enforcement of existing rules of conduct for brokers. In particular, the provisions that require brokers to "know" their customers and to ensure that investments are "suitable" for their customers should be strictly enforced.

In any event, these first two objectives do not appear to be the focus of public concerns about margin regulation. Disagreements about appropriate levels of margins appear primarily to reflect disagreements about the third objective, the moderation of excessive stock price fluctuations by limiting the leveraging of equity holdings. If the objective of margin regulation is to equalize the leverage obtainable in the cash, futures, and options markets for equities, futures margins would need to be raised to levels required in the cash markets and a complex schedule would need to be created for margins on options. On the other hand, if preserving market integrity is the primary objective of margin regulation, lower margins in the derivative markets than in the cash markets generally would be adequate.

Proponents of the use of margin requirements to limit leverage argue that there is an important relationship between the availability of leverage and the volatility of stock prices. However, existing studies of stock price behavior provide no persuasive evidence of such a relationship. With regard to leverage in the cash markets, the enactment of margin regulations does not appear to have reduced stock price volatility. Statistical analyses have not found any significant relationships between changes in initial margin requirements and stock prices. It is worth noting that credit-financed cash holdings of stock have remained a very small fraction of the value of outstanding shares; the ratio of margin credit to stock values has fluctuated in a narrow range between 1 and 2 percent over the past 30 years.

Of course, recent concerns about leveraged stock holdings have focused on the substantial leverage obtainable through index futures and options. Here too, though, there is no clear evidence that greater leverage has produced greater stock price volatility. Indeed, available evidence indicates that the principal users of such derivative products do not actually hold leveraged positions. Specifically, data from the CFTC's large trader reporting system indicate that before the crash about 70 percent of the open interest in the Standard & Poor's (S&P) 500 futures contracts was held by institutional investors that held offsetting positions via stocks or other derivative instruments. More generally, a vast literature has examined the effects of futures trading on cash market prices of commodities and other financial instruments and found little evidence of heightened price volatility.

The Board is concerned that attempts to reduce stock price volatility by substantially raising margins on equity-related futures and options could reduce liquidity in the markets for these instruments. In particular, the floor traders or so-called "locals" in the futures market likely would find their costs increased by higher margin requirements and might be forced to curtail their activities. To the extent liquidity were reduced, higher margins could actually increase the magnitude of short-term price movements in both the derivative markets and the cash markets. In any event, any reduction in liquidity would diminish the usefulness of the derivative instruments for hedging and price discovery.

In the Board's view, the primary objective of margin requirements for equities and equity-related futures and options should be to ensure that market integrity is not jeopardized by credit losses suffered by brokers, banks, or other lenders, including, in particular, the exchanges' clearinghouses. In today's world, the Board believes the importance of this objective simply cannot be overstated. Because these markets are so tightly interconnected, the failure or financial impairment of any one of the major participants in the clearing system would promptly place great stress on all of the others. And as we saw last fall, problems in the equity markets are quickly transmitted to other financial markets, both in the United States and throughout the world.

Appropriate Levels of Margins

The Board's conclusion that the primary objective of margin requirements should be the protection of the integrity of the marketplace has strong implications regarding the analytical framework appropriate for evaluating the adequacy and consistency of margin levels in the cash and derivative markets for equities. The adequacy of the margin should be measured by the probability that an adverse price movement would result in losses that exhaust the margin. Margins in two markets should be considered consistent if they provide equal protection against losses from adverse price movements.

Within this framework, consistency of margins does not imply equality of margins. In the cash, futures, and options markets for equities, in particular, equal margins imply very different degrees of protection because of significant structural differences in the markets. One difference between the cash, futures, and options segments of the equity market that strongly affects the adequacy of margins is the relative volatility of prices. A basic principle underlying the establishment of adequate margin levels is that the lower the volatility of prices, the lower the level of margin needed for protection. Because stock indexes tend to be less volatile than prices of individual stocks, margins on index-based options and futures generally can be a smaller percentage of the value of the contract than are margins on individual stocks and margins on options on individual stocks.

Another important consideration in determining the appropriate level of margin requirements is the period of time that investors are allowed to meet margin calls. The shorter this period, the smaller the size of price movements that can be anticipated between the margin call and its response, and hence the lower the required level of margins. In futures markets, in which investors are subject to daily settlement and mark-to-market procedures and can be expected to have liquid assets readily available to meet variation margin calls, margins need to be sufficient to cover all but the most extreme one-day moves in price. In cash markets, however, in which investors are accustomed to five-day settlement periods and tend to be less liquid, adequate margins should be set to cover price movements over periods as long as five days.

The Board's staff has evaluated the implications of these differences in the cash and futures markets for the adequacy and consistency of margins. The staff calculated the percentage of daily changes in the S&P 500 index for recent periods that would have been covered by maintenance margins currently required by the Chicago Mercantile Exchange. They also calculated the percentage of five-day price changes of individual New York Stock Exchange stocks covered by maintenance margins established by the NYSE. These calculations suggest that, after adjusting for differences in the margin collection period and price volatility, the level of margins on index futures that are now in place would provide roughly the same or even greater protection against loss as the margins on stocks. Specifically, margins provided under current requirements by the SROs on both futures and stocks would cover 99 percent of price movements even in the recent volatile period. If the pattern of price movements in the future returns to that typical of the pre-October 1987 period, some lowering of margins would be acceptable. But if price volatility were to rise, higher margins would be called for.

Setting margins to cover 99 percent of expected price movements clearly will not provide coverage for those rare, extraordinary price moves such as those that occurred on October 19. Because margin levels sufficient to provide protection against all possible price movements would impose unacceptable costs to market participants and the liquidity and efficiency of markets, the Board recognizes that mechanisms, other than margins, must be used to address the risk of large price movements. Indeed, there are safety mechanisms currently in place that address this risk, such as capital requirements, clearing-fund guarantee deposits, and intraday variation margin payments. Moreover, the recommendations of the Working Group on Financial Markets concerning a circuit-breaker mechanism and credit, clearing, and settlement improvements should add other significant protections against financial system risks from extreme price movements.

Margin levels on stock-index futures and options products were increased substantially during the crash and remain elevated. In addition, the options exchanges will soon impose further increases in margins for options on individual stocks and stock indexes. And the Chicago Mercantile Exchange and the Chicago Board of Trade have established coordinated procedures for routine collection and payment of intraday variation margins. The Board believes that these actions should significantly enhance both the financial integrity and the liquidity of the derivative markets in periods of stress.

Scope and Structure of Federal Margin Regulation

The Board's conclusion that protection of the marketplace should be the primary objective of margin regulation also strongly influences its views on the appropriate scope and structure of regulation. Because the cash, futures, and options markets for equities are so closely interrelated, a threat to the financial integrity of any one market is a threat to all of them. Consequently, if federal margin regulations are to ensure the integrity of the cash markets for equities, their scope should be extended to cover the markets for equity-related futures as well.

With regard to the structure of regulation, the Board believes that federal authority over margins in the equity-related futures markets should be delegated to the exchanges' self-regulatory organizations. Moreover, we also think that authority for setting margins in the cash markets should be delegated to the SROs. These organizations quite clearly have a strong economic interest in maintaining the integrity of their marketplaces. Moreover, in those areas in which they have already been delegated authority, they have taken a more flexible and sophisticated approach to setting margins. If given authority to set initial margins in the cash markets, they might, for example, adjust initial margin requirements to reflect differences in the price volatility of individual stocks.

Nonetheless, the Board believes that federal oversight of the SROs would provide important benefits. First, federal authorities would review the process by which an SRO sets margins to ensure that margins are designed to provide protection against losses from all but the most extreme price movements. If margins do not appear to provide such protection, the federal authorities should have the power to veto the SROs' actions and impose higher margins. Second, federal oversight would foster coordination among the SROs in the cash, futures, and options markets.

The Board believes that the SEC and the CFTC are the federal agencies best suited to provide oversight of margin policies in the markets they regulate. The SEC has long overseen the setting of maintenance margin requirements in the cash markets and margins in the options markets. The CFTC, by virtue of its broad experience in the regulation of futures markets, is best able to oversee the setting of margins on stock-index futures products. Although the Board also has some expertise in the area of margin regulation, it does not feel comfortable with proposals to extend its margin authority to cover equity-related futures contracts. Oversight of margins requires an agency intimately involved with, and aware of, the day-to-day workings of the particular market being regulated. It would be difficult, costly, and, in the final analysis, wasteful for the Board to replicate the expertise developed by the SEC and the CFTC in their respective areas. Furthermore, active oversight of margins might distract the Board from its primary responsibilities: the conduct of monetary policy and the establishment of regulations conducive to the safety and soundness of the banking system. The Board anticipates, however, that it will continue to participate in future discussions about regulatory reforms such as those currently being conducted through the Working Group on Financial Markets.

Thank you again for this opportunity to present the Federal Reserve's views on federal margin regulation. □

Statement by H. Robert Heller, Member, Board of Governors of the Federal Reserve System, before the Committee on Banking, Housing, and Urban Affairs of the U.S. Senate, May 25, 1988.

I welcome the opportunity to appear before this committee today on behalf of the Federal Reserve Board to discuss the condition of our nation's banking system.

This morning, I will review the general conditions and trends affecting the health of our nation's banking organizations and then discuss some of the financial and supervisory issues raised in your letter of invitation. I will also describe the supervisory steps we have taken to improve conditions in the banking system. In response to the committee's request, the federal banking agencies have provided a large volume of financial data to the committee's staff. Limitations of time and space do not permit me to cover all of this information in detail.

Overview of Banking Conditions

Conditions in the banking system tend to mirror conditions in the economy. We are now in the longest economic recovery in postwar history, and one might reasonably expect the condition of the banking system and measures of its aggregate performance to reflect that strength. Unfortunately, these aggregates may be deceiving because certain regions and sectors of our economy have been beset by serious structural problems over the last several years. For example, the rise of the dollar in the early 1980s hurt industries and firms in the Northeast and Midwest that depended on exports. Moreover, weaknesses in the agricultural and energy sectors of our economy have spread distress in the Midwestern and Southwestern regions of the country. The resulting problems for the banking system have been aggravated by restrictions on geographic expansion that have left a large segment of our banking industry vulnerable to local and regional economic problems. Thus, despite a generally strong economic recovery, many financial institutions are under severe financial stress.

Beyond these regional and sectoral developments, our banking system has been buffeted during the 1980s by general forces and specific events that have challenged bank managers and supervisors alike. The industry has had to cope with unusual volatility in interest rates, exchange rates, and commodity prices. Moreover, during this period, many developing countries have experienced significant financial and economic problems—a situation that has adversely affected the earnings and asset quality of our larger institutions.

In addition, competition in banking and the more broadly defined financial services industry has intensified, both at home and abroad. The change brought on by deregulation, product innovation, and technological advances can only enhance long-run efficiency, but in the short run it has raised the costs and increased the pressures faced by the banking industry.

On top of all of this, debt has mounted rapidly. Households, businesses, and governments have taken on heavier debt loads, and in the process, the relationship between the volume of outstanding debt and the equity and earnings of borrowers to support that debt has worsened. In short, this development has contributed to weaknesses in asset quality and a corresponding increase in the risks faced by banks and other providers of credit.

In light of these developments, it is not surprising that major segments of the banking industry today confront significant problems and challenges. Indeed, 1987 was an extremely difficult year for our banking system as total nonperforming loans increased, earnings declined, and the number of problem banks and bank failures reached record highs.

While many banks continue to face serious problems, the vast majority of all institutions have been able to cope with the challenges confronting them, and they are resolving their difficulties. Our economy continues to grow, and conditions in the agricultural sector have begun to improve. Growth of exports has helped strengthen our industrial and manufacturing sectors. Against this background, many institutions have seen their earnings and their asset quality improve. In sum, the banking system is basically sound, but it will continue to face many challenges in the coming years.

Regional and Sectoral Problems

Depressed conditions in the energy sector have resulted in enormous losses on energy loans and more recently on commercial real estate loans for banking organizations in the Southwest. Of the total of 2,870 banks in this region, 1,017 lost money last year; these losses meant a negative return on assets of 0.64 percent for banks in the Southwest. Nonperforming assets of the region's banks rose significantly. Real estate loans accounted for much of the increase, and, according to the available evidence, property values in many Texas markets have not yet bottomed out. The heavy losses of the past several years have eroded the capital of banking organizations in the region, forcing many to recapitalize or to restructure, and in some cases to seek supervisory assistance. While progress is being made, we still have a way to go before the problems in the Southwest will be behind us.

Similarly, banks operating in the farm belt or serving agricultural communities have shared the distress in the agricultural sector. Fortunately, 1987 saw a turn for the better. Farm commodity prices rose, production expanded, and farm income increased. Farmland values, which had been declining for several years, also began to rise. Last year, the aggregate net worth of farmers increased for the first time since 1980.

Improvements in the farm sector helped to relieve the pressures on banks serving farm communities. The profitability of farm banks, as measured by return on assets, rose on average from 0.34 percent in 1986 to 0.65 percent in 1987. The ratio of nonperforming assets to total assets also declined from a high of 2.2 percent in 1985 to 1.4 percent by the end of 1987. Finally, the capital ratios of farm banks also improved in 1987.

Another area of concern, which appears to cut across regional boundaries, is commercial real estate lending. In many locations, the supply of new office buildings has far outstripped the demand. Vacancy rates in many downtown and suburban office building markets are currently at or near record highs. As a consequence, some financial institutions that lent heavily during the construction boom are now experiencing credit difficulties. While the most serious problems appear to be concentrated in the Southwestern markets that also suffer from problems in the energy sector, they are by no means confined to that region. Problems have begun to surface in the Southeast and elsewhere.

An area that bears watching in the future is leveraged buyout (LBO) financing. While LBO financing offers the potential for attractive returns, it also poses high risks because it involves lending on a highly leveraged basis. As with any other type of lending, success depends on the quality of the credit analysis and on the manner in which the transactions are structured and financed. At this juncture, special caution is in order because LBO financing is a fairly new activity for banks and has yet to be tested in an environment of high interest rates or economic recession.

The International Debt Situation

The international debt situation significantly affected income statements and balance sheets of many multinational and regional banking organizations. In this area circumstances change frequently and progress is interrupted all too often. Despite these setbacks, meaningful progress has been achieved. For example, leaders in a number of borrowing countries have recognized the need to restructure their economies by placing greater emphasis on the private sector; by reducing trade barriers, public sector deficits, and unnecessary government restrictions; and by improving their external trade accounts and economic growth. Moreover, the large amount of capital raised by U.S. banks in recent years has reduced the size of their exposure to developing countries in relation to their capital bases.

Last year Brazil suspended interest payments on its medium- and long-term foreign-currency obligations. In response to this development and to uncertainties about the status of loans to other developing countries, banking organizations began to recognize formally the increased risk in their credits to developing countries. Virtually all of the larger banking organizations took substantial loan–loss provisions, and loans to Brazil and some other countries were placed in nonaccrual status. The result was that, at the larger banking organizations, earnings turned sharply negative, nonperforming asset ratios soared, and equity capital ratios declined.

Brazil's leaders have acknowledged that the moratorium did not serve their country's interests. Indeed, Brazil recently made some interest payments on these loans, and is normalizing relations with its creditors in a constructive manner. The resumption of interest payments by Brazil reinforced the view that interruptions of interest payments are not a solution to the international debt problem. This offers promise for the continued cooperation of the parties involved in the years ahead.

Recently, a number of options have been developed that can help banks manage their exposure to developing countries, as well as help those countries reduce their outstanding debts. For example, banks have sold funds to companies seeking to invest in developing countries, engaged in debt-for-equity swaps for their own account, and exchanged part of their debt obligations for securities.

The Federal Reserve has also provided greater flexibility to U.S. banks by liberalizing regulations dealing with debt-for-equity swaps. Some regional banking organizations have significantly reduced their exposure by coupling increases in loan-loss provisions last year with sales of developing country loans in the secondary market. A few smaller banks have exercised the option to withdraw from new money packages via so-called exit instruments—for example, in connection with the recent Mexican exchange offer—but such instruments have not yet gained wide acceptance.

Despite the progress that the borrowing countries themselves have made, and despite the options bankers have developed for managing their risk exposure, we have a long way to go before the LDC debt problem will be resolved. In the Board's view, the case-by-case approach put forward by Secretary Baker remains the best solution to these problems. It focuses on a revival of economic growth to enhance the debt-service capacity of the debtor countries and calls upon the commercial banks to sustain their lending while the countries regain access to international capital markets. In addition, the multilateral financial organizations are to provide their expertise and financial resources to help the countries to bring about external adjustment within a context of economic growth.

The Performance of The Banking Industry

Let me address now the performance of the banking industry in 1987. I will focus on the areas identified in the Committee's letter of invitation.

Asset Quality. As noted earlier, asset quality has been the greatest problem facing the industry. Last year, the ratio of nonperforming assets to total assets—a key indicator of asset quality—reached a postwar high. For all insured commercial banks, this ratio rose from 1.6 percent in 1986 to 2.1 percent at the end of 1987; for the 17 multinational bank holding companies, the ratio increased from 2.2 percent to 3.6 percent of total assets. The principal reasons for the increase were the placement of a large amount of LDC debt in nonaccrual status and the continuing energy- and real estate-related problems in the Southwest.

The asset quality picture has a positive side, however. If we set aside the effect of LDC nonaccruals and the problems in Texas, we find that domestic asset quality, as measured by the nonperforming asset ratio, improved last year. This improvement occurred despite the worsening of problems in the real estate sector. For example, after making these adjustments, the nonperforming asset ratio for the 17 multinational bank holding companies declined from 2.1 percent in 1986 to 1.8 percent last year. For banks with less than $1 billion in total assets, the ratio declined to its lowest level in five years. Another indicator of asset quality, the ratio of net loan charge-offs to total loans, confirms this trend. The net loan-loss ratio for all insured commercial banks decreased 6 basis points in 1987 to 0.93 percent of average loans. Significant declines occurred also at banks with assets of less than $1 billion.

While these trends permit cautious optimism in the outlook for asset quality, both nonperforming asset ratios and charge-off ratios remain high.

This is troublesome when we consider that we are in the sixth year of an economic expansion. In the past, bank asset quality has shown improvement at earlier stages of the economic recovery. Obviously, any unforeseen shocks or economic reversals could have serious negative implications for the loan portfolios of some banking organizations.

Profitability. Not surprisingly, the high level of problem assets has eroded the profitability of the banking industry in recent years. In 1987, the average return on assets for all insured commercial banks declined almost 50 basis points to 0.12 percent, and the average return on equity dropped a precipitous 750 basis points to 2.02 percent.

These aggregate measures of industry profitability mask disparities in the performance of banks in different size groups and in different regions of the country. The special LDC provisions taken last year caused significant losses or declines in earnings at the large multinational and regional institutions. Indeed, the average return on assets for the 25 largest banks declined from 0.51 percent in 1986 to a negative 0.79 percent last year. And, as I have indicated, banking organizations in the Southwest continued to experience substantial losses. Yet despite the dismal earnings performance of the industry as a whole last year, many institutions remained profitable. More than half of all insured commercial banks had returns on assets of 0.81 percent or more. Many organizations that maintained well-balanced portfolios and avoided excessive exposure in certain problem areas reported strong earnings. In addition, outside the Southwest, banks with assets of less than $1 billion generally reported improved returns on assets and equity, reversing several years of declining profitability.

Some of the very largest banking organizations have cushioned the impact of credit quality problems on profitability by changing the composition of their revenues. These banks have achieved a robust growth in noninterest income, reflecting their emphasis on fee-based services, such as investment banking, securities processing, and cash management. Nonrecurring transactions such as asset sales have also boosted the earnings of many larger organizations, and trading account income has become an important component of revenue.

First-quarter earnings reports reflect an improvement over last year's depressed levels. While data are not available for all banks, the average return on assets for state member banks rose to an annualized rate of 1.00 percent. The profits of the 17 multinational bank holding companies were also up significantly, although many still relied heavily on nonrecurring gains. In general, aggregate bank profits should recover in 1988 from last year's depressed level because of lower loan–loss reserves, tax benefits, and cost control and restructuring programs implemented by many institutions.

Capital. Although capital has long been an issue in the banking industry, it took on greater significance in 1987 because of the heavy losses sustained by many of the largest organizations. In 1987, the average ratio of equity capital (excluding loan–loss reserves) to total assets for the 25 largest commercial banks declined from 5.1 percent to 4.3 percent. This decline marks a reversal of six years of steady improvement for this group. The ratio of equity capital to total assets also declined significantly for banks in the Southwest. For the remainder of the industry, however, ratios of equity to assets generally improved in 1987.

The ratio of primary capital, which includes loan–loss reserves, to total assets for all insured commercial banks increased 49 basis points to 7.8 percent at the end of 1987. Much of this increase was accounted for by the increase in loan–loss reserves, a result of the special LDC provisions.

The recent decline in equity capital ratios at our larger institutions, stemming from the heavy losses related to the LDC situation, has stirred understandable concern. But one of the principal functions of capital is precisely to absorb losses and cushion other financial adversities. In this connection, the capital guidelines program that the federal banking agencies initiated in 1981 to encourage banks to strengthen their capital positions has proved beneficial and timely, for it clearly has put banks in a better position to withstand the financial pressures and problems that have confronted our banking system over the past several years.

Liquidity. We believe that the levels and trends of liquidity within the banking system are generally satisfactory. At the same time, some financially troubled banking organizations have experienced liquidity difficulties. In general, such organizations can obtain the funds they need to continue operations but, to do so, they typically must pay premiums over market rates. For some time, this has been the case for banking and thrift organizations operating in Texas. Unfortunately, the high premiums that weak institutions often pay compel healthy banks to raise their offering rates for deposits and other funds to compete with the weak institutions.

Let me stress, however, that liquidity has not been a problem in the system generally. The events surrounding the stock market collapse of last October underscored this point. During the week of October 19th, concern arose that liquidity in the banking system would dry up as a result of doubts about the creditworthiness of major market participants. Nevertheless, banks were responsive to the legitimate funding needs of their customers, and no large-scale liquidity problems developed. As you know, the Federal Reserve stood ready to provide the liquidity needed to prevent isolated problems from spreading through the financial system.

Problem and Failed Institutions

The problems and conditions I have described have resulted in a steady increase in the number of problem and failed banks since 1981. The number of institutions on the list of FDIC-insured problem banks and thrift institutions rose from 223 in 1981 to 1,575 at the end of 1987. Of that total, more than 95 percent had assets of less than $300 million; and 88 percent were located where problems in the farm, energy, and real estate sectors have been most acute. In particular, the number of FDIC-insured problem institutions in the Southwest—Texas, Oklahoma, Louisiana, Arkansas, and New Mexico—increased significantly last year, more than offsetting an encouraging decline in the number of problem institutions in the eastern and central regions of the country.

Last year, 184 FDIC-insured institutions were closed and another 19 were granted open bank assistance, compared with 138 and 7 respectively in 1986. In 1981, these figures stood at 7 closings and 3 assistance transactions. The results for last year show that 90 percent of failures and open bank assistance transactions occurred west of the Mississippi. While bank closings and open bank assistance transactions declined somewhat in the Midwest last year, the situation in the West and Southwest continued to deteriorate. In these regions, the number of closings and open bank assistance transactions increased from 84 in 1986 to 145 last year. Sixty percent of all bank failures in 1987 were located in only four states: Texas, Oklahoma, Louisiana, and Colorado. With respect to the commercial banks under the supervision of the Federal Reserve, 10 state member banks failed in 1987 versus 11 the previous year. So far this year the number of state member bank closings is larger than it was at the same point in 1986.

As these figures suggest, the problems have centered in states that historically have strictly limited branching and other forms of geographic expansion. In addition, federal restrictions have prevented institutions from expanding across state lines. These limits have severely hampered our financial institutions in diversifying their portfolios and, therefore, have left them more vulnerable to sectoral and regional economic strains.

We will all agree that the number of bank failures is too high, and much work needs to be done to address the conditions I have described. While we have begun to see some improvement in domestic asset quality at many institutions outside the Southwest, the continuing high level of problem assets suggests that we are unlikely to see any decline in the number of bank failures this year.

Supervisory and Regulatory Initiatives

The Federal Reserve has taken steps over the last several years to strengthen its ability to identify and address problems in the banking system. These steps include more frequent on-site examinations of large and problem banking organizations, more frequent meetings between Reserve Bank officials and bank directors, improvements in techniques for communicating with management and directors, the strengthening of supervisory enforcement programs for addressing mismanagement and unsound banking practices, the expansion of cooperative examination arrangements with state banking departments, and enhancement of examiner training programs. We have also tightened our standards for reviewing and approving applications of new banks to become members of the Federal Reserve System.

While structural and regional economic problems are major factors in explaining the high level of bank failures, we find that mismanagement, insider abuse, and criminal misconduct have played a role in many bank closings. To address these problems, the banking agencies have worked with the law enforcement agencies to improve our ability to detect improper banking practices and to identify, refer, investigate, and prosecute instances of white collar crime involving commercial banks. This program has resulted in more enforcement actions and criminal referrals. In the future, the banking and law enforcement agencies must continue to work diligently to address these problems.

The Federal Reserve has supported these efforts by devoting additional resources to the supervision function and by augmenting its force of supervisory personnel and field examiners. However, the problems we have faced have worsened in both number and kind. We believe the steps we have taken will prove helpful, but we will not be satisfied until the number of problem banks and bank failures is controlled. While it is not expected, any further deterioration in the banking industry could strain our resources and require more funds for the supervision and regulation function, as well as the expansion of our cadre of supervisors and field examiners.

Capital Adequacy. The Federal Reserve consistently stresses the role of capital in promoting the safety and soundness of our banking and financial system. Organizations experiencing financial problems, including weaknesses in earnings and deficiencies in asset quality, have been required to develop and implement plans to broaden their capital bases.

Mergers and Acquisitions. Capital adequacy is especially important in evaluating the proposals of bank holding companies to expand. The Board has long believed that banking organizations undertaking marked expansion or large acquisitions should maintain strong capital positions, well above minimum supervisory levels. Thus, the Board requires organizations making major acquisitions to support these plans with adequate capital, and it has discouraged merger transactions that weaken the capital position of the combined entity. In addition, in acting on merger applications, the Board has discouraged the use of accounting techniques or financial strategies intended to justify the payout or distribution of capital funds to shareholders when these resources may be needed to support the financial base of the merged organization.

Dividend Policy. In addition, we have discouraged excessive or unwarranted increases in dividends by banking organizations whose capital positions need strengthening. Indeed, the Federal Reserve has a fundamental policy that banking organizations under financial strain should consider reducing or even eliminating cash dividends in the absence of effective alternatives for raising capital.

Bank Holding Companies. In line with this emphasis on capital adequacy, the Board reiterated, in April last year, its longstanding regulatory policy that bank holding companies should act as sources of strength to their subsidiary banks by standing ready to provide capital funds during times of financial stress.

Risk-Based Capital Proposal. The federal banking agencies have undertaken to strengthen supervisory standards for assessing capital adequacy through the development of an internationally accepted, risk-based capital framework.

This framework will help to achieve two important policy objectives of the Federal Reserve.

First, it will encourage international banking organizations to strengthen their capital positions when necessary, taking into account off-balance-sheet exposure as well as conventional loans and investments. Second, the framework will serve to narrow competitive inequalities for international banking organizations stemming from differences in national supervisory requirements. This objective is particularly important in view of the internationalization of banking and financial markets.

The risk-based capital proposal establishes a common international framework for defining an organization's capital base that emphasizes core stockholders' equity. It also establishes procedures for factoring into the supervisory evaluation of capital needs, the riskiness of assets and off-balance-sheet exposures. In addition, the proposal sets out a schedule for achieving a minimum ratio of total capital to weighted risk assets: it is to be 7.25 percent by year-end 1990, of which at least 3.25 percentage points are to be in the form of common equity capital; and by the end of 1992, it is to be 8.0 percent, of which at least 4.0 percentage points must be common equity capital. The risk-based framework is still in the proposal stage, and the Board is currently reviewing comments and resolving the outstanding issues. We hope to implement the framework in conjunction with the other major industrial countries by year-end.

In general, the overwhelming majority of community and regional banking organizations will have little difficulty meeting the standards incorporated in the proposal. However, organizations whose capital positions are under pressures due to poor earnings, large loan losses, rapid growth, or excessive risk exposure may have to temper their growth, alter their asset mix, or raise additional capital to meet the minimum standards. As a rule, we believe that banking organizations should endeavor to operate above these standards to maintain a critical buffer during periods of financial strain or adversity.

One of the major issues surrounding the requirements for risk-based capital is whether they will compromise the banking industry's ability to compete. The competitiveness of our banking system is, of course, a matter of concern to the Board. Clearly, it would be counterproductive to adopt a framework that would undermine the competitive position of our nation's banks. But, in the long run, only a well-capitalized banking system can be a competitive and healthy banking system. Indeed, we have found that banking organizations with strong capital positions are the most effective competitors. Strong capital positions may actually give institutions a competitive advantage as customers, depositors, and investors seek stability and strength in their banks.

Expanded Powers

Although we believe that all these efforts will strengthen our banking institutions and make them more resistant to financial pressures, there are, of course, limits on what regulators can do unilaterally to deal effectively with the problems confronting our banking system. The Congress has a key role to play in establishing an appropriate legal framework. The Board strongly supports Senator Proxmire's financial modernization bill, which would broaden the range of securities activities permissible for banking organizations by repealing the Glass–Steagall Act's separation of commercial and investment banking. This legislation will not only produce important public benefits, it will also enable banks to compete more effectively and broaden their sources of income. In addition, the serious problems experienced by banks in the Midwest and Southwest underscore the need to encourage greater diversification in our banking and financial system. Thus, it is essential that we continue to move ahead on interstate banking so that banks will be able to diversify their loan portfolios and deposit bases, thereby making themselves less vulnerable to regional economic difficulties.

Conclusion

In reviewing the year's events and the aggregate data on bank performance, one could easily conclude that banking is not a very good business to be in these days. However, that conclusion would be incorrect. To be sure, banking is no longer a highly protected and sheltered industry. Competition and deregulation have altered the dynamics of the industry and have created an environment in which now there are clear winners and losers. This new reality is evident behind the aggregate statistics, in the results for individual companies. We find that although many banking organizations reported very poor results in recent years, many others have turned in exceptionally strong performances. The large interstate banking organizations operating in the Southeast, New England, and the Middle Atlantic states are cases in point.

In recent years the problems in the banking sector have received a good deal of attention, as indeed they should. But, all too little attention has been given to the positive developments within the industry.

First of all, the ability of the overwhelming majority of institutions to absorb the severe shocks and stresses of recent years reflects their underlying strength and that of the banking system as a whole.

Second, bank managements have focused on the need to improve operations. They are rethinking their strategies and moving to restructure and streamline operations to meet the competitive challenges and enhance their profitability. They are focusing on improving credit analysis and on strengthening lending standards and risk-control systems. The capital positions of many of the larger money-center institutions are also being strengthened to meet the demands of the market and to comply with the proposed risk-based capital standards.

We are beginning to see some improvement in the asset quality of the domestic loan portfolios of banking institutions outside the Southwest. While long overdue, this improvement should translate into better earnings performances. Earnings in the first quarter of this year appear to support this view. Yet, despite the positive signs, much work remains to be done by bank managers and supervisors alike before we can fairly say that the problems that beset many of our banking organizations are behind us. □

Announcements

NEW REGULATION ISSUED

The Federal Reserve Board on May 13, 1988, issued a new regulation to carry out provisions of the Expedited Funds Availability Act. The Regulation goes into effect September 1 and spells out when funds deposited in a bank by a customer must be available for use.

The Regulation, entitled Regulation CC, also includes rules to speed up the collection and return of checks.

The Congress adopted the Expedited Funds Availability Act last year after expressing growing concern about delayed availability—the length of time that some banks and other depository institutions place on checks deposited in customer accounts before the funds can be withdrawn.

Under the law and the regulation, a temporary availability schedule provides for the withdrawal of funds by the third business day following deposit if the deposit is a local check. A local check is one deposited in an institution located in the same Federal Reserve check processing region as the paying bank. There are currently 48 check processing regions in the country.

Proceeds of nonlocal checks must be made available for withdrawal by the seventh business day after deposit under the temporary rules.

Beginning on September 1, 1990, these schedules will be reduced to two business days for local checks and five business days for nonlocal checks.

Beginning this September, receipt of electronic payments, deposits of cash, as well as deposits of some types of checks—such as Treasury checks, state and local government checks, and cashier's checks—generally must be made available for withdrawal the day after deposit.

The regulation contains several exceptions to the general rules. When an exception is invoked, a bank may extend the hold on an account beyond the statutory schedule by a reasonable period of time, as determined in the regulation.

Depository institutions also are required to disclose their availability policy to new customers before opening an account, to existing customers, and to any person upon request. Disclosures are also required on preprinted deposit slips, at branch locations, and at automated teller machines.

Besides the availability rules, the regulation includes rules to speed the collection and return of checks to reduce the risk that banks incur by making funds available to their customers before learning that a check has been dishonored.

In contrast to the high-speed automated processing involved in the forward collection of checks, the current check return system is a slow, labor-intensive operation. A bank returning a check must rely on deciphering the endorsements on the back of the check to determine where the return must be sent. Returns are often transported by mail, rather than courier, further slowing their trip to the depository bank.

Moreover, checks are generally returned through each of the banks that collected the check, although this may not be the most efficient path to route the return. Therefore, it now takes three times as long to return a check as it does to collect a check.

Under the new rules, checks will be returned in much the same way they are collected. The new regulation enables banks to return checks directly to the depository bank using couriers and banks offering check return services. The regulation also encourages banks to qualify returned checks for automated processing by high-speed equipment. The regulation expands the current notice of nonpayment requirements of Regulation J to all returned checks of $2,500 or more, including those checks that were not collected through the Federal Reserve, and shortens the time frame within which notices must be provided.

To facilitate direct returns and notice of nonpayment, on April 4, 1988, the Board adopted endorsement standards that will enable banks to more readily identify the depository bank to which the returned check or notice must be sent.

Copies of Regulation CC are available upon request from the Federal Reserve Banks and the Board's Publications Services.

Nominations Sought for Appointments to Consumer Advisory Council

The Federal Reserve Board announced on May 27, 1988, that it is seeking nominations of qualified individuals for twelve appointments to its Consumer Advisory Council, to replace members whose terms expire on December 31, 1988.

The Consumer Advisory Council was established by the Congress in 1976, at the suggestion of the Board, to advise the Board on the exercise of its duties under the Consumer Credit Protection Act and on other consumer-related matters. The Council meets three times a year.

Nominations should include the name, address, and telephone number of the nominee, past and present positions held, and special knowledge, interests, or experience related to consumer credit or other consumer financial services.

Nominations should be submitted in writing to Dolores S. Smith, Assistant Director, Division of Consumer and Community Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

Proposed Action

The Federal Reserve Board on May 10, 1988, issued for public comment amendments to its Regulation C (Home Mortgage Disclosure), which carry out provisions of the Home Mortgage Disclosure Act enacted earlier this year. Comment is requested by June 20.

Annual Report: Publication

The *74th Annual Report, 1987* of the Board of Governors of the Federal Reserve System, covering operations for the calendar year 1987, is available for distribution. Copies may be obtained on request to Publications Services, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. A separately printed companion document entitled *Annual Report: Budget Review, 1987–88,* which describes the budgeted expenses of the Federal Reserve System for 1988 and compares them with expenses for 1986 and 1987, is also available from Publications Services.

System Membership: Admission of State Banks

The following state banks were admitted to membership in the Federal Reserve System during the period May 1 through May 31, 1988:

Florida
St. Petersburg .... First Central Bank
Illinois
Lockport .... Beverly Bank of Lockport
Virginia
Virginia Beach............ People's Bank of Virginia Beach

Record of Policy Actions of the Federal Open Market Committee

MEETING HELD ON MARCH 29, 1988

1. Domestic Policy Directive

The information reviewed at this meeting suggested that economic activity was continuing to expand in the current quarter, although the rate of growth was down somewhat from the rapid pace in the fourth quarter. The moderation reflected a considerable slowing in the pace of inventory investment. However, domestic final sales seemed to have picked up sharply in the first quarter; business capital expenditures apparently increased substantially and consumer spending also strengthened, buoyed by higher sales of motor vehicles. The rate of inflation had remained relatively restrained over the course of recent months and wage trends had shown little change.

Growth in industrial production moderated in January and February from a rapid pace in late 1987. After a surge in the second half of 1987, the output of materials edged down. Also, auto assemblies and the production of consumer home goods dropped below their late 1987 levels, apparently reflecting in part an effort to trim or to moderate the growth in inventories. In contrast, the production of business equipment remained quite strong, with gains in nearly all categories. Capacity utilization rates were at relatively high levels in a number of industries. Gains in total nonfarm payroll employment continued strong over the January–February period, led by the service and retail trade sectors. In manufacturing, employment gains were smaller in January and February than during the second half of 1987. The unemployment rate edged down to 5.7 percent in February, its lowest level since mid-1979.

Increased demand for motor vehicles produced a rebound in consumer spending early in the year. That demand appeared to be bolstered by sales incentives programs, strong income growth, and rising consumer confidence. Excluding motor vehicles, nominal retail sales were essentially flat since November, and the saving rate was well above its average for the year preceding the break in the stock market.

Housing activity picked up in February but still was slightly below its fourth-quarter pace. While sales of new and existing homes continued to decline in January, housing starts rose to an annual rate of 1.49 million units in February, with growth stronger in the single-family sector than in the multifamily area.

Available information suggested that business fixed investment was increasing rapidly since late last year, led by large gains in equipment spending. Data on shipments indicated a surge in spending on information-processing equipment. Increases in other equipment categories were smaller but were widespread. Spending on nonresidential structures was relatively weak in early 1988. Inventory investment apparently slowed in the first quarter, reflecting the strength in sales of motor vehicles combined with cutbacks in their production.

The nominal U.S. merchandise trade deficit in January was significantly below the fourth-quarter average, although essentially unchanged from December. Non-oil imports and nonagricultural exports both fell noticeably from their December levels. The current account deficit had narrowed in the fourth quarter, but the improvement was more than accounted for by a sharp increase in capital gains stemming from the depreciation of the dollar and the related revaluation in the book value of direct U.S. investments abroad denominated in foreign currencies. On average, economic growth in major foreign industrial countries continued strong in the fourth quarter and early this year, though it slowed somewhat from the rapid third-quarter pace. Growth was particularly robust in Canada and Japan.

Increases in consumer prices remained relatively moderate in early 1988, reflecting the impact of declining energy prices and a relatively small rise in food prices. At the producer level, prices of finished goods fell slightly in February after fluctuating irregularly in other recent months, largely because of swings in food prices. Commodity prices registered mixed changes during the first quarter. The index of hourly earnings was unchanged in February after increasing in January, and on balance it rose roughly in line with the pace in 1987.

At its meeting on February 9–10, 1988, the Committee had adopted a directive that called for maintaining the slightly reduced degree of pressure on reserve positions that had been sought since late January. These reserve conditions were expected to be consistent with growth in both M2 and M3 at annual rates of about 6 to 7 percent over the period from November through March. With regard to operating procedures, the Committee had agreed that the more normal approach to operations implemented especially since the year-end, which emphasized the provision of reserves rather than money market conditions, remained generally appropriate. Nonetheless, it was understood that some flexibility might continue to be needed in the conduct of operations in light of the still somewhat unsettled conditions in financial markets, the uncertainties in the relationship between reserve and money market conditions, and the substantial risks of unanticipated economic and financial developments. Taking account of conditions in financial markets, the members had decided that somewhat less or somewhat more reserve restraint would be acceptable, depending on the strength of the business expansion, indications of inflationary pressures, developments in foreign exchange markets, and the behavior of the monetary aggregates. The intermeeting range for the federal funds rate had been left unchanged at 4 to 8 percent.

As contemplated at the February meeting, primary emphasis was placed on achieving reserve objectives during the intermeeting period, although slightly greater than normal attention continued to be given to developments in the money market. In the three reserve maintenance periods ending March 23, adjustment plus seasonal borrowing averaged $238 million. Growth in M2 and M3 remained relatively robust in February and apparently also in March following a rebound in January. Since November both aggregates had expanded at an annual rate of about 7 percent. Growth in M1 slowed considerably over the intermeeting period from a very rapid pace in January. With transaction deposits expanding at a relatively sluggish pace on balance and excess reserves declining, total reserves advanced at a modest rate during the intermeeting period.

The federal funds rate averaged 6.59 percent for the three full reserve maintenance periods since the February meeting, close to the rate prevailing around the time of that meeting but below the average in January. Most other interest rates rose somewhat on balance during the intermeeting period. The largest increases were in bond markets and they appeared to have been prompted by evidence of more strength in the economy than had been anticipated. Broad indexes of stock prices rose somewhat over the period, but price swings remained sizable on occasion.

Through most of the period since the February meeting the dollar fluctuated in a relatively narrow range. However, it came under downward pressure late in the period following reports suggesting stronger than anticipated growth in U.S. domestic demand that raised questions about the pace of adjustment in the U.S. trade balance. Over the intermeeting period the dollar declined 2¼ percent on a weighted-average basis in relation to the other G-10 currencies. The net decline was largely accounted for by a 4 percent depreciation in terms of the pound and 2 percent in terms of the Canadian dollar and the yen, while the mark and other EMS currencies remained little changed in relation to the dollar.

The staff projection prepared for today's meeting suggested more strength in business activity this year than had been forecast earlier. The faster growth was expected to be associated with little change in the unemployment rate from current levels. And while the projection for 1989 now indicated a somewhat reduced rate of growth, higher levels of capacity utilization over the projection period as a whole were associated with marginally higher rates of inflation by late 1988 and for the year 1989. A key adjustment in the forecast was stronger investment spending. The staff continued to anticipate that the external sector would make a substantial positive contribution to business activity in 1988 and 1989.

In the Committee's discussion of the economic situation and outlook, the members generally agreed that the information available since the February meeting pointed to a stronger expansion in business activity than they had anticipated earlier. Unfortunately, recent developments in the view of several members also increased the risks of more pressures on productive resources and more inflation. A number of members noted that the revised staff forecast was in line with their own projections, and some also indicated that any deviations were likely to be in the direction of somewhat faster expansion and even higher rates of inflation. A number of other members did not disagree that the risks had shifted and that concerns about a recession had receded, but they also referred to areas of weakness in the economy that implied the potential for relatively moderate growth without adding to price pressures.

In the course of the Committee's discussion, members referred to high or improving levels of business activity in many parts of the country, albeit from depressed levels in some areas or sectors of the economy. Manufacturing was exhibiting particular strength across the nation. Despite some increasing pressures on manufacturing capacity, business executives generally appeared to remain cautious in their plans for new production facilities, apparently reflecting their uncertainties about the outlook for sales growth in both domestic and export markets. However, some businesses were reported to be in the process of reappraising their capacity needs, and with demands for business equipment relatively strong, a number of members concluded that appreciable further growth was likely in overall business fixed investment. The members differed to some extent in their views on the outlook for consumer spending and business inventory accumulation, but they generally expected at least moderate growth in total domestic final demands.

In the view of some members any strengthening in domestic demand could well give rise to pressures on resources as net exports continued to expand. The outlook for trade remained subject to considerable uncertainty, but further improvement in the trade balance was nonetheless a reasonable prospect. That prospect was supported by reports from businesses of their increased ability to compete internationally. A number of members again commented that long-run adjustment in the trade balance would require a period of relatively moderate growth in domestic purchases as more production was directed to export markets.

Turning to the outlook for inflation, some members reported that an increasing number of business contacts were expressing concern about the prospects for prices and wages. On the positive side, while some deterioration seemed to have occurred recently, inflationary expectations appeared to have diminished on balance since the stock market crash in October. Moreover, aggregate measures of prices and wages had not yet shown any sustained tendency to accelerate. This could indicate that some leeway remained in the economy before a more serious inflation problem emerged. Inflation developments did not depend solely on rates of capacity use but on the overall inflationary and financial climate and on expectations about policy responses to inflation. In particular, responses to rising capacity constraints might be reduced or delayed in light of the downtrend in inflation since the early 1980s. Nonetheless, most members agreed that the risks of more inflation stemming from increased pressures on capacity had increased and represented a key challenge for policymakers. In a still limited number of manufacturing industries, relatively high capacity utilization rates were being reflected in sizable price increases for some metals and other business products, increasing lead times in filling certain orders, and some precautionary ordering in anticipation of future needs. While there was little evidence thus far that the added price pressures extended to finished products or that overall business buying and inventory patterns were being significantly affected, the economy might well be near the point where faster growth in business activity would induce a higher rate of inflation, and in the view of several members, there was a potential for a sharp escalation in prices. Members were particularly concerned that any tendency for greater price pressures to become embedded in more rapid wage increases would make achievement of the ultimate objective of price stability considerably more difficult.

In further comments some members noted that an assessment of the economic outlook was complicated by the continuing risks associated with the troubled status of a number of financial institutions and the still somewhat unsettled conditions in financial markets, as evidenced in part by occasionally sharp movements in stock prices. Some members believed that speculative attitudes had intensified recently as reflected for example in increases in corporate merger, acquisition, and commercial construction activities that typically involved heavy use of debt financing. Such a development was surprising so soon after the October 1987 disturbances in financial markets, and still growing debt burdens served to increase the vulnerability of the economy to adverse developments. Some members also expressed considerable concern about the outlook for the dollar, which had been under downward pressure in the foreign exchange markets. A sizable further decline in the dollar, while it might have favorable implications for the U.S. trade balance, would tend to raise domestic prices and could adversely affect the nation's ability to continue to finance a massive trade deficit, with disruptive effects on domestic financial markets and the domestic economy.

At its meeting in February the Committee had agreed on policy objectives that called for monetary growth ranges of 4 to 8 percent for both M2 and M3 for the period from the fourth quarter of 1987 to the fourth quarter of 1988. The associated range for growth in total domestic nonfinancial debt was set at 7 to 11 percent. The Committee decided not to establish a numerical target for M1 growth; instead, the appropriateness of changes in M1 would be evaluated during the year in the light of the behavior of M1 velocity, developments in the economy and financial markets, and the nature of emerging price pressures.

In the Committee's discussion of policy implementation for the intermeeting period ahead, nearly all the members favored some increase in the degree of pressure on reserve positions. Most indicated a preference for only a slight move toward restraint, at least at this time, but a few urged somewhat greater tightening. Several commented that a stronger economic outlook in the context of already high capacity utilization rates in a number of industries required timely action to help prevent the business expansion from gathering excessive and unsustainable momentum that would lead to higher inflation. A policy response under emerging circumstances would also serve to confirm the System's commitment to achieving price stability over time and might help to avert an aggravation of inflationary expectations. Moreover, action at this time might preclude the need for more substantial tightening later.

While they favored a slight increase in reserve pressures, a number of members stressed that monetary policy should not overreact to recent developments. The firming should proceed with caution in light of the prevailing uncertainties in the economic outlook and the current absence of evidence in broad measures of prices and wages that rates of inflation were already rising. Other factors cited in favor of a cautious approach included the persisting problems or incomplete recovery in some sectors of the economy and areas of the country, the still sensitive conditions in financial markets, and the troubled status of many financial institutions. In the view of one member, underlying demands in the economy were not likely to be sufficiently robust to pose a threat of greater inflation, and so prospective economic and financial conditions did not warrant any tightening of reserve conditions.

In the course of the Committee's discussion, some members noted that growth of the broader monetary aggregates had remained fairly rapid in February and March. According to a staff analysis, the reserve conditions favored by most members were likely to be associated with some slowing in the expansion of those aggregates, assuming a typically sluggish adjustment of offering rates on retail deposits to changes in short-term market rates. Even so, the analysis suggested that for the year through June growth of both M2 and M3 would still be appreciably above the midpoints of the Committee's ranges for 1988. Some members observed that the near-term outlook for monetary growth was subject to more uncertainty than usual because the impact of new tax laws on mid-April tax payments and related deposit balances could not be fully anticipated. Some concern was expressed regarding the inflationary potential of the recent rates of growth in the broader monetary aggregates, and one member commented that under prevailing circumstances significantly stronger than expected expansion in those aggregates should be resisted, especially expansion that brought the cumulative growth of M2 and M3 to levels above the Committee's ranges by midyear.

During this meeting the Committee reviewed its operating procedures at some length, including the relative merits of focusing primarily on money market conditions or on a specified degree of reserve pressure in the day-to-day conduct of monetary policy. The considerable emphasis on stabilizing money market conditions in the period after the October collapse of the stock market had given way increasingly to the earlier concentration on achieving reserve position objectives, especially since the year-end. Nonetheless, in keeping with the Committee's instructions as reaffirmed at the February meeting, open market operations had continued to be conducted with some degree of flexibility that involved occasional departures from a normal focus on targeting reserve positions and slightly greater than usual attention to money market conditions. In today's discussion a few members indicated that they favored paying greater attention to money market conditions in the normal course of conducting open market operations. It was noted in support of this view that money market interest rates were a key variable for transmitting monetary policy to financial markets and the economy, and that the variability in those rates that sometimes accompanied the pursuit of a given degree of pressure on reserve positions injected an unneeded element of uncertainty in the decisions of market participants. However, most members were in favor of either retaining the existing emphasis on reserve pressures or completing the process of reinstating the previous approach to reserve management. Short-run variability in money market interest rates was not seen as detracting from the functioning of the market or the implementation of policy since market participants were well aware of the System's procedures, and such fluctuations could reflect important shifts in market expectations or underlying conditions of supply and demand for reserves and credit. The shifts would be masked if the Federal Reserve were to focus more closely on money market conditions in its day-to-day conduct of open market operations. Even so, a majority of the members felt that the uncertain economic outlook and still sensitive conditions in financial markets warranted some continuing flexibility in the conduct of open market operations.

In the Committee's consideration of possible adjustments in policy implementation during the intermeeting period, some members felt that the risks of more inflation argued for giving particular attention to developments that might call for somewhat tighter reserve conditions. A majority of the members believed, however, that there should be no presumption about the likely direction of intermeeting adjustments, if any, in the implementation of policy. While these members generally agreed that the economic risks were in the direction of more inflation, they preferred not to weight the directive toward possible further tightening in light of the firming that was already contemplated at this meeting and the considerable uncertainties that they saw in the economic and financial outlook. One member proposed placing more emphasis on the behavior of the monetary aggregates as a factor that might trigger some firming during the intermeeting period, but other members preferred the current emphasis, partly because any surge in money growth over the weeks ahead might reflect temporary developments related to mid-April tax payments. Some consideration was given during the discussion to an upward adjustment in the intermeeting range for the federal funds rate, especially since federal funds could trade well into the upper half of the Committee's range following the decision made at today's meeting. However, the members concluded that increasing the range under current circumstances could be misread as implying a greater move toward restraint than the Committee intended.

At the conclusion of the Committee's discussion, all but one of the members indicated their acceptance of a directive that called for a slight increase in the degree of pressure on reserve positions. With regard to the Committee's operating procedures, a majority continued to endorse the view that some flexibility might be desirable in the day-to-day conduct of open market operations in light of the still somewhat unsettled conditions in financial markets and the uncertainties surrounding the economic outlook. Taking account of conditions in financial markets, the members indicated that somewhat greater or somewhat lesser reserve restraint would be acceptable depending on the strength of the business expansion, indications of inflation, the performance of the dollar in foreign exchange markets, and the behavior of the monetary aggregates. The reserve conditions contemplated by the Committee were expected to be consistent with growth in both M2 and M3 over the period from March through June at annual rates of about 6 to 7 percent. As at previous meetings, the Committee decided not to indicate any expectation regarding the growth of M1 over the months ahead. The members agreed that the intermeeting range for the federal funds rate, which provides one mechanism for initiating consultation of the Committee when its boundaries are persistently exceeded, should be left unchanged at 4 to 8 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 some moderation in the expansion of economic activity in the current quarter from the rapid pace in the fourth quarter; the continuing expansion has been supported by a sharp pickup in domestic final sales while the accumulation of inventories appears to have slowed. Total nonfarm payroll employment rose substantially over the first two months of the year, although employment growth slowed somewhat in the manufacturing sector. The civilian unemployment rate fell slightly to 5.7 percent in February. Growth in industrial production moderated in early 1988 from a brisk pace during the second half of 1987. Consumer spending strengthened in January and February, buoyed by higher sales of motor vehicles. Indicators of business capital spending pointed to substantial gains in the first quarter. Housing starts rebounded in February but were still somewhat below the reduced fourth-quarter average. The nominal U.S. merchandise trade deficit changed little in January and was significantly below the fourth-quarter average. In recent months the rise in consumer and producer prices has been relatively modest on balance, reflecting developments in food and energy prices, and wage trends have shown little change.

Most interest rates were up somewhat on balance since the Committee's meeting in February, with the largest increases concentrated in bond markets. The trade-weighted foreign exchange value of the dollar in terms of the other G-10 currencies fluctuated in a relatively narrow range over most of the intermeeting period, but declined somewhat in recent days.

After strengthening in January, growth of M2 and M3 remained relatively robust in February and in the first part of March. Thus far this year expansion of these two aggregates appears to have been in the upper portion of the ranges established by the Committee for 1988. M1 has grown moderately on balance since the fourth quarter. Expansion in total domestic nonfinancial debt appears to be continuing at a pace close to that in 1987.

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability over time, 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 February established growth ranges of 4 to 8 percent for both M2 and M3, measured from the fourth quarter of 1987 to the fourth quarter of 1988. The monitoring range for growth in total domestic nonfinancial debt was set at 7 to 11 percent for the year.

With respect to M1, the Committee decided in February not to establish a specific target for 1988. The behavior of this aggregate in relation to economic activity and prices has become very sensitive to changes in interest rates, among other factors, as evidenced by sharp swings in its velocity in recent years. Consequently, the appropriateness of changes in M1 this year will continue to be evaluated in the light of the behavior of its velocity, developments in the economy and financial markets, and the nature of emerging price pressures.

In the implementation of policy for the immediate future, the Committee seeks to increase slightly the degree of pressure on reserve positions. The Committee agrees that the current more normal approach to open market operations remains appropriate; still sensitive conditions in financial markets and uncertainties in the economic outlook may continue to call for some flexibility in operations. Taking account of conditions in financial markets, somewhat greater reserve restraint or somewhat lesser reserve restraint would be acceptable depending on the strength of the business expansion, indications of inflationary pressures, developments in foreign exchange markets, as well as the behavior of the monetary aggregates. The contemplated reserve conditions are expected to be consistent with growth in M2 and M3 over the period from March through June at annual rates of about 6 to 7 percent. 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 4 to 8 percent.

Votes for this action: Messrs. Greenspan, Corrigan, Angell, Black, Forrestal, Heller, Hoskins, Johnson, Kelley, and Parry. Vote against this action: Ms. Seger.

Ms. Seger dissented because she did not believe that economic and financial developments warranted any tightening of reserve conditions. She did not see a significant risk of more inflationary pressures on productive resources stemming from prospective demands in domestic and export markets. She remained concerned about the downside risks in the economy, the fragility in financial markets, especially the stock market, and the weakened condition of many depository institutions.

2. *AUTHORIZATION FOR DOMESTIC OPEN MARKET OPERATIONS*

The Committee approved a temporary increase of $4 billion, to a level of $10 billion, in the limit between Committee meetings on changes in System Account holdings of U.S. government and federal agency securities specified in paragraph 1(a) of the Authorization for Domestic Open Market Operations. The increase was effective for the intermeeting period starting March 30, 1988, and ending with the close of business on May 17, 1988.

Votes for this action: Messrs. Greenspan, Corrigan, Angell, Black, Forrestal, Heller, Hoskins, Johnson, Kelley, Parry, and Ms. Seger. Votes against this action: None.

This action was taken on the recommendation of the Manager for Domestic Operations. The Manager advised that the normal leeway of $6 billion probably would not be sufficient to accommodate desirable increases in System Account holdings of securities during the intermeeting period. Those increases would supply reserves to help offset very large reserve drains stemming mainly from a short-term rise in Treasury balances at the Federal Reserve Banks associated with mid-April tax payments.

Legal Developments

Adoption of Regulation CC

The Board of Governors has adopted 12 C.F.R. Part 229, as its Regulation CC, to implement the Expedited Funds Availability Act. This rule sets out the requirements that banks and other depository institutions make funds deposited into accounts available according to specified time schedules and disclose funds availability policies to their customers. Regulation CC also establishes rules designed to speed the return of unpaid checks.

The Board has also submitted the collection of information requirements in Regulation CC to the Office of Management and Budget ("OMB") for its review under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and OMB regulations on Controlling Paperwork Burdens on the Public (5 C.F.R. Part 1320).

Effective September 1, 1988, except for 12 C.F.R. 229.12, which is effective on September 1, 1990. After September 1, 1990, 12 C.F.R. 229.11 will no longer be effective.

Part 229 —Availability of Funds and Collections of Checks

Subpart A—General

229.1—Authority and purpose; organization.
229.2—Definitions.
229.3—Administrative enforcement.

Subpart B—Availability of Funds and Disclosure of Funds Availability Policies

229.10—Next-day availability.
229.11—Temporary availability schedule.
229.12—Permanent availability schedule.
229.13—Exceptions.
229.14—Payment of interest.
229.15—General disclosure requirements.
229.16—Content of specific availability policy disclosure.
229.17—Initial disclosures.
229.18—Additional disclosure requirements.
229.19—Miscellaneous.
229.20—Relation to state law.
229.21—Civil liability.

Subpart C—Collection of Checks

229.30—Paying bank's responsibility for return of checks.
229.31—Returning bank's responsibility for return of checks.
229.32—Depositary bank's responsibility for returned checks.
229.33—Notice of nonpayment.
229.34—Warranties by paying bank and returning bank.
229.35—Indorsements.
229.36—Presentment of checks.
229.37—Variation by agreement.
229.38—Liability.
229.39—Insolvency of bank.
229.40—Effect of merger transaction.
229.41—Relation to state law.
229.42—Exclusions.

Appendix A—Routing Number Guide to Local Checks and Certain Checks That Are Subject to Next-Day Availability

Appendix B—Reduction of Schedules for Certain Nonlocal Checks

Appendix C—Model Forms, Clauses, and Notices

Appendix D—Indorsement Standards

Appendix E—Commentary

Authority: Title VI of Pub. L. 100–86, 101 Stat. 552, 635, 12 U.S.C. 4001 *et seq.*

Subpart A—General

Section 229.1—Authority and purpose; organization.

(a) *Authority and purpose.* This part (Regulation CC; 12 C.F.R. Part 229) is issued by the Board of Governors of the Federal Reserve System ("Board") to implement the Expedited Funds Availability Act ("Act"), which is contained in Title VI of Public Law 100-86.

(b) *Organization.* This part is divided into subparts and appendices as follows —

(1) Subpart A contains general information. It sets forth —

(i) The authority, purpose, and organization;

(ii) Definition of terms; and

(iii) Authority for administrative enforcement of this part's provisions.

(2) Subpart B of this part contains rules regarding the duty of banks to make funds deposited into accounts available for withdrawal, including both temporary and permanent availability schedules. Subpart B of this part also contains rules regarding exceptions to the schedules, disclosure of funds availability policies, payment of interest, liability of banks for failure to comply with Subpart B of this part, and other matters.

(3) Subpart C of this part contains rules to expedite the collection and return of checks by banks. These rules cover the direct return of checks, the manner in which the paying bank and returning banks must return checks to the depositary bank, notification of nonpayment by the paying bank, rules regarding indorsement and presentment, the liability of banks for failure to comply with Subpart C of this part, and other matters.

Section 229.2—Definitions.

As used in this part, unless the context requires otherwise:

(a) "Account" means a deposit as defined in 12 C.F.R. 204.2(a)(1)(i) that is a transaction account as described in 12 C.F.R. 204.2(e). As defined in these sections, "account" generally includes accounts at a bank from which the account holder is permitted to make transfers or withdrawals by negotiable or transferable instrument, payment order of withdrawal, telephone transfer, electronic payment, or other similar means for the purpose of making payments or transfers to third persons or others. "Account" also includes accounts at a bank from which the account holder may make third party payments at an ATM, remote service unit, or other electronic device, including by debit card, but the term does not include savings deposits or accounts described in 12 C.F.R. 204.2(d)(2) even though such accounts permit third party transfers. An account may be in the form of —

(1) A demand deposit account,

(2) A negotiable order of withdrawal account,

(3) A share draft account,

(4) An automatic transfer account, or

(5) Any other transaction account described in 12 C.F.R. 204.2(e).

"Account" does not include an account where the account holder is a bank, where the account holder is an office of an institution described in paragraphs (e)(1) through (e)(6) of this section or an office of a "foreign bank" as defined in section 1(b) of the International Banking Act (12 U.S.C. 3101) that is located outside the United States, or where the direct or indirect account holder is the Treasury of the United States.

(b) "Automated clearinghouse" or "ACH" means a facility that processes debit and credit transfers under rules established by a Federal Reserve Bank operating circular on automated clearinghouse items or under rules of an automated clearinghouse association.

(c) "Automated teller machine" or "ATM" means an electronic device at which a natural person may make deposits to an account by cash or check and perform other account transactions.

(d) "Available for withdrawal" with respect to funds deposited means available for all uses generally permitted to the customer for actually and finally collected funds under the bank's account agreement or policies, such as for payment of checks drawn on the account, certification of checks drawn on the account, electronic payments, withdrawals by cash, and transfers between accounts.

(e) "Bank" means —

(1) An "insured bank" as defined in section 3 of the Federal Deposit Insurance Act (12 U.S.C. 1813) or a bank that is eligible to apply to become an insured bank under section 5 of that Act (12 U.S.C. 1815);

(2) A "mutual savings bank" as defined in section 3 of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(3) A "savings bank" as defined in section 3 of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(4) An "insured credit union" as defined in section 101 of the Federal Credit Union Act (12 U.S.C. 1752) or a credit union that is eligible to make application to become an insured credit union under section 201 of that Act (12 U.S.C. 1781);

(5) A "member" as defined in section 2 of the Federal Home Loan Bank Act (12 U.S.C. 1422);

(6) An "insured institution" as defined in section 401 of the National Housing Act (12 U.S.C. 1724) or an institution that is eligible to make application to become an insured institution under section 403 of that Act (12 U.S.C. 1726); or

(7) A "branch" of a "foreign bank" as defined in section 1(b) of the International Banking Act (12 U.S.C. 3101).

For purposes of Subpart C and, in connection therewith, Subpart A, the term "bank" also includes any person engaged in the business of banking, including a Federal Reserve Bank, a Federal Home Loan Bank, and a state or unit of general local government to the extent that the state or unit of general local government acts as a paying bank. Unless otherwise specified, the term "bank" includes all of a bank's offices in the United States, but not offices located outside the United States.

(f) "Banking day" means that part of any business day on which an office of a bank is open to the public for carrying on substantially all of its banking functions.

(g) "Business day" means a calendar day other than a Saturday or a Sunday, January 1, the third Monday in January, the third Monday in February, the last Monday in May, July 4, the first Monday in September, the second Monday in October, November 11, the fourth Thursday in November, or December 25. If January 1, July 4, November 11, or December 25 fall on a Sunday, the next Monday is not a business day.

(h) "Cash" means United States coins and currency.

(i) "Cashier's check" means a check that is —

(1) Drawn on a bank;

(2) Signed by an officer or employee of the bank on behalf of the bank as drawer;

(3) A direct obligation of the bank; and

(4) Provided to a customer of the bank or acquired from the bank for remittance purposes.

(j) "Certified check" means a check with respect to which the drawee bank certifies by signature on the check of an officer or other authorized employee of the bank that —

(1) (i) The signature of the drawer on the check is genuine; and

(ii) The bank has set aside funds that—

(A) Are equal to the amount of the check, and

(B) Will be used to pay the check; or

(2) The bank will pay the check upon presentment.

(k) "Check" means —

(1) A negotiable demand draft drawn on or payable through or at an office of a bank;

(2) A negotiable demand draft drawn on a Federal Reserve Bank or a Federal Home Loan Bank;

(3) A negotiable demand draft drawn on the Treasury of the United States;

(4) A demand draft drawn on a state government or unit of general local government that is not payable through or at a bank;

(5) A United States Postal Service money order; or

(6) A traveler's check drawn on or payable through or at a bank.

The term "check" does not include a noncash item or an item payable in a medium other than United States money. A draft may be a "check" even though it is described on its face by another term, such as "money order." For purposes of Subpart C, and in connection therewith, Subpart A, of this part, the term "check" also includes a demand draft of the type described above that is nonnegotiable.

(l) "Check clearinghouse association" means any arrangement by which three or more participants exchange checks on a local basis, including an entire metropolitan area. The term "check clearinghouse association" may include arrangements using the premises of a Federal Reserve Bank, but it does not include the handling of checks for forward collection or return by a Federal Reserve Bank.

(m) "Check processing region" means the geographical area served by an office of a Federal Reserve Bank for purposes of its check processing activities.

(n) "Consumer account" means any account used primarily for personal, family, or household purposes.

(o) "Depositary bank" means the first bank to which a check is transferred even though it is also the paying bank or the payee. A check deposited in an account is deemed to be transferred to the bank holding the account into which the check is deposited, even though the check is physically received and indorsed first by another bank.

(p) "Electronic payment" means a wire transfer or an ACH credit transfer.

(q) "Forward collection" means the process by which a bank sends a check on a cash basis to the paying bank for payment.

(r) "Local check" means a check drawn on or payable through or at a local paying bank. A depositary bank may rely on the routing number that appears on a check in magnetic ink to determine whether a check is a local check if the check is sent for payment or collection based on the routing number.

(s) "Local paying bank" means a paying bank to which a check is sent for payment or collection that is located in the same check processing region as the physical location of —

(1) The branch or proprietary ATM of the depositary bank in which that check was deposited; or

(2) Both the branch of the depositary bank at which the account is held and the nonproprietary ATM at which the check is deposited.

(t) "Merger transaction" means—

(1) A merger or consolidation of two or more banks; or

(2) The transfer of substantially all of the assets of one or more banks or branches to another bank in consideration of the assumption by the acquiring bank of substantially all of the liabilities of the transferring banks, including the deposit liabilities.

(u) "Noncash item" means an item that would otherwise be a check, except that —

(1) A passbook, certificate, or other document is attached;

(2) It is accompanied by special instructions, such as a request for special advice of payment or dishonor;

(3) It consists of more than a single thickness of paper, except a check that qualifies for handling by automated check processing equipment; or

(4) It has not been preprinted or post-encoded in magnetic ink with the routing number of the paying bank.

(v) "Nonlocal check" means a check payable by, through, or at a nonlocal paying bank.

(w) "Nonlocal paying bank" means a paying bank that is not a local paying bank with respect to the depositary bank.

(x) "Nonproprietary ATM" means an ATM that is not a proprietary ATM.

(y) "Participant" means a bank that —

(1) Is located in the geographic area served by a check clearinghouse association; and

(2) Both collects and receives for payment checks through the check clearinghouse association either directly or through another participant.

(z) "Paying bank" means —

(1) The bank by which a check is payable, unless the check is payable at or through another bank and is sent to the other bank for payment or collection;

(2) The bank at or through which a check is payable and to which it is sent for payment or collection;

(3) The bank whose routing number appears on a check in magnetic ink or in fractional form and to which the check is sent for payment or collection;

(4) The Federal Reserve Bank or Federal Home Loan Bank by which a check is payable; or

(5) The state or unit of general local government on which a check is drawn.

(aa) "Proprietary ATM" means an ATM that is —

(1) Owned or operated by, or operated exclusively for, the depositary bank;

(2) Located on the premises (including the outside wall) of the depositary bank; or

(3) Located within 50 feet of the premises of the depositary bank, and not identified as being owned or operated by another entity.

If more than one bank meets the owned or operated criterion of paragraph (1) of this definition, the ATM is considered proprietary to the bank that operates it.

(bb) "Qualified returned check" means a returned check that is prepared for automated return to the depositary bank by placing the check in a carrier envelope or placing a strip on the check and encoding the strip or envelope in magnetic ink. A qualified returned check need not contain other elements of a check drawn on the depositary bank, such as the name of the depositary bank.

(cc) "Returning bank" means a bank (other than the paying or depositary bank) handling a returned check or notice in lieu of return. A returning bank is also a collecting bank for the purpose of U.C.C. § 4-202(1)(c) and (2).

(dd) "Routing number" means —

(1) The number printed on the face of a check in fractional form or in nine-digit form that identifies a paying bank; or

(2) The number in a bank's indorsement in fractional or nine-digit form.

(ee) "Similarly situated bank" means a bank of similar size, located in the same community, and with similar check handling activities as the paying bank or returning bank.

(ff) "State" means a state, the District of Columbia, Puerto Rico, or the U.S. Virgin Islands.

(gg) "Teller's check" means a check provided to a customer of a bank or acquired from a bank for remittance purposes, that is drawn by the bank, and drawn on another bank or payable through or at a bank.

(hh) "Traveler's check" means an instrument for the payment of money that —

(1) Is drawn on or payable through or at a bank;

(2) Is designated on its face by the term "traveler's check" or by any substantially similar term or is commonly known and marketed as a traveler's check by a corporation or bank that is an issuer of traveler's checks;

(3) Provides for a specimen signature of the purchaser to be completed at the time of purchase; and

(4) Provides for a countersignature of the purchaser to be completed at the time of negotiation.

(ii) "Uniform Commercial Code," "Code," or "U.C.C." means the Uniform Commercial Code as adopted in a state.

(jj) "United States" means the states, including the District of Columbia, the U.S. Virgin Islands, and Puerto Rico.

(kk) "Unit of general local government" means any city, county, parish, town, township, village, or other general purpose political subdivision of a state. The term does not include special purpose units of government, such as school districts or water districts.

(ll) "Wire transfer" means an unconditional order to a bank to pay a fixed or determinable amount of money to a beneficiary upon receipt or on a day stated in the order, that is transmitted by electronic or other means through the Federal Reserve Communications Sys-

tem, the New York Clearing House Interbank Payments System, other similar network, between banks, or on the books of a bank. "Wire transfer" does not include an electronic fund transfer as defined in section 902(f) of the Electronic Fund Transfer Act (15 U.S.C. 1693a(6)).
(mm) Unless the context requires otherwise, the terms not defined in this section have the meanings set forth in the U.C.C.

Section 229.3—Administrative enforcement.

(a) *Enforcement agencies.* Compliance with this part is enforced under —
(1) Section 8 of the Federal Deposit Insurance Act (12 U.S.C. 1818) in the case of —
(i) National banks by the Comptroller of the Currency;
(ii) Member banks of the Federal Reserve System (other than national banks) by the Board; and
(iii) Banks insured by the Federal Deposit Insurance Corporation (other than members of the Federal Reserve System) by the Board of Directors of the Federal Deposit Insurance Corporation;
(2) Section 5(d) of the Home Owners Loan Act of 1933 (12 U.S.C. 1464(d)), section 407 of the National Housing Act (12 U.S.C. 1730), and section 17 of the Federal Home Loan Bank Act (12 U.S.C. 1437), by the Federal Home Loan Bank Board (acting directly or through the Federal Savings and Loan Insurance Corporation) in the case of any institution subject to those provisions; and
(3) The Federal Credit Union Act (12 U.S.C 1751 *et seq.*) by the National Credit Union Administration Board with respect to any federal credit union or credit union insured by the National Credit Union Share Insurance Fund.
(b) *Additional powers.*
(1) For the purposes of the exercise by any agency referred to in paragraph (a) of this section of its powers under any statute referred to in that paragraph, a violation of any requirement imposed under the Act is deemed to be a violation of a requirement imposed under that statute.
(2) In addition to its powers under any provision of law specifically referred to in paragraph (a) of this section, each of the agencies referred to in that paragraph may exercise, for purposes of enforcing compliance with any requirement imposed under this part, any other authority conferred on it by law.
(c) *Enforcement by the Board.*
(1) Except to the extent that enforcement of the requirements imposed under this part is specifically committed to some other government agency, the Board shall enforce such requirements.
(2) If the Board determines that —
(i) Any bank that is not a bank described in paragraph (a) of this section; or
(ii) Any other person subject to the authority of the Board under the Act and this part, has failed to comply with any requirement imposed by this part, the Board may issue an order prohibiting any bank, any Federal Reserve Bank, or any other person subject to the authority of the Board from engaging in any activity or transaction that directly or indirectly involves such noncomplying bank or person (including any activity or transaction involving the receipt, payment, collection, and clearing of checks, and any related function of the payment system with respect to checks).

Subpart B—Availability of Funds and Disclosure of Funds Availability Policies

Section 229.10—Next-day availability.

(a) *Cash deposits.*
(1) A bank shall make funds deposited in an account by cash available for withdrawal not later than the business day after the banking day on which the cash is deposited, if the deposit is made in person to an employee of the depositary bank.
(2) A bank shall make funds deposited in an account by cash available for withdrawal not later than the second business day after the banking day on which the cash is deposited, if the deposit is not made in person to an employee of the depositary bank.
(b) *Electronic payments.*
(1) *In general.* A bank shall make funds received for deposit in an account by an electronic payment available for withdrawal not later than the business day after the banking day on which the bank received the electronic payment.
(2) *When an electronic payment is received.* An electronic payment is received when the bank receiving the payment has received both —
(i) Payment in actually and finally collected funds; and
(ii) Information on the account and amount to be credited.

A bank receives an electronic payment only to the extent that the bank has received payment in actually and finally collected funds.
(c) *Certain check deposits.*

(1) *General rule.* A depositary bank shall make funds deposited in an account by check available for withdrawal not later than the business day after the banking day on which the funds are deposited, in the case of —

(i) A check drawn on the Treasury of the United States and deposited in an account held by a payee of the check;

(ii) A U.S. Postal Service money order deposited—

(A) In an account held by a payee of the money order; and

(B) In person to an employee of the depositary bank.

(iii) A check drawn on a Federal Reserve Bank or Federal Home Loan Bank and deposited —

(A) In an account held by a payee of the check; and

(B) In person to an employee of the depositary bank;

(iv) A check drawn by a state or a unit of general local government and deposited —

(A) In an account held by a payee of the check;

(B) In a depositary bank located in the state that issued the check, or the same state as the unit of general local government that issued the check;

(C) In person to an employee of the depositary bank; and

(D) With a special deposit slip or deposit envelope, if such slip or envelope is required by the depositary bank under paragraph (c)(3) of this section.

(v) A cashier's, certified, or teller's check deposited—

(A) In an account held by a payee of the check;

(B) In person to an employee of the depositary bank; and

(C) With a special deposit slip or deposit envelope, if such slip or envelope is required by the depositary bank under paragraph (c)(3) of this section.

(vi) A check deposited in a branch of the depositary bank and drawn on the same or another branch of the same bank if both branches are located in the same state or the same check processing region; and,

(vii) The lesser of —

(A) $100, or

(B) The aggregate amount deposited on any one banking day to all accounts of the customer by check or checks not subject to next-day availability under paragraphs (c)(1)(i) through (vi) of this section.

(2) *Checks not deposited in person.* A depositary bank shall make funds deposited in an account by check or checks available for withdrawal not later than the second business day after the banking day on which funds are deposited, in the case of a check deposit described in and that meets the requirements of paragraphs (c)(1)(ii), (iii), (iv), and (v), of this section, except that it is not deposited in person to an employee of the depositary bank.

(3) *Special deposit slip.*

(i) As a condition to making the funds available for withdrawal in accordance with this section, a depositary bank may require that a state or local government check or a cashier's, certified, or teller's check be deposited with a special deposit slip or deposit envelope that identifies the type of check.

(ii) If a depositary bank requires the use of a special deposit slip or deposit envelope, the bank must either provide the special deposit slip or deposit envelope to its customers or inform its customers how the slip or envelope may be prepared or obtained and make the slip or envelope reasonably available.

Section 229.11—Temporary availability schedule.

(a) *Effective date.* The temporary availability schedule contained in this section is effective from September 1, 1988, through August 31, 1990. For the permanent availability schedule, which is effective September 1, 1990, see section 229.12.

(b) *Local checks and certain other checks.*

(1) *In general.* A depositary bank shall make funds deposited in an account by a check available for withdrawal not later than the third business day following the banking day on which funds are deposited, in the case of —

(i) A local check;

(ii) A check drawn on the Treasury of the United States that is not governed by the availability requirements of section 229.10(c);

(iii) A U.S. Postal Service money order that is not governed by the availability requirements of section 229.10(c); and

(iv) A check drawn on a Federal Reserve Bank or Federal Home Loan Bank; a check drawn by a state or unit of general local government; or a cashier's, certified, or teller's check; if any check referred to in this paragraph (b)(1)(iv) of this section is a local check that is not governed by the availability requirements of section 229.10 (c).

(2) *Time period adjustment for withdrawal by cash or similar means.* A depositary bank may extend by one business day the time that funds deposited in an account by one or more local checks are available

for withdrawal by cash or similar means unless the checks are drawn on or payable at or through a local paying bank that is a participant in the same check clearinghouse association as the depositary bank. Similar means include electronic payment, issuance of a cashier's or teller's check, certification of a check, or other irrevocable commitment to pay, but do not include the granting of credit to a bank, Federal Reserve Bank, or Federal Home Loan Bank that presents a check to the depositary bank for payment. A depositary bank shall, however, make $400 of these funds available for withdrawal by cash or similar means not later than 5:00 p.m. on the third business day following the banking day on which the funds are deposited. This $400 is in addition to the $100 available under section 229.10(c)(1)(vii).

(c) *Nonlocal checks.*

(1) *In general.* A depositary bank shall make funds deposited in an account by a check available for withdrawal not later than the seventh business day following the banking day on which funds are deposited, in the case of —

(i) A nonlocal check; and

(ii) A check drawn on a Federal Reserve Bank or Federal Home Loan Bank; a check drawn by a state or unit of general local government; a cashier's, certified, or teller's check; or a check deposited in a branch of the depositary bank and drawn on the same or another branch of the same bank, if any check referred to in this paragraph (c)(1)(ii) is a nonlocal check that is not governed by the availability requirements of section 229.10(c).

(2) *Reduction in schedule for certain check deposits.* Nonlocal checks specified in Appendix B-1 to this part must be made available for withdrawal not later than the times prescribed in that Appendix.

(d) *Deposits at nonproprietary ATMs.* A depositary bank shall make funds deposited in an account at a nonproprietary ATM by cash or check available for withdrawal not later than the seventh business day following the banking day on which the funds are deposited.

(e) *Extension of schedule for certain deposits in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands.* The depositary bank may extend the time periods set forth in this section by one business day in the case of any deposit, other than a deposit described in section 229.10, that is —

(1) Deposited in an account at a branch of a depositary bank if the branch is located in Alaska, Hawaii, Puerto Rico, or the U.S. Virgin Islands; and

(2) Deposited by a check drawn on or payable at or through a paying bank not located in the same state as the depositary bank.

Section 229.12—Permanent availability schedule.

(a) *Effective date.* The permanent availability schedule contained in this section is effective September 1, 1990.

(b) *Local checks and certain other checks.* A depositary bank shall make funds deposited in an account by a check available for withdrawal not later than the second business day following the banking day on which funds are deposited, in the case of —

(1) A local check;

(2) A check drawn on the Treasury of the United States that is not governed by the availability requirements of section 229.10(c);

(3) A check drawn on the Treasury of the United States that is deposited at a nonproprietary ATM;

(4) A U.S. Postal Service money order that is not governed by the availability requirements of section 229.10(c); and

(5) A check drawn on a Federal Reserve Bank or Federal Home Loan Bank; a check drawn by a state or unit of general local government; or a cashier's, certified, or teller's check; if any check referred to in this paragraph (b)(5) is a local check that is not governed by the availability requirements of section 229.10(c).

(c) *Nonlocal checks.*

(1) *In general.* A depositary bank shall make funds deposited in an account by a check available for withdrawal not later than the fifth business day following the banking day on which funds are deposited, in the case of —

(i) A nonlocal check; and

(ii) A check drawn on a Federal Reserve Bank or Federal Home Loan Bank; a check drawn by a state or unit of general local government; a cashier's, certified, or teller's check; or a check deposited in a branch of the depositary bank and drawn on the same or another branch of the same bank, if any check referred to in this paragraph (c)(1)(ii) is a nonlocal check that is not governed by the availability requirements of section 229.10(c).

(2) Nonlocal checks specified in Appendix B-2 to this part must be made available for withdrawal not later than the times prescribed in that Appendix.

(d) *Time period adjustment for withdrawal by cash or similar means.* A depositary bank may extend by one business day the time that funds deposited in an account by one or more checks subject to paragraphs

(b) or (c) of this section are available for withdrawal by cash or similar means. Similar means include electronic payment, issuance of a cashier's or teller's check, or certification of a check, or other irrevocable commitment to pay, but do not include the granting of credit to a bank, a Federal Reserve Bank, or a Federal Home Loan Bank that presents a check to the depositary bank for payment. A depositary bank shall, however, make $400 of these funds available for withdrawal by cash or similar means not later than 5:00 p.m. on the business day on which the funds are available under paragraphs (b) and (c) of this section. This $400 is in addition to the $100 available under section 229.10(c)(1)(vii).

(e) *Extension of schedule for certain deposits in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands.* The depositary bank may extend the time periods set forth in this section by one business day in the case of any deposit, other than a deposit described in section 229.10, that is—

(1) Deposited in an account at a branch of a depositary bank if the branch is located in Alaska, Hawaii, Puerto Rico, or the U.S. Virgin Islands; and

(2) Deposited by a check drawn on or payable at or through a paying bank not located in the same state as the depositary bank.

Section 229.13—Exceptions.

(a) *New accounts.*

(1) A deposit in a new account —

(i) Is subject to the requirements of sections 229.10(a) and (b) to make funds from deposits by cash and electronic payments available for withdrawal on the business day following the banking day of deposit or receipt;

(ii) Is subject to the requirements of sections 229.10(c)(1)(i) through (v) and section 229.10(c)(2) only with respect to the first $5,000 of funds deposited on any one banking day; but the amount of the deposit in excess of $5,000 shall be available for withdrawal not later than the ninth business day following the banking day on which funds are deposited; and

(iii) Is not subject to the availability requirements of sections 229.10(c)(1)(vi) and (vii) , 229.11, and 229.12.

For purposes of this paragraph, checks subject to section 229.10(c)(1)(v) include traveler's checks.

(2) An account is considered a new account during the first 30 calendar days after the account is established. An account is not considered a new account if each customer on the account has had, within 30 calendar days before the account is established, another account at the depositary bank for at least 30 calendar days.

(b) *Large deposits.* Sections 229.11 and 229.12 do not apply to the aggregate amount of deposits by one or more checks to the extent that the aggregate amount is in excess of $5,000 on any one banking day. For customers that have multiple accounts at a depositary bank, the bank may apply this exception to the aggregate deposits to all accounts held by the customer, even if the customer is not the sole holder of the accounts and not all of the holders of the accounts are the same.

(c) *Redeposited checks.* Sections 229.11 and 229.12 do not apply to a check that has been returned unpaid and redeposited by the customer or the depositary bank. This exception does not apply —

(1) To a check that has been returned due to a missing indorsement and redeposited after the missing indorsement has been obtained, if the reason for return indication on the check states that it was returned due to a missing indorsement; or

(2) To a check that has been returned because it was postdated, if the reason for return indicated on the check states that it was returned because it was postdated, and if the check is no longer postdated when redeposited.

(d) *Repeated overdrafts.* If any account or combination of accounts of a depositary bank's customer has been repeatedly overdrawn, then for a period of six months after the last such overdraft, sections 229.11 and 229.12 do not apply to any of the accounts. A depositary bank may consider a customer's account to be repeatedly overdrawn if —

(1) On six or more banking days within the preceding six months, the account balance is negative, or the account balance would have become negative if checks or other charges to the account had been paid; or

(2) On two or more banking days within the preceding six months, the account balance is negative, or the account balance would have become negative, in the amount of $5,000 or more, if checks or other charges to the account had been paid.

(e) *Reasonable cause to doubt collectibility.*

(1) *In general.* If a depositary bank has reasonable cause to believe that the check is uncollectible from the paying bank, then sections 229.10(c)(1)(iii) and (v); section 229.10(c)(2) to the extent that it applies to a check drawn on a Federal Reserve Bank or a Federal Home Loan Bank, or a cashier's, teller's, or certified check; section 229.11; and section 229.12 do not apply with respect to a check deposited in an account at a depositary bank. Reasonable cause to believe a check is uncollectible requires the existence of facts that would cause a well-grounded

belief in the mind of a reasonable person. Such belief shall not be based on the fact that the check is of a particular class or is deposited by a particular class of persons. The reason for the bank's belief that the check is uncollectible shall be included in the notice required under paragraph (g) of this section.

(2) *Overdraft and returned check fees*. A depositary bank that extends the time when funds will be available for withdrawal as described in paragraph (e)(1) of this section, and does not furnish the depositor with written notice at the time of deposit shall not assess any fees for any subsequent overdrafts (including use of a line of credit) or return of checks of other debits to the account, if —

(i) The overdraft or return of the check would not have occurred except for the fact that the deposited funds were delayed under paragraph (e)(1) of this section; and

(ii) The deposited check was paid by the paying bank.

Notwithstanding the foregoing, the depositary bank may assess an overdraft or returned check fee if it includes a notice concerning overdraft and returned check fees with the notice of exception required in paragraph (g) of this section and, when required, refunds any such fees upon the request of the customer. The overdraft and returned check notice must state that the customer may be entitled to a refund of overdraft or returned check fees that are assessed if the check subject to the exception is paid and how to obtain a refund.

(f) *Emergency conditions*. Sections 229.11 and 229.12 do not apply to funds deposited by check in a depositary bank in the case of —

(1) An interruption of communications or computer or other equipment facilities;

(2) A suspension of payments by another bank;

(3) A war; or

(4) An emergency condition beyond the control of the depositary bank, if the depositary bank exercises such diligence as the circumstances require.

(g) *Notice of exception*.

(1) *In general*. When a depositary bank extends the time when funds will be available for withdrawal based on the application of an exception contained in paragraphs (b) through (f) of this section, it must provide the depositor with a written notice. The notice shall include the following information —

(i) The account number of the customer;

(ii) The date and amount of the deposit;

(iii) The amount of the deposit that is being delayed;

(iv) The reason the exception was invoked; and

(v) The day the funds will be available for withdrawal, unless the emergency conditions exception in paragraph (f) of this section has been invoked, and the depositary bank, in good faith, does not know the duration of the emergency and, consequently, when the funds must be made available at the time the notice must be given.

(2) *Timing of notice*.

(i) The notice shall be provided to the depositor at the time of the deposit, unless the deposit is not made in person to an employee of the depositary bank, or, if the facts upon which a determination to invoke one of the exceptions in paragraphs (b) through (f) of this section to delay a deposit only become known to the depositary bank after the time of the deposit. If the notice is not given at the time of the deposit, the depositary bank shall mail or deliver the notice to the customer as soon as practicable, but no later than the first business day following the day the facts become known to the depositary bank, or the deposit is made, whichever is later.

(ii) If the availability of funds is delayed under the emergency conditions exception provided in paragraph (f) of this section, the depositary bank is not required to provide a notice if the funds subject to the exception become available before the notice must be sent under paragraph (g)(2)(i) of this section.

(3) *Record retention*. A depositary bank shall retain a record, in accordance with section 229.21(g), of each notice provided pursuant to its application of the reasonable cause exception under paragraph (e) of this section, together with a brief statement of the facts giving rise to the bank's reason to doubt the collectibility of the check.

(h) *Availability of deposits subject to exceptions*.

(1) If an exception contained in paragraphs (b) through (f) of this section applies, the depositary bank may extend the time periods established under sections 229.11 and 229.12 by a reasonable period of time.

(2) If a depositary bank invokes an exception under paragraph (e) of this section based on its reasonable cause to doubt collectibility of a check that is subject to sections 229.10(c)(1)(iii) or (v) or section 229.10(c)(2) to the extent that it applies to a check drawn on a Federal Reserve Bank or a Federal Home Loan Bank, or a cashier's, teller's, or certified check, the depositary bank shall make the funds available for withdrawal not later than a reasonable period after the day the funds would have been required to be made available had the check been subject to sections 229.11 or 229.12.

(3) If a depositary bank invokes an exception under

paragraph (f) of this section based on an emergency condition, the depositary bank shall make the funds available for withdrawal not later than a reasonable period after the emergency has ceased or the period established in sections 229.11 and 229.12, whichever is later.

(4) For the purposes of paragraphs (h)(1), (2), and (3) of this section, an extension of up to four business days is a reasonable period. An extension of more than four business days may be reasonable, but the bank has the burden of so establishing.

Section 229.14—Payment of interest.

(a) *In general.* A depositary bank shall begin to accrue interest or dividends on funds deposited in an interest-bearing account not later than the business day on which the depositary bank receives credit for the funds. For the purposes of this section, the depositary bank may —

(1) Rely on the availability schedule of its Federal Reserve Bank, Federal Home Loan Bank, or correspondent bank to determine the time credit is actually received; and

(2) Accrue interest or dividends on funds deposited in interest-bearing accounts by checks that the depositary bank sends to paying banks or subsequent collecting banks for payment or collection based on the availability of funds the depositary bank receives from the paying or collecting banks.

(b) *Special rule for credit unions.* Paragraph (a) of this section does not apply to any account at a bank described in section 229.2(e)(4), if the bank —

(1) Begins the accrual of interest or dividends at a later date than the date described in paragraph (a) of this section with respect to all funds, including cash, deposited in the account; and

(2) Provides notice of its interest or dividend payment policy in the manner required under section 229.16(d).

(c) *Exception for checks returned unpaid.* This subpart does not require a bank to pay interest or dividends on funds deposited by a check that is returned unpaid.

Section 229.15—General disclosure requirements.

(a) *Form of disclosures.* A bank shall make the disclosures required by this subpart clearly and conspicuously in writing. Disclosures, other than those posted at locations where employees accept consumer deposits and ATMs and the notice on preprinted deposit slips, must be in a form that the customer may keep. The disclosures shall be grouped together and shall not contain any information not related to the disclosures required by this subpart. If contained in a document that sets forth other account terms, the disclosures shall be highlighted within the document by, for example, use of a separate heading.

(b) *Uniform reference to day of availability.* In its disclosure, a bank shall describe funds as being available for withdrawal on "the ________ business day after" the day of deposit. In this calculation, the first business day is the business day following the banking day the deposit was received, and the last business day is the day on which the funds are made available.

(c) *Multiple accounts and multiple account holders.* A bank need not give multiple disclosures to a customer that holds multiple accounts if the accounts are subject to the same availability policies. Similarly, a bank need not give separate disclosures to each customer on a jointly held account.

(d) *Dormant or inactive accounts.* A bank need not give availability disclosures to a customer that holds a dormant or inactive account.

Section 229.16—Specific availability policy disclosure.

(a) *General.* To meet the requirements of a specific availability policy disclosure under sections 229.17 and 229.18(d), a bank shall provide a disclosure describing the bank's policy as to when funds deposited in an account are available for withdrawal. The disclosure must reflect the policy followed by the bank in most cases. A bank may impose longer delays on a case-by-case basis or by invoking one of the exceptions in section 229.13, provided this is reflected in the disclosure.

(b) *Content of specific availability policy disclosure.* The specific availability policy disclosure shall contain the following, as applicable—

(1) A summary of the bank's availability policy;

(2) A description of any categories of deposits or checks used by the bank when it delays availability (such as local or nonlocal checks); how to determine the category to which a particular deposit or check belongs; and when each category will be available for withdrawal (including a description of the bank's business days and when a deposit is considered received);

(3) A description of any of the exceptions in section 229.13 that may be invoked by the bank, including the time following a deposit that funds generally will be available for withdrawal and a statement that the bank will notify the customer if the bank invokes one of the exceptions;

(4) A description, as specified in paragraph (c)(1) of this section, of any case-by-case policy of delaying

availability that may result in deposited funds being available for withdrawal later than the time periods stated in the bank's availability policy; and

(5) A description of how the customer can differentiate between a proprietary and a nonproprietary ATM, if the bank makes funds from deposits at nonproprietary ATMs available for withdrawal later than funds from deposits at proprietary ATMs.

(c) *Longer delays on a case-by-case basis.*

(1) *Notice in specific policy disclosure.* A bank that has a policy of making deposited funds available for withdrawal sooner than required by this subpart may extend the time when funds are available up to the time periods allowed under this subpart on a case-by-case basis, provided the bank includes the following in its specific policy disclosure—

(i) A statement that the time when deposited funds are available for withdrawal may be extended in some cases, and the latest time following a deposit that funds will be available for withdrawal;

(ii) A statement that the bank will notify the customer if funds deposited in the customer's account will not be available for withdrawal until later than the time periods stated in the bank's availability policy; and

(iii) A statement that customers should ask if they need to be sure about when a particular deposit will be available for withdrawal.

(2) *Notice at time of case-by-case delay.*

(i) *In general.* When a depositary bank extends the time when funds will be available for withdrawal on a case-by-case basis, it must provide the depositor with a written notice. The notice shall include the following information—

(A) The account number of the customer;

(B) The date and amount of the deposit;

(C) The amount of the deposit that is being delayed; and

(D) The day the funds will be available for withdrawal.

(ii) *Timing of notice.* The notice shall be provided to the depositor at the time of the deposit, unless the deposit is not made in person to an employee of the depositary bank or the decision to extend the time when the deposited funds will be available is made after the time of the deposit. If notice is not given at the time of the deposit, the depositary bank shall mail or deliver the notice to the customer not later than the first business day following the banking day the deposit is made.

(3) *Overdraft and returned check fees.* A depositary bank that extends the time when funds will be available for withdrawal on a case-by-case basis and does not furnish the depositor with written notice at the time of deposit shall not assess any fees for any subsequent overdrafts (including use of a line of credit) or return of checks or other debits to the account, if—

(i) The overdraft or return of the check or other debit would not have occurred except for the fact that the deposited funds were delayed under paragraph (c)(1) of this section; and

(ii) The deposited check was paid by the paying bank.

Notwithstanding the foregoing, the depositary bank may assess an overdraft or returned check fee if it includes a notice concerning overdraft and returned check fees with the notice required in paragraph (c)(2) of this section and, when required, refunds any such fees upon the request of the customer. The overdraft and returned check notice must state that the customer may be entitled to a refund of overdraft or returned check fees that are assessed if the check subject to the delay is paid and state how to obtain a refund.

(d) *Credit union notice of interest payment policy.* If a bank described in section 229.2(e)(4) begins to accrue interest or dividends on all deposits made in an interest-bearing account, including cash deposits, at a later time than the day specified in section 229.14(a), the bank's specific policy disclosures shall contain an explanation of when interest or dividends on deposited funds begin to accrue.

Section 229.17—Initial disclosures.

(a) *New accounts.* Before opening an account, a bank shall provide a potential customer with the applicable specific availability policy disclosure described in section 229.16.

(b) *Existing accounts.*

(1) In the first regularly scheduled mailing to customers after September 1, 1988, but not later than October 31, 1988, a bank shall send to existing customers the specific availability policy disclosure described in section 229.16, unless the bank has previously given disclosures that meet the requirements of that section.

(2) If the disclosure required by paragraph (b)(1) of this section is included with a disclosure of other account terms and conditions, the bank must direct the customer's attention to the availability disclosures by, for example, the use of an insert or a letter.

(3) The disclosure required by paragraph (b)(1) of this section may not be included in a mailing of promotional material, such as a solicitation for a new product or service, unless the mailing also includes the customer's account statement.

Section 229.18—Additional disclosure requirements.

(a) *Deposit slips.* A bank shall include on all preprinted deposit slips furnished to its customers a notice that deposits may not be available for immediate withdrawal.

(b) *Locations where employees accept consumer deposits.* A bank shall post in a conspicuous place in each location where its employees receive deposits to consumer accounts a notice that sets forth the time periods applicable to the availability of funds deposited in a consumer account.

(c) *Automated teller machines.*

(1) A depositary bank shall post or provide a notice at each ATM location that funds deposited in the ATM may not be available for immediate withdrawal.

(2) A depositary bank that operates an off-premises ATM from which deposits are removed not more than two times each week, as described in section 229.19(a)(4), shall disclose at or on the ATM the days on which deposits made at the ATM will be considered received.

(d) *Upon request.* A bank shall provide to any person, upon oral or written request, a notice containing the applicable specific availability policy disclosure described in section 229.16.

(e) *Changes in policy.* A bank shall send a notice to holders of consumer accounts at least 30 days before implementing a change to the bank's availability policy regarding such accounts, except that a change that expedites the availability of funds may be disclosed not later than 30 days after implementation.

Section 229.19—Miscellaneous.

(a) *When funds are considered deposited.* For the purposes of this subpart—

(1) Funds deposited at a staffed facility or an ATM are considered deposited when they are received at the staffed facility or ATM;

(2) Funds mailed to the depositary bank are considered deposited on the day they are received by the depositary bank;

(3) Funds deposited to a night depository, lock box, or similar facility are considered deposited on the day on which the deposit is removed from such facility and is available for processing by the depositary bank;

(4) Funds deposited at an ATM that is not on, or within 50 feet of, the premises of the depositary bank are considered deposited on the day the funds are removed from the ATM, if funds normally are removed from the ATM not more than two times each week; and

(5) Funds may be considered deposited on the next banking day, in the case of funds that are deposited—

(i) On a day that is not a banking day for the depositary bank; or

(ii) After a cut-off hour set by the depositary bank for the receipt of deposits of 2:00 p.m. or later, or, for the receipt of deposits at ATMs or off-premise facilities, of 12:00 noon or later. Different cut-off hours later than these times may be established for receipt of different types of deposits, or receipt of deposits at different locations.

(b) *Availability at start of business day.* Except as otherwise provided in sections 229.11(b)(2) and 229.12(d), if any provision of this subpart requires that funds be made available for withdrawal on any business day, the funds shall be available for withdrawal by the later of—

(1) 9:00 a.m. (local time of the depositary bank); or

(2) The time the depositary bank's teller facilities (including ATMs) are available for customer account withdrawals.

(c) *Effect on policies of depositary bank.* This part does not—

(1) Prohibit a depositary bank from making funds available to a customer for withdrawal in a shorter period of time than the time required by this subpart;

(2) Affect a depositary bank's right—

(i) To accept or reject a check for deposit;

(ii) To revoke any settlement made by the depositary bank with respect to a check accepted by the bank for deposit, to charge back the customer's account for the amount of a check based on the return of the check or receipt of a notice of nonpayment of the check, or to claim a refund of such credit; and

(iii) To charge back funds made available to its customer for an electronic payment for which the bank has not received payment in actually and finally collected funds;

(3) Require a depositary bank to open or otherwise to make its facilities available for customer transactions on a given business day; or

(4) Supersede any policy of a depositary bank that limits the amount of cash a customer may withdraw from its account on any one day, if that policy—

(i) Is not dependent on the time the funds have been deposited in the account, as long as the funds have been on deposit for the time period specified in sections 229.10, 229.11, 229.12, or 229.13; and—

(ii) In the case of withdrawals made in person to an employee of the depositary bank—

(A) Is applied without discrimination to all customers of the bank; and

(B) Is related to security, operating, or bonding requirements of the depositary bank.

(d) *Use of calculated availability.* A depositary bank may provide availability to its nonconsumer accounts based on a sample of checks that represents the average composition of the customer's deposits, if the terms for availability based on the sample are equivalent to or more prompt than the availability requirements of this subpart.

(e) *Holds on other funds.* A depositary bank that receives a check for deposit in an account or purchases a check for cash, other than a check drawn on that bank and presented over the counter for payment in cash, may place a hold on any funds of the customer at the bank, if—

(1) The amount of funds that are held do not exceed the amount of the check; and

(2) The funds are made available for withdrawal within the times specified in sections 229.10, 229.11, 229.12, and 229.13.

(f) *Employee training and compliance.* Each bank shall establish procedures to ensure that the bank complies with the requirements of this subpart, and shall provide each employee who performs duties subject to the requirements of this subpart with a statement of the procedures applicable to that employee.

(g) *Effect of Merger Transaction.* For purposes of this subpart, except for the purposes of the new accounts exception of section 229.13(a), and when funds are considered deposited under section 229.19(a), two or more banks that have engaged in a merger transaction may be considered to be separate banks for a period of one year following the consummation of the merger transaction.

Section 229.20—Relation to state law.

(a) *In general.* Any provision of a law or regulation of any state in effect on or before September 1, 1989, that requires funds deposited in an account at a bank chartered by the state to be made available for withdrawal in a shorter time than the time provided in Subpart B, and, in connection therewith, Subpart A, shall—

(1) Supersede the provisions of the Act and Subpart B, and, in connection therewith, Subpart A, to the extent the provisions relate to the time by which funds deposited or received for deposit in an account are available for withdrawal; and

(2) Apply to all federally insured banks located within the state.

No amendment to a state law or regulation governing the availability of funds that becomes effective after September 1, 1989, shall supersede the Act and Subpart B, and, in connection therewith, Subpart A, but unamended provisions of state law shall remain in effect.

(b) *Preemption of inconsistent law.* Except as provided in paragraph (a), the Act and Subpart B, and, in connection therewith, Subpart A, supersede any provision of inconsistent state law.

(c) *Standards for preemption.* A provision of a state law in effect on or before September 1, 1989, is not inconsistent with the Act, or Subpart B, or in connection therewith, Subpart A, if it requires that funds shall be available in a shorter period of time than the time provided in this subpart. Inconsistency with the Act and Subpart B, and in connection therewith, Subpart A, may exist when state law—

(1) Permits a depositary bank to make funds deposited in an account by cash, electronic payment, or check available for withdrawal in a longer period of time than the maximum period of time permitted under Subpart B, and, in connection therewith, Subpart A; or

(2) Provides for disclosures or notices concerning funds availability relating to accounts.

(d) *Preemption determinations.* The Board may determine, upon the request of any state, bank, or other interested party, whether the Act and Subpart B, and, in connection therewith, Subpart A, preempt provisions of state laws relating to the availability of funds.

(e) *Procedures for preemption determinations.* A request for a preemption determination shall include the following—

(1) A copy of the full text of the state law in question, including any implementing regulations or judicial interpretations of that law; and

(2) A comparison of the provisions of state law with the corresponding provisions in the Act and Subparts A and B of this part, together with a discussion of the reasons why specific provisions of state law are either consistent or inconsistent with corresponding sections of the Act and Subparts A and B of this part.

A request for a preemption determination shall be addressed to the Secretary, Board of Governors of the Federal Reserve System.

Section 229.21—Civil liability.

(a) *Civil liability.* A bank that fails to comply with any requirement imposed under Subpart B, and in connection therewith, Subpart A, of this part or any provision of state law that supersedes any provision of Subpart B, and in connection therewith, Subpart A, with respect to any person is liable to that person in an amount equal to the sum of—

(1) Any actual damage sustained by that person as a result of the failure;

(2) Such additional amount as the court may allow, except that—

(i) In the case of an individual action, liability under this paragraph shall not be less than $100 nor greater than $1,000; and

(ii) In the case of a class action—

(A) No minimum recovery shall be applicable to each member of the class; and

(B) The total recovery under this paragraph in any class action or series of class actions arising out of the same failure to comply by the same depositary bank shall not be more than the lesser of $500,000 or 1 percent of the net worth of the bank involved; and,

(3) In the case of a successful action to enforce the foregoing liability, the costs of the action, together with a reasonable attorney's fee as determined by the court.

(b) *Class action awards*. In determining the amount of any award in any class action, the court shall consider, among other relevant factors—

(1) The amount of any damages awarded;

(2) The frequency and persistence of failures of compliance;

(3) The resources of the bank;

(4) The number of persons adversely affected; and

(5) The extent to which the failure of compliance was intentional.

(c) *Bona fide errors*.

(1) *General rule*. A bank is not liable in any action brought under this section for a violation of this subpart if the bank demonstrates by a preponderance of the evidence that the violation was not intentional and resulted from a bona fide error, notwithstanding the maintenance of procedures reasonably adapted to avoid any such error.

(2) *Examples*. Examples of a bona fide error include clerical, calculation, computer malfunction and programming, and printing errors, except that an error of legal judgment with respect to the bank's obligation under this subpart is not a bona fide error.

(d) *Jurisdiction*. Any action under this section may be brought in any United States district court or in any other court of competent jurisdiction, and shall be brought within one year after the date of the occurrence of the violation involved.

(e) *Reliance on Board rulings*. No provision of this subpart imposing any liability shall apply to any act done or omitted in good faith in conformity with any rule, regulation, or interpretation thereof by the Board, regardless of whether such rule, regulation, or interpretation is amended, rescinded, or determined by judicial or other authority to be invalid for any reason after the act or omission has occurred.

(f) *Exclusions*. This section does not apply to claims that arise under Subpart C of this part or to actions for wrongful dishonor.

(g) *Record retention*.

(1) A bank shall retain evidence of compliance with the requirements imposed by this subpart for not less than two years. Records may be stored by use of microfiche, microfilm, magnetic tape, or other methods capable of accurately retaining and reproducing information.

(2) If a bank has actual notice that it is being investigated, or is subject to an enforcement proceeding by an agency charged with monitoring that bank's compliance with the Act and this subpart, or has been served with notice of an action filed under this section, it shall retain the records pertaining to the action or proceeding pending final disposition of the matter, unless an earlier time is allowed by order of the agency or court.

Subpart C—Collection of Checks

Section 229.30—Paying bank's responsibility for return of checks.

(a) *Return of checks*. If a paying bank determines not to pay a check, it shall return the check in an expeditious manner as provided in either paragraphs (a)(1) or (a)(2) of this section.

(1) *Two-day/four-day test*. A paying bank returns a check in an expeditious manner if it sends the returned check in a manner such that the check would normally be received by the depositary bank not later than 4:00 p.m. (local time of the depositary bank) of—

(i) The second business day following the banking day on which the check was presented to the paying bank, if the paying bank is a local paying bank with respect to the depositary bank; or

(ii) The fourth business day following the banking day on which the check was presented to the paying bank, if the paying bank is a nonlocal paying bank with respect to the depositary bank.

If the last business day on which the paying bank may deliver a returned check to the depositary bank is not a banking day for the depositary bank, the paying bank meets the two-day/four-day test if the returned check is received by the depositary bank on or before the depositary bank's next banking day.

(2) *Forward collection test.* A paying bank also returns a check in an expeditious manner if it sends the returned check in a manner that a similarly situated bank would normally handle a check—

(i) Of similar amount as the returned check;

(ii) Drawn on the depositary bank; and

(iii) Deposited for forward collection in the similarly situated bank by noon on the banking day following the banking day on which the check was presented to the paying bank.

Subject to the requirement for expeditious return, a paying bank may send a returned check to the depositary bank, or to any other bank agreeing to handle the returned check expeditiously under section 229.31(a). A paying bank may convert a check to a qualified returned check. A qualified returned check must be encoded in magnetic ink with the routing number of the depositary bank, the amount of the returned check, and a "2" in position 44 of the MICR line as a return identifier, in accordance with the American National Standard Specifications for Placement and Location of MICR Printing, X9.13 (Sept. 1983). This paragraph does not affect a paying bank's responsibility to return a check within the deadlines required by the U.C.C., Regulation J (12 C.F.R. Part 210), or section 229.30(c).

(b) *Unidentifiable depositary bank.* A paying bank that is unable to identify the depositary bank with respect to a check may send the returned check to any bank that handled the check for forward collection even if that bank does not agree to handle the check expeditiously under section 229.31(a). A paying bank sending a returned check under this paragraph to a bank that handled the check for forward collection must advise the bank to which the check is sent that the paying bank is unable to identify the depositary bank. The expeditious return requirements in section 229.30(a) do not apply to the paying bank's return of a check under this paragraph.

(c) *Extension of deadline for expedited delivery.* The deadline for return or notice of nonpayment under the U.C.C. or Regulation J (12 C.F.R. Part 210) is extended if a paying bank, in an effort to expedite delivery of a returned check to a bank, uses a means of delivery that would ordinarily result in the returned check being received by the bank to which it is sent on or before the receiving bank's next banking day following the otherwise applicable deadline. The deadline is extended further if a paying bank uses a highly expeditious means of transportation, even if this means of transportation would ordinarily result in delivery after the receiving bank's next banking day.

(d) *Identification of returned check.* A paying bank returning a check shall clearly indicate on the face of the check that it is a returned check and the reason for return.

(e) *Depositary bank without accounts.* The expeditious return requirements of paragraph (a) of this section do not apply to checks deposited in a depositary bank that does not maintain accounts.

(f) *Notice in lieu of return.* If a check is unavailable for return, the paying bank may send in its place a copy of the front and back of the returned check, or, if no such copy is available, a written notice of nonpayment containing the information specified in section 229.33(b). The copy or notice shall clearly state that it constitutes a notice in lieu of return. A notice in lieu of return is considered a returned check subject to the expeditious return requirements of this section and to the other requirements of this subpart.

(g) *Reliance on routing number.* A paying bank may return a returned check based on any routing number designating the depositary bank appearing on the returned check in the depositary bank's indorsement.

Section 229.31—Returning bank's responsibility for return of checks.

(a) *Return of checks.* A returning bank shall return a returned check in an expeditious manner as provided in either paragraphs (a)(1) or (a)(2) of this section.

(1) *Two-day/four-day test.* A returning bank returns a check in an expeditious manner if it sends the returned check in a manner such that the check would normally be received by the depositary bank not later than 4:00 p.m. (local time) of—

(i) The second business day following the banking day on which the check was presented to the paying bank if the paying bank is a local paying bank with respect to the depositary bank; or

(ii) The fourth business day following the banking day on which the check was presented to the paying bank if the paying bank is a nonlocal paying bank with respect to the depositary bank.

If the last business day on which the returning bank may deliver a returned check to the depositary bank is not a banking day for the depositary bank, the returning bank meets this requirement if the returned check is received by the depositary bank on or before the depositary bank's next banking day.

(2) *Forward collection test.* A returning bank also returns a check in an expeditious manner if it sends

the returned check in a manner that a similarly situated bank would normally handle a check —

(i) Of similar amount as the returned check;

(ii) Drawn on the depositary bank; and

(iii) Received for forward collection by the similarly situated bank at the time the returning bank received the returned check, except that a returning bank may set a cut-off hour for the receipt of returned checks that is earlier than the similarly situated bank's cut-off hour for checks received for forward collection, if the cut-off hour is not earlier than 2:00 p.m.

Subject to the requirement for expeditious return, the returning bank may send the returned check to the depositary bank, or to any bank agreeing to handle the returned check expeditiously under section 229.31(a). The returning bank may convert the returned check to a qualified returned check. A qualified returned check must be encoded in magnetic ink with the routing number of the depositary bank, the amount of the returned check, and a "2" in position 44 of the MICR line as a return identifier, in accordance with the American National Standard Specification for Placement and Location of MICR Printing, X9.13 (Sept. 1983). The time for expeditious return under the forward collection test, and the deadline for return under the U.C.C. and Regulation J (12 C.F.R. Part 210), are extended by one business day if the returning bank converts a returned check to a qualified returned check. This extension does not apply to the two-day/four-day test specified in paragraph (a)(1) of this section or when a returning bank is returning a check directly to the depositary bank.

(b) *Unidentifiable depositary bank.* A returning bank that is unable to identify the depositary bank with respect to a returned check may send the returned check to—

(1) Any collecting bank that handled the check for forward collection if the returning bank was not a collecting bank with respect to the returned check; or

(2) A prior collecting bank, if the returning bank was a collecting bank with respect to the returned check;

even if that collecting bank does not agree to handle the returned check expeditiously under section 229.31(a). A returning bank sending a returned check under this paragraph must advise the bank to which the check is sent that the returning bank is unable to identify the depositary bank. The expeditious return requirements in paragraph (a) of this section do not apply to return of a check under this paragraph. A returning bank that receives a returned check from a paying bank under section 229.30(b), but which is able to identify the depositary bank, must thereafter return the check expeditiously to the depositary bank.

(c) *Settlement.* A returning bank shall settle with a bank sending a returned check to it for return by the same means that it settles or would settle with the sending bank for a check received for forward collection drawn on the depositary bank. This settlement is final when made.

(d) *Charges.* A returning bank may impose a charge on a bank sending a returned check for handling the returned check.

(e) *Depositary bank without accounts.* The expeditious return requirements of paragraph (a) of this section do not apply to checks deposited with a depositary bank that does not maintain accounts.

(f) *Notice in lieu of return.* If a check is unavailable for return, the returning bank may send in its place a copy of the front and back of the returned check, or, if no copy is available, a written notice of nonpayment containing the information specified in section 229.33(b). The copy or notice shall clearly state that it constitutes a notice in lieu of return. A notice in lieu of return is considered a returned check subject to the expeditious return requirements of this section and to the other requirements of this subpart.

(g) *Reliance on routing number.* A returning bank may return a returned check based on any routing number designating the depositary bank appearing on the returned check in the depositary bank's indorsement or in magnetic ink on a qualified returned check.

Section 229.32—Depositary bank's responsibility for returned checks.

(a) *Acceptance of returned checks.* A depositary bank shall accept returned checks and written notices of nonpayment—

(1) At a location at which presentment of checks for forward collection is requested by the depositary bank; and

(2) (i) At a branch, head office, or other location consistent with the name and address of the bank in its indorsement on the check;

(ii) If no address appears in the indorsement, at a branch or head office associated with the routing number of the bank in its indorsement on the check; or

(iii) If no routing number or address appears in its indorsement on the check, at any branch or head office of the bank.

A depositary bank may require that returned checks be separated from forward collection checks.

(b) *Payment.* A depositary bank shall pay the returning or paying bank returning the check to it for the amount of the check prior to the close of business on the banking day on which it received the check ("payment date") by—

(1) Debit to an account of the depositary bank on the books of the returning or paying bank;

(2) Cash;

(3) Wire transfer; or

(4) Any other form of payment acceptable to the returning or paying bank;

provided that the proceeds of the payment are available to the returning or paying bank in cash or by credit to an account of the returning or paying bank on or as of the payment date. If the payment date is not a banking day for the returning or paying bank or the depositary bank is unable to make the payment on the payment date, payment shall be made by the next day that is a banking day for the returning or paying bank. These payments are final when made.

(c) *Misrouted returned checks and written notices of nonpayment.* If a bank receives a returned check or written notice of nonpayment on the basis that it is the depositary bank, and the bank determines that it is not the depositary bank with respect to the check or notice, it shall either promptly send the returned check or notice to the depositary bank directly or by means of a returning bank agreeing to handle the returned check expeditiously under section 229.31(a), or send the check or notice back to the bank from which it was received.

(d) *Charges.* A depositary bank may not impose a charge for accepting and paying checks being returned to it.

Section 229.33—Notice of nonpayment.

(a) *Requirement.* If a paying bank determines not to pay a check in the amount of $2,500 or more, it shall provide notice of nonpayment such that the notice is received by the depositary bank by 4:00 p.m. (local time) on the second business day following the banking day on which the check was presented to the paying bank. If the day the paying bank is required to provide notice is not a banking day for the depositary bank, receipt of notice on the depositary bank's next banking day constitutes timely notice. Notice may be provided by any reasonable means, including the returned check, a writing (including a copy of the check), telephone, Fedwire, telex, or other form of telegraph.

(b) *Content of notice.* Notice must include the—

(1) Name and routing number of the paying bank;

(2) Name of the payee(s);

(3) Amount;

(4) Date of the indorsement of the depositary bank;

(5) Account number of the customer(s) of the depositary bank;

(6) Branch name or number of the depositary bank from its indorsement;

(7) Trace number associated with the indorsement of the depositary bank; and

(8) Reason for nonpayment.

The notice may include other information from the check that may be useful in identifying the check being returned and the customer, and, in the case of a written notice, must include the name and routing number of the depositary bank from its indorsement. If the paying bank is not sure of an item of information, it shall include the information required by this paragraph to the extent possible, and identify any item of information for which the bank is not sure of the accuracy with question marks.

(c) *Acceptance of notice.* The depositary bank shall accept notices during its banking day—

(1) Either at the telephone or telegraph number of its return check unit indicated in the indorsement, or, if no such number appears in the indorsement or if the number is illegible, at the general purpose telephone or telegraph number of its head office or the branch indicated in the indorsement; and

(2) At any other number held out by the bank for receipt of notice of nonpayment, and, in the case of written notice, as specified in section 229.32(a).

(d) *Notification to customer.* If the depositary bank receives a returned check or notice of nonpayment, it shall send notice to its customer of the facts by midnight of the banking day following the banking day on which it received the returned check or notice, or within a longer reasonable time.

(e) *Depositary bank without accounts.* The requirements of this section do not apply to checks deposited in a depositary bank that does not maintain accounts.

Section 229.34—Warranties by paying bank and returning bank.

(a) *Warranties.* Each paying bank or returning bank that transfers a returned check and receives a settlement or other consideration for it warrants to the transferee returning bank, to any subsequent returning bank, to the depositary bank, and to the owner of the check, that—

(1) The paying bank returned the check within its deadline under the U.C.C., Regulation J (12 C.F.R. Part 210), or section 229.30(c) of this part;

(2) It is authorized to return the check;

(3) The check has not been materially altered; and

(4) In the case of a notice in lieu of return, the original check has not and will not be returned.

These warranties are not made with respect to checks drawn on the Treasury of the United States, a state, or a unit of general local government.
(b) *Warranty of notice of nonpayment.* Each paying bank warrants to the transferee bank, to any subsequent transferee bank, to the depositary bank, and to the owner of the check that—

(1) The paying bank returned or will return the check within its deadline under the U.C.C., Regulation J (12 C.F.R. Part 210), or section 229.30(c) of this part;
(2) It is authorized to send the notice; and
(3) The check has not been materially altered.

These warranties are not made with respect to checks drawn on a state or a unit of general local government.
(c) *Damages.* Damages for breach of these warranties shall not exceed the consideration received by the paying or returning bank, plus finance charges and expenses related to the returned check, if any.
(d) *Tender of defense.* If a returning bank is sued for breach of a warranty under this section, it may give a prior returning bank or the paying bank written notice of the litigation, and the bank notified may then give similar notice to any other prior returning bank or the paying bank. If the notice states that the paying or returning bank notified may come in and defend, and that if the paying or returning bank notified does not do so, it will in any action against it by the paying or returning bank giving the notice be bound by any determination of fact common to the two litigations, then unless after seasonable receipt of the notice the paying or returning bank notified does come in and defend, it is so bound.

Section 229.35—Indorsements.

(a) *Indorsement standards.* A bank (other than a paying bank) that handles a check during forward collection or a returned check shall indorse the check in accordance with the indorsement standard set forth in Appendix D to this part.
(b) *Liability of bank handling check.* A bank that handles a check for forward collection or return is liable to any bank that subsequently handles the check to the extent that the subsequent bank does not receive payment for the check because of suspension of payments by another bank or otherwise. This paragraph applies whether or not a bank has placed its indorsement on the check. This liability is not affected by the failure of any bank to exercise ordinary care, but any bank failing to do so remains liable. A bank seeking recovery against a prior bank shall send notice to that prior bank reasonably promptly after it learns the facts entitling it to recover. A bank may recover from the bank with which it settled for the check by revoking the settlement, charging back any credit given to an account, or obtaining a refund. A bank may have the rights of a holder with respect to each check it handles.
(c) *Indorsement by a bank.* After a check has been indorsed by a bank, only a bank may acquire the rights of a holder—

(1) Until the check has been returned to the person initiating collection; or
(2) Until the check has been specially indorsed by a bank to a person who is not a bank.

(d) *Indorsement for depositary bank.* A depositary bank may arrange with another bank to apply the other bank's indorsement as the depositary bank indorsement, provided that any indorsement of the depositary bank on the check avoids the area reserved for the depositary bank indorsement as specified in Appendix D. The other bank indorsing as depositary bank is considered the depositary bank for purposes of Subpart C of this part.

Section 229.36—Presentment of checks.

(a) *Payable through and payable at checks.* A check payable at or through a paying bank is considered to be drawn on that bank for purposes of the expeditious return and notice of nonpayment requirements of this subpart.
(b) *Receipt at bank office or processing center.* A check is considered received by the paying bank when it is received:

(1) At a location to which delivery is requested by the paying bank;
(2) At an address of the bank associated with the routing number on the check, whether in magnetic ink or in fractional form;
(3) At any branch or head office, if the bank is identified on the check by name without address; or
(4) At a branch, head office, or other location consistent with the name and address of the bank on the check if the bank is identified on the check by name and address.

(c) *Truncation.* A bank may present a check to a paying bank by transmission of information describing the check in accordance with an agreement with the paying bank. A truncation agreement may not extend return times or otherwise vary the requirements of this part with respect to parties interested in the check that are not party to the agreement.
(d) *Liability of bank during forward collection.* Settlements between banks for the forward collection of a check are final when made; however, a collecting bank handling a check for forward collection may be liable

to a prior collecting bank, including the depositary bank, and the depositary bank's customer.

Section 229.37—Variation by agreement.

The effect of the provisions of Subpart C may be varied by agreement, except that no agreement can disclaim the responsibility of a bank for its own lack of good faith or failure to exercise ordinary care, or can limit the measure of damages for such lack or failure; but the parties may determine by agreement the standards by which such responsibility is to be measured if such standards are not manifestly unreasonable.

Section 229.38—Liability.

(a) *Standard of care; liability; measure of damages.* A bank shall exercise ordinary care and act in good faith in complying with the requirements of this subpart. A bank that fails to exercise ordinary care or act in good faith under this subpart may be liable to the depositary bank, the depositary bank's customer, the owner of a check, or another party to the check. The measure of damages for failure to exercise ordinary care is the amount of the loss incurred, up to the amount of the check, reduced by the amount of the loss that party would have incurred even if the bank had exercised ordinary care. A bank that fails to act in good faith under this subpart may be liable for other damages, if any, suffered by the party as a proximate consequence. Subject to a bank's duty to exercise ordinary care or act in good faith in choosing the means of return or notice of nonpayment, the bank is not liable for the insolvency, neglect, misconduct, mistake, or default of another bank or person, or for loss or destruction of a check or notice of nonpayment in transit or in the possession of others. This section does not affect a paying bank's liability to its customer under the U.C.C. or other law.
(b) *Paying bank's failure to make timely return.* If a paying bank fails both to comply with section 229.30(a) and to comply with the deadline for return under the U.C.C., Regulation J (12 C.F.R. Part 210), or section 229.30(c) in connection with a single nonpayment of a check, the paying bank shall be liable under either section 229.30(a) or such other provision, but not both.
(c) *Comparative negligence.* If a person, including a bank, fails to exercise ordinary care or act in good faith under this subpart in indorsing a check (section 229.35), accepting a returned check or notice of nonpayment (sections 229.32(a) and 229.33(c)), or otherwise, the damages incurred by that person under section 229.38(a) shall be diminished in proportion to the amount of negligence or bad faith attributable to that person.
(d) *Responsibility for back of check.* A paying bank is responsible for damages under paragraph (a) of this section to the extent that the condition of the back of a check when issued by it or its customer adversely affects the ability of a bank to indorse the check legibly in accordance with section 229.35. A depositary bank is responsible for damages under paragraph (a) of this section to the extent that the condition of the back of a check arising after the issuance of the check and prior to acceptance of the check by it adversely affects the ability of a bank to indorse the check legibly in accordance with section 229.35. Responsibility under this paragraph shall be treated as negligence of the paying or depositary bank for purposes of paragraph (c) of this section.
(e) *Timeliness of action.* If a bank is delayed in acting beyond the time limits set forth in this subpart because of interruption of communication or computer facilities, suspension of payments by a bank, war, emergency conditions, failure of equipment, or other circumstances beyond its control, its time for acting is extended for the time necessary to complete the action, if it exercises such diligence as the circumstances require.
(f) *Exclusion.* Section 229.21 of this part and sections 611(a), (b), and (c) of the Act (12 U.S.C. 4010(a), (b), and (c)) do not apply to this subpart.
(g) *Jurisdiction.* Any action under this subpart may be brought in any United States district court, or in any other court of competent jurisdiction, and shall be brought within one year after the date of the occurrence of the violation involved.
(h) *Reliance on Board rulings.* No provision of this subpart imposing any liability shall apply to any act done or omitted in good faith in conformity with any rule, regulation, or interpretation thereof by the Board, regardless of whether the rule, regulation, or interpretation is amended, rescinded, or determined by judicial or other authority to be invalid for any reason after the act or omission has occurred.

Section 229.39—Insolvency of bank.

(a) *Duty of receiver.* A check or returned check in, or coming into, the possession of a paying, collecting, depositary, or returning bank that suspends payment, and which is not paid, shall be returned by the receiver, trustee, or agent in charge of the closed bank to the bank or customer that transferred the check to the closed bank.
(b) *Preference against paying or depositary bank.* If a paying or depositary bank finally pays a check or returned check and suspends payment without making a settlement for the check with the prior bank which is

or becomes final, the prior bank has a preferred claim against the paying or depositary bank.

(c) *Preference against collecting, paying, or returning bank.* If a collecting, paying, or returning bank receives settlement from a subsequent bank for a check or returned check, which settlement is or becomes final, and suspends payments without making a settlement for the check with the prior bank, which is or becomes final, the prior bank has a preferred claim against the collecting or returning bank.

(d) *Finality of settlement.* If a paying or depositary bank gives, or a collecting, paying, or returning bank gives or receives, a settlement for a check or returned check and thereafter suspends payment, the suspension does not prevent or interfere with the settlement becoming final if such finality occurs automatically upon the lapse of a certain time or the happening of certain events.

Section 229.40—Effect of merger transaction.

For purposes of this subpart, two or more banks that have engaged in a merger transaction may be considered to be separate banks for a period of one year following the consummation of the merger transaction.

Section 229.41—Relation to state law.

The provisions of this subpart supersede any inconsistent provisions of the U.C.C. as adopted in any state, or of any other state law, but only to the extent of the inconsistency.

Section 229.42—Exclusions.

The expeditious return (sections 229.30(a) and 229.31(a)) and notice of nonpayment (section 229.33) requirements of this subpart do not apply to a check drawn upon the United States Treasury, to a U.S. Postal Service money order, or to a check drawn on a state or a unit of general local government that is not payable through or at a bank.

Notice Regarding Federal Reserve Bank Services

The Board of Governors has adopted a proposal for the Federal Reserve Banks to offer several new returned check services to depository institutions. These services will assist depository institutions in complying with the new rules for the collection and return of checks that the Board has, in its Regulation CC, adopted to implement the Expedited Funds Availability Act. The Board has also approved check truncation and extended MICR capture services as permanent Federal Reserve Bank services.

New services to facilitate expedited returns will be offered beginning September 1, 1988. Check truncation and extended MICR capture are authorized as permanent Federal Reserve Bank services beginning July 15, 1988.

Orders Issued Under Bank Holding Company Act

Orders Issued Under Section 3 of the Bank Holding Company Act

Ballston Bancorp, Inc.
Arlington, Virginia

Order Approving Formation of a Bank Holding Company

Ballston Bancorp, Inc., Arlington, Virginia ("Ballston"), has applied for the Board's approval pursuant to section 3(a)(1) of the Bank Holding Company Act, as amended (12 U.S.C. § 1842(a)(1)) ("BHC Act"), to become a bank holding company by acquiring all of the voting shares of Bank of Northern Virginia, Arlington, Virginia ("Bank").[1]

Notice of the application, affording interested persons an opportunity to submit comments, has been given in accordance with section 3(b) of the BHC Act (12 U.S.C. § 1842(b)). 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 (12 U.S.C. § 1842(c)).

Ballston, a non-operating corporation with no subsidiaries, was organized for the purpose of becoming a bank holding company by acquiring Bank, a *de novo* bank. Bank will operate in the District of Columbia banking market.[2] The principals of Ballston are not affiliated with any other depository institutions in this market. Consummation of this proposal would not result in any adverse effects upon competition or increase in the concentration of banking resources in

1. Bank has also filed an application to become a member of the Federal Reserve System, pursuant to section 9 of the Federal Reserve Act, 12 U.S.C. § 321, *et seq.*

2. The District of Columbia banking market is defined as the Washington, D.C., Ranally Metropolitan Area, which comprises the District of Columbia; all of Arlington, Fairfax and Prince William Counties; and portions of Fauquier, Loudon and Stafford Counties; the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park in Virginia; and substantially all of Montgomery, Prince Georges and Charles Counties, plus small portions of Anne Arundel, Calvert, Carroll, Frederick, and Howard Counties in Maryland.

any relevant area. Accordingly, the Board concludes that competitive considerations under the BHC Act are consistent with approval.

As the Board has previously indicated, a bank holding company should serve as a source of financial and managerial strength to its subsidiary banks. Consistent with this policy, the Board closely examines the condition of an applicant in each case with this consideration in mind. In addition, in acting on applications for membership in the Federal Reserve System the Board is required to consider the financial condition of the applying bank, including the adequacy of its capital structure and its future earnings prospects.[3] Accordingly, the Board has approved applications for Federal Reserve membership subject to the condition that the net capital and surplus funds of the applying bank be maintained at a level that is adequate in relation to the character and condition of its assets and to its deposit liabilities and other corporate responsibilities.[4] For the reasons explained below, the Board views the financial and managerial resources and future prospects of Ballston and Bank as consistent with approval.

The Board has previously cautioned against the assumption of substantial amounts of debt in a bank holding company formation because of concern that the holding company would not have the financial flexibility to meet unexpected problems of its subsidiary bank or would be forced to place substantial demands on its subsidiary bank to meet debt servicing requirements.[5] Nevertheless, the Board has recognized that the transfer of ownership of small existing banks often requires the use of acquisition debt.[6] Accordingly, the Board has approved such applications involving debt on the condition that the small one-bank holding company clearly demonstrates its ability to become a source of strength to its subsidiary bank within a relatively short period of time, by reducing its debt-to-equity ratio to a reasonable level within 12 years of consummation. In cases involving the formation of a small one-bank holding company through the acquisition of a *de novo* bank, however, the Board has indicated that, due to the absence of any record of earnings or growth, further scrutiny is required. In such cases, the Board will pay particular attention to the amount of debt involved and the bank holding company's ability to service the debt.

Although Ballston will incur debt in connection with this proposal, it appears that Ballston will be able to service its debt while maintaining capital levels in the bank holding company that are consistent with its status as a newly formed organization, particularly in light of the commitments made by Ballston and its principals. Upon consummation, Ballston's debt-to-equity ratio will not exceed 100 percent. Ballston has also taken measures to assure that its initial debt-to-equity ratio will not increase and that it will have the ability to meet its debt service requirements without additional borrowings and without reliance on cash flows of any kind from Bank until Bank establishes a record of safe and sound operation.[7]

In considering the adequacy of Bank's capital structure, the Board notes that start-up capital in a *de novo* state member bank should be reasonable in the context of its location, business plan and competitive environment. Specifically, the Board believes that a bank's initial capital would be sufficient if on the basis of projected asset growth and earnings performance, the bank's primary capital-to-total assets ratio can be maintained at an adequate level through three years of operation without the need for further capital injections. In this case, Bank will have initial capital of $6.7 million and the record reflects that Bank is likely to maintain a primary capital-to-total assets ratio of at least 10 percent through the end of its third year. The Board finds that under these circumstances, Bank's initial capital will be reasonable and supports approval of the application.

In addition, because Bank will provide additional banking facilities in its community, considerations relating to the convenience and needs of the communities to be served lend weight toward approval.

The Board has also considered the factors it is required to consider when approving applications for membership in the Federal Reserve System pursuant to section 9 of the Federal Reserve Act (12 U.S.C. § 322) and section 6 of the Federal Deposit Insurance Act (12 U.S.C. § 1816), and finds those factors to be consistent with approval. Based on the foregoing and other facts of record, including the commitments made by Ballston and its principals, the Board has determined that the applications should be, and hereby are, approved. The acquisition shall not be made before the thirtieth calendar day following the effective date of

3. 12 U.S.C. §§ 322, 1814, 1816.

4. *See* 12 C.F.R. § 208.7.

5. *See Holcomb Bancshares, Inc.*, 69 FEDERAL RESERVE BULLETIN 804 (1983).

6. Federal Reserve Board Policy Statement for Formation of Small One-Bank Holding Companies, 12 C.F.R. § 225, Appendix B, F.R.R.S. ¶ 4–855.

7. In order to assure that Ballston's debt servicing requirements can be met without additional borrowings or cash flows from Bank, Ballston has established a cash reserve that should be sufficient to meet debt servicing requirements during its first two years of operation. Ballston has also obtained commitments for the injection of additional equity to support its debt-to-equity ratio or to meet debt service requirements if the cash reserves have been exhausted and if Bank is not able to provide dividends to its parent at that time.

this Order, or later than three months after the effective date of this Order, and Bank shall be opened for business not later than six months after the effective date of this Order. These time periods may be 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 May 23, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

WILLIAM W. WILES
Secretary of the Board

Citizens Financial Group, Inc.
Providence, Rhode Island

Order Approving Acquisition of a Bank

Citizens Financial Group, Inc., Providence, Rhode Island ("Applicant"), a bank holding company within the meaning of the Bank Holding Company Act (the "BHC Act") (12 U.S.C. § 1841 *et seq.*), has applied for the Board's approval pursuant to section 3(a)(3) of the BHC Act, to acquire all of the voting shares of Fairhaven Savings Bank, Fairhaven, Massachusetts ("Bank"), an FDIC-insured savings bank.[1]

Notice of the application, affording interested persons an opportunity to submit comments, has been published (53 *Federal Register* 3,789 (1988)). 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.

Section 3(d) of the BHC Act (12 U.S.C. § 1842(d)), 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 the acquisition is "specifically authorized by the statute laws of the state in which such bank is located, by language to that effect and not merely by implication."[2] The Board has previously determined that Massachusetts law[3] authorizes a Rhode Island bank holding company to acquire a Massachusetts bank or bank holding company.[4] Massachusetts law requires, however, that the acquiring bank holding company obtain approval for the acquisition from the Massachusetts Board of Bank Incorporation ("Massachusetts Board"). Based on the foregoing, the Board has determined that the proposed acquisition is specifically authorized by the statute laws of Massachusetts and thus Board approval is not prohibited by the Douglas Amendment, subject to Applicant's obtaining approval from the Massachusetts Board.

Applicant is the fourth largest commercial banking organization in Rhode Island, controlling deposits of approximately $1.6 billion, representing approximately 11.2 percent of the deposits in commercial banking organizations in the state.[5] Bank is the 93rd largest commercial banking organization in Massachusetts, controlling deposits of $175 million, representing less than one percent of the deposits in the state.

Bank operates in the New Bedford banking market.[6] The principals of Applicant are not associated with any of the banking organizations in this market. Consummation of this proposal would not result in any adverse effects upon competition or increase the concentration of banking resources in any relevant market. Accordingly, the Board concludes that competitive considerations under the BHC Act are consistent with approval.

In evaluating the financial resources of Applicant and Bank, the Board has taken into consideration the fact that Bank engages through a subsidiary in real estate investment and development activities authorized pursuant to state law. The Board notes that the Competitive Equality Banking Act of 1987 ("CEBA") amended the BHC Act to provide that "notwithstanding any other provision of [the BHC] Act, any qualified savings bank which is a subsidiary of a bank holding company may engage, directly or through a subsidiary, in any activity in which such savings bank may engage (as a state-chartered savings bank) pursuant to express, incidental or implied powers under any statute or regulation, or under any judicial interpretation of any law, of the State in which such savings bank is located."[7] Under this provision, a qualified savings bank may engage directly or through a subsidiary in any activity permitted by state law for the savings bank to conduct as a savings bank, even

1. As an FDIC-insured institution, Bank would qualify as a "bank" under section 2(c) of the BHC Act, as amended by section 101(a) of the Competitive Equality Banking Act of 1987, Pub. L. No. 100-86, 100 Stat. 552, 554 (1987) (to be codified at 12 U.S.C. § 1841(c)).

2. A bank holding company's home state is the state in which the operations of the bank holding company's subsidiary banks were principally located on July 1, 1966, or on the date on which the company became a bank holding company, whichever is later.

3. Mass. Ann. Laws Ch. 167A, § 2 (1987).

4. *Fleet Financial Group, Inc.*, 70 FEDERAL RESERVE BULLETIN 834 (1984).

5. State data are as of June 30, 1987.

6. The New Bedford banking market is approximated by the New Bedford RMA plus Wereham and that portion of Freetown not included in the New Bedford RMA.

7. 101 Stat. at 561-562 (to be codified at 12 U.S.C. § 1842(f)). This exception applies only to "qualified savings banks." A savings bank loses its qualification if it is controlled by a bank holding company that has less than 70 percent of its assets invested in savings banks.

though the Board has not determined that the activity is closely related to banking under section 4(c)(8) of the BHC Act and the activity is thus not generally permissible for bank holding companies under the BHC Act.

As the Board noted in *Wake Bancorp, Inc.*, 73 FEDERAL RESERVE BULLETIN 925 (1987) ("*Wake*"), while this provision of CEBA authorizes qualified savings banks to conduct activities that may not be permissible for bank holding companies under the BHC Act, CEBA does not negate the Board's responsibility in the context of every bank holding company application to evaluate the financial resources of the bank holding company and the bank to be acquired.[8] In addition, under the International Lending Supervision Act ("ILSA"), the Board is responsible for ensuring that bank holding companies and their nonbank subsidiaries maintain adequate levels of capital.[9] In this regard, the Board notes that the Senate Report on this provision of CEBA states that, while it was intended to allow qualified savings banks to engage in state authorized activities, "[t]he Board would, however, be authorized under its general supervisory authority over bank holding companies and their subsidiaries to prevent unsafe and unsound activities; or to require the bank holding company to maintain higher levels of capital to support such activities."[10]

In *Wake*, the Board stated that it had serious reservations about such applications and would examine the numerous issues raised by that application in the context of the pending real estate investment and development proposal.[11] The Board also asked for comment on certain additional measures under consideration to ensure that banking organizations and the resources of the federal safety net are appropriately insulated from the risks of real estate development activities.[12] In the interim, the Board stated that it would continue to evaluate applications involving qualified savings banks on a case by case basis.

As part of the Board's analysis in this case, including its evaluation of the capital and financial resources of the bank holding company and bank involved, the Board has considered the risk to Applicant and Bank of the real estate development activities conducted by Bank through its nonbank subsidiary. Based upon its review of the facts in this case as well as certain commitments by Applicant regarding its capital position and that of Bank, the Board concludes that the financial and managerial resources and future prospects of Applicant and Bank are consistent with approval of the proposal. In reaching this decision, the Board has relied upon Applicant's commitment to comply with the results of the Board's real estate development rulemaking. The Board's approval of this application is conditioned upon compliance with these commitments.

Convenience and needs considerations also are consistent with approval.

Based on the foregoing and other facts of record, the Board has determined that the application should be, and hereby is, approved, subject to Applicant's obtaining approval from the Massachusetts Board. The acquisition of Bank 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 Boston, pursuant to delegated authority.

By order of the Board of Governors, effective May 2, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

JAMES MCAFEE
Associate Secretary of the Board

Napa Valley Bancorp
Napa, California

Order Approving the Acquisition of Banks

Napa Valley Bancorp, Napa, California ("Napa Valley"), a bank holding company within the meaning of the Bank Holding Company Act of 1956, as amended (the "Act") (12 U.S.C. § 1841 *et seq.*), has applied for the prior approval of the Board under section 3 of the Act (12 U.S.C. § 1842) to acquire 50.01 percent of Sonoma Valley Bank, Sonoma, California ("Sonoma Valley"), and all of the voting shares of Bank of Lake County, Lakeport, California ("Lake County"), both proposed new banks.

Notice of the applications, affording interested persons an opportunity to submit comments, has been duly published. The time for filing comments has

8. 12 U.S.C. § 1842(c).
9. 12 U.S.C. §§ 3901–3912.
10. S. Rep. No. 100–19, 100th Cong., 1st Sess. 36 (1987).
11. 52 *Federal Register* 543,551 (1987).
12. These included proposals to determine that a real estate subsidiary of a bank, as well as, under certain circumstances, a partner or co-venturer of such a subsidiary, would be an "affiliate" of the bank for purposes of section 23A of the Federal Reserve Act (12 U.S.C. § 371c(b)(2)), thereby regulating transactions between the bank and its real estate subsidiaries and partners; to impose special capital requirements on bank holding companies and their nonbank subsidiaries engaged in real estate development activities; and to require, as a matter of safety and soundness and as a condition of its approval for bank holding companies to acquire qualified savings banks, that new real estate development investments by such organizations be made by the parent bank holding company or its direct nonbank subsidiaries rather than by the bank or subsidiaries of the bank.

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 Act.

Napa Valley is the 57th largest commercial banking organization in California, with deposits of $223.0 million, representing less than one percent of total deposits in commercial banking organizations in the state.[1] Both Sonoma Valley, which will compete in the Sonoma banking market,[2] and Lake County, which will compete in the Lake County banking market,[3] are proposed new banks. Lake County will acquire three bank branches of Westamerica Bancorporation, San Rafael, California, located in the Lake County banking market, and Lake County will have total assets between $56 million and $61 million upon commencement of operations. Napa Valley currently does not compete in either the Sonoma or Lake County banking markets. In light of these facts and all other facts of record, consummation of the proposed transactions would have no adverse effects on competition or on the concentration of banking resources in any relevant banking market.

Applicant's existing bank subsidiary, Napa Valley Bank, engages through a wholly owned subsidiary in real estate investment activities authorized for state banks pursuant to California law. The Board has previously stated that it has serious reservations about applications involving banks engaged in real estate activities and would examine the issues raised by these applications in the context of the pending real estate investment and development proposal.[4] In the interim, the Board has stated that it will continue to evaluate these applications on a case-by-case basis.

Based upon its review of the facts in this case as well as certain commitments by Applicant regarding the level of its real estate investment activities and the capital position of Applicant and its bank subsidiaries, the Board concludes that the financial and managerial resources and future prospects of Applicant, Sonoma Valley and Lake County are consistent with approval of the proposal.[5] In reaching this decision, the Board has relied upon Applicant's commitments, in particular its commitment to comply with the results of the Board's real estate development rulemaking. The Board's approval of these applications is conditioned upon compliance with these commitments. The banks will provide additional full service banking facilities in their communities, and thus considerations relating to convenience and needs of the communities to be served lend weight toward approval.

Based on the foregoing and other facts of record, and in reliance on the commitments made by Applicant, the Board has determined that the applications should be, and hereby are, approved. The transactions shall not be consummated before the thirtieth day after the effective date of the Order, or later than three months after the effective date of this Order, and the banks to be acquired shall be opened for business not later than six months after the effective date of this Order, unless such latter periods are extended for good cause by the Board, or by the Federal Reserve Bank of San Francisco pursuant to delegated authority.

By Order of the Board of Governors, effective May 4, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

JAMES MCAFEE
Associate Secretary of the Board

Concurring Statement of Governor Seger

I concur in the Board's approval of these applications. In this case, Applicant engages, through a nonbank company owned by its existing bank subsidiary, in real estate investment activities authorized for state banks under California law. In my view, the Board should not interfere with the authority granted banks under state law to conduct real estate investment or other nonbanking activities. Thus, I believe the Board's acceptance of commitments limiting these activities is inconsistent with the authority of the states in this area. Accordingly, I would approve these applications without the commitments relied on by the Board limiting the real estate investment activities of Applicant and its banks.

May 4, 1988

Saban, S.A.
Panama City, Republic of Panama

Order Approving Acquisition of Additional Shares of a Bank Holding Company

Saban, S.A., Panama City, Republic of Panama, a bank holding company within the meaning of the Bank

1. All banking data are as of December 31, 1986.
2. The Sonoma banking market consists of Sonoma County, California.
3. The Lake County banking market consists of Lake County, California.
4. 52 *Federal Register* 543 (1987); 52 *Federal Register* 42,301 (1987).
5. The Board has approved a small number of similar cases involving commercial banks that have limited the level and scope of their real estate investment activities and agreed to maintain adequate capital and conform their activity to the Board's regulations and its rulemaking proceeding in this area. *See, e.g., Security Pacific Corporation,* 72 FEDERAL RESERVE BULLETIN 800 (1986).

Holding Company Act (12 U.S.C. § 1841 *et seq.*) (the "Act"), has applied for the Board's approval under section 3(a)(3) of the Act (12 U.S.C. § 1842(a)(3)) to acquire an additional 4.82 percent of Republic New York Corporation, New York, New York ("Republic"), thereby increasing its ownership to 37.94 percent.

Notice of the application, affording an opportunity for interested persons to submit comments, has been published (52 *Federal Register* 48,323 (1987)). 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 Act (12 U.S.C. § 1842(c)).

Applicant, through Republic, is the 12th largest commercial banking organization in New York, with approximately $6.8 billion in deposits, controlling approximately 2.8 percent of the total deposits in commercial banking organizations in New York.[1] Because Applicant is only increasing its share ownership in Republic, consummation of this proposal would not have a significant effect on the concentration of banking resources in New York or in any relevant banking market.

The financial and managerial resources of Applicant and Republic are consistent with approval.

In considering the convenience and needs of the communities to be served, the Board has taken into account the records of Applicant and Republic under the Community Reinvestment Act ("CRA"), 12 U.S.C. § 2901 *et seq.*[2] The Board notes that the Office of the Comptroller of the Currency ("OCC") has indicated that there are certain areas in which Republic's lead bank, Republic National Bank of New York, New York, New York, should improve its CRA performance. In response, Republic and its subsidiary banks have adopted a comprehensive corporate CRA plan. The plan provides specific goals in a number of areas. With regard to "Banking Services," the plan provides that Republic will:

-promote services to its communities through regular product advertising in mass media newspapers and locally targeted publications, and through special advertising programs;
-develop employee understanding and awareness through written communications, formal training, internal publications, and quarterly review meetings;
-ascertain community needs through a "grassroots" outreach program which will be developed by an experienced individual;
-evaluate existing products and address changing needs through analysis of market penetration by product and review of consumer and small business lending activity;
-develop and introduce new products such as credit cards, student loans, subsidized loans, and small business loans and deposit accounts; and
-evaluate services offered and address changing needs through a market research project and a program for the hearing impaired.

With regard to "Housing Services," Republic will:
-promote existing mortgage products through traditional and special advertising programs;
-ascertain community needs through work with New York City housing offices;
-evaluate products and address changing needs through analysis of mortgage applications, approved and denied by census tract, review of investments in government housing related securities, obtaining approval to be a SONYMA lender, making available adjustable rate mortgages and no income check mortgages;
-participate in housing development and redevelopment programs; and
-make funds available for participation in rehabilitation projects and mortgage loans.

With regard to "CRA Compliance," Republic will:
-revise its CRA statement, as needed;
-review and revise community delineations, as needed;
-provide employee training on CRA;
-evaluate CRA compliance;
-document CRA compliance; and
-revise its community action program.

In addition, Republic will submit to the Federal Reserve Bank of New York semi-annual reports outlining the progress of Republic and its subsidiary banks in implementing this plan. Based on the foregoing and all the facts of record, the Board concludes that convenience and needs considerations are consistent with approval.

Based on the foregoing and all the facts of record, the Board has determined that the application under section 3 of the Act should be and hereby is approved. The acquisition of the additional shares of Republic shall not be consummated before the thirtieth calendar day following the effective date of this Order, or later than 90 days after the effective date of this Order, unless such period is extended for good cause by the

1. Banking data are as of June 30, 1987. This deposit data also includes the deposits of Republic's subsidiary savings bank, The Williamsburgh Savings Bank, Brooklyn, New York.

2. The CRA requires the Board, in its evaluation of a bank holding company application, to assess the record of an applicant in meeting the credit needs of the entire community, including the low- and moderate-income neighborhoods, consistent with safe and sound operation.

Board or by the Federal Reserve Bank of New York, pursuant to delegated authority.

By order of the Board of Governors, effective May 17, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

WILLIAM W. WILES
Secretary of the Board

Orders Issued Under Section 4 of the Bank Holding Company Act

The Bank of Montreal
Toronto, Canada

Order Approving Application to Engage in Certain Securities and Financial Advisory Activities

The Bank of Montreal, Toronto, Canada ("Applicant"), 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(c)(8) of the BHC Act (12 U.S.C. § 1843(c)(8)) and section 225.21(a) of the Board's Regulation Y (12 C.F.R. § 225.21(a)) to engage *de novo* through Nesbitt Thomson Securities, Inc., New York, New York ("Company"), in:

(1) underwriting and dealing in commercial paper to a limited extent;

(2) acting as agent and advisor to issuers of commercial paper in connection with the placement of commercial paper with institutional customers;

(3) providing brokerage and investment advisory services on a combined basis to institutional customers and Company's affiliates;

(4) providing advice in connection with mergers and acquisitions, divestitures, loan syndications, interest rate swaps, interest rate caps and similar transactions to unaffiliated financial and nonfinancial institutions; and

(5) providing financial advice to the Canadian federal and provincial governments, such as with respect to the issuance of their securities in the United States.[1]

Applicant acquired Company on September 29, 1987, as part of its acquisition of Company's parent, Nesbitt Thomson, Inc., a Canadian holding company that engages through subsidiaries in securities underwriting and dealing outside the United States. As a condition to its acquisition of Company, Applicant committed to the Board that Company would not engage in any activities without obtaining the appropriate Board authorizations. Applicant has filed this application to permit Company to resume activities in the United States that are permissible for bank holding companies.

Notice of the application, affording interested persons an opportunity to submit comments, has been duly published (53 *Federal Register* 12,594 and 15,139 (1988)). 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.

Applicant, with total assets of approximately $61.6 billion,[2] is the second largest bank in Canada. In the United States, Applicant owns all of the outstanding voting shares of Bankmont Financial Corp., New York, New York, which is the holding company for Harris Bankcorp, Chicago, Illinois. Applicant also operates branches in Chicago and New York, an agency in Houston and a representative office in Los Angeles.

Underwriting and Dealing in Commercial Paper

On April 30, 1987, the Board approved applications by Citicorp, J.P. Morgan and Bankers Trust to underwrite and deal in, through their bank-eligible securities underwriting subsidiaries, 1–4 family mortgage-backed securities, municipal revenue bonds (and certain industrial development bonds) and (except for Citicorp) commercial paper.[3] The Board concluded that the underwriting subsidiaries would not be "engaged principally" in underwriting or dealing in securities within the meaning of section 20 of the Glass–Steagall Act,[4] provided they derived no more than 5 percent of their total gross revenues from underwriting

1. Applicant has also applied to engage in providing discount brokerage services; providing investment advice and research to institutional customers and Company's affiliates; furnishing general economic information and advice to institutional customers and Company's affiliates; and underwriting and dealing in bank-eligible securities. The Board has previously determined that these activities are generally permissible for bank holding companies. 12 C.F.R. §§ 225.25(b)(15), (4)(iii), (4)(iv) and (16), respectively.

2. Asset data are as of January 31, 1988. Banking data are as of October 31, 1988.

3. *Citicorp, J.P. Morgan & Co. Incorporated and Bankers Trust New York Corporation*, 73 FEDERAL RESERVE BULLETIN 473 (1987) (*"Citicorp/Morgan/Bankers Trust"*). The Board subsequently approved similar applications by a number of other bank holding companies.

4. Section 20 of the Glass–Steagall Act (12 U.S.C. § 377) prohibits the affiliation of a member bank with "any corporation . . . engaged principally in the issue, flotation, underwriting, public sale, or distribution at wholesale or retail or through syndicate participation of stocks, bonds, debentures, notes, or other securities . . . . "

and dealing in the approved securities over any two-year period and their underwriting and dealing activities did not exceed 5 percent of the market for each particular type of security involved.[5] The Board further found that, subject to the prudential framework of limitations established in those cases to address the potential for conflicts of interest, unsound banking practices or other adverse effects, the proposed underwriting and dealing activities were so closely related to banking as to be a proper incident thereto within the meaning of section 4(c)(8) of the BHC Act. Applicant has proposed to conduct Company's underwriting and dealing in commercial paper in the same manner and to the same extent as previously approved by the Board in the foregoing Orders.

For the reasons set forth in the Board's *Citicorp/Morgan/Bankers Trust* Order, the Board concludes that Applicant's proposal to engage through Company in underwriting and dealing in commercial paper would not result in a violation of section 20 of the Glass–Steagall Act and is closely related and a proper incident to banking within the meaning of section 4(c)(8) of the BHC Act provided Applicant limits Company's activities as provided in that Order. Accordingly, the Board has determined to approve the underwriting application subject to all of the terms and conditions established in the *Citicorp/Morgan/Bankers Trust* Order. The Board hereby adopts and incorporates herein by reference the reasoning and analysis contained in that Order.

The Board's approval of this application extends only to activities conducted within the limitations of the *Citicorp/Morgan/Bankers Trust* Order, including the Board's reservation of authority to establish additional limitations to ensure that the subsidiary's activities are consistent with safety and soundness, conflicts of interest and other relevant considerations under the BHC Act. Underwriting or dealing in commercial paper in any manner other than as approved in that Order is not within the scope of the Board's approval and is not authorized for Company.

5. In this regard, the Board notes that the U.S. Court of Appeals for the Second Circuit has upheld the Board's determination that the underwriting subsidiaries would not be engaged principally in ineligible securities underwriting and dealing under the above revenue limitation. *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 839 F.2d 47 (2d Cir. 1988). The court, however, stated that the 5 percent market share limitation was not adequately supported by the facts of record. However, a petition for a writ of *certiorari* from that decision is pending and, as proposed, Company's underwriting and dealing activity would not exceed the market share limitation. In the event the Second Circuit's decision becomes final, the Board will consider a petition by Applicant to modify the approved proposal.

Private Placement of Commercial Paper

The Board has previously determined that commercial paper placement is closely related to banking. *Bankers Trust New York Corporation*, 73 FEDERAL RESERVE BULLETIN 138 (1987) (*"Bankers Trust"*). Applicant has proposed to place commercial paper in accordance with all of the terms and conditions of *Bankers Trust* with one exception.

Unlike Bankers Trust, Applicant has not proposed any quantitative limitations on its placement activity. The Board in *Bankers Trust* ruled that commercial paper placement does not constitute underwriting or distributing under the Glass–Steagall Act and this ruling was upheld by the U.S. Court of Appeals for the District of Columbia Circuit.[6] Accordingly, since commercial paper placement as proposed here does not constitute underwriting, the Board does not believe that quantitative limitations on the activity are necessary to ensure compliance with the Glass–Steagall Act.

Investment Advice and Securities Brokerage on a Combined Basis

The Board previously has determined that the combined offering of investment advice with securities brokerage services to institutional customers is closely related to banking and a proper incident thereto and does not violate the Glass–Steagall Act. *See, e.g., National Westminster Bank PLC*, 72 FEDERAL RESERVE BULLETIN 584 (1986) (*"NatWest"*); and *Royal Bank of Canada*, 74 FEDERAL RESERVE BULLETIN 334 (1988). That position has been upheld by the D.C. Circuit Court of Appeals in its affirmance of the *NatWest* Order, and the Supreme Court has declined to review the matter.[7]

Applicant has proposed to conduct its full service brokerage activity in accordance with the limitations approved by the Board in *Royal Bank of Canada*. As in *Royal Bank of Canada*, Applicant proposes that Company be permitted to have management interlocks with Applicant, a foreign bank. There would be no management or employee interlocks, however, between Company and Applicant's U.S. banks, branches, or agencies. In addition, Applicant proposes to exercise limited investment discretion at a custom-

6. *Statement Concerning the Applicability of the Glass–Steagall Act to the Commercial Paper Placement Activities of Bankers Trust Company* (June 4, 1985), *aff'd, Securities Industry Association v. Board of Governors of the Federal Reserve System*, 807 F.2d 1052 (D.C. Cir. 1986), *cert. denied*, 107 S. Ct. 3228 (1987).

7. *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 821 F.2d 810 (D.C. Cir. 1987) *cert. denied*, 108 S. Ct. 697 (1988).

er's specific request as approved by the Board in *J.P. Morgan & Co. Incorporated,* 73 FEDERAL RESERVE BULLETIN 810 (1987).

Merger and Acquisition Advice to Unaffiliated Financial and Nonfinancial Institutions

Applicant has proposed that Company engage in certain financial advisory activities for unaffiliated financial and nonfinancial institutions. The Board previously has determined that, subject to certain limitations, these financial advisory activities are permissible nonbanking activities for bank holding companies. *Signet Banking Corporation,* 73 FEDERAL RESERVE BULLETIN 59 (1987). Applicant has committed to limit Company's financial advisory activities as set forth in that Order.

Financial Advisory Services to Canadian Governmental Entities

The Board has determined that Applicant's proposal to provide advice to Canadian governmental entities is closely related to banking. *Bank of Nova Scotia,* 74 FEDERAL RESERVE BULLETIN 249 (1988).

Proper Incident to Banking

With respect to the "proper incident" requirement, section 4(c)(8) of the BHC Act requires the Board to consider whether the performance of the activity by an affiliate of a holding company "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."

Consummation of Applicant's proposal would provide increased convenience to Company's customers and gains in efficiency. In addition, the Board expects that the *de novo* entry of Applicant into the market for these services would increase the level of competition among providers of these services. Accordingly, the Board has determined that the performance of the proposed activities by Company can reasonably be expected to produce benefits to the public.

The Board has also considered the potential adverse effects that may be associated with this proposal. The Board believes that potential adverse effects are minimized by the fact that Company will conduct the proposed activities subject to the same conditions imposed by the Board in orders approving similar activities. Accordingly, the Board has determined that consummation of the proposal is not likely to result in decreased or unfair competition, conflicts of interests, unsound banking practices, concentration of resources, or other adverse effects.

Based on the foregoing and other facts of record, 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. Accordingly, the Board has determined that the application should be, and hereby is, approved. This determination is further subject to all of the conditions set forth in the Board's Regulation Y, including those in sections 225.4(d) and 225.23(b), and to the Board's authority to require modification or termination of the activities of the holding company or any of its 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 evasion thereof.

The Board notes that the Securities Industry Association has sought judicial review by the Supreme Court of the *Citicorp/Morgan/Bankers Trust* Order to which this Order pertains. The Board notes that the Court of Appeals for the Second Circuit has stayed the effectiveness of that Order and subsequent ineligible securities underwriting orders pending judicial review. In light of the pendency of this litigation, the Board has determined that this Order should be stayed with respect to the commercial paper underwriting and dealing activity for such time as the stay of the prior decisions is effective.

By order of the Board of Governors, effective May 25, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

JAMES MCAFEE
Associate Secretary of the Board

Northern Trust Corporation
Chicago, Illinois

Order Approving Application to Provide Investment Advisory Services on Stock and Bond Index Futures and Options on Such Futures

Northern Trust Corporation, Chicago, Illinois ("Applicant"), a bank holding company within the meaning of the Bank Holding Company Act (12 U.S.C. § 1841 *et seq.*) ("BHC Act"), has applied pursuant to section 4(c)(8) of the BHC Act (12 U.S.C. § 1843(c)(8)) and § 225.21(a) of the Board's Regulation Y (12 C.F.R. § 225.21(a)), to engage *de novo* through its wholly owned subsidiary, Northern Investment Management Company, Chicago, Illinois ("Company"), in providing investment advice as a commodity trading advisor

("CTA") registered with the Commodity Futures Trading Commission ("CFTC") on futures contracts (and options thereon) on broad-based stock and bond indexes traded on major commodity exchanges. Applicant has also proposed to provide investment advice through Company on certain other financial futures and options on such futures as permitted under section 225.25(b)(19) of the Board's Regulation Y, 12 C.F.R. § 225.25(b)(19). Company will not execute or clear futures contracts or options thereon, nor trade for its own account.

Applicant currently engages through Company in providing investment and financial advice pursuant to section 225.25(b)(4) of the Board's Regulation Y, 12 C.F.R. § 225.25(b)(4). In addition, Applicant's wholly owned subsidiary, Northern Futures Corporation, Chicago, Illinois ("NFC"), engages in the execution and clearance of futures contracts and options on futures contracts for bullion, foreign exchange, government securities, certificates of deposit and other money market instruments, pursuant to section 225.25(b)(18) of the Board's Regulation Y, 12 C.F.R. § 225.25(b)(18). NFC also provides investment advice on such futures and options on futures pursuant to section 225.25(b)(19) of Regulation Y. In addition, the Board has recently authorized NFC to execute and clear certain stock and municipal bond index futures contracts and options thereon. *Northern Trust Corporation*, 74 FEDERAL RESERVE BULLETIN 333 (1988).

Notice of the application, affording interested persons an opportunity to submit comments, has been duly published (53 *Federal Register* 12,191 (1988)). 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.

Applicant, with total consolidated assets of $9.3 billion, is the fourth largest banking organization in Illinois.[1] Applicant operates eight subsidiary banks and engages through certain of its subsidiaries in a variety of nonbanking activities.

Section 4(c)(8) of the BHC Act imposes a two-step test for determining the permissibility of nonbanking activities for bank holding companies:

(1) whether the activity is closely related to banking; and

(2) whether the activity is a "proper incident" to banking—that is, whether the proposed activity can reasonably be expected to produce benefits to the public that outweigh possible adverse effects.

The Board has previously determined that providing investment advisory services on certain futures contracts on stock and municipal bond indexes and options on such contracts is closely related to banking. *Citicorp*, 73 FEDERAL RESERVE BULLETIN 220 (1987); and *Bankers Trust New York Corporation*, 71 FEDERAL RESERVE BULLETIN 111 (1985). The proposed activities of Company are similar to the above proposals previously approved by the Board. While Applicant has requested authority to provide investment advice on a broader range of futures contracts and options thereon than previously approved, the Board believes that such a modification does not alter the activity to render it less closely related to banking. Accordingly, the Board has determined that Applicant's proposal is closely related to banking.

In order to approve this application, the Board is also required to determine that the performance of the proposed activities by Applicant "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)).

Consummation of Applicant's proposal would provide added convenience to Company's customers. In addition, the Board expects that the *de novo* entry of Applicant into the market for these services would increase the level of competition among providers of these services. Accordingly, the Board has determined that the performance of the proposed activities by Applicant can reasonably be expected to produce benefits to the public.

The Board has also considered the potential adverse effects that may be associated with this proposal. It does not appear that the proposed activities would entail risks or conflicts of interests different from those considered in *Bankers Trust* or *Citicorp*. The Board views Applicant's proposal as an extension of *Bankers Trust* and *Citicorp* that would not be likely to give rise to adverse effects given the framework of laws and regulations within which Company will conduct its activities. Company will comply with the requirements of section 225.25(b)(19) of Regulation Y by limiting its advisory services to financially sophisticated customers and by not trading for its own account. Company will continue to conduct its activities in compliance with the Investment Advisors Act of 1940 and the rules and regulations promulgated thereunder by the Securities and Exchange Commission. In addition, Company will register as a CTA with the CFTC and will join the National Futures Association, the industry self-regulatory organization. Finally, many clients of Company are employee benefit trusts subject to the

1. Asset data are as of December 31, 1987. Banking data are as of June 30, 1987.

Employee Retirement Income Security Act of 1974 and the prohibited transactions of that act.

The Board believes that the above legal and regulatory framework addresses the potential for adverse effects stemming from this proposal. This potential is further minimized by the fact that Company will provide advisory services only with respect to futures contracts, and options thereon, on broad-based indexes of stocks and bonds traded on major commodity exchanges, in addition to the commodities and instruments set forth in section 225.25(b)(19) of Regulation Y.

Based on the foregoing and other facts of record, 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. Accordingly, the Board has determined that the application should be, and hereby is, approved. This determination is further subject to all of the conditions set forth in the Board's Regulation Y, including those in sections 225.4(d) and 225.23(b), and to the Board's authority to require modification or termination of the activities of the holding company or any of its 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 evasion thereof.

This transaction 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, pursuant to delegated authority.

By order of the Board of Governors, effective May 23, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

WILLIAM W. WILES
Secretary of the Board

Sovran Financial Corporation
Norfolk, Virginia

Order Approving an Application to Provide Certain Securities-Related Services

Sovran Financial Corporation, Norfolk, Virginia, a bank holding company within the meaning of the Bank Holding Company Act of 1956, as amended (12 U.S.C. § 1841 *et seq.*) (the "Act"), has applied for the Board's approval under section 4(c)(8) of the Act (12 U.S.C. § 1843(c)(8)) and section 225.23 of the Board's Regulation Y (12 C.F.R. § 225.23), to expand the activities of its subsidiary, Sovran Investment Corporation, Richmond, Virginia ("SIC"), to include the provision of certain securities-related services currently conducted by its subsidiary bank, Sovran Bank, N.A.[1] These activities are purchasing and selling as agent for its corporate and other institutional customers a limited range of securities, including commercial paper, collateralized mortgage obligations, money market preferred stock, and other nonbank-eligible securities, and providing, on occasion, ancillary non-fee investment advice in connection with the brokerage activity. For these customers, SIC would not broker equity securities, long-term corporate debt securities, or traded options.[2]

Applicant, a multibank holding company, has total consolidated assets of approximately $14.6 billion.[3] Applicant also engages through certain subsidiaries in other nonbanking activities permissible for bank holding companies.

Notice of the application, affording interested persons an opportunity to submit comments on the proposal, has been duly published (52 *Federal Register* 42,040 (1987)). 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 Act.

The Board has previously determined that the combined offering of investment advice with securities execution services to institutional customers from the same bank holding company subsidiary is closely related and a proper incident to banking under section 4(c)(8) of the BHC Act and does not violate the Glass–Steagall Act.[4]

1. SIC previously has received authorization from the Board to: (1) provide discount securities brokerage services; (2) buy and sell, as agent on behalf of unaffiliated persons, options on securities issued or guaranteed by the U.S. Government and its agencies, and options on U.S. and foreign money market instruments; (3) purchase and sell gold and silver bullion and gold coins solely for the account of customers; (4) underwrite and deal in government obligations and money market instruments; (5) provide investment advice relating solely to government obligations and money market instruments; (6) provide certain fiduciary services; (7) provide cash management services; and (8) provide certain investment advisory services.

2. SIC does broker such securities for retail individual customers, however, through a separate division. The personnel which broker such securities do not provide investment advice.

3. Banking data are as of March 31, 1987.

4. *National Westminister Bank PLC, et al.*, 72 FEDERAL RESERVE BULLETIN 584 (1986) ("*NatWest*"); *J. P. Morgan and Company, Inc.* 73 FEDERAL RESERVE BULLETIN 810 (1987) ("*J. P. Morgan*"); Manufacturers Hanover Corporation,73 FEDERAL RESERVE BULLETIN 930 (1987) ("*Manufacturers Hanover*"). The Board's *NatWest* Order has been upheld by the U.S. Court of Appeals for the District of Columbia. *Securities Industry Association v. Board of Governors*, 821 F.2d 810 (D.C. Cir. 1987), *cert. denied*, 56 U.S.L.W. 3451 (U.S. Jan. 11, 1988) (No. 87-562). Applicant will be offering these services to corporate and other institutional customers.

Applicant defines "corporate customers" to include "national corporate customers, as well as regional and local corporations, partnerships, proprietorships, and other business organizations that regularly engage in transactions in securities." "Institutional customers" include "banks, savings and loan associations, insurance com-

Applicant's proposal is consistent with the Board's previous decisions regarding this activity. Applicant has committed that SIC will not act as a principal or bear the financial risk for any securities it brokers or recommends. SIC will execute a transaction only at the direction of a customer and will not exercise discretion with respect to any customer account. SIC will fully disclose its dual role as securities broker and investment adviser to its customers.[5] SIC will hold itself out as a separate and distinct corporation with its own properties, assets, liabilities, capital, books, and records. All of SIC's notices, tickets, advice, confirmations, correspondence, and other documentation will clearly indicate that SIC is a separate corporation from its bank affiliates. SIC will specify in all customer agreements that SIC is solely responsible for its contractual obligations and commitments. SIC will not transmit advisory research or recommendations to the commercial lending department of any affiliate.

Applicant has indicated that no officer or director of its affiliate banks will serve as an officer or director of SIC. SIC will have certain management interlocks with the parent holding company.

Applicant has, however, proposed a modification to the conduct of the proposed activities as approved in *NatWest*. SIC proposes to share certain confidential information with its affiliates, with the customer's consent. In the Board's view and for the reasons set forth below, this modification does not alter the underlying rationale of the Board's decision in *NatWest* that the combined activities are closely related to banking or a proper incident thereto.[6]

According to Applicant's proposal, SIC would exchange customer lists with its affiliates. SIC would not generally permit the exchange of confidential information concerning its customers from its affiliated banks to SIC, but would permit such exchange where such information might be used by SIC in making credit decisions with respect to particular customers. This information *would* be background financial information concerning the customer. Applicant has committed that SIC will not request confidential customer financial information from any bank or nonbank affiliate, and will not release confidential customer financial information in its possession to any bank or nonbank affiliate, without the customer's prior consent.

Based upon the foregoing and other considerations reflected in the record, the Board has determined that the public benefits associated with consummation of this proposal can reasonably be expected to outweigh possible adverse effects, and that the balance of the public interest factors that the Board is required to consider under section 4(c)(8) of the Act is favorable. Accordingly, the application is hereby approved, subject to the commitments made by Applicant and the conditions in this Order. This determination is further subject to all of the conditions set forth in the Board's Regulation Y, including those in sections 225.4(d) and 225.23(b), and to the Board's authority to require modification or termination of the activities of the bank holding company or any of its subsidiaries as the Board finds necessary to assure compliance with the provisions and purposes of the Act and the Board's regulations and orders issued thereunder, or to prevent evasion thereof.

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

By order of the Board of Governors, effective May 3, 1988.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Heller, and Kelley.

JAMES MCAFEE
Associate Secretary of the Board

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

Algemene Bank Nederland, N.V. Amsterdam, The Netherlands

Order Approving Acquisition of a Bank Holding Company

Algemene Bank Nederland, N.V. ("Algemene"), ABN/Stichting, both of Amsterdam, The Netherlands, ABN/LaSalle North America, Inc., and LaSalle National Corporation, both of Chicago, Illinois (collectively "Applicant"), bank holding companies within the meaning of the Bank Holding Company Act (12 U.S.C. § 1841 *et seq.*) (the "Act"), have applied for the Board's approval under section 3 of the Act (12 U.S.C. § 1842) to acquire Lane Financial, Inc.,

panies, credit unions and other financial organizations." These categories are consistent with previous cases. Applicant does not propose to offer these services to individuals, as did the applicants in previous cases. Therefore, Applicant will be servicing a *less* inclusive category of customers than the applicants in the previous cases.

5. Under the terms of Applicant's proposal, SIC would not charge an explicit fee for investment advice, but would only receive fees for transactions executed for customers.

6. The Board hereby incorporates by reference its rationale and findings in the *NatWest*, *J.P. Morgan*, and *Manufacturers Hanover* Orders regarding the consistency of the proposed activity with the closely-related and proper incident to banking criteria of section 4(c)(8).

Northbrook, Illinois ("Lane"), and thereby indirectly acquire Lake View Trust and Savings Bank, Chicago, Illinois, Northwest National Bank of Chicago, Chicago, Illinois, Northbrook Trust & Savings Bank, Northbrook, Illinois, and Bank of Westmont, Westmont, Illinois.

Applicant has also applied for the Board's approval under section 4 of the Act (12 U.S.C. § 1843) to acquire Lane Mortgage Corporation, Northbrook, Illinois, and thereby engage in mortgage banking; Lane Data Services, Inc., Northbrook, Illinois, and thereby provide data processing and courier services; and Lane Life Insurance Company, Inc., Northbrook, Illinois, and thereby engage in the sale and reinsurance of credit related insurance. These activities are authorized for bank holding companies pursuant to the Board's Regulation Y, 12 C.F.R. §§ 225.25(b)(1), (7), (10) and (8).

Notice of the applications, affording opportunity for interested persons to submit comments, has been duly published (53 *Federal Register* 757 and 9,808 (1988)). 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 sections 3(c) and 4(c)(8) of the Act.

ABN/Stichting is a nonoperating private foundation organized under the laws of The Netherlands whose governing board consists of members of the managing and supervisory boards of Algemene. ABN/Stichting is a bank holding company by virtue of its ownership of all of the outstanding priority voting shares of Algemene. ABN/Stichting has no other assets, and its functions are limited to the ownership and management of Algemene's priority shares.

Algemene, with total assets equivalent to approximately $79.7 billion is the 46th largest bank in the world.[1] Algemene operates full service branches in New York, Chicago and Pittsburgh, a limited service branch in Seattle, and agencies in Atlanta, Boston, Miami, Houston, Los Angeles, and San Francisco. Algemene also operates an Edge Act corporation with an active office in Houston and inactive offices in Chicago and Atlanta; ABN International Markets Corporation, a subsidiary in New York engaged in acting as agent in the purchase and sale of securities on the Amsterdam Stock Exchange as permitted under the Board's regulations; ABN/LaSalle North America, Inc., Chicago, Illinois, parent of both LaSalle National Corporation, Chicago, Illinois (bank holding company for LaSalle National Bank, Chicago, Illinois), and Lisle Bancorporation, Inc., Lisle, Illinois (bank holding company for LaSalle Bank of Lisle, Lisle, Illinois).

Applicant competes with Lane in the Chicago banking market.[2] Applicant is the eighth largest of 244 commercial banking organizations in the market, with deposits of approximately $1.1 billion, controlling approximately 1.6 percent of total deposits in commercial banks in the market.[3] Lane is the sixth largest commercial banking organization in the market, with deposits of approximately $1.4 billion, controlling approximately 2.1 percent of total deposits in commercial banks in the market. Upon consummation, Applicant would be the fifth largest commercial banking organization in the market, with deposits of approximately $2.5 billion, controlling approximately 3.7 percent of total deposits in commercial banks in the market. The Chicago market is considered unconcentrated, with a Herfindahl–Hirschman Index ("HHI") of 845. Upon consummation, the HHI would increase by 6 points to 851. On the basis of the foregoing, the Board concludes that consummation of the proposal would not have a substantial adverse competitive effect in the Chicago banking market.

In evaluating the financial factors in this case, the Board notes that the primary capital ratio of Algemene, as publicly reported, is below the minimum level established for domestic bank holding companies. After making adjustments under U.S. generally accepted accounting principles, however, Algemene's capital would be consistent with the minimum levels established for domestic bank holding companies. In addition, the Board notes that Applicant has a strong common tangible equity position, especially when viewed in the context of the risk structure in its portfolio, and has recently improved its capital ratio significantly. Algemene is in compliance with the capital and other financial requirements of the appropriate supervisory authorities in The Netherlands and its resources and prospects are viewed as satisfactory by those authorities.

In its evaluation of this case, the Board has considered as an additional positive factor the fact that Algemene's domestic subsidiaries are all strongly capitalized. Accordingly, the Board concludes that the financial as well as the managerial resources of Applicant, Lane and their bank subsidiaries are consistent with approval. Convenience and needs considerations also are consistent with approval.

There is no evidence in the record to indicate that approval of this proposal would result in decreased competition, in undue concentration of resources,

1. Asset and banking data are as of December 31, 1987, except as indicated.

2. The Chicago banking market is approximated by Cook, DuPage and Lake Counties, all in Illinois.

3. Data are as of June 30, 1986.

unfair competition, conflicts of interests, unsound banking practices, or other adverse effects on the public interest. Accordingly, the Board has determined that the balance of public interest factors it must consider under section 4(c)(8) of the Act is favorable and consistent with approval of the applications to acquire Lane's nonbanking subsidiaries and activities.

Based on the foregoing and other facts of record, the Board has determined that the applications should be, and hereby are, approved. The acquisition of Lane 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 Chicago, acting pursuant to delegated authority. The determinations as to Applicant's nonbanking activities are subject to all of the conditions contained in 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 the provisions and purposes of the Act and the Board's regulations and orders issued thereunder, or to prevent evasion thereof.

By order of the Board of Governors, effective May 10, 1988.

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

JAMES MCAFEE
Associate Secretary of the Board

Trustcorp, Inc.
Toledo, Ohio

Order Approving Acquisition of a Bank Holding Company

Trustcorp, Inc., Toledo, Ohio ("Trustcorp"), a bank holding company within the meaning of the Bank Holding Company Act (12 U.S.C. § 1841 *et seq.*) ("BHC Act"), has applied for the Board's approval under section 3 of the BHC Act to acquire Summcorp, Inc., Fort Wayne, Indiana ("Summcorp"), and thereby indirectly to acquire its subsidiary banks: Summit Bank of Johnson County, Edinburg, Indiana; Summit Bank, Fort Wayne, Indiana; Summit Bank of Clinton County, Frankfort, Indiana; Summit Bank of Kendallville, Kendallville, Indiana; Summit Bank of Marion, Marion, Indiana; Industrial Trust & Savings Bank, Muncie, Indiana; Summit Bank of Hamilton County, Sheridan, Indiana; Summit Bank of South Bend, South Bend, Indiana; and Decatur Financial, Inc., Decatur, Indiana, and thereby indirectly acquire Decatur Bank & Trust Co., Decatur, Indiana. Applicant also has applied for the Board's approval pursuant to section 4 of the BHC Act to acquire Summcorp Financial Services, Inc., Fort Wayne, Indiana, and thereby engage in discount brokerage activities pursuant to section 225.25(b)(15) of the Board's Regulation Y.[1]

Notice of the applications, affording interested persons an opportunity to submit comments, has been published (53 *Federal Register* 13,447 (1988)). 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 sections 3(c) and 4(c)(8) of the BHC Act.

Trustcorp is the eighth largest commercial banking organization in Indiana, controlling deposits of approximately $1.2 billion, representing approximately 2.8 percent of deposits in commercial banking organizations in Indiana.[2] Summcorp is the fourth largest commercial banking organization in Indiana, controlling deposits of approximately $1.8 billion, representing approximately 4.3 percent of total deposits in commercial banking organizations in Indiana. Upon consummation of this proposal, Trustcorp would become the fourth largest commercial banking organization in Indiana, controlling deposits in Indiana of approximately $3 billion, representing approximately 7.1 percent of total deposits in commercial banking organizations in Indiana. Consummation of the proposal would not have a significant adverse effect on the concentration of banking resources in Indiana.

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 holding company's home state,[3] unless such acquisition is "specifically

1. In connection with these applications, Trustcorp of Indiana, Inc., Fort Wayne, Indiana, has applied to become a bank holding company by acquiring 100 percent of the voting shares of Summcorp. Trustcorp of Indiana, Inc. also has applied to acquire Summcorp Financial Services, Inc.

2. Banking data are as of June 30, 1987. Trustcorp also controls deposits in Ohio and Michigan. In Ohio, Trustcorp is the ninth largest commercial banking organization, controlling deposits of approximately $2.7 billion, representing approximately 3.7 percent of deposits of commercial banking organizations in Ohio. In Michigan, Trustcorp is the 13th largest commercial banking organization, controlling deposits of approximately $601 million, representing less than one percent of commercial banking organizations in Michigan.

3. A bank holding company's home state is that state in which the operations of the bank holding company's banking subsidiaries were principally conducted on July 1, 1966, or the date on which the company became a bank holding company, whichever is later. Trustcorp's home state is Ohio.

authorized by the statute laws of the State in which [the] bank is located, by language to that effect and not merely by implication." 12 U.S.C. § 1842(d). The Board has previously determined that Indiana law authorizes the acquisition of Indiana banks by an Ohio bank holding company.[4] Further, the Indiana Department of Financial Institutions approved Trustcorp's proposal on May 12, 1988. Accordingly, the Board concludes that approval of Applicant's proposal is not barred by the Douglas Amendment.

Trustcorp and Summcorp compete in the Ft. Wayne, Elkhart-Niles-South Bend, Huntington, Marion, Muncie, and Indianapolis banking markets.[5]

In the Fort Wayne banking market, Trustcorp is the 13th largest of 16 commercial banking organizations, controlling deposits of approximately $15.8 million, representing less than 1 percent of the total deposits in commercial banks in the market.[6] Summcorp is the largest commercial banking organization in the market, controlling deposits of approximately $1.2 billion, representing approximately 35 percent of market deposits. Upon consummation of this proposal, Trustcorp would become the largest commercial banking organization in the market, controlling deposits of approximately $1.2 billion, representing approximately 35.5 percent of market deposits. The Herfindahl–Hirschman Index ("HHI")[7] would increase by 34 points to 2635.

In the Marion banking market, Trustcorp is the smallest of eight commercial banking organizations, controlling deposits of approximately $100,000, representing less than 1 percent of market deposits.[8] Summcorp is the largest commercial banking organization in the market, controlling deposits of approximately $117.5 million, representing approximately 31.4 percent of market deposits. Upon consummation of this proposal, Trustcorp would become the largest commercial banking organization in the market, controlling deposits of approximately $117.6 million, representing approximately 31.4 percent of the total deposits in the market. The HHI would increase by 2 points to 2303.

In the Huntington banking market, Trustcorp is the largest of six commercial banking organizations, controlling deposits of approximately $81.5 million, representing approximately 32.2 percent of the market deposits. Summcorp is the smallest commercial banking organization in the market, controlling deposits of approximately $2 million, representing less than 1 percent of market deposits. Upon consummation of this proposal, Trustcorp would control deposits of approximately $83.5 million, representing approximately 33 percent of the market deposits. The HHI would increase by 51 points to 2430.

In its evaluation of this proposal, the Board has considered the presence of thrift institutions in these markets. The Board previously has indicated that thrift institutions have become, or have the potential to become, major competitors of commercial banks.[9] Based upon the number, size, market shares and commercial lending activities of thrift institutions in these markets, the Board has concluded that thrift institutions exert a significant competitive influence that mitigates the anticompetitive effects of this proposal in the Fort Wayne, Marion and Huntington markets.[10]

In the Elkhart-Niles-South Bend[11] and Muncie[12]

4. *Banc One Corporation*, 72 Federal Reserve Bulletin 422 (1986).

5. Market data are as of June 30, 1986.

6. The Ft. Wayne banking market is approximated by Allen, De Kalb, and Whitley Counties; Preble, Root, and Union townships in Adams County; Union and Jefferson townships in Wells County; Jackson and Union townships in Huntington County; and Noble, Green, and Swan townships in Noble County, all in Indiana; plus Carryall township in Paulding County, Ohio; and Hicksville township in Defiance County, Ohio.

7. 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 Department is likely to challenge a merger that increases the HHI by more than 100 points. The 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 effect of limited purpose lenders and other non-depository financial entities.

8. The Marion banking market is approximated by Grant County; Jackson township in Wells County; and Washington township in Blackford County, Indiana.

9. *National City Corporation*, 70 Federal Reserve Bulletin 743 (1984); *The Chase Manhattan Corporation*, 70 Federal Reserve Bulletin 529 (1984); *NCNB Bancorporation*, 70 Federal Reserve Bulletin 225 (1984); *General Bancshares Corporation*, 69 Federal Reserve Bulletin 802 (1983); *First Tennessee Corporation*, 69 Federal Reserve Bulletin 298 (1983).

10. If 50 percent of the deposits controlled by thrift institutions were included in the calculation of market concentration, Trustcorp and Summcorp would control less than 1 percent and approximately 32.4 percent of the total market deposits, respectively, in the Ft. Wayne market. The HHI would increase by 28 points to 2279 upon consummation of the proposal. In the Marion market, Trustcorp and Summcorp would control less than 1 percent and approximately 25.1 percent of the total market deposits, respectively. The HHI would increase by 1 point to 1687 upon consummation of the proposal. In the Huntington banking market, Trustcorp and Summcorp would control approximately 28.6 percent and less than one point of the total market deposits, respectively. The HHI would increase by 40 points to 1992.

11. The Elkhart-Niles-South Bend banking market is approximated by Elkhart County, St. Joseph County, excluding Olive and Warren townships, Scott, Jefferson, Van Buren, and Turkey Creek townships in Kosciusko County, all in Indiana; Cass County, and Oronoko, Berrien, Buchanan, Niles, and Bertrand townships in Berrien County, all in Michigan.

12. The Muncie banking market is approximated by Delaware County; Randolph County, except for Washington and Greensfork townships; and Licking and Jackson townships in Blackford County, all in Indiana.

banking markets, Applicant's resulting market share in each of these markets would be less than 25 percent and the markets would remain moderately concentrated after consummation of the proposal. In the Indianapolis market,[13] Applicant's resulting market share would be less than 1 percent. Accordingly, based upon all the facts of record, the Board concludes that consummation of the proposal would not have a substantial adverse competitive effect in these markets.

The Board also has considered the effects of Applicant's proposal on probable future competition in the markets in which Trustcorp and Summcorp do not both compete. In light of the number of probable future entrants into those markets, the Board concludes that consummation of this proposal would not have a significant adverse effect on probable future competition in any relevant banking market.

The financial and managerial resources of Trustcorp and Summcorp are consistent with approval. Convenience and needs considerations also are consistent with approval.

As indicated earlier, Trustcorp also has applied, pursuant to section 4(c)(8), to acquire a discount brokerage subsidiary of Summcorp. Trustcorp does not operate a nonbanking subsidiary that competes with Summcorp in this activity. Accordingly, the Board concludes that this proposal will not have any significant adverse effect upon competition in any relevant market.

There is no evidence in the record to indicate that approval of this proposal would result in undue concentration of resources, decreased or unfair competition, conflicts of interests, unsound banking practices, or other adverse effects on the public interest. 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 the applications to acquire Summcorp's nonbanking subsidiaries and activities.

Based on the foregoing and other facts of record, the Board has determined that the applications should be, and hereby are, approved. The acquisition of Summcorp 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 Cleveland, pursuant to delegated authority. The determinations as to Trustcorp's nonbanking activities are subject to all of the conditions contained in 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 the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder, or to prevent evasion thereof.

By order of the Board of Governors, effective May 31, 1988.

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

JAMES MCAFEE
Associate Secretary of the Board

13. The Indianapolis banking market is approximated by the Indianapolis MSA, which consists of Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby Counties in Indiana.

Legal Developments continued on next page.

Applications Approved Under the 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	Bank(s)	Effective date
First Alabama Bancshares, Inc., Montgomery, Alabama Golden Summit Corporation, Milton, Florida	Sunshine Bankshares Corporation, Fort Walton Beach, Florida	January 19, 1988
First Florida Banks, Inc., Tampa, Florida 7L Corporation, Tampa, Florida	First Florida Bank of Orange County, N.A., Orlando, Florida	March 22, 1988
First Interstate Bancorp of Colorado, Denver, Colorado	First Interstate Bank of Denver, N.A., Denver, Colorado	March 2, 1988
Firstbank Holding Company of Colorado, Lakewood, Colorado	First Bank of Republic Plaza, N.A., Denver, Colorado	January 27, 1988
Huntington Bancshares Incorporated, Columbus, Ohio Huntington Bancshares Kentucky, Inc., Covington, Kentucky	State Bank, Inc., Dayton, Kentucky	January 27, 1988
One Bancorp, Ltd., Malad City, Idaho	Ireland Bank, Malad City, Idaho	March 4, 1988
The Union of Arkansas Corporation, Little Rock, Arkansas	Union National Bank of Arkansas, Magnolia, Arkansas	March 30, 1988
Wesbanco, Inc., Wheeling, West Virginia	Mountain State Bank, Parkersburg, West Virginia	March 14, 1988

Section 4

Applicant	Nonbanking Company	Effective date
Deposit Guaranty Corporation, Jackson, Mississippi	G & W Life Insurance Company, Jackson, Mississippi	February 25, 1988
Norwest Corporation, Minneapolis, Minnesota	Magnet Mortgages, Inc., Charleston, West Virginia	April 28, 1988
Norwest Corporation, Minneapolis, Minnesota Norwest Financial Services, Inc., Des Moines, Iowa	Dial National Bank, Des Moines, Iowa	February 12, 1988

Sections 3 and 4

Applicant	Bank/Nonbanking Company	Effective date
Omnibancorp, Denver, Colorado	C.C.B. Inc., Denver, Colorado Central Bancorp Life Insurance Company, Denver, Colorado	March 30, 1988
PNC Financial Corp, Pittsburgh, Pennsylvania New Financial Corporation, Pittsburgh, Pennsylvania	The Central Bancorporation, Inc., Cincinnati, Ohio	January 20, 1988

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	Bank(s)	Reserve Bank	Effective date
Alliance Bancorporation, Seattle, Washington	Alliance Bank, N.A., Seattle, Washington	San Francisco	May 18, 1988
Banks of Iowa, Inc., Des Moines, Iowa	United Bank & Trust, Ames, Iowa	Chicago	May 25, 1988
Centennial Bancshares Corporation, Elsberry, Missouri	Bank of Lincoln County, Elsberry, Missouri	St. Louis	May 17, 1988
Cheshire Financial Corporation, Keene, New Hampshire	The Monadnock Bank, Jaffrey, New Hampshire	Boston	April 29, 1988
CNB Bancshares, Inc., Evansville, Indiana	Haubstadt State Bank, Haubstadt, Indiana	St. Louis	May 18, 1988
CNB Bancshares, Inc., Evansville, Indiana	Posey Bancorporation, Wadesville, Indiana Farmers Bank & Trust Company, Wadesville, Indiana	St. Louis	May 16, 1988
Commercial Bancorp of Georgia, Inc., Atlanta, Georgia	Commercial Bank of Georgia, Atlanta, Georgia	Atlanta	May 16, 1988
Community Bankers, Inc., Granbury, Texas	Farmers & Merchants State Bank, Burleson, Texas	Dallas	May 5, 1988
Community First Financial, Inc., Maysville, Kentucky	The Citizens National Bank, Ripley, Ohio	Cleveland	May 6, 1988
Cooper Lake Financial Corporation, Cooper, Texas	The First National Bank in Cooper, Cooper, Texas	Dallas	May 6, 1988

Section 3—Continued

Applicant	Bank(s)	Reserve Bank	Effective date
Danville Bank Corp., Danville, Pennsylvania	The First National Bank of Danville, Danville, Pennsylvania	Philadelphia	May 16, 1988
DB Holding Company, Inc., Omaha, Nebraska	Omaha State Corporation Omaha, Nebraska	Kansas City	May 11, 1988
Delta Bancshares Company, St. Louis, Missouri	Glasgow Savings Bank, Glasgow, Missouri	St. Louis	May 17, 1988
Douglas County Bancshares, Inc., Ava, Missouri	Douglas County National Bank, Ava, Missouri	St. Louis	May 9, 1988
DSB Bancshares, Inc., Dermott, Arkansas	Dermott State Bank, Dermott, Arkansas	St. Louis	May 2, 1988
Eastland Financial Corp., Woonsocket, Rhode Island	Eastland Savings Bank, Woonsocket, Rhode Island	Boston	May 20, 1988
Eastland Savings Bank, Woonsocket, Rhode Island	Woonsocket Institution Corporation, Woonsocket, Rhode Island	Boston	May 20, 1988
Excel Bancorp, Inc., Quincy, Massachusetts	Lincoln Trust Company, Hingham, Massachusetts	Boston	May 23, 1988
F & M National Corporation, Winchester, Virginia	Merchants and Farmers Bank, Martinsburg, West Virginia	Richmond	May 23, 1988
Farmers National Bancorp of Cynthiana, Inc., Cynthiana, Kentucky	Deposit Bank of Carlisle, Carlisle, Kentucky	Cleveland	May 23, 1988
FarmMerc, Inc., Caldwell, Ohio	The Farmers and Merchants Bank, Caldwell, Ohio	Cleveland	May 6, 1988
First City Bancorp, Inc., Murfreesboro, Tennessee	First City Bank, Murfreesboro, Tennessee	Atlanta	May 4, 1988
First Eastern Corporation, Wilkes-Barre, Pennsylvania	Peoples First National Bank and Trust Company, Hazleton, Pennsylvania	Philadelphia	May 26, 1988
First of America Bank Corporation, Kalamazoo, Michigan First of America Bancorporation-Illinois, Inc., Libertyville, Illinois	Sheridan Bank of Peoria, Peoria, Illinois	Chicago	May 9, 1988
First Parker Bancshares, Inc., Weatherford, Texas	Weatherford Bancshares, Inc., Weatherford, Texas The First National Bank of Weatherford, Weatherford, Texas	Dallas	May 6, 1988
First Weatherford Bancshares, Inc., Weatherford, Texas	The First National Bank of Weatherford, Weatherford, Texas	Dallas	May 6, 1988

Section 3—Continued

Applicant	Bank(s)	Reserve Bank	Effective date
First Wisconsin Corporation, Milwaukee, Wisconsin	Rose Holding Co., Roseville, Minnesota Sahara Bancorp, Inc., New Brighton, Minnesota	Chicago	April 29, 1988
Freedom Bancshares, Inc., Belington, West Virginia	Belington Bank, Belington, West Virginia	Richmond	May 16, 1988
FS Bancshares, Inc., Markesan, Wisconsin	Farmers State Bank, Markesan, Wisconsin	Chicago	May 4, 1988
Grenada Sunburst System Corporation, Grenada, Mississippi	Sunburst Bank, Baton Rouge, Louisiana Capital Bank & Trust Co., N.A., Baton Rouge, Louisiana	St. Louis	May 17, 1988
Harris Bankcorp, Inc., Chicago, Illinois Bankmont Financial Corp., New York, New York Bank of Montreal, Montreal, Quebec, Canada	Norris Bancorp, Inc., Saint Charles, Illinois	Chicago	May 10, 1988
Illini Community Bancorp, Inc., Springfield, Illinois	Elkhart Banc Shares, Inc., Elkhart, Illinois	Chicago	May 3, 1988
Lamoine Bancorp., Inc., La Harpe, Illinois	State Bank of La Harpe, La Harpe, Illinois	Chicago	May 20, 1988
Lincoln Financial Corporation Lincoln, Illinois	Rush County National Corporation, Rushville, Indiana	Chicago	May 13, 1988
Midwest Financial Group, Inc., Peoria, Illinois	First Morton Bancorp, Inc., Morton, Illinois	Chicago	May 13, 1988
Minnesota-Wisconsin Bancshares, Inc., Newport, Minnesota	Carver County Bancshares, Inc., Chaska, Minnesota	Minneapolis	May 11, 1988
NewMil Bancorp, Inc., New Milford, Connecticut	Cenvest Inc., Meriden, Connecticut West Mass Bankshares, Greenfield, Massachusetts	Boston	May 24, 1988
Peoples Bancorporation of Northwest Iowa, Rock Valley, Iowa	Peoples Bank and Trust, Rock Valley, Iowa	Chicago	May 3, 1988
Peoples Heritage Financial Group, Inc., Portland, Maine	Peoples Heritage Savings Bank, Portland, Maine	Boston	May 3, 1988
Porter Bancorp, Inc., Pleasureville, Kentucky	The Central Bank of North Pleasureville, Pleasureville, Kentucky	St. Louis	May 12, 1988
Raymond Bancorp, Inc., Raymond, Illinois	Peoples State Bank of Gillespie, Gillespie, Illinois	St. Louis	May 4, 1988
Ready Bancorp, Inc., Hialeah, Florida	Ready State Bank, Hialeah, Florida	Atlanta	May 4, 1988

Section 3—Continued

Applicant	Bank(s)	Reserve Bank	Effective date
Remsen Financial Services, Inc., Council Bluffs, Iowa Western Iowa Consultants, Inc., Council Bluffs, Iowa	First Trust & Savings Bank, Remsen, Iowa	Chicago	May 16, 1988
Security National Corporation, Maitland, Florida	Security National Bank of Osceola, Kissimmee, Florida	Atlanta	May 23, 1988
Security Trustco, Inc., Brilliant, Alabama	Security Trust and Savings Bank, Brilliant, Alabama	Atlanta	May 6, 1988
South Alabama Holding Co., Inc., McIntosh, Alabama	Washington County State Bank, McIntosh, Alabama	Atlanta	May 17, 1988
Southern Bancorp, Inc., Miami, Florida	Alliance National Bank, Miami, Florida	Atlanta	May 19, 1988
Southern Bankshares, Inc., Beckley, West Virginia	M & M Financial Corporation Oak Hill, West Virginia	Richmond	May 20, 1988
Southwest Missouri Bancorporation, Inc., Carthage, Missouri	The Bank of Jasper, Jasper, Missouri	Kansas City	May 12, 1988
St. Croix Valley Bancshares, Inc., Bloomington, Minnesota	Oak Park State Bank, Oak Park Heights, Minnesota	Minneapolis	April 29, 1988
Taylor Bancshares, Inc., North Mankato, Minnesota	Fidelity State Bank of Hector, Hector, Minnesota Fidelity State Bank of Fairfax, Fairfax, Minnesota	Minneapolis	May 26, 1988
TSB Bancorp, Inc., Woodland, Georgia	Talbot State Bank, Woodland, Georgia	Atlanta	May 6, 1988
UNB Corp., Mount Carmel, Pennsylvania	The Union National Bank of Mount Carmel, Mount Carmel, Pennsylvania	Philadelphia	May 11, 1988
Union Bancshares, Inc., Blairsville, Georgia	Union County Bank, Blairsville, Georgia	Atlanta	May 25, 1988
Union Financial Corporation, Lake Odessa, Michigan	Union Bank, Lake Odessa, Michigan	Chicago	May 20, 1988
Vista Bancorp, Inc., Phillipsburg, New Jersey	The Phillipsburg National Bank and Trust Company, Phillipsburg, New Jersey	New York	May 20, 1988
Workingmens Corporation, Boston, Massachusetts	Workingmens Co-operative Bank, Boston, Massachusetts	Boston	May 9, 1988

Section 4

Applicant	Nonbanking Company/Activity	Reserve Bank	Effective date
Banc One Corporation, Columbus, Ohio	First Municipal Leasing Corporation, Denver, Colorado	Cleveland	May 4, 1988
First Bank System, Inc., Minneapolis, Minnesota	Roloff Insurance Agency, Fairmont, Minnesota G. S. Dahms & Associates, Ltd., Fargo, North Dakota	Minneapolis	May 20, 1988
Florida National Banks of Florida, Inc., Jacksonville, Florida	Florida National Insurance Services, Inc., Jacksonville, Florida	Atlanta	May 13, 1988
Key Centurion Bancshares, Inc., Charleston, West Virginia	Reliable Mortgage Company, Charleston, West Virginia	Richmond	April 29, 1988
Manufacturers National Corporation, Detroit, Michigan	Wilson, Kemp & Associates, Inc., Detroit, Michigan	Chicago	May 4, 1988
Meridian Bancorp, Inc., Reading, Pennsylvania	Atlantic Equipment Leasing, Co., Inc., Wyomissing, Pennsylvania	Philadelphia	May 11, 1988
MNC Financial, Inc., Baltimore, Maryland	Applewood U.S. Industrial Bank, Golden, Colorado Aurora U.S. Industrial Bank, Aurora, Colorado Boulder U.S. Industrial Bank, Boulder, Colorado Colorado Springs U.S. Industrial Bank, Colorado Springs, Colorado Fort Collins U.S. Industrial Bank, Fort Collins, Colorado Littleton U.S. Industrial Bank, Littleton, Colorado Pueblo U.S. Industrial Bank, Pueblo, Colorado Thornton U.S. Industrial Bank, Thornton, Colorado	Richmond	May 16, 1988
Peoples Bancorporation, Rocky Mount, North Carolina	Service Loan Company, Inc., d/b/a Thomaston Finance Company, Thomaston, Georgia	Richmond	May 20, 1988
Progressive Bank, Inc., Pawling, New York	Lakewood Associates, Millbrook, New York	New York	May 20, 1988
R & J Financial Corporation, Elma, Iowa	engage in general insurance agency activities	Chicago	May 6, 1988
United Community Corporation, Oklahoma City, Oklahoma	Unitech, Inc., Oklahoma City, Oklahoma	Kansas City	May 5, 1988

Orders Approved Under Bank Merger Act

By Federal Reserve Banks

Applicant	Bank(s)	Reserve Bank	Effective date
F & M Bank-Martinsburg, Inc., Martinsburg, West Virginia	Merchants and Farmers Bank, Martinsburg, West Virginia	Richmond	May 23, 1988

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.

Credit Union National Association, Inc., et al., v. Board of Governors, No. 88–1295 (D.D.C. May 13, 1988).

Bonilla v. Board of Governors, No. 88–1464 (7th Cir., filed March 11, 1988).

Cohen v. Board of Governors, No. 88–1061 (D.N.J., filed March 7, 1988).

Irving Bank Corporation v. Board of Governors, No. 88–1176 (D.C. Cir., filed March 1, 1988).

Stoddard v. Board of Governors, No. 88–1148 (D.C. Cir., filed Feb. 25, 1988).

Securities Industry Association v. Board of Governors, Nos. 87–4161, 88–4063 (2d Cir., filed Dec. 15, 1987, May 3, 1988).

Independent Insurance Agents of America, Inc. v. Board of Governors, No. 87–1686 (D.C. Cir., filed Nov. 19, 1987).

National Association of Casualty and Surety Agents, et al., v. Board of Governors, Nos. 87–1644, 87–1801, 88–1001, 88–1206, 88–1245, 88–1270 (D.C. Cir., filed Nov. 4, Dec. 21, 1987, Jan. 4, March 18, March 30, April 7, 1988).

Teichgraeber v. Board of Governors, No. 87–2505–0 (D. Kan., filed Oct. 16, 1987).

Securities Industry Association v. Board of Governors, No. 87–4135 (2d Cir., filed Oct. 8, 1987).

Securities Industry Association v. Board of Governors, No. 87–4115 (2d Cir., filed Sept. 9, 1987).

Barrett v. Volcker, No. 87–2280 (D.D.C., filed Aug. 17, 1987).

Northeast Bancorp v. Board of Governors, No. 87–1365 (D.C. Cir., filed July 31, 1987).

National Association of Casualty & Insurance Agents v. Board of Governors, Nos. 87–1354, 87–1355 (D.C. Cir., filed July 29, 1987).

The Chase Manhattan Corporation v. Board of Governors, No. 87–1333 (D.C. Cir., filed July 20, 1987).

Securities Industry Association v. Board of Governors, Nos. 87–4091, 87–4093, 87–4095 (2d Cir., filed July 1 and July 15, 1987).

Lewis v. Board of Governors, Nos. 87–3455, 87–3545 (11th Cir., filed June 25, and Aug. 3, 1987).

Securities Industry Association v. Board of Governors, et al. No. 87–4041 and consolidated cases (2d Cir., filed May 1, 1987).

Securities Industry Association v. Board of Governors, et al., No. 87–1169 (D.C. Cir., filed April 17, 1987).

Independent Community Bankers Association of South Dakota v. Board of Governors, No. 86–5373 (8th Cir., filed Oct. 3, 1986).

Jenkins v. Board of Governors, No. 86–1419 (D.C. Cir., filed July 18, 1986).

CBC, Inc. v. Board of Governors, No. 86–1001 (10th Cir., filed Jan. 2, 1986).

Melcher v. Federal Open Market Committee, No. 88–1546 (S.Ct., filed April 30, 1984).

Financial and Business Statistics

CONTENTS

Domestic Financial Statistics

MONEY STOCK AND BANK CREDIT

A3 Reserves, money stock, liquid assets, and debt measures
A4 Reserves of depository institutions, Reserve Bank credit
A5 Reserves and borrowings—Depository institutions
A6 Selected borrowings in immediately available funds—Large member banks

POLICY INSTRUMENTS

A7 Federal Reserve Bank interest rates
A8 Reserve requirements of depository institutions
A9 Federal Reserve open market transactions

FEDERAL RESERVE BANKS

A10 Condition and Federal Reserve note statements
A11 Maturity distribution of loan and security holdings

MONETARY AND CREDIT AGGREGATES

A12 Aggregate reserves of depository institutions and monetary base
A13 Money stock, liquid assets, and debt measures
A15 Bank debits and deposit turnover
A16 Loans and securities—All commercial banks

COMMERCIAL BANKING INSTITUTIONS

A17 Major nondeposit funds
A18 Assets and liabilities, last-Wednesday-of-month series

WEEKLY REPORTING COMMERCIAL BANKS

Assets and liabilities
A19 All reporting banks
A20 Banks in New York City
A21 Branches and agencies of foreign banks
A22 Gross demand deposits—individuals, partnerships, and corporations

FINANCIAL MARKETS

A23 Commercial paper and bankers dollar acceptances outstanding
A23 Prime rate charged by banks on short-term business loans
A24 Interest rates—money and capital markets
A25 Stock market—Selected statistics
A26 Selected financial institutions—Selected assets and liabilities

FEDERAL FINANCE

A28 Federal fiscal and financing operations
A29 U.S. budget receipts and outlays
A30 Federal debt subject to statutory limitation
A30 Gross public debt of U.S. Treasury—Types and ownership
A31 U.S. government securities dealers—Transactions
A32 U.S. government securities dealers—Positions and financing
A33 Federal and federally sponsored credit agencies—Debt outstanding

SECURITIES MARKETS AND CORPORATE FINANCE

A34 New security issues—State and local governments and corporations
A35 Open-end investment companies—Net sales and asset position
A35 Corporate profits and their distribution

A36 Total nonfarm business expenditures on new plant and equipment
A37 Domestic finance companies—Assets and liabilities and business credit

REAL ESTATE

A38 Mortgage markets
A39 Mortgage debt outstanding

CONSUMER INSTALLMENT CREDIT

A40 Total outstanding and net change
A41 Terms

FLOW OF FUNDS

A42 Funds raised in U.S. credit markets
A43 Direct and indirect sources of funds to credit markets

Domestic Nonfinancial Statistics

SELECTED MEASURES

A44 Nonfinancial business activity—Selected measures
A45 Labor force, employment, and unemployment
A46 Output, capacity, and capacity utilization
A47 Industrial production—Indexes and gross value
A49 Housing and construction
A50 Consumer and producer prices
A51 Gross national product and income
A52 Personal income and saving

International Statistics

SUMMARY STATISTICS

A53 U.S. international transactions—Summary
A54 U.S. foreign trade
A54 U.S. reserve assets
A54 Foreign official assets held at Federal Reserve Banks
A55 Foreign branches of U.S. banks—Balance sheet data
A57 Selected U.S. liabilities to foreign official institutions

REPORTED BY BANKS IN THE UNITED STATES

A57 Liabilities to and claims on foreigners
A58 Liabilities to foreigners
A60 Banks' own claims on foreigners
A61 Banks' own and domestic customers' claims on foreigners
A61 Banks' own claims on unaffiliated foreigners
A62 Claims on foreign countries—Combined domestic offices and foreign branches

REPORTED BY NONBANKING BUSINESS ENTERPRISES IN THE UNITED STATES

A63 Liabilities to unaffiliated foreigners
A64 Claims on unaffiliated foreigners

SECURITIES HOLDINGS AND TRANSACTIONS

A65 Foreign transactions in securities
A66 Marketable U.S. Treasury bonds and notes—Foreign transactions

INTEREST AND EXCHANGE RATES

A67 Discount rates of foreign central banks
A67 Foreign short-term interest rates
A68 Foreign exchange rates

A69 *Guide to Tabular Presentation, Statistical Releases, and Special Tables*

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

Item	Monetary and credit aggregates (annual rates of change, seasonally adjusted in percent)[1]								
	1987			1988	1987	1988			
	Q2	Q3	Q4	Q1[r]	Dec.	Jan.	Feb.	Mar.[r]	Apr.
Reserves of depository institutions[2]									
1 Total	8.0	−1.6	1.4	3.4	−11.4	18.4	2.5	3.9	17.3
2 Required	8.4	−.5	.3	2.8	−13.8	13.0	6.0	8.2	18.8
3 Nonborrowed	5.4	−.4	1.2	1.3	−14.7	12.2	17.0	−24.1	−8.4
4 Monetary base[3]	6.9	5.1	7.7	8.7	3.1	16.6	4.7	5.3	12.3
Concepts of money, liquid assets, and debt[4]									
5 M1	6.6	.8	3.9	3.9	−3.0	12.9	1.1	5.5	11.2
6 M2	2.7	2.8	3.9	6.7	1.9	9.9[r]	8.7	8.8	9.9
7 M3	4.6	4.5[r]	5.4	6.7	1.4	8.3	10.4[r]	7.3	6.8
8 L	4.0[r]	4.3	5.8	6.9	.3	10.6	9.7[r]	7.0	n.a.
9 Debt	8.9	8.2	9.8	9.6	8.7	8.4[r]	10.8[r]	10.0	n.a.
Nontransaction components									
10 In M2[5]	1.3	3.5	3.8	7.8	3.6	8.9[r]	11.4	9.9	9.5
11 In M3 only[6]	12.2[r]	11.1[r]	11.2[r]	6.8	−.3	2.1[r]	16.7[r]	1.6	−5.0
Time and savings deposits									
Commercial banks									
12 Savings[7]	22.4	10.1	.7	6.3	.0	5.4	13.4	14.6	5.9
13 Small-denomination time[8]	−2.7	7.4	14.8	13.7	9.4	10.6	17.6[r]	11.6	14.8
14 Large-denomination time[9,10]	17.1	6.8	10.5	3.4	4.5	−12.2	17.2[r]	5.9	−3.3
Thrift institutions									
15 Savings[7]	19.2	7.0	−3.8	−2.4	−4.1	−3.6	−.5	7.1	9.6
16 Small-denomination time	1.2	9.3	16.0	21.3	19.4	18.4	25.0[r]	18.0	13.8
17 Large-denomination time[9]	−5.1	9.9	22.2	15.7	23.5	11.2[r]	16.2	1.5	15.3
Debt components[4]									
18 Federal	8.8	5.9	7.5	9.2	8.0	5.1	11.3	15.3	n.a.
19 Nonfederal	9.0	9.0	10.6	9.7	8.9	9.4[r]	10.7[r]	8.4	n.a.
20 Total loans and securities at commercial banks[11]	8.2	6.2	5.5	4.8	−1.0	5.9	8.2[r]	8.0	11.7

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 the implementation of the Monetary Control Act and other regulatory changes to reserve requirements. To adjust for discontinuities due to changes in reserve requirements on reservable nondeposit liabilities, the sum of such required reserves is subtracted from the actual series. Similarly, in adjusting for discontinuities in the monetary base, required clearing balances and adjustments to compensate for float also are subtracted from the actual series.

3. The monetary base not adjusted for discontinuities consists of total reserves plus required clearing balances and adjustments to compensate for float at Federal Reserve Banks plus the currency component of the money stock less the amount of vault cash holdings of thrift institutions that is included in the currency component of the money stock plus, for institutions not having required reserve balances, the excess of current vault cash over the amount applied to satisfy current reserve requirements. After the introduction of contemporaneous reserve requirements (CRR), currency and vault cash figures are measured over the weekly computation period ending Monday.

Before CRR, all components of the monetary base other than excess reserves are seasonally adjusted as a whole, rather than by component, and excess reserves are added on a not seasonally adjusted basis. After CRR, the seasonally adjusted series consists of seasonally adjusted total reserves, which include excess reserves on a not seasonally adjusted basis, plus the seasonally adjusted currency component of the money stock plus the remaining items seasonally adjusted as a whole.

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 commercial banks 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 commercial banks and thrift 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. The source of data on domestic nonfinancial debt is the Federal Reserve Board's flow of funds accounts. Debt data are based on monthly averages. 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 less the estimated amount of demand deposits and vault cash held by thrift institutions to service their time and savings deposit liabilities.

6. Sum of large time deposits, term RPs, and Eurodollars of U.S. residents, 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. Excludes MMDAs.

8. 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.

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

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

11. Changes calculated from figures shown in table 1.23.

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						
	1988			1988						
	Feb.	Mar.	Apr.	Mar. 16	Mar. 23	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27
SUPPLYING RESERVE FUNDS										
1 **Reserve Bank credit**	**238,789**	**239,867**	**248,228**	**240,698**	**239,716**	**240,581**	**244,571**	**247,367**	**247,821**	**247,343**
2 U.S. government securities[1]	214,625	215,545	221,348	216,630	214,621	215,325	217,335	220,510	221,263	221,778
3 Bought outright	214,625	215,545	220,204	216,630	214,621	215,325	216,637	220,510	220,470	221,497
4 Held under repurchase agreements	0	0	1,144	0	0	0	698	0	793	281
5 Federal agency obligations	7,402	7,401	7,665	7,402	7,401	7,399	7,476	7,382	7,485	7,341
6 Bought outright	7,402	7,401	7,347	7,402	7,401	7,399	7,399	7,382	7,365	7,279
7 Held under repurchase agreements	0	0	318	0	0	0	77	0	120	62
8 Acceptances	0	0	0	0	0	0	0	0	0	0
9 Loans	353	1,690	3,081	1,311	2,537	2,465	3,169	3,565	3,672	2,034
10 Float	1,627	622	694	461	461	509	1,752	573	−87	567
11 Other Federal Reserve assets	14,782	14,609	15,440	14,893	14,696	14,882	14,839	15,337	15,487	15,622
12 Gold stock[2]	11,065	11,063	11,063	11,063	11,063	11,062	11,063	11,063	11,063	11,063
13 Special drawing rights certificate account	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018
14 Treasury currency outstanding	18,265	18,315	18,366	18,310	18,320	18,330	18,341	18,355	18,369	18,383
ABSORBING RESERVE FUNDS										
15 Currency in circulation	224,337	225,434	228,362	225,685	225,695	225,708	227,560	228,897	228,766	228,031
16 Treasury cash holdings[2]	449	468	484	467	472	477	480	488	487	483
Deposits, other than reserve balances, with Federal Reserve Banks										
17 Treasury	3,711	2,894	5,047	3,309	2,676	2,568	3,554	3,456	3,662	4,383
18 Foreign	241	238	240	249	213	226	268	245	261	236
19 Service-related balances and adjustments	2,301	1,909	2,000	1,823	1,914	1,863	1,939	1,922	2,311	1,935
20 Other	335	408	364	380	428	483	369	323	366	402
21 Other Federal Reserve liabilities and capital	7,303	7,153	7,328	7,114	7,262	7,214	7,310	7,271	7,354	7,307
22 Reserve balances with Federal Reserve Banks[3]	34,461	35,758	38,850	36,064	35,458	36,451	37,512	39,201	39,065	39,030
	End-of-month figures			Wednesday figures						
	1988			1988						
	Feb.	Mar.	Apr.	Mar. 16	Mar. 23	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27
SUPPLYING RESERVE FUNDS										
23 **Reserve Bank credit**	**239,795**	**242,542**	**260,242**	**241,227**	**241,387**	**240,110**	**249,357**	**247,638**	**253,098**	**251,090**
24 U.S. government securities[1]	216,891	217,496	230,971	215,680	215,579	215,160	220,913	220,408	225,524	224,915
25 Bought outright	216,891	217,496	223,363	215,680	215,579	215,160	216,030	220,408	219,974	222,947
26 Held under repurchase agreements	0	0	7,608	0	0	0	4,883	0	5,550	1,968
27 Federal agency obligations	7,402	7,399	10,074	7,402	7,399	7,399	7,937	7,379	8,122	7,715
28 Bought outright	7,402	7,399	7,279	7,402	7,399	7,399	7,399	7,379	7,279	7,279
29 Held under repurchase agreements	0	0	2,795	0	0	0	538	0	843	436
30 Acceptances	0	0	0	0	0	0	0	0	0	0
31 Loans	336	2,311	2,590	2,967	3,194	2,134	4,373	3,838	3,602	2,276
32 Float	897	298	371	488	349	430	1,006	427	208	239
33 Other Federal Reserve assets	14,269	15,038	16,236	14,690	14,866	14,987	15,128	15,586	15,642	15,945
34 Gold stock[2]	11,063	11,063	11,063	11,063	11,062	11,063	11,063	11,062	11,063	11,063
35 Special drawing rights certificate account	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018
36 Treasury currency outstanding	18,289	18,339	18,395	18,319	18,329	18,339	18,353	18,367	18,381	18,395
ABSORBING RESERVE FUNDS										
37 Currency in circulation	223,615	227,099	228,308	225,934	225,684	226,492	228,511	229,243	228,556	228,258
38 Treasury cash holdings[2]	457	479	479	470	477	475	482	488	484	477
Deposits, other than reserve balances, with Federal Reserve Banks										
39 Treasury	2,472	2,403	16,186	3,221	2,145	3,190	4,016	3,900	5,319	11,343
40 Foreign	343	534	215	265	225	207	213	239	204	236
41 Service-related balances and adjustments	1,658	1,671	1,660	1,654	1,654	1,671	1,671	1,672	1,675	1,679
42 Other	438	436	360	524	361	479	314	343	398	398
43 Other Federal Reserve liabilities and capital	7,139	7,234	7,450	6,932	7,092	7,047	7,241	7,002	7,401	7,188
44 Reserve balances with Federal Reserve Banks[3]	38,043	37,106	40,060	36,627	38,158	34,969	41,343	39,199	43,523	35,987

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. Revised for periods between October 1986 and April 1987. At times during this interval, outstanding gold certificates were inadvertently in excess of the gold stock. Revised data not included in this table are available from the Division of Research and Statistics, Banking Section.

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.

1.12 RESERVES AND BORROWINGS Depository Institutions[1]

Millions of dollars

Reserve classification	Monthly averages[9]									
	1985	1986	1987	1987				1988		
	Dec.	Dec.	Dec.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1 Reserve balances with Reserve Banks[2]	27,620	37,360	37,673	36,685	37,249	37,453	37,673	37,485	34,211	36,027
2 Total vault cash[3]	22,953	24,079	26,155	24,854	25,587	25,431	26,155	26,919	28,119	25,926
3 Vault[4]	20,522	22,199	24,449	23,128	23,857	23,752	24,449	25,155	25,836	24,049
4 Surplus[5]	2,431	1,879	1,706	1,726	1,730	1,679	1,706	1,764	2,283	1,877
5 Total reserves[6]	48,142	59,560	62,123	59,813	61,106	61,205	62,123	62,640	60,047	60,076
6 Required reserves	47,085	58,191	61,094	59,020	59,977	60,282	61,094	61,345	58,914	59,147
7 Excess reserve balances at Reserve Banks[7]	1,058	1,369	1,029	793	1,129	923	1,029	1,295	1,133	929
8 Total borrowings at Reserve Banks	1,318	827	777	940	943	625	777	1,082	396	1,752
9 Seasonal borrowings at Reserve Banks	56	38	93	231	189	126	93	59	75	119
10 Extended credit at Reserve Banks[8]	499	303	483	409	449	394	483	372	205	1,478
	Biweekly averages of daily figures for weeks ending									
	1988									
	Jan. 13	Jan. 27	Feb. 10^r	Feb. 24^r	Mar. 9^r	Mar. 23^r	Apr. 6	Apr. 20^r	May 4	May 18
11 Reserve balances with Reserve Banks[2]	39,175	37,002	33,681	34,102	35,575	35,761	37,003^r	39,123	38,313	36,740
12 Total vault cash[3]	26,566	26,533	29,417	27,954	25,987	26,224	25,336	25,205	25,112	25,726
13 Vault[4]	24,937	24,840	26,967	25,685	23,998	24,332	23,610	23,709	23,549	24,122
14 Surplus[5]	1,629	1,694	2,450	2,270	1,989	1,892	1,726	1,497	1,563	1,604
15 Total reserves[6]	64,112	61,842	60,648	59,787	59,573	60,093	60,613^r	62,831	61,862	60,862
16 Required reserves	62,805	60,554	59,366	58,700	58,607	59,182	59,696^r	62,145	60,796	59,965
17 Excess reserve balances at Reserve Banks[7]	1,307	1,288	1,282	1,087	966	911	917	686	1,067	898
18 Total borrowings at Reserve Banks	1,945	508	287	425	537	1,924	2,817	3,619	2,224	2,175
19 Seasonal borrowings at Reserve Banks	66	54	55	77	111	123	122	124	191	241
20 Extended credit at Reserve Banks[8]	485	332	144	232	255	1,685	2,494	3,278	1,787	1,798

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.
3. 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. Equal to all vault cash held during the lagged computation period by institutions having required reserve balances at Federal Reserve Banks plus the amount of vault cash equal to required reserves during the maintenance period at institutions having no required reserve balances.
5. Total vault cash at institutions having no required reserve balances less the amount of vault cash equal to their required reserves during the maintenance period.
6. Total reserves not adjusted for discontinuities consist of reserve balances with Federal Reserve Banks, which exclude required clearing balances and adjustments to compensate for float, plus vault cash used to satisfy reserve requirements. Such vault cash consists of all vault cash held during the lagged computation period by institutions having required reserve balances at Federal Reserve Banks plus the amount of vault cash equal to required reserves during the maintenance period at institutions having no required reserve balances.
7. Reserve balances with Federal Reserve Banks plus vault cash used to satisfy reserve requirements less required reserves.
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. Before February 1984, data are prorated monthly averages of weekly averages; beginning February 1984, data are prorated monthly averages of biweekly averages.

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

Averages of daily figures, in millions of dollars

Maturity and source	1987 week ending Monday								
	Oct. 12	Oct. 19	Oct. 26	Nov. 2	Nov. 9	Nov. 16	Nov. 23	Nov. 30	Dec. 7
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	76,610	75,793	74,961	75,965	79,120	76,821	70,725	70,174	75,638
2 For all other maturities	8,611	9,040	9,384	9,781	10,341	10,353	10,190	11,547	9,694
From other depository institutions, foreign banks and foreign official institutions, and U.S. government agencies									
3 For one day or under continuing contract	26,970	24,791	23,348	24,574	25,943	26,635	26,265	24,679	29,930
4 For all other maturities	6,562	7,056	8,487	8,510	8,645	8,238	7,762	8,848	7,160
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	14,496	15,254	14,825	15,544	13,351	13,080	13,972	13,136	13,388
6 For all other maturities	11,934	11,053	12,021	12,306	12,424	13,080	12,622	13,982	13,240
All other customers									
7 For one day or under continuing contract	26,338	26,758	28,608	28,666	28,274	27,616	27,840	24,071	27,077
8 For all other maturities	8,611	7,761	9,044	9,710	10,277	10,209	9,662	13,855	9,972
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	30,926	33,064	36,169	35,913	33,803	34,054	29,895	32,952	31,276
10 To all other specified customers[2]	12,971	13,429	14,211	14,502	14,362	14,889	12,211	11,190	11,795

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. 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 5/27/88	Effective date	Previous rate	On 5/27/88	Effective date	Previous rate	On 5/27/88	Effective date	Previous rate	Effective date
Boston	6	9/9/87	5½	6	9/9/87	5½	7.60	5/19/88	7.40	5/5/88
New York		9/4/87			9/4/87			5/19/88		5/5/88
Philadelphia		9/4/87			9/4/87			5/19/88		5/5/88
Cleveland		9/4/87			9/4/87			5/19/88		5/5/88
Richmond		9/5/87			9/5/87			5/19/88		5/5/88
Atlanta		9/4/87			9/4/87			5/19/88		5/5/88
Chicago		9/4/87			9/4/87			5/19/88		5/5/88
St. Louis		9/9/87			9/9/87			5/19/88		5/5/88
Minneapolis		9/8/87			9/8/87			5/19/88		5/5/88
Kansas City		9/4/87			9/4/87			5/19/88		5/5/88
Dallas		9/11/87			9/11/87			5/19/88		5/5/88
San Francisco	6	9/9/87	5½	6	9/9/87	5½	7.60	5/19/88	7.40	5/5/88

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. 12	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	In effect May 27, 1988	6	6
10	12	12	13	9½	9½			
			Nov. 22	9–9½	9			
1980—Feb. 15	12–13	13	26	9	9			
19	13	13	Dec. 14	8½–9	9			
May 29	12–13	13	15	8½–9	8½			
30	12	12	17	8½	8½			
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 on Feb. 18, 1986 and again on Jan. 28, 1987; the rate may be either the same as that for adjustment credit or a fixed rate ½ percent higher.

2. Extended credit is available to depository institutions, where 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 4 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–$40.5 million	3	12/15/87
More than $40.5 million	12	12/15/87
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, 1987. Required reserves must be held in the form of deposits with Federal Reserve Banks or vault cash. Nonmembers 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* and of 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. 15, 1987, the exemption was raised from $2.9 million to $3.2 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 increase in transaction accounts held by all depository institutions, determined as of June 30 each year. Effective Dec. 15, 1987 for institutions reporting quarterly and Dec. 29, 1987 for institutions reporting weekly, the amount was increased from $36.7 million to $40.5 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	1985	1986	1987	1987				1988		
				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
U.S. TREASURY SECURITIES										
Outright transactions (*excluding matched transactions*)										
Treasury bills										
1 Gross purchases	22,214	22,602	18,983	4,528	1,095	3,388	150	0	346	560
2 Gross sales	4,118	2,502	6,050	0	300	0	0	49	538	0
3 Exchange	0	0	0	0	0	0	0	0	0	0
4 Redemptions	3,500	1,000	9,029	3,657	0	0	0	600	1,600	0
Others within 1 year										
5 Gross purchases	1,349	190	3,658	443	300	670	479	0	0	0
6 Gross sales	0	0	300	300	0	0	0	0	0	0
7 Maturity shift	19,763	18,673	21,502	1,500	816	2,247	1,400	950	1,939	2,051
8 Exchange	−17,717	−20,179	−20,388	−917	−1,178	−3,728	−1,742	−754	−2,868	−2,089
9 Redemptions	0	0	70	*	0	70	0	0	0	0
1 to 5 years										
10 Gross purchases	2,185	893	10,231	2,551	0	50	2,589	0	0	0
11 Gross sales	0	0	452	0	0	0	0	0	800	0
12 Maturity shift	−17,459	−17,058	−17,974	−1,500	−761	−1,900	−1,400	−840	−952	−2,051
13 Exchange	13,853	16,984	18,938	917	1,178	3,278	1,742	749	2,643	2,089
5 to 10 years										
14 Gross purchases	458	236	2,441	619	0	0	596	0	0	0
15 Gross sales	100	0	0	0	0	0	0	0	175	0
16 Maturity shift	−1,857	−1,620	−3,529	0	−55	−347	0	−110	−987	0
17 Exchange	2,184	2,050	950	0	0	300	0	5	150	0
Over 10 years										
18 Gross purchases	293	158	1,858	493	0	0	445	0	0	0
19 Gross sales	0	0	0	0	0	0	0	0	0	0
20 Maturity shift	−447	0	0	0	0	0	0	0	0	0
21 Exchange	1,679	1,150	500	0	0	150	0	0	75	0
All maturities										
22 Gross purchases	26,499	24,078	37,171	8,633	1,395	4,108	4,259	0	346	560
23 Gross sales	4,218	2,502	6,802	300	300	0	0	49	1,513	0
24 Redemptions	3,500	1,000	9,099	3,657	0	70	0	600	1,600	0
Matched transactions										
25 Gross sales	866,175	927,997	950,923	61,321	77,497	85,288	104,833	78,358	97,892	104,527
26 Gross purchases	865,968	927,247	950,935	61,347	73,779	85,494	105,917	78,513	99,139	104,572
Repurchase agreements[2]										
27 Gross purchases	134,253	170,431	314,620	34,080	65,675	15,853	23,512	10,591	0	0
28 Gross sales	132,351	160,268	324,666	34,080	57,380	18,751	25,264	14,237	0	0
29 Net change in U.S. government securities	20,477	29,989	11,235	4,702	5,673	1,346	3,591	−4,140	−1,520	605
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	162	398	276	0	56	1	13	131	21	3
Repurchase agreements[2]										
33 Gross purchases	22,183	31,142	80,353	7,174	18,523	6,786	9,718	4,042	0	0
34 Gross sales	20,877	30,522	81,351	7,174	15,607	7,425	10,679	5,357	0	0
35 Net change in federal agency obligations	1,144	222	−1,274	0	2,860	−640	−975	−1,446	−21	−3
36 Total net change in System Open Market Account	**21,621**	**30,211**	**9,961**	**4,702**	**8,533**	**706**	**2,617**	**−5,586**	**−1,541**	**602**

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					End of month		
	1988					1988		
	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27	Feb.	Mar.	Apr.
	Consolidated condition statement							
ASSETS								
1 Gold certificate account	11,063	11,063	11,062	11,063	11,063	11,063	11,063	11,063
2 Special drawing rights certificate account	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018
3 Coin	489	471	470	459	451	517	480	450
Loans								
4 To depository institutions	2,134	4,373	3,838	3,602	2,276	336	2,311	2,590
5 Other	0	0	0	0	0	0	0	0
6 Acceptances held under repurchase agreements	0	0	0	0	0	0	0	0
Federal agency obligations								
7 Bought outright	7,399	7,399	7,379	7,279	7,279	7,402	7,399	7,279
8 Held under repurchase agreements	0	538	0	843	436	0	0	2,795
U.S. Treasury securities								
Bought outright								
9 Bills	104,920	105,790	106,487	106,053	105,970	106,651	107,256	106,386
10 Notes	81,923	81,923	85,086	85,086	87,684	81,923	81,923	87,684
11 Bonds	28,317	28,317	28,835	28,835	29,293	28,317	28,317	29,293
12 Total bought outright[2]	215,160	216,030	220,408	219,974	222,947	216,891	217,496	223,363
13 Held under repurchase agreements	0	4,883	0	5,550	1,968	0	0	7,608
14 Total U.S. Treasury securities	215,160	220,913	220,408	225,524	224,915	216,891	217,496	230,971
15 **Total loans and securities**	**224,693**	**233,223**	**231,625**	**237,248**	**234,906**	**224,629**	**227,206**	**243,635**
16 Items in process of collection	5,994	7,717	6,626	7,560	6,813	5,197	6,267	7,577
17 Bank premises	716	719	718	719	717	712	716	719
Other assets								
18 Denominated in foreign currencies[3]	6,621	6,753	6,757	6,590	6,447	6,635	6,652	6,446
19 All other[4]	7,650	7,656	8,112	8,333	8,781	6,922	7,670	9,071
20 **Total assets**	**262,244**	**272,620**	**270,388**	**276,990**	**274,196**	**260,693**	**265,072**	**283,979**
LIABILITIES								
21 Federal Reserve notes	209,117	211,111	211,834	211,118	210,791	206,300	209,719	210,842
Deposits								
22 To depository institutions	36,640	43,014	40,871	45,198	37,666	39,701	38,777	41,720
23 U.S. Treasury—General account	3,190	4,016	3,900	5,319	11,343	2,472	2,403	16,186
24 Foreign—Official accounts	207	213	239	204	236	343	534	215
25 Other	479	314	343	398	398	438	436	360
26 **Total deposits**	**40,516**	**47,557**	**45,353**	**51,119**	**49,643**	**42,954**	**42,150**	**58,481**
27 Deferred credit items	5,564	6,711	6,199	7,352	6,574	4,300	5,969	7,206
28 Other liabilities and accrued dividends[5]	2,547	2,626	2,475	2,871	2,671	2,558	2,607	2,861
29 **Total liabilities**	**257,744**	**268,005**	**265,861**	**272,460**	**269,679**	**256,112**	**260,445**	**279,390**
CAPITAL ACCOUNTS								
30 Capital paid in	2,093	2,096	2,095	2,095	2,096	2,075	2,095	2,096
31 Surplus	2,047	2,047	2,047	2,047	2,047	2,047	2,047	2,047
32 Other capital accounts	360	472	385	388	374	459	485	446
33 **Total liabilities and capital accounts**	**262,244**	**272,620**	**270,388**	**276,990**	**274,196**	**260,693**	**265,072**	**283,979**
34 MEMO: Marketable U.S. Treasury securities held in custody for foreign and international account	225,449	228,237	226,764	229,118	228,833	220,250	226,340	229,054
	Federal Reserve note statement							
35 Federal Reserve notes outstanding issued to bank	255,333	255,236	256,030	256,470	256,762	254,289	255,201	256,806
36 LESS: Held by bank	46,216	44,125	44,196	45,352	45,971	47,989	45,482	45,964
37 Federal Reserve notes, net	209,117	211,111	211,834	211,118	210,791	206,300	209,719	210,842
Collateral held against notes net:								
38 Gold certificate account	11,063	11,063	11,062	11,063	11,063	11,063	11,063	11,063
39 Special drawing rights certificate account	5,018	5,018	5,018	5,018	5,018	5,018	5,018	5,018
40 Other eligible assets	0	0	0	0	0	0	0	0
41 U.S. Treasury and agency securities	193,036	195,030	195,754	195,037	194,710	190,219	193,638	194,761
42 **Total collateral**	**209,117**	**211,111**	**211,834**	**211,118**	**210,791**	**206,300**	**209,719**	**210,842**

1. Some of these data also appear in the Board's H.4.1 (503) release. For address, see inside front cover.
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 Holdings

Millions of dollars

Type and maturity groupings	Wednesday					End of month		
	1988					1988		
	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27	Feb. 29	Mar. 31	Apr. 29
1 Loans—Total	2,134	4,373	3,838	3,602	2,276	336	2,311	2,590
2 Within 15 days	2,113	4,326	3,783	3,585	2,252	303	2,271	2,523
3 16 days to 90 days	21	47	55	17	24	33	40	67
4 91 days to 1 year	0	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	215,160	216,030	220,408	225,524	224,915	216,891	217,496	230,971
10 Within 15 days[1]	10,595	9,369	10,080	12,516	12,283	5,411	7,362	15,082
11 16 days to 90 days	51,377	53,101	56,225	56,038	52,676	57,207	51,566	55,856
12 91 days to 1 year	65,931	66,264	63,749	66,472	66,873	67,016	71,273	66,950
13 Over 1 year to 5 years	47,562	47,600	49,545	49,480	51,196	47,562	47,600	51,196
14 Over 5 years to 10 years	14,196	14,196	14,792	15,001	15,422	14,196	14,196	15,422
15 Over 10 years	25,499	25,500	26,017	26,017	26,465	25,499	25,499	26,465
16 Federal agency obligations—Total	7,399	7,399	7,379	8,122	7,715	7,402	7,399	10,074
17 Within 15 days[1]	385	210	130	1,003	577	364	385	2,936
18 16 days to 90 days	592	722	692	562	659	710	592	659
19 91 days to 1 year	1,634	1,679	1,779	1,869	1,837	1,609	1,634	1,837
20 Over 1 year to 5 years	3,381	3,381	3,399	3,309	3,292	3,203	3,381	3,292
21 Over 5 years to 10 years	1,217	1,217	1,189	1,189	1,161	1,327	1,217	1,161
22 Over 10 years	190	190	190	190	189	189	190	189

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

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

Billions of dollars, averages of daily figures

Item	1984 Dec.	1985 Dec.	1986 Dec.	1987 Dec.	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.[r]	1988 Apr.
	Seasonally adjusted											
ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[2]												
1 **Total reserves[3]**	**39.91**	**46.06**	**56.17**	**57.44**	**57.83**	**58.50**	**57.99**	**57.44**	**58.32**	**58.44**	**58.63**	**59.47**
2 Nonborrowed reserves	36.72	44.74	55.34	56.66	56.89	57.55	57.36	56.66	57.23	58.04	56.88	56.48
3 Nonborrowed reserves plus extended credit[4]	39.33	45.24	55.64	57.14	57.29	58.00	57.76	57.14	57.61	58.25	58.35	59.10
4 Required reserves	39.06	45.00	54.80	56.41	57.03	57.37	57.06	56.41	57.02	57.31	57.70	58.60
5 Monetary base[5]	199.60	217.34	239.52	256.68	252.25	254.56	256.02	256.68	260.24	261.26	262.40	265.08
	Not seasonally adjusted											
6 **Total reserves[3]**	**40.94**	**47.24**	**57.64**	**58.96**	**57.50**	**58.04**	**58.09**	**58.96**	**60.17**	**57.65**	**57.81**	**59.89**
7 Nonborrowed reserves	37.75	45.92	56.81	58.19	56.56	57.09	57.47	58.19	59.09	57.25	56.06	56.90
8 Nonborrowed reserves plus extended credit[4]	40.35	46.42	57.11	58.67	56.96	57.54	57.86	58.67	59.46	57.46	57.54	59.52
9 Required reserves	40.08	46.18	56.27	57.94	56.70	56.91	57.17	57.94	58.88	56.51	56.88	59.03
10 Monetary base[5]	202.70	220.82	243.63	261.21	251.60	253.29	256.82	261.21	261.20	258.19	259.93	264.16
NOT ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS[6]												
11 **Total reserves[3]**	**40.70**	**48.14**	**59.56**	**62.12**	**59.81**	**61.11**	**61.20**	**62.12**	**62.64**	**60.05**	**60.08**	**62.07**
12 Nonborrowed reserves	37.51	46.82	58.73	61.35	58.87	60.16	60.58	61.35	61.56	59.65	58.32	59.08
13 Nonborrowed reserves plus extended credit[4]	40.09	47.41	59.04	61.86	58.85	61.22	60.79	61.86	62.12	59.82	59.58	61.90
14 Required reserves	39.84	47.08	58.19	61.09	59.02	59.98	60.28	61.09	61.34	58.91	59.15	61.21
15 Monetary base[5]	204.18	223.53	247.71	266.16	255.69	258.08	261.67	266.16	265.79	262.60	263.98	268.13

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 incorporate adjustments for discontinuities associated with the implementation of the Monetary Control Act and other regulatory changes to reserve requirements. To adjust for discontinuities due to changes in reserve requirements on reservable nondeposit liabilities, the sum of such required reserves is subtracted from the actual series. Similarly, in adjusting for discontinuities in the monetary base, required clearing balances and adjustments to compensate for float also are subtracted from the actual series.

3. Total reserves not adjusted for discontinuities consist of reserve balances with Federal Reserve Banks, which exclude required clearing balances and adjustments to compensate for float, plus vault cash held during the lagged computation period by institutions having required reserve balances at Federal Reserve Banks plus the amount of vault cash equal to required reserves during the maintenance period at institutions having no required reserve balances.

4. 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.

5. The monetary base not adjusted for discontinuities consists of total reserves plus required clearing balances and adjustments to compensate for float at Federal Reserve Banks and the currency component of the money stock plus, for institutions not having required reserve balances, the excess of current vault cash over the amount applied to satisfy current reserve requirements. Currency and vault cash figures are measured over the weekly computation period ending Monday.

The seasonally adjusted monetary base consists of seasonally adjusted total reserves, which include excess reserves on a not seasonally adjusted basis, plus the seasonally adjusted currency component of the money stock and the remaining items seasonally adjusted as a whole.

6. Reflects actual reserve requirements, including those on nondeposit liabilities, with no adjustments to eliminate the effects of discontinuities associated with implementation of the Monetary Control Act or other regulatory changes to reserve requirements.

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

Billions of dollars, averages of daily figures

Item[2]	1984 Dec.	1985 Dec.	1986 Dec.	1987 Dec.	1988 Jan.	1988 Feb.[r]	1988 Mar.[r]	1988 Apr.
	Seasonally adjusted							
1 M1	551.9	620.1	725.4	750.8	758.9	759.6	763.1	770.2
2 M2	2,363.6	2,562.6	2,807.8	2,901.0	2,924.9[r]	2,946.1	2,967.7	2,992.7
3 M3	2,978.3	3,196.4	3,491.5	3,660.8	3,686.0	3,717.8	3,741.4	3,763.9
4 L	3,519.4	3,825.9	4,134.9[r]	4,325.4	4,363.5	4,398.8	4,428.0	n.a.
5 Debt	5,932.6	6,749.4	7,607.1	8,318.8	8,377.1[r]	8,452.7	8,523.1	n.a.
M1 components								
6 Currency[3]	156.1	167.7	180.4	196.5	198.4	199.3	200.9	202.5
7 Travelers checks[4]	5.2	5.9	6.5	7.1	7.2	7.3	7.3	7.3
8 Demand deposits[5]	244.1	267.2	303.3	288.0	289.9	287.8	287.9	290.1
9 Other checkable deposits[6]	146.4	179.2	235.2	259.3	263.4	265.2	267.1	270.3
Nontransactions components								
10 In M2[7]	1,811.7	1,942.5	2,082.4	2,150.1	2,166.0[r]	2,186.5	2,204.5	2,222.5
11 In M3 only[8]	614.7	633.8	683.7	759.8	761.1[r]	771.7	773.7	771.2
Savings deposits[9]								
12 Commercial Banks	122.6	124.8	155.5	178.2	179.0	181.0	183.2	184.1
13 Thrift institutions	162.9	176.6	215.2	236.0	235.3	235.2	236.6	238.6
Small denomination time deposits[10]								
14 Commercial Banks	386.3	383.3	364.6	384.6	388.0	393.7	397.5	402.5
15 Thrift institutions	497.0	496.2	488.6	528.5	536.6	547.8	556.0	562.5
Money market mutual funds								
16 General purpose and broker-dealer	167.5	176.5	208.0	221.1	225.0	231.1	235.0	236.2
17 Institution-only	62.7	64.5	84.4	89.6	94.4	98.7	97.4	91.9
Large denomination time deposits[11]								
18 Commercial Banks[12]	270.2	284.9	288.9	323.5	320.2	324.8	326.4	325.5
19 Thrift institutions	146.8	151.6	150.3	161.2	162.7[r]	164.9	165.1	167.2
Debt components								
20 Federal debt	1,365.3	1,584.3	1,804.5	1,952.4	1,960.8	1,979.2	2,004.4	n.a.
21 Nonfederal debt	4,567.3	5,165.1	5,802.6	6,366.4	6,416.3[r]	6,473.5	6,518.7	n.a.
	Not seasonally adjusted							
22 M1	564.5	633.5	740.6	765.9	764.8	745.1	752.3	778.4
23 M2	2,373.2	2,573.9	2,821.5	2,914.6	2,937.2[r]	2,933.4	2,959.1	3,000.3
24 M3	2,991.4	3,211.0	3,508.3	3,677.4	3,698.5	3,706.3	3,734.5	3,768.8
25 L	3,532.7	3,841.4	4,153.0	4,343.5	4,382.2	4,394.5	4,426.7	n.a.
26 Debt	5,927.1	6,740.6	7,592.8	8,302.6	8,358.9[r]	8,416.9	8,491.0	n.a.
M1 components								
27 Currency[3]	158.5	170.2	183.0	199.4	197.1	197.2	199.2	201.6
28 Travelers checks[4]	4.9	5.5	6.0	6.5	6.6	6.8	6.9	6.9
29 Demand deposits[5]	253.0	276.9	314.4	298.5	295.8	279.1	279.9	291.9
30 Other checkable deposits[6]	148.2	180.9	237.3	261.6[r]	265.3	262.0	266.3	278.0
Nontransactions components								
31 M2[7]	1,808.7	1,940.3	2,080.8	2,148.7	2,172.4[r]	2,188.3	2,206.7	2,221.9
32 M3 only[8]	618.2	637.1	686.8	762.7	761.3[r]	772.9	775.5	768.5
Money market deposit accounts								
33 Commercial Banks	267.4	332.8	379.6	358.2	358.9	359.1	360.8	360.1
34 Thrift institutions	149.4	180.8	192.9	167.0	165.1[r]	163.5	163.8	163.0
Savings deposits[9]								
35 Commercial Banks	121.5	123.7	154.2	176.7	178.1[r]	179.4	182.5	185.0
36 Thrift institutions	161.5	174.8	212.9	233.3	233.0	232.8	236.1	239.5
Small denomination time deposits[10]								
37 Commercial Banks	386.9	384.0	365.3	385.2	389.4	394.1	397.2	399.6
38 Thrift institutions	498.2	497.5	489.7	529.3	540.1[r]	550.4	556.6	561.1
Money market mutual funds								
39 General purpose and broker-dealer	167.5	176.5	208.0	221.1	225.0	231.1	235.0	236.2
40 Institution-only	62.7	64.5	84.4	89.6	94.4	98.7	97.4	91.9
Large denomination time deposits[11]								
41 Commercial Banks[12]	270.9	285.4	289.1	323.6	321.3	325.1	328.5	325.4
42 Thrift institutions	146.8	151.9	150.7	161.8[r]	163.8	166.0	165.3	165.7
Debt components								
43 Federal debt	1,364.7	1,583.7	1,804.0	1,951.9	1,959.4	1,972.3	1,991.0	n.a.
44 Nonfederal debt	4,562.4	5,156.9	5,788.8	6,350.8	6,399.4[r]	6,444.6	6,500.0	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 Banking Sections, Division of Research and Statistics, 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 commercial banks and overnight Eurodollars issued to U.S. residents by foreign branches of U.S. banks worldwide, 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 commercial banks and thrift 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. The source of data on domestic nonfinancial debt is 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, and term Eurodollars of U.S. residents, money market fund balances (institution-only), less the estimated amount of overnight RPs and Eurodollars held by institution-only money market funds.

9. Savings deposits exclude MMDAs.

10. 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.

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

12. 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	1985[2]	1986[2]	1987[2]	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.
DEBITS TO	Seasonally adjusted								
Demand deposits[3]									
1 All insured banks	156,091.6	188,345.8	217,115.9	219,182.9	234,398.3	219,386.1	203,290.6	213,270.8	221,057.3
2 Major New York City banks	70,585.8	91,397.3	104,496.3	105,149.4	110,833.6	103,693.6	92,640.1	98,733.8	104,568.3
3 Other banks	85,505.9	96,948.8	112,619.6	114,033.4	123,564.6	115,692.5	110,650.5	114,537.0	116,489.0
4 ATS-NOW accounts[4]	1,823.5	2,182.5	2,402.7	2,349.0	2,591.3	2,536.1	2,525.7	2,352.7	2,730.3
5 Savings deposits[5]	384.9	403.5	526.5	524.0	582.4	570.8	556.0	534.9	596.0
DEPOSIT TURNOVER									
Demand deposits[3]									
6 All insured banks	500.3	556.5	612.1	625.3	654.9	619.0	590.4	602.5	628.2
7 Major New York City banks	2,196.9	2,498.2	2,670.6	2,715.1	2,744.7	2,620.2	2,608.1	2,600.3	2,844.8
8 Other banks	305.7	321.2	357.0	365.7	389.1	367.4	358.3	362.5	369.7
9 ATS-NOW accounts[4]	15.8	15.6	13.8	13.2	14.4	14.2	14.2	13.0	14.9
10 Savings deposits[5]	3.2	3.0	3.1	3.0	3.3	3.3	3.2	3.0	3.3
DEBITS TO	Not seasonally adjusted								
Demand deposits[3]									
11 All insured banks	156,052.3	188,506.4	217,124.8	216,728.0	233,999.8	202,230.1	222,338.9	210,029.1	208,899.2
12 Major New York City banks	70,559.2	91,500.0	104,518.6	104,234.0	111,398.9	96,035.9	102,548.7	40.3	36.8
13 Other banks	85,493.1	97,006.6	112,606.1	112,494.0	122,600.8	106,194.2	119,790.3	112,189.0	110,792.7
14 ATS-NOW accounts[4]	1,826.4	2,184.6	2,404.8	2,414.9	2,577.7	2,375.8	2,645.3	2,565.2	2,468.6
15 MMDA[6]	1,223.9	1,609.4	1,954.2	1,846.6	2,247.8	1,959.8	2,276.4	2,305.6	2,102.8
16 Savings deposits[5]	385.3	404.1	526.8	519.0	604.3	519.9	568.9	552.5	526.3
DEPOSIT TURNOVER									
Demand deposits[3]									
17 All insured banks	499.9	556.7	612.3	620.2	657.8	565.6	615.0	578.7	610.5
18 Major New York City banks	2,196.3	2,499.1	2,674.9	2,751.0	2,824.8	2,467.8	2,661.4	2,430.3	2,664.6
19 Other banks	305.6	321.2	356.9	361.1	387.6	333.3	370.9	347.7	362.8
20 ATS-NOW accounts[4]	15.8	15.6	13.8	13.7	14.6	13.3	14.6	13.9	13.5
21 MMDA[6]	4.0	4.5	5.3	5.1	6.3	5.5	6.4	6.5	5.9
22 Savings deposits[5]	3.2	3.0	3.1	3.0	3.5	3.0	3.2	3.1	3.0

1. Historical tables containing revised data for earlier periods may be obtained from the Banking 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	1987								1988			
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	Seasonally adjusted											
1 **Total loans and securities[2]**	**2,166.0**	**2,176.7**	**2,181.3**	**2,199.0**	**2,214.7**	**2,227.6**	**2,232.1**	**2,230.6**	**2,242.0**	**2,257.4r**	**2,272.4r**	**2,295.9**
2 U.S. government securities	321.3	321.3	322.9	328.5	331.3	331.7	331.1	333.2	334.1	334.0	338.9	343.1
3 Other securities	195.5	195.9	194.3	193.7	193.7	194.2	196.2	196.0	194.0	195.7	197.4	198.2
4 Total loans and leases[2]	1,649.3	1,659.6	1,664.1	1,676.8	1,689.8	1,701.7	1,704.8	1,701.4	1,713.9	1,727.6r	1,736.1r	1,754.6
5 Commercial and industrial	551.9	554.4	553.6	554.0	559.0	562.8	563.1	565.5	568.5	569.7r	567.4r	577.3
6 Bankers acceptances held[3]	4.8	4.6	4.5	5.3	5.4	5.5	4.6	4.3	4.5	4.5	4.8	4.7
7 Other commercial and industrial	547.1	549.8	549.1	548.7	553.6	557.3	558.5	561.2	564.0	565.2r	562.5r	572.6
8 U.S. addressees[4]	539.0	541.3	540.8	540.5	545.6	549.3	550.9	553.0	555.1	556.4r	554.3r	564.5
9 Non-U.S. addressees[4]	8.1	8.4	8.4	8.2	8.0	8.0	7.6	8.2	8.9	8.8	8.2	8.1
10 Real estate	532.6	542.6	549.6	556.8	561.7	569.4	576.2	582.3	586.9	592.4	597.9	604.3
11 Individual	319.1	318.9	319.7	321.5	322.8	324.1	325.0	325.9	327.8	330.2	334.2	337.4
12 Security	43.6	44.0	43.9	45.4	46.1	47.1	39.3	33.4	36.3	41.3	39.8	38.1
13 Nonbank financial institutions	35.8	34.5	32.5	31.5	31.4	31.7	31.9	31.9	32.1	32.7	32.1	31.2
14 Agricultural	30.0	30.0	29.8	29.7	29.6	29.6	29.3	29.2	29.4	29.5	29.5	29.5
15 State and political subdivisions	56.4	56.1	55.5	54.7	54.6	54.1	53.4	51.2	52.0	52.0	51.8	51.6
16 Foreign banks	9.3	9.6	9.0	9.1	9.2	9.6	8.8	8.2	8.3	7.9r	8.2r	8.6
17 Foreign official institutions	6.1	5.9r	5.7	5.7	5.7	5.8	5.7	5.6	5.6	5.2	5.2	5.3
18 Lease financing receivables	23.7	23.9	23.9	24.0	24.1	24.3	24.5	24.8	25.0	25.0	24.9	25.0
19 All other loans	40.9	39.8	40.7	44.3	45.5	43.2	47.6	43.3	42.2	41.8	45.0	46.3
	Not seasonally adjusted											
20 **Total loans and securities[2]**	**2,163.4**	**2,173.7**	**2,172.8**	**2,188.8**	**2,211.6**	**2,222.4**	**2,231.3**	**2,247.0**	**2,254.7**	**2,262.0r**	**2,272.7r**	**2,297.1**
21 U.S. government securities	320.0	318.4	322.1	328.3	331.3	329.3	331.0	333.1	335.6	339.1	340.7	342.6
22 Other securities	195.5	195.3	193.0	193.6	193.8	193.3	195.6	196.6	196.7	196.4	197.0	197.8
23 Total loans and leases[2]	1,647.9	1,660.0	1,657.7	1,666.9	1,686.6	1,699.8	1,704.7	1,717.3	1,722.4	1,726.5r	1,734.9r	1,756.7
24 Commercial and industrial	554.4	555.9	551.3	549.5	555.7	558.7	562.0	569.6	568.1	568.9r	572.5r	581.3
25 Bankers acceptances held[3]	4.8	4.7	4.6	5.3	5.5	5.4	4.6	4.4	4.3	4.5	4.8	4.7
26 Other commercial and industrial	549.6	551.2	546.7	544.2	550.2	553.3	557.4	565.2	563.8	564.5r	567.7r	576.6
27 U.S. addressees[4]	541.4	542.7	538.1	535.9	542.1	545.2	549.2	557.0	555.7	556.1r	559.7r	568.7
28 Non-U.S. addressees[4]	8.2	8.5	8.6	8.3	8.2	8.1	8.2	8.2	8.1	8.3	8.0	7.9
29 Real estate	532.0	542.4	549.7	556.8	562.4	570.0	576.8	583.2	587.3	591.7	597.0	603.3
30 Individual	316.5	316.9	318.4	321.5	324.3	325.7	326.7	330.2	331.2	329.6	331.1	334.4
31 Security	43.9	45.4	43.3	43.3	44.8	45.6	39.4	35.1	37.1	39.7	39.3	39.9
32 Nonbank financial institutions	35.6	34.6	32.3	31.4	31.8	31.7	32.3	33.2	32.4	31.6	31.1	31.1
33 Agricultural	29.7	30.3	30.5	30.6	30.7	30.4	29.6	29.0	28.6	28.5	28.5	28.7
34 State and political subdivisions	56.4	55.7	54.7	54.1	53.8	53.2	52.3	51.2	53.8	53.2	52.7	52.1
35 Foreign banks	9.0	9.5	9.0	8.9	9.5	9.8	8.8	8.6	8.5	8.2	8.1	8.2
36 Foreign official institutions	6.1	5.9r	5.7	5.7	5.7	5.8	5.7	5.6	5.6	5.2	5.2	5.3
37 Lease financing receivables	23.8	24.0	23.9	23.9	24.0	23.9	24.2	24.8	25.2	25.1	25.1	25.2
38 All other loans	40.5	39.5	38.9	41.0	43.9	44.8	46.8	46.8	44.7	44.7	44.2	47.3

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	1987 May	1987 June	1987 July	1987 Aug.	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.	1988 Apr.
Total nondeposit funds												
1 Seasonally adjusted[2]	170.7r	167.2	160.4	166.8r	177.4r	176.3r	173.8r	177.2r	177.5r	174.7r	171.8r	179.1
2 Not seasonally adjusted	170.8r	164.1	156.8r	166.9r	177.8r	176.4r	176.1r	178.0	177.8	177.2	172.7r	178.2
Federal funds, RPs, and other borrowings from nonbanks[3]												
3 Seasonally adjusted	170.6	168.4	167.3r	167.1	165.1r	164.7r	165.9r	162.0r	169.3r	172.9r	176.3r	178.7
4 Not seasonally adjusted	170.7r	165.3	163.6	167.2	165.5r	164.8r	168.2r	162.9r	169.6r	175.4r	177.2r	177.9
5 Net balances due to foreign-related institutions, not seasonally adjusted	.1	−1.2	−6.9	−.3	12.3	11.6	7.9	15.1r	8.2r	1.8r	−4.5	.3
MEMO												
6 Domestically chartered banks' net positions with own foreign branches, not seasonally adjusted[4]	−15.5	−15.5	−22.2	−17.7	−11.8	−14.7	−17.1	−14.1	−17.4	−21.5	−26.7	−23.9
7 Gross due from balances	68.5	67.1	66.4	64.5	63.8	67.7	70.4	69.6	72.1	74.1	78.0	74.5
8 Gross due to balances	53.0	51.5	44.2	46.8	52.0	53.0	53.3	55.5	54.7	52.7	51.3	50.6
9 Foreign-related institutions' net positions with directly related institutions, not seasonally adjusted[5]	15.5	14.3	15.4	17.4	24.1	26.3	24.9r	29.2r	25.6r	23.3r	22.1	24.2
10 Gross due from balances	76.0	77.4	77.4	77.7	77.3	79.7	83.2	79.8r	85.2	87.3	88.6	88.3
11 Gross due to balances	91.5	91.8	92.8	95.0	101.4	106.0	108.2	109.0	110.9	110.6r	110.7r	112.4
Security RP borrowings												
12 Seasonally adjusted[6]	99.9	101.9	103.0	105.2	107.5	107.6	106.9	106.4	108.7	107.2	107.6	111.4
13 Not seasonally adjusted	100.0	98.8	99.4	105.3	107.9	107.7	109.3	107.2	109.0	109.8	108.4	110.6
U.S. Treasury demand balances[7]												
14 Seasonally adjusted	25.3	26.9	24.4	28.5	24.9	34.2	35.7	26.1	18.6	22.6	24.9	21.8
15 Not seasonally adjusted	30.8	25.5	26.6	21.6	25.5	30.7	25.8	22.4	24.9	28.2	22.3	21.7
Time deposits, $100,000 or more[8]												
16 Seasonally adjusted	365.7	372.1	372.5	372.3	373.0	380.5	387.0	389.2	389.1	394.4	396.1	394.1
17 Not seasonally adjusted	366.3	371.4	370.0	371.8	373.2	380.4	387.0	389.3	390.1r	394.7	398.2r	394.0

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 seasonally adjusted federal funds, RPs, and other borrowings from nonbanks and not seasonally adjusted net Eurodollars.

3. Other borrowings are borrowings on 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 foreignbanks, term federal funds, overdrawn due from bank balances, loan RPs, and participations in pooled loans.

4. Averages of daily figures for member and nonmember banks.

5. Averages of daily data.

6. Based on daily average data reported by 122 large banks.

7. Includes U.S. Treasury demand deposits and Treasury tax-and-loan notes at commercial banks. Averages of daily data.

8. Averages of Wednesday figures.

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

Billions of dollars

Account	1987							1988			
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
ALL COMMERCIAL BANKING INSTITUTIONS[2]											
1 Loans and securities	2,321.0	2,331.6	2,348.8	2,374.8	2,402.4	2,389.9	2,430.5	2,415.2	2,420.3r	2,442.3r	2,461.4
2 Investment securities	492.7	497.1	501.1	501.7	503.8	508.0	514.4	515.2	513.9	518.3	520.3
3 U.S. government securities	304.6	309.4	313.7	313.8	316.0	317.3	321.4	322.9	322.2	324.7	328.2
4 Other	188.0	187.7	187.4	187.9	187.9	190.7	193.1	192.4	191.8	193.7	192.2
5 Trading account assets	20.2	20.4	19.5	19.5	19.6	20.3	16.9	18.3	22.0	20.3	19.6
6 Total loans	1,808.2	1,814.1	1,828.2	1,853.6	1,878.9	1,861.6	1,899.2	1,881.6	1,884.4r	1,903.7r	1,921.5
7 Interbank loans	150.7	156.5	160.8	157.4	172.9	162.0	172.1	160.5	162.5	160.6	161.6
8 Loans excluding interbank	1,657.5	1,657.6	1,667.5	1,696.2	1,706.1	1,699.7	1,727.2	1,721.1	1,721.9r	1,743.1r	1,759.9
9 Commercial and industrial	554.6	548.1	548.2	560.7	559.7	561.1	576.4	565.3	568.7r	575.6r	582.4
10 Real estate	544.4	552.9	558.2	564.1	571.7	577.4	586.3	588.5	591.9	599.5	606.1
11 Individual	317.3	319.4	322.1	325.3	326.7	326.9	332.4	330.8	329.8	332.5	335.6
12 All other	241.1	237.2	239.0	246.0	248.0	234.3	232.1	236.5	231.4	235.6	235.7
13 Total cash assets	214.2	208.4	210.7	223.8	223.5	215.2	232.5	209.6	202.3	207.5	210.4
14 Reserves with Federal Reserve Banks	33.5	32.5	37.3	32.9	38.3	33.8	36.2	33.3	32.8	32.1	32.2
15 Cash in vault	24.2	24.5	24.7	24.5	25.0	24.0	28.5	25.8	25.1	24.8	25.4
16 Cash items in process of collection	74.7	69.0	65.9	81.6	79.0	76.1	79.9	70.7	66.8	74.1	76.4
17 Demand balances at U.S. depository institutions	30.4	31.0	30.8	32.7	32.3	32.9	36.6	31.4	30.1	31.7	30.6
18 Other cash assets	51.4	51.5	52.1	52.1	48.9	48.4	51.4	48.5	47.6	45.0	45.8
19 Other assets	197.4	182.5	184.5	193.6	186.3	187.5	184.0	176.0	178.5r	188.3r	183.9
20 Total assets/total liabilities and capital	**2,732.6**	**2,722.6**	**2,744.0**	**2,792.2**	**2,812.2**	**2,792.6**	**2,847.1**	**2,800.7**	**2,801.2**	**2,838.2**	**2,855.7**
21 Deposits	1,927.4	1,928.8	1,930.4	1,972.4	1,971.2	1,974.1	2,009.1	1,968.1	1,973.9	2,003.9	2,007.2
22 Transaction deposits	579.6	575.3	574.1	612.4	598.1	592.0	623.3	576.0	567.3	587.6	595.0
23 Savings deposits	537.6	538.7	537.9	535.3	531.7	531.1	528.0	531.4	535.2	539.6	536.1
24 Time deposits	810.1	814.8	818.4	824.7	841.4	851.0	857.9	860.6	871.4	876.8	876.2
25 Borrowings	419.5	414.6	426.4	416.3	435.7	420.1	426.2	443.2	440.9	444.8	454.7
26 Other liabilities	202.0	202.5	209.6	224.7	225.5	218.9	231.5	208.7	205.3	209.5	212.3
27 Residual (assets less liabilities)	183.7	176.7	177.6	178.8	179.8	179.5	180.4	180.7	181.1	180.0	181.4
MEMO											
28 U.S. government securities (including trading account)	317.0	323.8	326.8	327.7	329.9	331.7	332.4	336.9	339.3	340.2	342.8
29 Other securities (including trading account)	195.8	193.8	193.8	193.5	193.5	196.6	198.9	196.7	196.6	198.4	197.1
DOMESTICALLY CHARTERED COMMERCIAL BANKS[3]											
30 Loans and securities	2,157.0	2,162.8	2,179.6	2,195.4	2,218.6	2,213.8	2,238.5	2,231.2	2,235.6	2,255.6	2,272.0
31 Investment securities	468.1	472.1	476.2	475.9	478.7	482.6	488.3	487.0	485.9	490.3	493.8
32 U.S. Treasury securities	295.1	299.4	303.5	302.9	305.7	306.4	311.0	311.3	310.7	313.2	316.8
33 Other	173.0	172.7	172.6	173.0	173.0	176.2	177.3	175.8	175.2	177.1	177.0
34 Trading account assets	20.2	20.4	19.5	19.5	19.6	20.3	16.9	18.3	22.0	20.3	19.6
35 Total loans	1,668.7	1,670.3	1,684.0	1,700.0	1,720.3	1,711.0	1,733.3	1,725.9	1,727.6	1,745.0	1,758.6
36 Interbank loans	120.9	122.0	128.6	125.0	133.3	130.5	135.3	131.0	133.1	131.8	129.0
37 Loans excluding interbank	1,547.8	1,548.3	1,555.4	1,575.0	1,587.0	1,580.4	1,598.0	1,594.9	1,594.5	1,613.2	1,629.6
38 Commercial and industrial	471.3	465.2	464.4	470.2	470.6	472.0	479.4	472.6	475.4	481.0	487.2
39 Real estate	535.5	543.5	548.4	554.0	561.9	567.3	575.0	577.1	579.8	587.4	593.2
40 Individual	317.0	319.1	321.8	325.0	326.4	326.6	332.1	330.5	329.5	332.1	335.3
41 All other	224.0	220.4	220.8	225.8	228.1	214.6	211.6	214.7	209.8	212.7	213.9
42 Total cash assets	197.7	191.6	192.7	204.8	207.8	199.3	214.9	191.9	184.4	191.7	194.3
43 Reserves with Federal Reserve Banks	32.1	31.3	36.2	30.9	36.5	31.5	35.1	31.7	30.5	30.1	30.8
44 Cash in vault	24.1	24.4	24.6	24.4	24.9	24.0	28.4	25.7	25.1	24.7	25.4
45 Cash items in process of collection	74.2	68.5	65.4	81.0	78.4	75.7	79.5	70.2	66.3	73.5	75.9
46 Demand balances at U.S. depository institutions	28.7	29.3	29.2	30.8	30.6	31.4	34.7	29.7	28.5	30.0	29.0
47 Other cash assets	38.6	38.0	37.2	37.7	37.3	36.7	37.3	34.6	34.0	33.3	33.2
48 Other assets	132.8	120.5	119.9	134.2	130.0	123.7	127.2	118.8	122.0	126.6	125.0
49 Total assets/liabilities and capital	**2,487.5**	**2,474.9**	**2,492.2**	**2,534.5**	**2,556.4**	**2,536.8**	**2,580.7**	**2,542.0**	**2,541.9**	**2,573.9**	**2,591.2**
50 Deposits	1,865.7	1,868.3	1,868.8	1,910.3	1,909.1	1,912.4	1,944.6	1,905.9	1,911.2	1,939.9	1,943.7
51 Transaction deposits	571.4	567.4	566.0	603.9	589.5	583.7	614.9	567.7	559.4	579.1	586.4
52 Savings deposits	535.6	536.6	535.7	533.2	529.5	528.8	525.7	529.1	532.8	537.2	533.6
53 Time deposits	758.7	764.3	767.1	773.3	790.1	799.9	804.1	809.1	819.0	823.6	823.7
54 Borrowings	327.0	318.9	333.0	324.7	345.7	323.2	331.9	344.7	342.9	343.4	351.0
55 Other liabilities	114.4	114.2	116.0	123.8	125.0	124.8	127.0	113.9	109.9	113.8	118.2
56 Residual (assets less liabilities)	180.5	173.5	174.4	175.6	176.6	176.3	177.2	177.5	177.9	176.8	178.2

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	1988								
	Mar. 2	Mar. 9	Mar. 16	Mar. 23	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27
1 Cash and balances due from depository institutions	104,813	92,066	108,164	98,632	101,556	104,282	104,440	106,098	101,849
2 **Total loans, leases, and securities, net**	**1,103,004**	**1,101,424**	**1,101,833**	**1,097,126**	**1,100,538**	**1,114,436**	**1,104,060**	**1,121,705**	**1,111,818**
3 U.S. Treasury and government agency	132,810	132,663	132,140	130,920	129,797	131,553	131,424	132,821	130,107
4 Trading account	18,052	17,195	17,361	16,329	15,539	16,260	16,296	16,966	14,609
5 Investment account	114,758	115,467	114,779	114,591	114,258	115,292	115,128	115,854	115,498
6 Mortgage-backed securities[2]	39,222	39,297	39,416	40,190	40,401	40,423	40,418	40,247	40,933
All other maturing in									
7 One year or less	17,639	17,696	17,570	17,480	17,194	17,964	17,636	17,972	17,289
8 Over one through five years	48,046	48,503	47,796	46,930	46,647	46,985	47,050	47,640	46,992
9 Over five years	9,851	9,972	9,998	9,991	10,016	9,920	10,024	9,996	10,285
10 Other securities	72,519	72,149	72,037	72,078	72,732	72,278	72,461	72,102	72,026
11 Trading account	2,003	1,857	1,790	1,759	1,717	1,309	1,405	1,636	1,691
12 Investment account	70,516	70,292	70,247	70,319	71,014	70,969	71,056	70,466	70,335
13 States and political subdivisions, by maturity	49,554	49,504	49,450	49,406	49,399	49,101	49,094	49,021	49,002
14 One year or less	5,984	6,014	5,977	5,965	5,981	5,932	5,923	5,930	5,906
15 Over one year	43,570	43,490	43,473	43,441	43,418	43,169	43,171	43,091	43,096
16 Other bonds, corporate stocks, and securities	20,962	20,788	20,796	20,913	21,616	21,868	21,961	21,445	21,333
17 Other trading account assets	3,396r	3,182r	2,844r	2,948r	3,052r	3,393	3,140	3,319	3,261
18 Federal funds sold[3]	71,232	71,552	70,146	68,735	68,683	74,212	67,172	78,699	72,713
19 To commercial banks	44,453	46,457	45,312	42,230	41,875	48,366	39,466	50,284	44,020
20 To nonbank brokers and dealers in securities	19,510	17,717	18,274	18,476	18,163	17,190	18,988	19,689	20,206
21 To others	7,269	7,378	6,560	8,028	8,645	8,656	8,719	8,726	8,487
22 Other loans and leases, gross	864,226r	863,089r	865,875r	863,833r	867,659r	874,637	871,465	876,370	875,316
23 Other loans, gross	843,383r	842,246r	844,995r	842,885r	846,626r	853,555	850,367	855,197	854,102
24 Commercial and industrial	292,672r	291,632r	292,477r	291,342r	293,278r	298,507	296,910	298,190	297,937
25 Bankers acceptances and commercial paper	2,234r	2,369r	2,396r	2,342r	2,430r	2,410	2,357	2,322	2,291
26 All other	290,438r	289,263r	290,080r	289,000r	290,848r	296,097	294,552	295,867	295,646
27 U.S. addressees	287,604r	286,555r	287,430r	286,364r	288,209r	293,431	291,847	293,181	292,972
28 Non-U.S. addressees	2,834	2,708	2,651	2,636	2,638	2,666	2,706	2,686	2,674
29 Real estate loans	269,767r	270,104r	270,882r	271,286r	271,591r	271,223	272,212	272,949	273,834
30 Revolving, home equity	17,836r	17,899r	17,974r	18,048r	18,178r	18,291	18,453	18,713	18,891
31 All other	251,931r	252,205r	252,907r	253,238r	253,413r	252,932	253,759	254,236	254,943
32 To individuals for personal expenditures	159,679r	159,519r	159,717r	159,902r	160,423r	160,584	161,107	161,856	162,125
33 To depository and financial institutions	49,592r	48,637r	49,375r	48,733r	48,427r	50,727	49,310	49,494	48,851
34 Commercial banks in the United States	22,846r	22,792r	23,333r	22,625r	22,633r	23,744	23,235	23,348	22,692
35 Banks in foreign countries	4,516r	3,758r	3,535r	4,124r	3,521r	4,505	3,592	3,832	4,128
36 Nonbank depository and other financial institutions	22,230	22,087	22,507	21,984	22,274	22,478	22,484	22,314	22,031
37 For purchasing and carrying securities	12,805	13,823	13,641	13,440	14,216	13,493	12,742	13,416	13,081
38 To finance agricultural production	5,382r	5,423r	5,446r	5,443r	5,415r	5,455	5,544	5,530	5,533
39 To states and political subdivisions	31,941	31,837	31,818	31,804	31,632	31,558	31,444	31,442	31,258
40 To foreign governments and official institutions	2,318r	2,278r	2,335r	2,299r	2,199r	2,262	2,138	2,238	2,157
41 All other	19,226r	18,991r	19,304r	18,636	19,444	19,746	18,958	20,082	19,325
42 *Lease financing receivables*	20,843r	20,843r	20,880r	20,948r	21,034r	21,082	21,098	21,173	21,214
43 LESS: Unearned income	4,699r	4,755r	4,769r	4,774r	4,796r	4,750	4,786	4,805	4,826
44 Loan and lease reserve[4]	36,481	36,455	36,440	36,614	36,588	36,887	36,816	36,801	36,779
45 Other loans and leases, net	823,047r	821,878r	824,666r	822,445r	826,276r	833,000	829,863	834,764	833,710
46 *All other assets*	125,534	128,106	128,800	126,254	125,193r	128,322	127,105	128,850	126,401
47 **Total assets**	**1,333,352**	**1,321,596**	**1,338,797**	**1,322,012**	**1,327,287r**	**1,347,040**	**1,335,605**	**1,356,653**	**1,340,068**
48 Demand deposits	230,239	215,428	230,735	214,738	223,226	229,555	228,342	232,096	225,052
49 Individuals, partnerships, and corporations	180,012	172,798	178,766	167,993	175,045	181,381	183,731	181,033	176,867
50 States and political subdivisions	6,447	5,716	6,445	6,378	5,882	5,743	5,848	6,582	6,317
51 U.S. government	1,895	1,662	3,988	2,889	3,069	2,630	1,991	6,195	4,010
52 Depository institutions in the United States	24,266	20,928	23,633	22,176	21,954	22,663	21,402	21,699	21,590
53 Banks in foreign countries	6,986	5,938	6,600	6,463	5,991	6,758	5,551	6,481	6,362
54 Foreign governments and official institutions	674	722	650	605	943	1,035	1,021	818	754
55 Certified and officers' checks	9,957	7,665	10,652	8,234	10,342	9,344	8,797	9,289	9,152
56 Transaction balances other than demand deposits	72,107	71,637	71,532	70,745	70,977	75,140	75,661	76,677	72,244
57 Nontransaction balances	589,962	592,140	592,961	592,729	590,904	592,986	592,384	589,326	589,408
58 Individuals, partnerships, and corporations	549,567	551,625	552,525	552,380	550,777r	553,506	553,091	550,003	549,658
59 States and political subdivisions	29,698	29,797	29,722	29,612	29,340r	28,971	28,676	28,622	29,070
60 U.S. government	913	911	928	941	933	942	942	959	964
61 Depository institutions in the United States	9,003	9,037	9,026	9,059	9,099	8,817	8,942	8,912	8,890
62 Foreign governments, official institutions, and banks	780	770	759	736	756	751	733	830	824
63 Liabilities for borrowed money	275,166	277,147	278,288	276,351	273,862	280,595	273,503	290,369	278,818
64 Borrowings from Federal Reserve Banks	265	1,950	2,775	2,839	1,900	4,055	3,640	3,192	1,900
65 Treasury tax-and-loan notes	16,915	11,990	19,154	19,119	16,778r	4,249	4,678	23,522	25,085
66 All other liabilities for borrowed money[5]	257,986	263,206	256,358	254,393	255,183r	272,291	265,185	263,655	251,833
67 Other liabilities and subordinated notes and debentures	79,884	79,717	79,842	81,928	83,336	82,819	79,422	82,073	88,583
68 **Total liabilities**	**1,247,357**	**1,236,069**	**1,253,358**	**1,236,492**	**1,242,305**	**1,261,095**	**1,249,312**	**1,270,541**	**1,254,106**
69 Residual (total assets minus total liabilities)[6]	85,995	85,527	85,439	85,520	84,982r	85,944	86,293	86,112	85,962
MEMO									
70 Total loans and leases (gross) and investments adjusted[7]	1,076,885r	1,073,386r	1,074,396r	1,073,659r	1,077,414r	1,083,963	1,082,962	1,089,679	1,086,711
71 Total loans and leases (gross) adjusted[7]	868,160r	865,392r	867,376r	867,713r	871,834r	876,739	875,937	881,437	881,316
72 Time deposits in amounts of $100,000 or more	182,538r	183,026r	183,094r	182,904r	181,514r	180,282	178,819	178,850	179,997
73 U.S. Treasury securities maturing in one year or less	17,812	18,117	18,109	17,601	17,487	18,110	17,280	18,104	16,304
74 Loans sold outright to affiliates—total[8]	1,538	1,530	1,554	1,537	1,588	1,556	1,556	1,450	1,538
75 Commercial and industrial	1,049	1,040	1,056	1,044	1,100	1,094	1,095	990	1,069
76 Other	490	490	498	493	488	462	461	460	469
77 Nontransaction savings deposits (including MMDAs)	250,104r	251,371r	251,795r	251,486r	250,827r	253,746	253,993	250,522	249,289

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	1988								
	Mar. 2	Mar. 9	Mar. 16	Mar. 23	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27
1 Cash balances due from depository institutions	24,393	20,270	28,639	23,732	24,166	22,001	22,492	22,408	22,655
2 **Total loans, leases and securities, net**[2]	**219,235**	**217,875**	**216,161**	**219,362**	**222,439**	**226,434**	**220,272**	**229,251**	**225,159**
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	15,034	15,080	15,402	15,923	15,966	16,068	16,088	16,068	16,116
6 Mortgage-backed securities[4]	5,954	5,954	6,116	6,464	6,483	6,505	6,501	6,496	6,382
All other maturing in									
7 One year or less	2,489	2,494	2,463	2,515	2,517	2,683	2,576	2,563	2,630
8 Over one through five years	4,613	4,606	4,744	4,787	4,826	4,757	4,792	4,848	4,899
9 Over five years	1,978	2,026	2,079	2,158	2,140	2,124	2,218	2,161	2,205
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	17,493	17,357	17,271	17,219	17,306	17,342	17,408	16,907	16,871
13 States and political subdivisions, by maturity	13,617	13,585	13,593	13,552	13,597	13,546	13,550	13,542	13,533
14 One year or less	1,242	1,255	1,269	1,265	1,281	1,276	1,253	1,264	1,272
15 Over one year	12,375	12,329	12,324	12,286	12,317	12,270	12,296	12,278	12,261
16 Other bonds, corporate stocks, and securities	3,876	3,772	3,678	3,667	3,709	3,796	3,859	3,365	3,338
17 Other trading account assets[3]	0	0	0	0	0	0	0	0	0
Loans and leases									
18 Federal funds sold[5]	28,620	29,161	26,430	28,988	31,102	31,448	28,331	36,798	32,886
19 To commercial banks	12,323	13,650	11,284	13,622	13,964	15,012	10,526	18,556	14,520
20 To nonbank brokers and dealers in securities	11,397	10,489	10,553	10,288	11,033	10,430	11,674	12,446	12,364
21 To others	4,899	5,022	4,594	5,078	6,105	6,005	6,131	5,796	6,002
22 Other loans and leases, gross	173,798	172,048	172,825	172,952	173,779	177,016	173,840	174,893	174,723
23 Other loans, gross	168,888	167,133	167,895	168,016	168,829	172,101	168,912	169,953	169,766
24 Commercial and industrial	57,754	56,498	56,484	56,314	56,806	59,378	58,014	58,343	58,621
25 Bankers acceptances and commercial paper	460	478	543	482	505	463	463	526	477
26 All other	57,294	56,020	55,940	55,832	56,301	58,915	57,551	57,817	58,144
27 U.S. addressees	56,766	55,518	55,472	55,354	55,744	58,394	57,087	57,317	57,678
28 Non-U.S. addressees	529	502	468	478	558	521	464	499	466
29 Real estate loans	47,133	47,307	47,393	47,487	47,513	47,317	47,402	47,393	47,716
30 Revolving, home equity	2,868	2,877	2,891	2,900	2,913	2,949	3,008	3,036	3,056
31 All other	44,265	44,430	44,503	44,587	44,600	44,368	44,394	44,357	44,660
32 To individuals for personal expenditures	22,651	22,657	22,656	22,694	22,820	22,988	23,095	23,168	23,267
33 To depository and financial institutions	22,158	21,366	21,861	21,964	21,444	22,500	21,605	21,778	21,039
34 Commercial banks in the United States	12,648	12,741	13,290	12,819	12,839	13,083	12,973	12,838	12,388
35 Banks in foreign countries	2,910	2,100	1,938	2,582	2,124	2,993	2,103	2,392	2,296
36 Nonbank depository and other financial institutions	6,599	6,525	6,632	6,563	6,482	6,424	6,529	6,548	6,355
37 For purchasing and carrying securities	4,870	5,020	5,159	5,386	6,078	5,378	4,927	4,994	5,192
38 To finance agricultural production	298	298	292	293	291	290	309	304	313
39 To states and political subdivisions	7,348	7,344	7,394	7,388	7,318	7,319	7,273	7,301	7,240
40 To foreign governments and official institutions	703	634	717	675	592	670	574	673	633
41 All other	5,971	6,010	5,939	5,814	5,968	6,262	5,711	5,997	5,746
42 Lease financing receivables	4,910	4,915	4,930	4,936	4,950	4,915	4,928	4,940	4,957
43 LESS: Unearned income	1,572	1,614	1,627	1,632	1,644	1,632	1,649	1,662	1,672
44 Loan and lease reserve	14,138	14,157	14,141	14,088	14,070	13,808	13,746	13,753	13,765
45 Other loans and leases, net[6]	158,088	156,277	157,057	157,232	158,064	161,576	158,445	159,478	159,286
46 All other assets[7]	62,542	61,731	63,145	58,625	57,769	59,826	59,515	59,149	57,900
47 **Total assets**	**306,169**	**299,875**	**307,945**	**301,719**	**304,374**	**308,261**	**302,280**	**310,807**	**305,713**
Deposits									
48 Demand deposits	57,636	52,316	60,028	54,327	56,881	56,090	53,871	56,852	55,003
49 Individuals, partnerships, and corporations	39,756	38,014	40,666	36,629	39,052	38,910	38,842	39,088	38,331
50 States and political subdivisions	926	921	1,180	1,302	1,177	893	896	1,016	906
51 U.S. government	230	282	675	547	603	615	370	1,421	972
52 Depository institutions in the United States	5,897	4,834	6,216	6,464	5,428	5,403	4,913	5,464	5,303
53 Banks in foreign countries	5,810	4,667	5,194	5,336	4,802	5,576	4,436	5,227	5,186
54 Foreign governments and official institutions	526	593	524	465	753	870	888	668	622
55 Certified and officers' checks	4,490	3,005	5,572	3,583	5,067	3,823	3,526	3,969	3,681
56 Transaction balances other than demand deposits (ATS, NOW, Super NOW, telephone transfers)	9,459	9,465	9,450	9,353	9,418	9,929	10,221	10,301	9,676
57 Nontransaction balances	109,419	109,451	109,745	109,511	108,853	109,771	110,198	109,713	109,008
58 Individuals, partnerships, and corporations	100,608	100,590	100,836	100,655	100,094	100,980	101,340	100,834	99,947
59 States and political subdivisions	6,984	6,966	7,001	6,930	6,860	6,883	6,916	6,935	7,020
60 U.S. government	31	32	30	36	32	34	28	29	33
61 Depository institutions in the United States	1,503	1,576	1,600	1,617	1,576	1,579	1,640	1,640	1,736
62 Foreign governments, official institutions, and banks	291	287	278	272	289	295	274	275	271
63 Liabilities for borrowed money	74,771	76,026	73,657	71,360	71,957	74,593	73,376	77,706	71,044
64 Borrowings from Federal Reserve Banks	0	1,140	0	700	0	0	0	990	0
65 Treasury tax-and-loan notes	4,320	3,223	5,656	5,597	4,868r	1,005	1,268	6,356	6,885
66 All other liabilities for borrowed money[8]	70,452	71,664	68,001	65,063	67,089r	73,588	72,108	70,360	64,158
67 Other liabilities and subordinated notes and debentures	30,452	28,077	30,489	32,594	32,942	32,933	29,508	31,212	36,054
68 **Total liabilities**	**281,738**	**275,336**	**283,369**	**277,144**	**280,052**	**283,317**	**277,173**	**285,784**	**280,784**
69 Residual (total assets minus total liabilities)[9]	24,432	24,540	24,576	24,575	24,322	24,944	25,106	25,023	24,930
MEMO									
70 Total loans and leases (gross) and investments adjusted[2,10]	209,974	207,255	207,354	208,641	211,350	213,779	212,168	213,272	213,688
71 Total loans and leases (gross) adjusted[10]	177,446	174,818	174,681	175,498	178,078	180,368	178,672	180,296	180,701
72 Time deposits in amounts of $100,000 or more	39,077	38,985	39,591	39,102	38,474	38,553	38,717	38,861	38,662
73 U.S. Treasury securities maturing in one year or less	4,080	4,454	4,585	4,368	4,666	4,788	4,087	4,250	3,768

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.
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	1988								
	Mar. 2	Mar. 9	Mar. 16	Mar. 23	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27
1 Cash and due from depository institutions	10,457	9,641	9,690	10,453	9,976	10,440	10,711	10,845	10,110
2 Total loans and securities	100,183r	100,341r	101,657	103,260	102,722	104,187	103,531	103,597	102,439
3 U.S. Treasury and government agency securities	7,722	8,096	8,130	8,134	7,762	7,534	7,790	7,763	7,638
4 Other securities	7,931	7,895	7,901	7,894	7,899	7,864	7,804	7,691	7,603
5 Federal funds sold[2]	5,823	7,038	7,907	9,530	7,298	9,570	8,873	10,014	9,263
6 To commercial banks in the United States	3,947	5,004	6,016	7,554	4,924	6,785	6,072	7,081	6,367
7 To others	1,876	2,034	1,890	1,976	2,374	2,786	2,801	2,934	2,896
8 Other loans, gross	78,707r	77,312r	77,720	77,702	79,764	79,219	79,064	78,129	77,934
9 Commercial and industrial	51,235r	50,113r	51,236r	50,367r	51,585r	51,888	51,181	50,608	51,877
10 Bankers acceptances and commercial paper	1,667	1,634	1,571	1,625	1,649	1,702	1,551	1,546	1,453
11 All other	49,568r	48,478r	49,665r	48,742r	49,936r	50,185	49,630	49,063	50,424
12 U.S. addressees	47,077r	46,049r	47,201r	46,415r	47,527r	47,691	47,095	46,786	48,088
13 Non-U.S. addressees	2,491	2,429	2,464	2,327	2,409	2,494	2,535	2,277	2,336
14 To financial institutions	15,984	15,923	15,282	15,954	16,930	15,700	16,128	15,545	14,728
15 Commercial banks in the United States	11,767	11,800	11,343	11,600	12,390	11,390	11,878	11,302	10,760
16 Banks in foreign countries	1,052	1,031	994	1,313	1,398	1,270	1,284	1,159	925
17 Nonbank financial institutions	3,165	3,092	2,945	3,041	3,142r	3,040	2,966	3,084	3,042
18 To foreign governments and official institutions	429	422	460	464	484	518	513	512	518
19 For purchasing and carrying securities	1,887	1,787	1,624	1,680	1,546	1,449	1,740	1,895	1,453
20 All other	9,172r	9,067r	9,117r	9,237r	9,220r	9,664	9,502	9,568	9,358
21 Other assets (claims on nonrelated parties)	30,539r	30,846r	30,792r	30,743r	30,902	29,600	30,070	30,505	30,998
22 Net due from related institutions	16,400	16,028	17,253	16,306	16,081	16,840	14,047	15,454	16,300
23 Total assets	157,580r	156,856r	159,392r	160,763r	159,682	161,068	158,359	160,402	159,848
24 Deposits or credit balances due to other than directly related institutions	41,693	41,663	42,315	42,693	42,712	42,107	41,208	41,473	42,294
25 Transaction accounts and credit balances[3]	2,940	3,082	3,444	3,341	3,271	3,054	3,226	3,120	3,620
26 Individuals, partnerships, and corporations	1,821	1,933	2,068	2,045	2,105	1,888	2,021	2,070	2,061
27 Other	1,118	1,149	1,375	1,296	1,166	1,167	1,204	1,050	1,560
28 Nontransaction accounts[4]	38,753	38,581	38,872	39,352	39,441	39,052	37,983	38,352	38,673
29 Individuals, partnerships, and corporations	31,962r	31,741r	32,038r	32,183r	32,256r	31,837	30,891	31,188	31,512
30 Other	6,791r	6,840r	6,834r	7,169r	7,184r	7,215	7,091	7,164	7,160
31 Borrowings from other than directly related institutions	61,619	62,226	63,229	61,778	61,304	66,618	65,067	66,864	63,081
32 Federal funds purchased[5]	30,107	30,547	31,162	31,081	28,688	34,925	32,829	34,812	30,641
33 From commercial banks in the United States	15,621	15,673	16,815	16,897	15,698	18,897	18,134	18,643	15,170
34 From others	14,486	14,874	14,347	14,184	12,990	16,027	14,695	16,169	15,471
35 Other liabilities for borrowed money	31,512	31,679	32,067	30,697	32,616	31,693	32,238	32,052	32,440
36 To commercial banks in the United States	24,015	23,722	24,211	23,069	24,030	23,995	24,356	24,113	24,332
37 To others	7,497	7,956	7,855	7,628	8,587	7,698	7,883	7,939	8,108
38 Other liabilities to nonrelated parties	31,390	32,430	32,273	32,306	32,802	31,601	31,632	31,807	32,059
39 Net due to related institutions	22,878r	20,537r	21,574r	23,984r	22,864	20,741	20,452	20,258	22,414
40 Total liabilities	157,580r	156,856r	159,392r	160,763r	159,682	161,068	158,359	160,402	159,848
MEMO									
41 Total loans (gross) and securities adjusted[6]	84,469r	83,538r	84,298	84,106	85,408	86,013	85,581	85,215	85,312
42 Total loans (gross) adjusted[6]	68,816r	67,546r	68,267	68,078	69,748	70,615	69,987	69,761	70,070

1. Effective Jan. 1, 1986, the reporting panel includes 65 U.S. branches and agencies of foreign banks that include 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. Includes credit balances, demand deposits, and other checkable deposits.
4. Includes savings deposits, money market deposit accounts, and time deposits.
5. Includes securities sold under agreements to repurchase.
6. 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	Commercial banks									
	1982 Dec.	1983 Dec.	1984 Dec.	1985 Dec.[3,4]	1986 Dec.	1987 Mar.	1987 June	1987 Sept.	1987 Dec.	1988 Mar.
1 **All holders—Individuals, partnerships, and corporations**	**291.8**	**293.5**	**302.7**	**321.0**	**363.6**	**335.9**	**340.2**	**339.0**	**344.9**	**n.a.**
2 Financial business	35.4	32.8	31.7	32.3	41.4	35.9	36.6	36.5	36.9	n.a.
3 Nonfinancial business	150.5	161.1	166.3	178.5	202.0	183.0	187.2	188.2	191.7	n.a.
4 Consumer	85.9	78.5	81.5	85.5	91.1	88.9	90.1	88.7	89.9	n.a.
5 Foreign	3.0	3.3	3.6	3.5	3.3	2.9	3.2	3.2	3.4	n.a.
6 Other	17.0	17.8	19.7	21.2	25.8	25.2	23.1	22.4	23.0	n.a.
	Weekly reporting banks									
	1982 Dec.	1983 Dec.	1984 Dec.[2]	1985 Dec.[3,4]	1986 Dec.	1987 Mar.	1987 June	1987 Sept.	1987 Dec.	1988 Mar.[5]
7 **All holders—Individuals, partnerships, and corporations**	**144.2**	**146.2**	**157.1**	**168.6**	**195.1**	**178.1**	**179.3**	**179.1**	**187.0**	**181.8**
8 Financial business	26.7	24.2	25.3	25.9	32.5	28.7	29.3	29.3	29.5	27.0
9 Nonfinancial business	74.3	79.8	87.1	94.5	106.4	94.4	94.8	96.0	100.8	98.2
10 Consumer	31.9	29.7	30.5	33.2	37.5	36.8	37.5	37.2	39.4	41.7
11 Foreign	2.9	3.1	3.4	3.1	3.3	2.8	3.1	3.1	3.3	3.4
12 Other	8.4	9.3	10.9	12.0	15.4	15.5	14.6	13.5	14.0	11.4

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.

3. 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.

4. 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.

5. 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	1983 Dec.	1984 Dec.	1985 Dec.	1986 Dec.	1987 Dec.	1987 Oct.	1987 Nov.[1]	1987 Dec.	1988 Jan.[2]	1988 Feb.	1988 Mar.
	Commercial paper (seasonally adjusted unless noted otherwise)										
1 All issuers	**187,658**	**237,586**	**298,779**	**329,991**	**357,129**	**356,577**	**351,844**	**357,129**	**380,339r**	**388,893r**	**391,305**
Financial companies[3]											
Dealer-placed paper[4]											
2 Total	44,455	56,485	78,443	101,072	101,958	109,019	105,197	101,958	120,930r	125,914r	128,680
3 Bank-related (not seasonally adjusted)	2,441	2,035	1,602	2,265	1,428	2,688	1,893	1,428	1,694	1,724	1,371
Directly placed paper[5]											
4 Total	97,042	110,543	135,320	151,820	173,939	170,403	169,779	173,939	175,467	174,595	173,316
5 Bank-related (not seasonally adjusted)	35,566	42,105	44,778	40,860	43,173	46,249	45,353	43,173	45,425	43,987	43,681
6 Nonfinancial companies[6]	46,161	70,558	85,016	77,099	81,232	77,154	76,869	81,232	83,942r	88,384r	89,309
	Bankers dollar acceptances (not seasonally adjusted)[7]										
7 Total	**78,309**	**78,364**	**68,413**	**64,974**	**70,565**	**71,891**	**71,068**	**70,565**	**62,957**	**62,419**	**63,454**
Holder											
8 Accepting banks	9,355	9,811	11,197	13,423	10,943	10,856	10,701	10,943	8,602	9,628	10,243
9 Own bills	8,125	8,621	9,471	11,707	9,464	9,742	9,714	9,464	7,759	8,561	8,825
10 Bills bought	1,230	1,191	1,726	1,716	1,479	1,114	987	1,479	843	1,067	1,417
Federal Reserve Banks											
11 Own account	418	0	0	0	0	0	0	0	0	0	0
12 Foreign correspondents	729	671	937	1,317	965	1,400	1,134	965	831	833	795
13 Others	67,807	67,881	56,279	50,234	58,658	59,635	59,234	58,658	53,524	51,958	52,417
Basis											
14 Imports into United States	15,649	17,845	15,147	14,670	16,483	17,814	16,942	16,483	14,468	14,354	14,575
15 Exports from United States	16,880	16,305	13,204	12,960	15,227	15,949	15,435	15,227	14,054	13,891	13,900
16 All other	45,781	44,214	40,062	37,344	38,855	38,122	38,691	38,855	34,436	34,173	34,980

1. A change in the reporting panel in November resulted in a slight understatement of outstanding volume.
2. Data reflect a break in series resulting from additions to the reporting panel and from the correction of a misclassification that had understated dealer-placed financial and overstated nonfinancial outstandings.
3. 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.
4. Includes all financial company paper sold by dealers in the open market.
5. As reported by financial companies that place their paper directly with investors.
6. Includes public utilities and firms engaged primarily in such activities as communications, construction, manufacturing, mining, wholesale and retail trade, transportation, and services.
7. 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 new 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

Effective date	Rate	Effective Date	Rate	Month	Average rate	Month	Average rate
1985—Jan. 15	10.50	1987—Apr. 1	7.75	1985—Jan.	10.61	1986—Sept.	7.50
May 20	10.00	May 1	8.00	Feb.	10.50	Oct.	7.50
June 18	9.50	15	8.25	Mar.	10.50	Nov.	7.50
		Sept. 4	8.75	Apr.	10.50	Dec.	7.50
1986—Mar. 7	9.00	Oct. 7	9.25	May	10.31		
Apr. 21	8.50	22	9.00	June	9.78	1987—Jan.	7.50
July 11	8.00	Nov. 5	8.75	July	9.50	Feb.	7.50
Aug. 26	7.50			Aug.	9.50	Mar.	7.50
		1988—Feb. 2	8.50	Sept.	9.50	Apr.	7.75
				Oct.	9.50	May	8.14
				Nov.	9.50	June	8.25
				Dec.	9.50	July	8.25
						Aug.	8.25
				1986—Jan.	9.50	Sept.	8.70
				Feb.	9.50	Oct.	9.07
				Mar.	9.10	Nov.	8.78
				Apr.	8.83	Dec.	8.75
				May	8.50		
				June	8.50	1988—Jan.	8.75
				July	8.16	Feb.	8.51
				Aug.	7.90	Mar.	8.50
						Apr.	8.50

NOTE. These data also appear in the Board's H.15 (519) release. For address, see inside front cover.

1.35 INTEREST RATES Money and Capital Markets

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

Instrument	1985	1986	1987	1988				1988, week ending				
				Jan.	Feb.	Mar.	Apr.	Apr. 1	Apr. 8	Apr. 15	Apr. 22	Apr. 29
MONEY MARKET RATES												
1 Federal funds[1,2]	8.10	6.80	6.66	6.83	6.58	6.58	6.87	6.62	6.82	6.81	6.93	6.85
2 Discount window borrowing[1,2,3]	7.69	6.32	5.66	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Commercial paper[4,5]												
3 1-month	7.93	6.61	6.74	6.76	6.55	6.57	6.80	6.63	6.73	6.76	6.85	6.85
4 3-month	7.95	6.49	6.82	6.87	6.58	6.62	6.86	6.68	6.78	6.81	6.92	6.93
5 6-month	8.00	6.39	6.85	6.92	6.58	6.64	6.92	6.70	6.83	6.86	6.99	7.01
Finance paper, directly placed[4,5]												
6 1-month	7.90	6.57	6.61	6.65	6.45	6.44	6.71	6.52	6.64	6.68	6.78	6.76
7 3-month	7.77	6.38	6.54	6.62	6.39	6.38	6.67	6.45	6.58	6.63	6.73	6.75
8 6-month	7.74	6.31	6.37	6.53	6.27	6.23	6.51	6.29	6.47	6.48	6.54	6.57
Bankers acceptances[5,6]												
9 3-month	7.91	6.38	6.75	6.77	6.49	6.51	6.79	6.55	6.70	6.74	6.85	6.85
10 6-month	7.95	6.28	6.78	6.83	6.49	6.55	6.86	6.63	6.78	6.78	6.93	6.95
Certificates of deposit, secondary market[7]												
11 1-month	7.96	6.61	6.75	6.78	6.55	6.56	6.80	6.60	6.72	6.77	6.87	6.84
12 3-month	8.04	6.51	6.87	6.92	6.60	6.63	6.92	6.67	6.82	6.87	7.01	6.99
13 6-month	8.24	6.50	7.01	7.10	6.69	6.78	7.14	6.86	7.04	7.06	7.24	7.23
14 Eurodollar deposits, 3-month[8]	8.28	6.71	7.06	7.11	6.73	6.74	7.05	6.78	6.88	6.99	7.08	7.18
U.S. Treasury bills[5]												
Secondary market[9]												
15 3-month	7.47	5.97	5.78	5.81	5.66	5.70	5.91	5.74	5.99	5.89	5.83	5.91
16 6-month	7.65	6.02	6.03	6.25	5.93	5.91	6.21	6.04	6.20	6.14	6.22	6.28
17 1-year	7.81	6.07	6.33	6.52	6.21	6.28	6.56	6.36	6.55	6.49	6.58	6.60
Auction average[10]												
18 3-month	7.47	5.98	5.82	5.90	5.69	5.69	5.92	5.69	5.98	5.98	5.78	5.92
19 6-month	7.64	6.03	6.05	6.31	5.96	5.91	6.21	6.00	6.21	6.19	6.14	6.28
20 1-year	7.80	6.18	6.33	6.67	6.18	6.30	6.57	......	......	6.57	......	......
CAPITAL MARKET RATES												
U.S. Treasury notes and bonds[11]												
Constant maturities[12]												
21 1-year	8.42	6.45	6.77	6.99	6.64	6.71	7.01	6.78	7.01	6.92	7.03	7.07
22 2-year	9.27	6.86	7.42	7.63	7.18	7.27	7.59	7.42	7.55	7.52	7.62	7.67
23 3-year	9.64	7.06	7.68	7.87	7.38	7.50	7.83	7.66	7.78	7.75	7.88	7.92
24 5-year	10.12	7.30	7.94	8.18	7.71	7.83	8.19	8.03	8.13	8.12	8.25	8.27
25 7-year	10.50	7.54	8.23	8.48	8.02	8.19	8.52	8.40	8.47	8.44	8.59	8.60
26 10-year	10.62	7.67	8.39	8.67	8.21	8.37	8.72	8.57	8.62	8.63	8.81	8.82
27 20-year	10.97	7.85	......	......	......	......	......	......	......	......	......	......
28 30-year	10.79	7.78	8.59	8.83	8.43	8.63	8.95	8.82	8.84	8.85	9.05	9.07
Composite[13]												
29 Over 10 years (long-term)	10.75	8.14	8.64	8.82	8.41	8.61	8.91	8.80	8.80	8.82	9.01	9.02
State and local notes and bonds												
Moody's series[14]												
30 Aaa	8.60	6.95	7.14	7.29	7.05	7.20	7.33	n.a.	7.40	7.30	7.30	7.30
31 Baa	9.58	7.76	8.17	8.12	7.62	7.80	7.82	n.a.	7.90	7.80	7.80	7.78
32 *Bond Buyer* series[15]	9.11	7.32	7.64	7.70	7.49	7.74	7.81	n.a.	7.80	7.81	7.87	7.77
Corporate bonds												
Seasoned issues[16]												
33 All industries	12.05	9.71	9.91	10.37	9.89	9.86	10.15	10.01	10.08	10.11	10.22	10.20
34 Aaa	11.37	9.02	9.38	9.88	9.40	9.39	9.67	9.53	9.61	9.61	9.73	9.73
35 Aa	11.82	9.47	9.68	10.09	9.60	9.59	9.86	9.75	9.79	9.81	9.90	9.92
36 A	12.28	9.95	9.99	10.43	9.94	9.89	10.17	10.04	10.09	10.13	10.25	10.22
37 Baa	12.72	10.39	10.58	11.07	10.62	10.57	10.90	10.73	10.83	10.86	10.98	10.92
38 A-rated, recently-offered utility bonds[17]	12.06	9.61	9.95	10.05	9.75	9.91	10.23	10.09	10.02	10.26	10.37	10.46
MEMO: Dividend/price ratio[18]												
39 Preferred stocks	10.49	8.76	8.37	9.04	9.02	9.07	9.19	9.10	9.14	9.21	9.20	9.22
40 Common stocks	4.25	3.48	3.08	3.66	3.56	3.48	3.57	3.60	3.51	3.46	3.70	3.61

1. Weekly and monthly 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	1985	1986	1987	1987					1988			
				Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	Prices and trading (averages of daily figures)											
Common stock prices												
1 New York Stock Exchange (Dec. 31, 1965 = 50)	108.09	136.00	161.70	184.18	178.39	157.13	137.21	134.88	140.55	145.13	149.88	148.46
2 Industrial	123.79	155.85	195.31	226.49	219.52	189.86	163.42	162.19	168.47	173.44	181.57	181.01
3 Transportation	104.11	119.87	140.39	164.02	158.58	140.95	117.57	115.85	121.20	126.09	135.15	133.40
4 Utility	56.75	71.36	74.29	78.20	76.13	73.27	69.86	67.39	70.01	72.89	71.16	69.35
5 Finance	114.21	147.19	146.48	160.94	154.08	137.35	118.30	111.47	119.40	124.36	125.27	121.66
6 Standard & Poor's Corporation (1941–43 = 10)[1]	186.84	236.34	286.83	329.36	318.66	280.16	245.01	240.96	250.48	258.13	265.74	262.61
7 American Stock Exchange[2] (Aug. 31, 1973 = 50)	229.10	264.38	316.61	361.52	353.72	306.34	249.42	248.52	267.29	276.54	295.78	300.43
Volume of trading (thousands of shares)												
8 New York Stock Exchange	109,191	141,385	188,647r	193,477	177,319	277,026	179,513r	178,517	174,755	184,688	176,189r	162,518
9 American Stock Exchange	8,355	11,846	13,832	13,604	12,381	18,173	11,268	13,422	9,853	9,961	12,442	10,706
	Customer financing (end-of-period balances, in millions of dollars)											
10 Margin credit at broker-dealers[3]	**28,390**	**36,840**	**31,990**	**41,640**	**44,170**	**38,250**	**34,180**	**31,990**	**31,320**	**31,990**	**32,660**	**33,270**
Free credit balances at brokers[4]												
11 Margin-account[5]	2,715	4,880	4,750	4,240	4,270	8,415	6,700	4,750	4,675	4,555	4,615	4,395
12 Cash-account	12,840	19,000	15,640	16,195	15,895	18,455	15,360	15,640	15,270	14,695	14,355	13,965

	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	1985	1986	1987									1988	
			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	FSLIC-insured institutions												
1 **Assets**	**1,070,012**	**1,163,851**	**1,180,379**	**1,195,474**	**1,202,920**	**1,207,750**	**1,216,995**	**1,218,829**	**1,239,654**	**1,246,762**	**1,250,739**	**1,254,769**	**1,257,548**
2 Mortgages	690,717	697,451	692,423	696,561	699,500	701,262	704,815	708,433	716,579	721,101	724,489	725,976	727,651
3 Mortgage-backed securities	115,525	158,193	170,798	178,876	180,084	182,067	186,101	191,829	193,756	196,586	198,551	198,307	194,035
4 Contra-assets to mortgage assets[1]	45,219	41,799	39,949	41,046	41,893	41,935	42,023	42,438	42,149	41,360	42,155	41,075	40,730
5 Commercial loans	17,424	23,683	22,503	22,097	23,098	23,018	23,174	23,300	23,255	23,294	23,534	23,321	23,321
6 Consumer loans	45,809	51,622	53,429	53,808	54,588	55,186	56,079	56,118	56,549	57,465	57,939	58,301	58,678
7 Contra-assets to non-mortgage loans[2]	2,521	3,041	2,998	2,974	3,222	3,150	3,242	3,442	3,373	3,433	3,459	3,576	3,522
8 Cash and investment securities	143,538	164,844	165,571	168,705	169,996	170,788	170,071	164,034	173,113	170,707	169,624	169,917	174,005
9 Other[3]	104,739	112,898	118,601	119,447	120,769	120,514	122,020	120,995	121,925	122,402	122,497	123,385	124,111
10 **Liabilities and net worth**	**1,070,012**	**1,163,851**	**1,180,379**	**1,195,474**	**1,202,920**	**1,207,750**	**1,216,995**	**1,218,829**	**1,239,654**	**1,246,762**	**1,250,739**	**1,254,769**	**1,257,548**
11 Savings capital	843,932	890,664	889,785	893,801	897,999	902,617	904,441	908,907	916,843	922,340	932,615	939,079	946,790
12 Borrowed money	157,666	196,929	210,219	219,308	226,719	226,093	232,332	234,941	246,106	247,197	249,644	245,700	239,315
13 FHLBB	84,390	100,025	98,723	100,504	102,787	102,979	104,191	106,250	109,736	111,283	116,363	114,039	112,725
14 Other	73,276	96,904	111,496	118,804	123,932	123,114	128,141	128,691	136,370	135,914	133,281	131,661	126,590
15 Other	21,756	23,975	26,179	28,417	25,345	26,599	28,170	24,599	27,097	27,409	21,922	23,870	25,834
16 Net worth	46,657	52,282	54,196	53,947	52,856	52,441	52,052	50,382	49,609	49,816	46,558	46,121	45,609
	FSLIC-insured federal savings banks												
17 **Assets**	**131,868**	**210,562**	**246,277**	**253,006**	**264,105**	**268,779**	**272,134**	**272,834**	**276,560**	**279,222**	**284,284**	**284,326**	**295,971**
18 Mortgages	72,355	113,638	142,702	146,492	152,381	154,839	156,048	156,705	158,610	161,017	164,007	163,907	171,596
19 Mortgage-backed securities	15,676	29,766	37,500	39,371	40,969	42,714	43,532	44,421	45,132	45,251	45,877	46,186	46,701
20 Contra-assets to mortgage assets[1]	....	....	8,012	8,281	8,568	8,777	8,853	8,700	8,787	8,809	9,093	8,894	9,169
21 Commercial loans	....	....	5,957	5,567	6,166	6,277	6,213	6,188	6,275	6,540	6,514	6,499	6,975
22 Consumer loans	8,361	13,180	14,547	14,789	15,627	16,089	16,549	16,583	16,566	17,343	17,728	17,644	18,789
23 Contra-assets to non-mortgage loans[2]	....	....	667	636	714	741	704	702	690	712	699	701	740
24 Finance leases plus interest	....	....	492	505	580	569	577	552	550	566	592	605	585
25 Cash and investment	....	....	30,593	31,816	33,294	33,677	34,267	33,589	34,888	33,952	35,281	34,603	35,693
26 Other	11,723	19,034	23,164	23,383	24,371	24,133	24,506	24,199	24,120	24,077	24,084	28,796	25,541
27 **Liabilities and net worth**	**131,868**	**210,562**	**246,277**	**253,006**	**264,105**	**268,779**	**272,134**	**272,834**	**276,560**	**279,222**	**284,284**	**284,326**	**295,971**
28 Savings capital	103,462	157,872	180,637	182,802	189,998	193,890	194,853	195,213	197,298	199,114	203,198	204,331	214,171
29 Borrowed money	19,323	37,329	46,125	49,896	53,255	53,652	55,660	56,549	57,551	58,277	60,702	59,194	59,691
30 FHLBB	10,510	19,897	21,718	22,788	24,486	24,981	25,546	26,287	27,350	27,947	29,617	28,280	29,169
31 Other	8,813	17,432	24,407	27,108	28,769	28,671	30,114	30,262	30,201	30,330	31,085	30,914	30,522
32 Other	2,732	4,263	5,538	6,036	5,981	6,138	6,450	5,629	6,293	6,349	5,300	5,822	6,583
33 Net worth	6,351	11,098	13,978	14,272	14,871	15,100	15,172	15,445	15,417	15,483	15,084	14,979	15,527
	Savings banks												
34 **Assets**	**216,776**	**236,866**	**243,454**	**245,906**	**244,760**	**246,833**	**249,888**	**251,472**	**255,989**	**260,600**	**259,643**	**258,628**	**259,224**
Loans													
35 Mortgage	110,448	118,323	122,769	124,936	128,217	129,624	130,721	133,298	135,317	137,044	138,494	137,858	139,108
36 Other	30,876	35,167	37,136	37,313	35,200	35,591	36,793	36,134	36,471	37,189	33,871	35,095	35,752
Securities													
37 U.S. government	13,111	14,209	13,743	13,650	13,549	13,498	13,720	13,122	13,817	15,694	13,510	12,776	12,269
38 Mortgage-backed securities	19,481	25,836	28,700	28,739	27,785	28,252	28,913	29,655	30,202	31,144	32,772	32,241	32,423
39 State and local government	2,323	2,185	2,063	2,053	2,059	2,050	2,038	2,023	2,034	2,046	2,003	1,994	2,053
40 Corporate and other	21,199	20,459	19,768	19,956	18,803	18,821	18,573	18,431	18,062	17,583	18,772	18,780	18,271
41 Cash	6,225	6,894	5,308	5,176	4,939	4,806	4,823	4,484	5,529	5,063	5,864	4,841	5,002
42 Other assets	13,113	13,793	13,967	14,083	14,208	14,191	14,307	14,325	14,557	14,837	14,357	15,043	14,346
43 **Liabilities**	**216,776**	**236,866**	**243,454**	**245,906**	**244,760**	**246,833**	**249,888**	**251,472**	**255,989**	**260,600**	**259,643**	**258,628**	**259,224**
44 Deposits	185,972	192,194	193,347	194,742	193,274	194,549	195,895	196,824	199,336	202,030	201,497	199,545	200,391
45 Regular[4]	181,921	186,345	187,791	189,048	187,669	188,783	190,335	191,376	193,777	196,724	196,037	194,322	195,336
46 Ordinary savings	33,018	37,717	41,326	41,967	42,178	41,928	41,767	41,773	42,045	42,493	41,959	41,047	41,234
47 Time	103,311	100,809	100,308	100,607	100,604	102,603	105,133	107,063	109,486	112,231	112,429	112,781	113,751
48 Other	4,051	5,849	5,556	5,694	5,605	5,766	5,560	5,448	5,559	5,306	5,460	5,223	5,055
49 Other liabilities	17,414	25,274	29,105	30,436	30,515	31,655	32,467	32,827	34,226	36,167	35,720	36,836	35,787
50 *General reserve accounts*	12,823	18,105	19,423	19,603	19,549	19,718	20,471	20,407	20,365	21,133	20,633	20,514	20,894

1.37—Continued

Account	1985	1986	1987 Apr.	1987 May	1987 June	1987 July	1987 Aug.	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.
	Credit unions[5]												
51 **Total assets/liabilities and capital**	**118,010**	**147,726**	**154,549**	**156,086**	**160,644**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
52 Federal	77,861	95,483	99,751	100,153	104,150								
53 State	40,149	52,243	54,798	55,933	56,494								
54 Loans outstanding	73,513	86,137	87,089	87,765	90,912								
55 Federal	47,933	55,304	55,740	55,952	58,432								
56 State	25,580	30,833	31,349	31,813	32,480								
57 Savings	105,963	134,327	140,014	141,635	148,283								
58 Federal	70,926	87,954	92,012	97,189	96,137								
59 State	35,037	46,373	48,002	49,248	52,146								
	Life insurance companies												
60 **Assets**	**825,901**	**937,551**	**978,455**	**985,942**	**995,576**	**1,005,592**	**1,017,018**	**1,026,919**	**1,021,148**	**1,024,460**	**1,033,170**	**1,042,350**	n.a.
Securities													
61 Government	75,230	84,640	89,711	89,554	87,279	88,199	89,924	89,408	90,782	91,227	91,302	91,682	
62 United States[6]	51,700	59,033	64,621	64,201	61,405	62,461	64,150	63,352	64,880	65,186	64,551	64,922	
63 State and local	9,708	11,659	11,068	11,208	11,485	11,277	11,190	11,087	11,363	11,539	11,758	11,749	
64 Foreign[7]	13,822	13,948	14,022	14,145	14,389	14,461	14,584	14,969	14,539	14,502	14,993	15,011	
65 Business	423,712	492,807	522,097	528,789	537,507	555,423	551,701	558,787	549,426	548,767	553,486	563,019	
66 Bonds	346,216	401,943	420,474	425,788	432,095	448,146	442,604	451,453	455,678	459,537	461,942	469,207	
67 Stocks	77,496	90,864	101,623	103,001	105,412	107,277	109,097	107,334	93,748	89,230	91,544	93,812	
68 Mortgages	171,797	193,842	197,315	198,760	200,382	201,297	202,241	204,264	206,507	208,839	212,375	212,637	
69 Real estate	28,822	31,615	32,011	32,149	32,357	32,699	32,992	33,048	33,235	33,538	34,016	34,178	
70 Policy loans	54,369	54,055	53,572	53,468	53,378	53,338	53,330	53,422	53,413	53,334	53,313	53,265	
71 Other assets	71,971	80,592	83,749	83,222	84,390	85,420	86,830	87,991	87,785	88,755	88,678	87,569	

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. Excludes checking, club, and school accounts.

5. Data include all federally insured credit unions, both federal and state chartered, serving natural persons.

6. Direct and guaranteed obligations. Excludes federal agency issues not guaranteed, which are shown in the table under "Business" securities.

7. Issues of foreign governments and their subdivisions and bonds of the International Bank for Reconstruction and Development.

NOTE. *FSLIC-insured institutions:* Estimates by the FHLBB for all institutions insured by the FSLIC and based on the FHLBB thrift Financial Report.

FSLIC-insured federal savings banks: Estimates by the FHLBB for federal savings banks insured by the FSLIC and based on the FHLBB thrift Financial Report.

Savings banks: Estimates by the National Council of Savings Institutions for all savings banks in the United States and for FDIC-insured savings banks that have converted to federal savings banks.

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."

1.38 FEDERAL FISCAL AND FINANCING OPERATIONS

Millions of dollars

Type of account or operation	Fiscal year 1986	Fiscal year 1987[1]	Calendar year 1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.	1988 Apr.
U.S. budget[2]								
1 Receipts, total	769,091	854,143	56,987	85,525	81,791	60,355	65,730r	109,323
2 On-budget	568,862	640,741	40,630	67,645	60,645	40,610	44,958r	81,993
3 Off-budget	200,228	213,402	16,357r	17,880	21,146	19,745	20,772	27,330
4 Outlays, total	990,258	1,004,586	83,911	109,771	65,786	84,260r	94,877r	94,433
5 On-budget	806,760	810,754	67,140	77,876	66,573	66,507r	76,858r	79,508
6 Off-budget	183,498	193,832	16,770	31,896	−787	17,753	18,020	15,925
7 Surplus, or deficit (−), total	−221,167	−150,444	−26,924	−24,246	16,005	−23,905r	−29,147	13,890
8 On-budget	−237,898	−170,014	−26,510	−10,230	−5,928	−25,897r	−31,899	2,485
9 Off-budget	16,731	19,570	−414	−14,016	21,933	1,992	2,752	11,405
Source of financing (total)								
10 Borrowing from the public	236,187	150,070	23,603	9,766	5,281	20,157	17,160	−334
11 Operating cash (decrease, or increase (−))	−14,324	−5,052	17,164	−1,218	−17,555	11,002	6,009	−23,276
12 Other[3]	−696	5,426	−13,843	15,698	−3,730	−7,257	5,979	9,719
MEMO								
13 Treasury operating balance (level, end of period)	31,384	36,436	21,151	22,369	39,924	28,922	22,913	46,189
14 Federal Reserve Banks	7,514	9,120	3,595	5,313	10,276	2,473	2,403	16,186
15 Tax and loan accounts	23,870	27,316	17,556	17,056	29,648	26,450	20,510	30,003

1. FY 1987 total outlays and deficit do not correspond to the monthly data because the *Monthly Treasury Statement* has not completed the monthly distribution of revisions reflected in the fiscal year total in *The Budget of the U.S. Government, Fiscal Year 1989.*

2. 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.

3. 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 1986	Fiscal year 1987	Calendar year						
			1986		1987		1988		
			H1	H2	H1	H2	Feb.	Mar.	Apr.
RECEIPTS									
1 **All sources**	**769,091**	**854,143**	**394,345**	**387,524**	**447,282**	**421,712**	**60,355**	**65,730r**	**109,323**
2 Individual income taxes, net	348,959	392,557	169,444	183,156	205,157	192,575	25,651	20,637r	53,334
3 Withheld	314,803	322,463	153,919	164,071	156,760	170,203	28,046	33,296	24,913
4 Presidential Election Campaign Fund	36	33	31	4	30	4	4	7	7
5 Nonwithheld	105,994	142,957	78,981	27,733	112,421	31,223	1,179	4,315	50,477
6 Refunds	71,873	72,896	63,488	8,652	64,052	8,853	3,577	16,982r	22,062
Corporation income taxes									
7 Gross receipts	80,442	102,859	41,946	42,108	52,396	52,821	2,652	14,909	14,030
8 Refunds	17,298	18,933	9,557	8,230	10,881	7,119	1,677	2,203	2,004
9 Social insurance taxes and contributions, net	283,901	303,318	156,714	134,006	163,519	143,755	28,500	25,676	37,357
10 Employment taxes and contributions[2]	255,062	273,185	139,706	122,246	146,696	130,388	25,739	25,141	34,464
11 Self-employment taxes and contributions[3]	11,840	13,987	10,581	1,338	12,020	1,889	1,368	880	8,833
12 Unemployment insurance	24,098	25,418	14,674	9,328	14,514	10,977	2,399	179	2,477
13 Other net receipts[4]	4,742	4,715	2,333	2,429	2,310	2,390	362	356	416
14 Excise taxes	32,919	32,510	15,944	15,947	15,845	17,680	2,204	2,885	2,767
15 Customs deposits	13,327	15,032	6,369	7,282	7,129	7,993	1,296	1,444	1,204
16 Estate and gift taxes	6,958	7,493	3,487	3,649	3,818	3,610	566	622	749
17 Miscellaneous receipts[5]	19,884	19,307	10,002	9,605	10,299	10,399	1,164	1,760	1,886
OUTLAYS									
18 **All types**	**990,231**	**1,004,586**	**486,058**	**505,980**	**502,223**	**532,107**	**84,257**	**94,877r**	**95,433**
19 National defense	273,375	281,999	135,367	138,544	142,886	146,995	23,670	26,484	26,747
20 International affairs	14,152	11,649	5,384	8,938r	4,374	4,487	516	1,490	1,561
21 General science, space, and technology	8,976	9,216	4,191r	4,594	4,324	5,469	749	956	949
22 Energy	4,735	4,115	2,484	2,446r	2,335	1,468	-1,635	538	382
23 Natural resources and environment	13,639	13,363	6,245	7,141	6,175	7,590	969	1,082	1,037
24 Agriculture	31,449	27,356	14,482	15,660r	11,824	14,640	1,014	1,160	2,099
25 Commerce and housing credit	4,890	6,182	860	3,764r	4,893	3,852	-866	2,409	1,203
26 Transportation	28,117	26,228	12,658	14,745	12,113	14,096	1,995	1,838	2,053
27 Community and regional development	7,233	5,051	3,169	3,651r	3,108	2,075	459	535	555
28 Education, training, employment, and social services	30,585	29,724	14,712	16,209r	14,182	15,592	3,041	2,545	2,253
29 Health	35,935	39,968	17,872	18,795	20,318	20,750	3,650	3,765	3,791
30 Social security and medicare	268,921	282,473	135,214	138,299	142,864	158,469	24,585	26,145	24,920
31 Income security	119,796	123,250	60,786	59,979r	62,248	61,201	11,264	12,738r	12,916
32 Veterans benefits and services	26,356	26,782	12,193	14,190r	12,264	14,956	2,170	2,555	3,748
33 Administration of justice	6,603	7,548	3,352	3,413r	3,626	4,291	704	868	825
34 General government	6,104	5,948	3,566	1,860r	3,344	3,560	806	383	697
35 General-purpose fiscal assistance	6,431	1,621	2,179	2,886	337	1,175	45	0	0
36 Net interest[6]	136,008	138,570	68,054	66,226r	70,110	71,933	13,988	12,187	12,592
37 Undistributed offsetting receipts[7]	-33,007	-36,455	-17,183	-16,475r	-19,102	-17,684r	-2,868	-2,802	-2,895

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 1988*.

1.40 FEDERAL DEBT SUBJECT TO STATUTORY LIMITATION

Billions of dollars

Item	1985	1986				1987			
	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31
1 **Federal debt outstanding**	**1,950.3**	**1,991.1**	**2,063.6**	**2,129.5**	**2,218.9**	**2,250.7**	**2,313.1**	**2,354.3**	**2,435.2**
2 Public debt securities	1,945.9	1,986.8	2,059.3	2,125.3	2,214.8	2,246.7	2,309.3	2,350.3	2,431.7
3 Held by public	1,597.1	1,634.3	1,684.9	1,742.4	1,811.7	1,839.3	1,871.1	1,893.1	1,954.1
4 Held by agencies	348.9	352.6	374.4	382.9	403.1	407.5	438.1	457.2	477.6
5 Agency securities	4.4	4.3	4.3	4.2	4.0	4.0	3.8	4.0	3.5
6 Held by public	3.3	3.2	3.2	3.2	3.0	2.9	2.8	3.0	2.7
7 Held by agencies	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	.8
8 **Debt subject to statutory limit**	**1,932.4**	**1,973.3**	**2,060.0**	**2,111.0**	**2,200.5**	**2,232.4**	**2,295.0**	**2,336.0**	**2,417.4**
9 Public debt securities	1,931.1	1,972.0	2,058.7	2,109.7	2,199.3	2,231.1	2,293.7	2,334.7	2,416.3
10 Other debt[1]	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.1
11 MEMO: Statutory debt limit	2,078.7	2,078.7	2,078.7	2,111.0	2,300.0	2,300.0	2,320.0	2,800.0	2,800.0

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	1984	1985	1986	1987	1987			
					Q1	Q2	Q3	Q4
1 **Total gross public debt**	**1,663.0**	**1,945.9**	**2,214.8**	**2,431.7**	**2,246.7**	**2,309.3**	**2,350.3**	**2,431.7**
By type								
2 Interest-bearing debt	1,660.6	1,943.4	2,212.0	2,428.9	2,244.0	2,306.7	2,347.7	2,428.9
3 Marketable	1,247.4	1,437.7	1,619.0	1,724.7	1,635.7	1,659.0	1,676.0	1,724.7
4 Bills	374.4	399.9	426.7	389.5	406.2	391.0	378.3	389.5
5 Notes	705.1	812.5	927.5	1,037.9	955.3	984.4	1,005.1	1,037.9
6 Bonds	167.9	211.1	249.8	282.5	259.3	268.6	277.6	282.5
7 Nonmarketable[1]	413.2	505.7	593.1	704.2	608.3	647.7	671.8	704.2
8 State and local government series	44.4	87.5	110.5	139.3	118.5	125.4	129.0	139.3
9 Foreign issues[2]	9.1	7.5	4.7	4.0	4.9	5.1	4.3	4.0
10 Government	9.1	7.5	4.7	4.0	4.9	5.1	4.3	4.0
11 Public	.0	.0	.0	.0	.0	.0	.0	.0
12 Savings bonds and notes	73.1	78.1	90.6	99.2	93.0	95.2	97.0	99.2
13 Government account series[3]	286.2	332.2	386.9	461.3	391.4	421.6	440.7	461.3
14 Non-interest-bearing debt	2.3	2.5	2.8	2.8	2.7	2.6	2.5	2.8
By holder[4]								
15 U.S. government agencies and trust funds	289.6	348.9	403.1	477.6	407.5	438.1	457.2	477.6
16 Federal Reserve Banks	160.9	181.3	211.3	222.6	196.4	212.3	211.9	222.6
17 Private investors	1,212.5	1,417.2	1,602.0	1,745.2	1,641.4	1,657.7	1,682.6	1,745.2
18 Commercial banks	183.4	192.2	230.1	252.3	232.0	237.1	250.5	252.3
19 Money market funds	25.9	25.1	28.6	14.6	18.8	20.6	15.5	14.6
20 Insurance companies	88.7	115.4	135.4	n.a.	145.3	140.0	143.0	n.a.
21 Other companies	50.1	59.0	68.8	n.a.	73.4	78.7	80.2	n.a.
22 State and local Treasurys	173.4	235.8	273.1	n.a.	n.a.	n.a.	n.a.	n.a.
Individuals								
23 Savings bonds	74.5	79.8	92.3	101.1	94.7	96.8	98.5	101.1
24 Other securities	69.3	75.0	70.5	n.a.	68.3	68.6	70.4	n.a.
25 Foreign and international[5]	192.9	212.5	251.6	287.6	260.4	270.1	267.3	287.6
26 Other miscellaneous investors[6]	366.6	422.4	451.6	n.a.	n.a.	n.a.	n.a.	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, *Treasury Bulletin*.

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

Par value; averages of daily figures, in millions of dollars

	Item	1985	1986	1987	1988			1988					
					Feb.	Mar.	Apr.	Mar. 23	Mar. 30	Apr. 6	Apr. 13	Apr. 20	Apr. 27
	Immediate delivery[2]												
1	**U.S. Treasury securities**	**75,331**	**95,445**	**110,052**	**105,589**	**90,640**	**94,360**	**96,372**	**102,780**	**88,955**	**94,520**	**109,666**	**77,031**
	By maturity												
2	Bills	32,900	34,247	37,924	28,127	28,277	29,308	27,626	32,771	30,418	30,889	32,125	22,689
3	Other within 1 year	1,811	2,115	3,272	3,708	2,986	3,578	2,960	3,301	4,022	3,457	3,226	3,567
4	1–5 years	18,361	24,667	27,918	30,072	23,706	24,702	28,087	30,484	23,051	19,985	29,959	21,952
5	5–10 years	12,703	20,456	24,014	24,285	21,797	22,630	22,646	21,641	18,730	26,019	26,573	16,961
6	Over 10 years	9,556	13,961	16,923	19,398	13,874	14,143	15,054	14,584	12,734	14,170	17,783	11,861
	By type of customer												
7	U.S. government securities dealers	3,336	3,670	2,936	2,996	2,743	2,815	2,393	2,786	3,111	2,650	2,219	2,392
8	U.S. government securities brokers	36,222	49,558	61,539	59,599	52,625	55,501	56,913	62,387	50,951	55,183	66,366	44,457
9	All others[3]	35,773	42,218	45,576	42,993	35,272	36,043	37,066	37,606	34,892	36,685	41,080	30,181
10	Federal agency securities	11,640	16,748	18,087	17,754	15,677	14,715	11,197	13,767	15,709	14,386	16,623	13,598
11	Certificates of deposit	4,016	4,355	4,112	3,634	3,127	3,429	3,232	3,717	2,818	3,377	3,824	3,701
12	Bankers acceptances	3,242	3,272	2,965	2,781	2,278	2,458	2,243	2,252	2,536	2,285	2,391	2,647
13	Commercial paper	12,717	16,660	17,135	17,981	17,257	18,470	17,575	14,712	18,808	17,509	18,925	17,462
	Futures contracts[4]												
14	Treasury bills	5,561	3,311	3,233	2,637	2,768	2,995	3,018	3,123	3,774	2,713	4,786	1,158
15	Treasury coupons	6,085	7,175	8,964	9,566	9,414	8,773	11,086	10,804	7,969	8,447	11,081	6,704
16	Federal agency securities	252	16	5	3	6	0	0	30	0	0	0	0
	Forward transactions[5]												
17	U.S. Treasury securities	1,283	1,876	2,029	3,605	1,454	1,505	2,747	955	2,413	1,137	1,142	1,028
18	Federal agency securities	3,857	7,831	9,290	6,910	8,426	7,416	9,565	5,733	6,745	8,630	8,922	6,222

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. The figures exclude allotments of, and exchanges for, new U.S. Treasury securities, redemptions of called or matured securities, purchases or sales of securities under repurchase agreement, reverse repurchase (resale), or similar contracts.

2. Data for immediate transactions do not include forward transactions.

3. Includes, among others, all other dealers and brokers in commodities and securities, nondealer departments of commercial banks, foreign banking agencies, and the Federal Reserve System.

4. Futures contracts are standardized agreements arranged on an organized exchange in which parties commit to purchase or sell securities for delivery at a future date.

5. Forward transactions are agreements arranged in the over-the-counter market in which securities are purchased (sold) for delivery after 5 business days from the date of the transaction for Treasury securities (Treasury bills, notes, and bonds) or after 30 days for mortgage-backed agency issues.

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

Averages of daily figures, in millions of dollars

Item	1985	1986	1987	1988 Feb.	1988 Mar.	1988 Apr.	1988 Mar. 30	1988 Apr. 6	1988 Apr. 13	1988 Apr. 20	1988 Apr. 27
					Positions						
Net immediate[2]											
1 **U.S. Treasury securities**	**7,391**	**12,912**	**−6,216**	**−10,233**	**−10,138**	**−15,323**	**−10,322**	**−10,087**	**−10,833**	**−13,522**	**−21,997**
2 Bills	10,075	12,761	4,317	3,156	3,290	5,450	3,655	7,314	8,306	6,958	1,761
3 Other within 1 year	1,050	3,706	1,557	−784	−780	−970	−802	−416	−608	−848	−1,382
4 1–5 years	5,154	9,146	649	2,730	2,992	−3,248	2,834	−447	−1,938	−4,149	−5,334
5 5–10 years	−6,202	−9,505	−6,564	−7,492	−8,193	−8,539	−7,590	−8,308	−8,784	−7,804	−8,807
6 Over 10 years	−2,686	−3,197	−6,174	−7,843	−7,447	−8,016	−8,419	−8,230	−7,809	−7,680	−8,235
7 Federal agency securities	22,860	32,984	31,910	26,654	28,780	26,603	27,324	27,063	27,636	25,600	25,666
8 Certificates of deposit	9,192	10,485	8,188	5,314	5,619	5,678	6,175	6,257	5,870	5,541	5,337
9 Bankers acceptances	4,586	5,526	3,661	2,880	3,197	3,059	3,219	3,238	3,083	2,566	3,378
10 Commercial paper	5,570	8,089	7,496	5,819	6,204	5,591	5,752	5,962	4,872	5,517	5,727
Futures positions											
11 Treasury bills	−7,322	−18,059	−3,373	−4,556	−4,192	−3,681	−3,274	−3,541	−4,013	−4,767	−3,022
12 Treasury coupons	4,465	3,473	5,988	5,066	5,406	5,101	5,578	5,128	4,639	5,239	5,623
13 Federal agency securities	−722	−153	−95	0	0	0	0	0	0	0	0
Forward positions											
14 U.S. Treasury securities	−911	−2,144	−1,211	736	734	1,142	1,393	1,116	1,028	872	1,423
15 Federal agency securities	−9,420	−11,840	−18,817	−15,611	−16,442	−16,517	−15,738	−15,482	−17,508	−16,490	−15,879
					Financing[3]						
Reverse repurchase agreements[4]											
16 Overnight and continuing	68,035	98,954	124,791	127,093	129,242	n.a.	129,391	128,442	124,848	128,304	128,980
17 Term	80,509	108,693	148,033	162,899	154,817	n.a.	155,282	154,041	170,253	176,503	183,522
Repurchase agreements[5]											
18 Overnight and continuing	101,410	141,735	170,840	163,346	167,007	n.a.	165,035	171,037	163,268	177,062	163,766
19 Term	70,076	102,640	120,980	131,616	128,663	n.a.	130,698	123,955	136,626	139,544	145,290

1. Data for dealer positions and sources of financing are obtained from reports submitted to the Federal Reserve Bank of New York by the U.S. Treasury securities dealers on its published list of primary dealers.

Data for positions are averages of daily figures, in terms of par value, based on the number of trading days in the period. Positions are net amounts and are shown on a commitment basis. Data for financing are in terms of actual amounts borrowed or lent and are based on Wednesday figures.

2. Immediate positions are net amounts (in terms of par values) of securities owned by nonbank dealer firms and dealer departments of commercial banks on a commitment, that is, trade-date basis, including any such securities that have been sold under agreements to repurchase (RPs). The maturities of some repurchase agreements are sufficiently long, however, to suggest that the securities involved are not available for trading purposes. Immediate positions include reverses to maturity, which are securities that were sold after having been obtained under reverse repurchase agreements that mature on the same day as the securities. Data for immediate positions do not include forward positions.

3. Figures cover financing involving U.S. Treasury and federal agency securities, negotiable CDs, bankers acceptances, and commercial paper.

4. Includes all reverse repurchase agreements, including those that have been arranged to make delivery on short sales and those for which the securities obtained have been used as collateral on borrowings, that is, matched agreements.

5. Includes both repurchase agreements undertaken to finance positions and "matched book" repurchase agreements.

NOTE. Data on positions for the period May 1 to Sept. 30, 1986, are partially estimated.

1.44 FEDERAL AND FEDERALLY SPONSORED CREDIT AGENCIES Debt Outstanding

Millions of dollars, end of period

Agency	1984	1985	1986	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.
1 **Federal and federally sponsored agencies**	**271,220**	**293,905**	**307,361**	**328,990**	**334,300**	**341,386**	**338,483**	**346,901**	**n.a.**
2 Federal agencies	35,145	36,390	36,958	37,207	37,303	37,981	37,637	37,286	37,328
3 Defense Department[1]	142	71	33	15	15	13	13	12	12
4 Export-Import Bank[2,3]	15,882	15,678	14,211	12,470	12,470	11,978	11,978	11,978	11,978
5 Federal Housing Administration[4]	133	115	138	182	182	183	98	101	100
6 Government National Mortgage Association participation certificates[5]	2,165	2,165	2,165	1,965	1,965	1,615	1,615	1,165	1,165
7 Postal Service[6]	1,337	1,940	3,104	4,603	4,603	6,103	6,103	6,103	6,103
8 Tennessee Valley Authority	15,435	16,347	17,222	17,972	18,068	18,089	17,830	17,927	17,970
9 United States Railway Association[6]	51	74	85	0	0	0	0	0	0
10 Federally sponsored agencies[7]	237,012	257,515	270,553	291,783	296,997	303,405	300,846	309,615	n.a.
11 Federal Home Loan Banks	65,085	74,447	88,752	108,108	111,185	115,725	116,374	117,569	118,250
12 Federal Home Loan Mortgage Corporation	10,270	11,926	13,589	16,703	17,762	17,645	15,581	19,405	n.a.
13 Federal National Mortgage Association	83,720	93,896	93,563	94,298	95,096	97,057	97,195	98,593	99,853
14 Farm Credit Banks	72,192	68,851	62,478	55,854	55,584	55,275	54,072	55,275	56,145
15 Student Loan Marketing Association[8]	5,745	8,395	12,171	16,220	16,125	16,503	16,424	16,923	18,271
16 Financing Corporation[9]	n.a.	n.a.	n.a.	600	1,200	1,200	1,200	1,850	1,850
MEMO									
17 **Federal Financing Bank debt[10]**	**145,217**	**153,373**	**157,510**	**156,919**	**156,850**	**152,417**	**152,099**	**150,178**	**149,721**
Lending to federal and federally sponsored agencies									
18 Export-Import Bank[3]	15,852	15,670	14,205	12,464	12,464	11,972	11,972	11,972	11,488
19 Postal Service[6]	1,087	1,690	2,854	4,353	4,353	5,853	5,853	5,853	5,853
20 Student Loan Marketing Association	5,000	5,000	4,970	4,940	4,940	4,940	4,940	4,940	4,940
21 Tennessee Valley Authority	13,710	14,622	15,797	16,592	16,688	16,709	16,450	16,547	16,590
22 United States Railway Association[6]	51	74	85	0	0	0	0	0	0
Other Lending[11]									
23 Farmers Home Administration	58,971	64,234	65,374	64,934	64,934	59,674	59,674	59,674	59,674
24 Rural Electrification Administration	20,693	20,654	21,680	21,226	21,215	21,191	21,187	19,193	19,184
25 Other	29,853	31,429	32,545	32,410	32,256	32,078	32,023	31,999	31,992

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. Before late 1981, the Association obtained financing through the Federal Financing Bank (FFB).
9. The Financing Corporation, established in August 1987 to recapitalize the Federal Savings and Loan Insurance Corporation, undertook its first borrowing in October 1987.
10. 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.
11. 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.

1.45 NEW SECURITY ISSUES Tax-Exempt State and Local Governments

Millions of dollars

Type of issue or issuer, or use	1985	1986	1987[r]	1987[r] Sept.	Oct.	Nov.	Dec.	1988 Jan.	Feb.	Mar.[r]	Apr.
1 **All issues, new and refunding[1]**	**214,189**	**147,011**	**102,407**	**5,819**	**6,821**	**8,320**	**8,385**	**5,412**	**8,585**	**9,821**	**5,581**
Type of issue											
2 General obligation	52,622	46,346	30,589	1,691	1,248	2,472	1,995	1,259	2,880	2,776	1,642
3 Revenue	161,567	100,664	71,818	4,128	5,573	5,848	6,390	4,153	5,705	7,045	3,939
Type of issuer											
4 State	13,004	14,474	10,102	580	385	431	550	423	1,197	613	441
5 Special district and statutory authority[2]	134,363	89,997	65,460	3,920	5,128	5,076	5,447	3,220	5,154	5,823	3,961
6 Municipalities, counties, and townships	66,822	42,541	26,845	1,319	1,308	2,813	2,388	1,769	2,234	2,677	1,179
7 **Issues for new capital, total**	**156,050**	**83,490**	**56,789**	**4,531**	**4,498**	**6,626**	**5,913**	**2,862**	**5,773**	**6,044**	**3,850**
Use of proceeds											
8 Education	16,658	16,948	9,525	682	690	1,002	931	841	754	933	885
9 Transportation	12,070	11,666	3,677	313	175	351	455	189	826	559	210
10 Utilities and conservation	26,852	35,383	7,912	555	615	1,094	377	326	655	1,016	406
11 Social welfare	63,181	17,332	11,107	825	949	1,664	1,278	740	650	1,218	1,109
12 Industrial aid	12,892	5,594	6,551	489	815	330	1,297	153	2,473	105	286
13 Other purposes	24,398	47,433	18,020	1,667	1,254	2,185	1,575	613	415	2,213	954

1. Par amounts of long-term issues based on date of sale.
2. Includes school districts beginning 1986.

SOURCES. 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	1985	1986	1987[r]	1987 Aug.	Sept.	Oct.	Nov.	Dec.	1988 Jan.	Feb.[r]	Mar.
1 **All issues[1]**	**239,015**	**423,726**	**391,154**	**21,888**	**29,363**	**20,710**	**14,322**	**11,872**	**22,175[r]**	**22,364**	**25,787**
2 **Bonds[2]**	**203,500**	**355,293**	**324,646**	**17,685**	**23,705**	**17,631**	**13,624**	**11,098**	**19,485[r]**	**18,474**	**20,815**
Type of offering											
3 Public, domestic	119,559	231,936	209,279	14,852	22,045	16,135	12,891	10,763	18,246[r]	16,683	19,827
4 Private placement, domestic[3]	46,200	80,760	91,068	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5 Sold abroad	37,781	42,596	24,299	2,833	1,660	1,496	733	335	1,239	1,791	988
Industry group											
6 Manufacturing	63,973	91,548	61,573	3,402[r]	3,509[r]	2,784[r]	1,280	928[r]	3,053[r]	3,151	3,482
7 Commercial and miscellaneous	17,066	40,124	48,961	1,281	1,479	1,165	483	2,577	2,084	1,396	1,007
8 Transportation	6,020	9,971	11,974	296	25	263	0	226	0	200	1,017
9 Public utility	13,649	31,426	22,962	1,533	1,702	1,025	895	1,570	1,142	1,718	2,259
10 Communication	10,832	16,659	7,340	856	930	1,384	290	510	206	101	115
11 Real estate and financial	91,958	165,564	171,841	10,318[r]	16,060[r]	11,011[r]	10,676	5,287[r]	13,000[r]	11,907	12,936
12 **Stocks[3]**	**35,515**	**68,433**	**66,508**	**4,203**	**5,658**	**3,079**	**698**	**774**	**2,690**	**3,890**	**4,972**
Type											
13 Preferred	6,505	11,514	10,123	906	1,112	236	162	61	1,388	376	625
14 Common	29,010	50,316	43,228	3,297	4,546	2,843	533	713	1,302	3,514	4,347
15 Private placement[3]	....	6,603	13,157	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Industry group											
16 Manufacturing	5,700	15,027	13,880	370	858	703	237	76	268	296	258
17 Commercial and miscellaneous	9,149	10,617	12,888	996	807	656	86	14	360	44	99
18 Transportation	1,544	2,427	2,439	0	11	40	149	1	1	474	25
19 Public utility	1,966	4,020	4,322	85	529	75	25	0	100	142	93
20 Communication	978	1,825	1,458	277	75	107	1	11	60	0	63
21 Real estate and financial	16,178	34,517	31,521	2,475	3,378	1,498	200	672	1,901	2,933	4,434

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., U.S. Securities and Exchange Commission and the Board of Governors of the Federal Reserve System.

1.47 OPEN-END INVESTMENT COMPANIES Net Sales and Asset Position

Millions of dollars

Item	1986	1987	1987 Aug.	Sept.	Oct.	Nov.	Dec.	1988 Jan.	Feb.	Mar.
INVESTMENT COMPANIES[1]										
1 Sales of own shares[2]	**411,751**	**381,260**	**26,455**	**24,834**	**25,990**	**21,927**	**26,494**	**30,343**	**23,265**	**24,588**
2 Redemptions of own shares[3]	239,394	314,252	22,561	28,323	34,597	20,400	28,099	22,324	20,914	23,968
3 Net sales	172,357	67,008	3,894	-3,489	-8,607	1,507	-1,605	8,019	2,351	620
4 Assets[4]	**424,156**	**453,842**	**539,171**	**521,007**	**456,422**	**446,479**	**453,842**	**468,998**	**481,232**	**470,929**
5 Cash position[5]	30,716	38,006	40,802	42,397	40,929	41,432	38,006	40,157	41,232	43,511
6 Other	393,440	415,836	498,369	478,610	415,493	405,047	415,836	428,841	439,995	427,418

1. Excluding money market 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	1985	1986	1987	1986 Q2	Q3	Q4	1987 Q1	Q2	Q3	Q4	1988 Q1
1 Corporate profits with inventory valuation and capital consumption adjustment	277.6	284.4	304.7	282.3	286.4	281.1	294.0	296.8	314.9	313.0	309.9
2 Profits before tax	224.8	231.9	274.0	224.4	236.3	247.9	257.0	268.7	284.9	285.6	280.6
3 Profits tax liability	96.7	105.0	136.3	102.1	106.1	113.9	128.0	134.2	143.0	140.0	134.2
4 Profits after tax	128.1	126.8	137.7	122.3	130.2	134.0	129.0	134.5	141.9	145.6	146.4
5 Dividends	81.3	86.8	93.8	86.6	87.7	88.6	90.3	92.4	95.2	97.3	99.3
6 Undistributed profits	46.8	40.0	43.9	35.7	42.5	45.4	38.7	42.1	46.7	48.3	47.1
7 Inventory valuation	-.8	6.5	-17.5	11.3	6.0	-8.9	-11.3	-20.0	-17.6	-21.3	-16.4
8 Capital consumption adjustment	53.5	46.0	48.1	46.7	44.0	42.1	48.2	48.0	47.7	48.7	45.7

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	1986	1987	1988[1]	1986		1987				1988	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1[1]	Q2[1]
1 **Total nonfarm business**	**379.47**	**388.60**	**422.96**	**375.50**	**386.09**	**374.23**	**377.65**	**393.13**	**409.37**	**422.75**	**427.09**
Manufacturing											
2 Durable goods industries	69.14	70.91	75.75	69.42	69.87	70.47	68.76	71.78	72.64	80.13	76.92
3 Nondurable goods industries	73.56	74.55	83.93	70.01	74.20	70.18	72.03	75.78	80.20	81.00	84.53
Nonmanufacturing											
4 Mining	11.22	11.34	12.07	10.14	10.31	10.31	11.02	11.64	12.39	12.26	12.41
Transportation											
5 Railroad	6.66	5.91	6.51	7.02	6.41	5.55	5.77	6.21	6.10	7.29	6.31
6 Air	6.26	6.55	7.52	5.78	6.84	7.46	5.72	5.91	7.12	7.72	7.34
7 Other	5.89	6.39	7.06	6.01	6.25	5.97	6.19	7.05	6.35	7.48	6.80
Public utilities											
8 Electric	33.91	31.58	32.13	33.81	33.78	30.85	31.13	31.31	33.01	31.59	33.01
9 Gas and other	12.47	13.18	14.41	12.00	12.34	12.75	12.35	13.58	14.06	14.56	13.82
10 Commercial and other[2]	160.38	168.19	183.57	161.31	166.08	160.70	164.69	169.87	177.50	180.72	185.97

▲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	1983	1984	1985^r	1986^r			1987^r			
				Q2	Q3	Q4	Q1	Q2	Q3	Q4
ASSETS										
Accounts receivable, gross										
1 Consumer	83.3	89.9	111.9	123.4	135.3	134.7	131.1	134.7	141.6	141.1
2 Business	113.4	137.8	157.5	166.8	159.7	173.4	181.4	188.1	188.3	207.6
3 Real estate	20.5	23.8	28.0	29.8	31.0	32.6	34.7	36.5	38.0	39.5
4 Total	217.3	251.5	297.4	320.0	326.0	340.6	347.2	359.3	367.9	388.2
Less:										
5 Reserves for unearned income	30.3	33.8	39.2	40.7	42.4	41.5	40.4	41.2	42.5	45.3
6 Reserves for losses	3.7	4.2	4.9	5.1	5.4	5.8	5.9	6.2	6.5	6.8
7 Accounts receivable, net	183.2	213.5	253.3	274.2	278.2	293.3	300.9	311.9	318.9	336.1
8 All other	34.4	35.7	45.3	49.5	60.0	58.6	59.0	57.7	64.5	58.2
9 **Total assets**	**217.6**	**249.2**	**298.6**	**323.7**	**338.2**	**351.9**	**359.9**	**369.6**	**383.4**	**394.3**
LIABILITIES										
10 Bank loans	18.3	20.0	18.0	16.3	16.8	18.6	17.2	17.3	15.9	16.4
11 Commercial paper	60.5	73.1	99.2	108.4	112.8	117.8	119.1	120.4	124.2	128.4
Debt										
12 Other short-term	11.1	12.9	12.7	15.8	16.4	17.5	21.8	24.8	26.9	28.0
13 Long-term	67.7	77.2	94.4	106.9	111.7	117.5	118.7	121.8	128.2	137.1
14 All other liabilities	31.2	34.5	41.5	40.9	45.0	44.1	46.5	49.1	48.6	52.8
15 Capital, surplus, and undivided profits	28.9	31.5	32.8	35.4	35.6	36.4	36.6	36.3	39.5	31.5
16 **Total liabilities and capital**	**217.6**	**249.2**	**298.6**	**323.7**	**338.2**	**351.9**	**359.9**	**369.6**	**383.4**	**394.3**

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

1.52 DOMESTIC FINANCE COMPANIES Business Credit Outstanding and Net Change[1]

Millions of dollars, seasonally adjusted

Type	1985	1986	1987				1988		
			Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1 **Total**	**156,297**	**171,966**	**193,752**	**201,129**	**202,829**	**205,869**	**206,755**	**213,337^r**	**216,007**
Retail financing of installment sales									
2 Automotive (commercial vehicles)	20,660	25,952	32,656	33,865	34,454	35,674	36,419	36,318	36,914
3 Business, industrial, and farm equipment	22,483	22,950	24,328	24,763	24,764	24,987	25,474	26,976^r	27,081
Wholesale financing									
4 Automotive	23,988	23,419	26,792	30,396	30,901	31,059	30,115	28,654	27,329
5 Equipment	4,568	5,423	5,527	5,729	5,794	5,693	5,308	5,323	5,251
6 All other	6,809	7,079	7,956	8,074	8,151	8,408	8,454	8,331	8,347
Leasing									
7 Automotive	16,275	19,783	21,842	21,883	22,013	21,943	22,943	23,100	23,493
8 Equipment	34,768	37,833	41,134	41,911	41,964	43,002	43,245	48,175^r	50,411
9 Loans on commercial accounts receivable and factored commercial accounts receivable	15,765	15,959	17,713	18,362	18,501	18,024	18,506	17,862^r	17,895
10 All other business credit	10,981	13,568	15,804	16,146	16,287	17,079	16,291	17,062	19,287
	Net change (during period)								
11 **Total**	**19,607**	**15,669**	**2,115**	**7,377**	**1,700**	**3,040**	**886**	**549^r**	**2,670**
Retail financing of installment sales									
12 Automotive (commercial vehicles)	5,067	5,292	614	1,209	589	1,220	745	−101	596
13 Business, industrial, and farm equipment	−363	467	458	435	1	223	487	−232	105
Wholesale financing									
14 Automotive	5,423	−569	−990	3,604	505	158	−944	−1,461	−1,325
15 Equipment	−867	855	23	202	65	−101	−385	14	−72
16 All other	1,069	270	188	118	77	257	46	−123	16
Leasing									
17 Automotive	3,896	3,508	509	41	130	−70	1,000	157	393
18 Equipment	2,685	3,065	498	777	53	1,038	243	632	2,236
19 Loans on commercial accounts receivable and factored commercial accounts receivable	2,161	194	295	649	139	−477	482	−643^r	−643
20 All other business credit	536	2,587	520	342	141	792	−788	770	689

1. These data also appear in the Board's G.20 (422) release. For address, see inside front cover.

1.53 MORTGAGE MARKETS

Millions of dollars; exceptions noted.

Item	1985	1986	1987	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.	1988 Apr.
	Terms and yields in primary and secondary markets									
PRIMARY MARKETS										
Conventional mortgages on new homes										
Terms[1]										
1 Purchase price (thousands of dollars)	104.1	118.1	137.0	145.3	135.9	147.3	150.1	139.4	147.2[r]	147.0
2 Amount of loan (thousands of dollars)	77.4	86.2	100.5	106.1	100.2	107.7	108.4	104.3	106.3[r]	109.7
3 Loan/price ratio (percent)	77.1	75.2	75.2	75.0	75.4	74.9	74.0	76.4	75.0[r]	76.8
4 Maturity (years)	26.9	26.6	27.8	28.3	28.3	28.2	28.2	28.1	27.3	27.7
5 Fees and charges (percent of loan amount)[2]	2.53	2.48	2.26	2.34	2.33	2.22	2.17	2.23	2.28[r]	2.23
6 Contract rate (percent per year)	11.12	9.82	8.94	8.86	8.92	8.78	8.75	8.76	8.77	8.69
Yield (percent per year)										
7 FHLBB series[3]	11.58	10.25	9.31	9.25	9.30	9.15	9.10	9.12	9.15[r]	9.06
8 HUD series[4]	12.28	10.07	10.13	10.87	10.59	10.52	10.09	9.80	9.99	n.a.
SECONDARY MARKETS										
Yield (percent per year)										
9 FHA mortgages (HUD series)[5]	12.24	9.91	10.12	10.90	10.76	10.63	10.17	9.86	10.28	n.a.
10 GNMA securities[6]	11.61	9.30	9.42	10.53	9.96	10.18	9.83	9.53	9.53	9.67
	Activity in secondary markets									
FEDERAL NATIONAL MORTGAGE ASSOCIATION										
Mortgage holdings (end of period)										
11 Total	94,574	98,048	95,030	95,097	95,411	96,649	97,159	98,358	99,787	100,796
12 FHA/VA-insured	34,244	29,683	21,660	21,481	21,510	20,288	20,237	20,181	20,094	19,932
13 Conventional	60,331	68,365	73,370	73,617	73,902	76,361	76,923	78,177	79,693	80,864
Mortgage transactions (during period)										
14 Purchases	21,510	30,826	20,531	1,278	1,297	3,747	1,267	2,629	2,776	2,409
Mortgage commitments[7]										
15 Contracted (during period)	20,155	32,987	25,415	1,566	2,899	3,115	2,254	2,516	3,823	2,555
16 Outstanding (end of period)	3,402	3,386	4,886	5,046	5,845	4,886	5,542	4,966	6,149	6,033
FEDERAL HOME LOAN MORTGAGE CORPORATION										
Mortgage holdings (end of period)[8]										
17 Total	12,399	13,517	12,802	12,782	12,904	12,871	13,090	n.a.	n.a.	n.a.
18 FHA/VA	841	746	686	666	663	657	632	646	n.a.	n.a.
19 Conventional	11,559	12,771	12,116	12,115	12,240	12,215	12,458	13,280	n.a.	n.a.
Mortgage transactions (during period)										
20 Purchases	44,012	103,474	76,845	3,079	2,978	3,267	2,168	3,293	n.a.	n.a.
21 Sales	38,905	100,236	75,082	3,111	2,742	3,201	1,832	2,414	2,309	2,058
Mortgage commitments[9]										
22 Contracted (during period)	48,989	110,855	71,467	3,011	2,668	2,693	3,868	4,910	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. Includes participation as well as whole loans.
9. 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	1985	1986	1987r	1987				1988
				Q1	Q2	Q3	Q4r	Q1
1 **All holders**	**2,269,173**	**2,568,562**	**2,908,072**	**2,665,339r**	**2,756,383r**	**2,832,137r**	**2,908,072**	**2,949,977**
2 1- to 4-family	1,467,409	1,668,209	1,888,158	1,712,737r	1,780,438r	1,835,799r	1,888,158	1,919,280
3 Multifamily	214,045	247,024	273,740	257,859r	263,564r	268,019r	273,740	275,173
4 Commercial	482,029	556,569	656,203	601,207r	620,259r	637,412r	656,203	666,167
5 Farm	105,690	96,760	89,971	93,536r	92,122	90,907r	89,971	89,357
6 Selected financial institutions	1,390,394	1,507,289	1,699,922	1,559,681r	1,606,881r	1,647,928r	1,699,922	1,723,399
7 Commercial banks[2]	429,196	502,534	590,829	519,606r	544,640r	566,600r	590,829	605,491
8 1- to 4-family	213,434	235,814	275,166	242,042r	252,589r	262,352r	275,166	282,583
9 Multifamily	23,373	31,173	33,493	29,759r	30,547r	31,614r	33,493	33,907
10 Commercial	181,032	222,799	267,679	234,619r	247,676r	258,496r	267,679	274,348
11 Farm	11,357	12,748	14,491	13,186r	13,828	14,138r	14,491	14,653
12 Savings institutions[3]	760,499	777,312	856,369	809,245	824,961	838,737r	856,369	861,824
13 1- to 4-family	554,301	558,412	598,441	555,693	572,075	583,432r	598,441	604,343
14 Multifamily	89,739	97,059	106,346	104,035	102,933	104,609r	106,346	105,945
15 Commercial	115,771	121,236	150,825	148,712	149,183	149,938r	150,825	150,781
16 Farm	688	605	0	805	0	0	0	0
17 Life insurance companies	171,797	193,842	212,375	195,743	200,382	204,263	212,375	214,675
18 1- to 4-family	12,381	12,827	13,226	12,903	12,745	12,742	13,226	13,226
19 Multifamily	19,894	20,952	22,524	20,934	21,663	21,968	22,524	22,524
20 Commercial	127,670	149,111	166,722	151,420	155,611	159,464	166,722	169,122
21 Farm	11,852	10,952	9,903	10,486	10,363	10,089	9,903	9,803
22 Finance companies[4]	28,902	33,601	40,349	35,087	36,898	38,328	40,349	41,409
23 Federal and related agencies	166,928	203,800	192,721	199,509	196,514	191,520	192,721	196,613
24 Government National Mortgage Association	1,473	889	444	687	667	458	444	430
25 1- to 4-family	539	47	25	46	45	25	25	24
26 Multifamily	934	842	419	641	622	433	419	406
27 Farmers Home Administration[5]	733	48,421	43,051	48,203	48,085	42,978	43,051	43,051
28 1- to 4-family	183	21,625	18,169	21,390	21,157	18,111	18,169	18,169
29 Multifamily	113	7,608	8,044	7,710	7,808	7,903	8,044	8,044
30 Commercial	159	8,446	6,603	8,463	8,553	6,592	6,603	6,603
31 Farm	278	10,742	10,235	10,640	10,567	10,372	10,235	10,235
32 Federal Housing and Veterans Administration	4,920	5,047	5,574	5,177	5,268	5,330	5,574	5,679
33 1- to 4-family	2,254	2,386	2,557	2,447	2,531	2,452	2,557	2,612
34 Multifamily	2,666	2,661	3,017	2,730	2,737	2,878	3,017	3,067
35 Federal National Mortgage Association	98,282	97,895	96,649	95,140	94,064	94,884	96,649	99,787
36 1- to 4-family	91,966	90,718	89,666	88,106	87,013	87,901	89,666	92,828
37 Multifamily	6,316	7,177	6,983	7,034	7,051	6,983	6,983	6,959
38 Federal Land Banks	47,498	39,984	34,131	37,362	35,833	34,930	34,131	33,566
39 1- to 4-family	2,798	2,353	2,008	2,198	2,108	2,055	2,008	1,975
40 Farm	44,700	37,631	32,123	35,164	33,725	32,875	32,123	31,591
41 Federal Home Loan Mortgage Corporation	14,022	11,564	12,872	12,940	12,597	12,940	12,872	14,100
42 1- to 4-family	11,881	10,010	11,430	11,774	11,172	11,570	11,430	12,500
43 Multifamily	2,141	1,554	1,442	1,166	1,425	1,370	1,442	1,600
44 Mortgage pools or trusts[6]	415,042	531,591	670,394	575,435	615,142	648,084r	670,394	683,042
45 Government National Mortgage Association	212,145	262,697	317,555	281,116	293,246	308,339r	317,555	322,555
46 1- to 4-family	207,198	256,920	309,806	274,710	286,091	300,815r	309,806	314,684
47 Multifamily	4,947	5,777	7,749	6,406	7,155	7,524r	7,749	7,871
48 Federal Home Loan Mortgage Corporation	100,387	171,372	212,634	186,295	200,284	208,872r	212,634	215,000
49 1- to 4-family	99,515	166,667	205,977	180,602	194,238	202,308r	205,977	208,400
50 Multifamily	872	4,705	6,657	5,693	6,046	6,564	6,657	6,600
51 Federal National Mortgage Association	54,987	97,174	139,960	107,673	121,270	130,540	139,960	145,242
52 1- to 4-family	54,036	95,791	137,988	106,068	119,617	128,770	137,988	142,330
53 Multifamily	951	1,383	1,972	1,605	1,653	1,770	1,972	2,912
54 Farmers Home Administration[5]	47,523	348	245	351	342	333	245	245
55 1- to 4-family	22,186	142	121	154	149	144	121	121
56 Multifamily	6,675	0	0	0	0	0	0	0
57 Commercial	8,190	132	63	127	126	124	63	63
58 Farm	10,472	74	61	70	67	65	61	61
59 Individuals and others[7]	296,809	325,882	345,035	330,714	337,846	344,605r	345,035	346,923
60 1- to 4-family	165,835	180,896	183,229	179,517	182,010	184,794r	183,229	184,076
61 Multifamily	55,424	66,133	75,094	70,146	73,924	74,403r	75,094	75,338
62 Commercial	49,207	54,845	64,311	57,866	59,110	62,798r	64,311	65,250
63 Farm	26,343	24,008	22,401	23,185	22,802	22,610r	22,401	22,259

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.
4. Assumed to be entirely 1- to 4-family loans.
5. FmHA-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.
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

Holder, and type of credit	1986	1987	1987 July	1987 Aug.	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.[r]	1988 Mar.
	Amounts outstanding (end of period)										
1 **Total**	**571,833**	**613,022**	**593,513**	**598,190**	**602,977**	**606,926**	**608,728**	**613,022**	**619,258**	**624,294**	**628,754**
By major holder											
2 Commercial banks	262,139	281,564	272,287	273,879	276,805	278,855	279,550	281,564	284,753	287,344	290,899
3 Finance companies[2]	133,698	140,072	136,414	137,663	138,395	139,236	138,928	140,072	141,695	142,946	144,053
4 Credit unions	76,191	81,065	79,124	79,816	80,351	80,672	80,923	81,065	81,662	81,897	82,161
5 Retailers[3]	39,660	42,782	41,144	41,381	41,632	42,012	42,291	42,782	42,926	43,080	43,271
6 Savings institutions	56,881	63,949	60,944	61,798	62,098	62,457	63,412	63,949	64,633	65,396	64,713
7 Gasoline companies	3,264	3,590	3,600	3,653	3,696	3,694	3,624	3,590	3,590	3,631	3,657
By major type of credit											
8 Automobile	246,109	267,180	256,585	259,558	261,902	263,823	264,474	267,180	269,883	273,133	276,345
9 Commercial banks	100,907	108,438	104,859	105,661	106,685	107,414	107,727	108,438	109,298	111,021	113,511
10 Credit unions	38,413	43,474	40,836	41,515	42,118	42,612	43,071	43,474	43,959	44,251	44,559
11 Finance companies	92,350	98,026	95,132	96,287	96,809	97,261	96,733	98,026	99,147	100,123	100,669
12 Savings institutions	14,439	17,242	15,758	16,095	16,290	16,536	16,943	17,242	17,479	17,738	17,605
13 Revolving	136,381	159,307	147,809	149,815	152,553	155,196	156,425	159,307	162,065	163,462	165,683
14 Commercial banks	86,757	98,808	93,025	94,142	96,083	97,416	97,378	98,808	100,879	101,537	103,309
15 Retailers	34,320	36,959	35,542	35,731	35,941	36,270	36,501	36,959	37,087	37,231	37,408
16 Gasoline companies	3,264	3,590	3,600	3,653	3,696	3,694	3,624	3,590	3,590	3,631	3,657
17 Savings institutions	8,366	13,279	10,956	11,194	11,333	11,922	12,636	13,279	13,601	13,945	13,980
18 Credit unions	3,674	6,671	4,686	5,095	5,500	5,894	6,286	6,671	6,908	7,117	7,329
19 Mobile home	26,883	25,957	26,966	26,879	26,845	26,698	26,604	25,957	25,926	25,857	25,681
20 Commercial banks	8,926	9,101	9,168	9,156	9,157	9,174	9,169	9,101	9,064	9,035	8,993
21 Finance companies	8,822	7,771	8,452	8,281	8,235	8,228	8,211	7,771	7,753	7,679	7,640
22 Savings institutions	9,135	9,085	9,346	9,442	9,453	9,296	9,224	9,085	9,109	9,143	9,048
23 Other	162,460	160,578	162,153	161,938	161,677	161,209	161,225	160,578	161,384	161,842	161,046
24 Commercial banks	65,549	65,217	65,235	64,920	64,880	64,851	65,276	65,217	65,512	65,750	65,086
25 Finance companies	32,526	34,275	32,830	33,095	33,351	33,747	33,984	34,275	34,795	35,144	35,744
26 Credit unions	34,104	30,920	33,602	33,206	32,733	32,166	31,566	30,920	30,795	30,529	30,272
27 Retailers	5,340	5,823	5,602	5,650	5,691	5,742	5,790	5,823	5,839	5,849	5,863
28 Savings institutions	24,941	24,343	24,884	25,067	25,022	24,703	24,609	24,343	24,444	24,570	24,080
	Net change (during period)										
29 **Total**	**54,078**	**41,189**	**5,635**	**4,677**	**4,787**	**3,949**	**1,802**	**4,294**	**6,236**	**5,036**	**4,460**
By major holder											
30 Commercial banks	20,495	19,425	2,576	1,592	2,926	2,050	695	2,014	3,189	2,591	3,555
31 Finance companies[2]	22,670	6,374	819	1,249	732	841	-308	1,144	1,623	1,251	1,107
32 Credit unions	4,268	4,874	853	692	535	321	251	142	597	235	264
33 Retailers[3]	466	3,122	248	237	251	380	279	491	144	154	191
34 Savings institutions	7,223	7,068	1,108	854	300	359	955	537	684	763	-683
35 Gasoline companies	-1,044	326	31	53	43	-2	-70	-34	0	41	26
By major type of credit											
36 Automobile	36,473	21,071	2,373	2,973	2,344	1,921	651	2,706	2,703	3,250	3,212
37 Commercial banks	8,178	7,531	672	802	1,024	729	313	711	860	1,723	2,490
38 Credit unions	2,388	5,061	756	679	603	494	459	403	485	292	308
39 Finance companies	22,823	5,676	546	1,155	522	452	-528	1,293	1,121	976	546
40 Savings institutions	3,084	2,803	399	337	195	246	407	299	237	259	-133
41 Revolving	14,368	22,926	3,032	2,006	2,738	2,643	1,229	2,882	2,758	1,397	2,221
42 Commercial banks	11,150	12,051	2,112	1,117	1,941	1,333	-38	1,430	2,071	658	1,772
43 Retailers	47	2,639	196	189	210	329	231	458	128	144	177
44 Gasoline companies	-1,044	326	31	53	43	-2	-70	-34	0	41	26
45 Savings institutions	2,078	4,913	281	238	139	589	714	643	322	344	35
46 Credit unions	2,137	2,997	412	409	405	394	392	385	237	209	212
47 Mobile home	49	-926	156	-87	-34	-147	-94	-647	-31	-69	-176
48 Commercial banks	-627	175	37	-12	1	17	-5	-68	-37	-29	-42
49 Finance companies	-472	-1,051	-17	-171	-46	-7	-17	-440	-18	-74	-39
50 Savings institutions	1,148	-50	136	96	11	-157	-72	-139	24	34	-95
51 Other	3,188	-1,882	74	-215	-261	-468	16	-647	806	458	-796
52 Commercial banks	1,794	-332	-245	-315	-40	-29	425	-59	295	238	-664
53 Finance companies	319	1,749	290	265	256	396	237	291	520	349	600
54 Credit unions	-257	-3,184	-315	-396	-473	-567	-600	-646	-125	-266	-257
55 Retailers	419	483	52	48	41	51	48	33	16	10	14
56 Savings institutions	913	-598	292	183	-45	-319	-94	-266	101	126	-490

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. More detail for finance companies is available in the G. 20 statistical release.

3. Excludes 30-day charge credit held by travel and entertainment companies.

1.56 TERMS OF CONSUMER INSTALLMENT CREDIT[1]

Percent unless noted otherwise

Item	1985	1986	1987	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.
INTEREST RATES										
Commercial banks[2]										
1 48-month new car[3]	12.91	11.33	10.45	n.a.	n.a.	10.86	n.a.	n.a.	10.72	n.a.
2 24-month personal	15.94	14.82	14.22	n.a.	n.a.	14.58	n.a.	n.a.	14.46	n.a.
3 120-month mobile home[3]	14.96	13.99	13.38	n.a.	n.a.	13.62	n.a.	n.a.	13.45	n.a.
4 Credit card	18.69	18.26	17.92	n.a.	n.a.	17.82	n.a.	n.a.	17.80	n.a.
Auto finance companies										
5 New car	11.98	9.44	10.73	8.71	10.31	12.24	12.23	12.19	12.26	12.24
6 Used car	17.59	15.95	14.60	14.58	14.76	14.90	14.97	14.56	14.75	14.77
OTHER TERMS[4]										
Maturity (months)										
7 New car	51.5	50.0	53.5	50.7	52.8	55.4	55.5	55.5	55.9	56.0
8 Used car	41.4	42.6	45.2	45.2	45.2	45.3	45.3	47.2	46.8	46.9
Loan-to-value ratio										
9 New car	91	91	93	93	93	94	93	93	94	94
10 Used car	94	97	98	98	99	99	99	98	99	98
Amount financed (dollars)										
11 New car	9,915	10,665	11,203	11,455	11,585	11,630	11,645	11,534	11,447	11,493
12 Used car	6,089	6,555	7,420	7,476	7,537	7,646	7,718	7,612	7,619	7,587

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.

1.57 FUNDS RAISED IN U.S. CREDIT MARKETS

Billions of dollars; half-yearly data are at seasonally adjusted annual rates.

Transaction category, sector	1983	1984	1985	1986	1987	1984 H2	1985 H1	1985 H2	1986 H1	1986 H2	1987 H1	1987 H2
	Nonfinancial sectors											
1 **Total net borrowing by domestic nonfinancial sectors**	**550.2**	**753.9**	**854.8**	**831.7**	**685.2**	**790.4**	**722.7**	**986.8**	**679.1**	**984.4**	[illegible]	**716.8**
By sector and instrument												
2 U.S. government	186.6	198.8	223.6	215.0	141.4	207.2	204.8	242.5	207.2	222.8	130.7	132.0
3 Treasury securities	186.7	199.0	223.7	214.7	142.3	207.3	204.9	242.5	207.4	222.0	[illegible]	132.9
4 Agency issues and mortgages	−.1	−.2	−.1	.4	−.9	−.1	−.1	−.1	−.1	.9	−1.6	−.9
5 Private domestic nonfinancial sectors	363.6	555.1	631.1	616.7	543.9	583.3	518.0	744.3	471.8	761.6	[illegible]	584.7
6 Debt capital instruments	253.4	313.6	447.8	452.7	456.5	342.5	350.4	545.2	365.6	539.8	[illegible]	442.3
7 Tax-exempt obligations	53.7	50.4	136.4	30.8	31.3	67.0	67.0	205.8	−15.6	77.2	32.7	29.8
8 Corporate bonds	16.0	46.1	73.8	121.3	125.4	69.8	62.2	85.3	135.3	107.3	127.4	123.4
9 Mortgages	183.6	217.1	237.7	300.6	299.8	205.7	221.2	254.2	245.9	355.4	310.5	289.0
10 Home mortgages	117.5	129.7	151.9	201.2	212.6	119.9	139.2	164.7	163.9	238.6	226.9	198.3
11 Multifamily residential	14.2	25.1	29.2	33.1	23.8	22.4	25.0	33.4	31.3	34.9	29.8	17.8
12 Commercial	49.3	63.2	62.5	74.6	69.5	63.8	59.5	65.5	59.7	89.6	63.1	75.9
13 Farm	2.6	−.9	−6.0	−8.4	−6.1	−.4	−2.5	−9.5	−9.0	−7.7	−9.3	−2.9
14 Other debt instruments	110.2	241.5	183.3	164.0	87.4	240.8	167.5	199.1	106.3	221.7	32.3	142.5
15 Consumer credit	56.6	90.4	94.6	65.8	30.1	86.2	95.3	93.9	71.0	60.6	19.5	40.7
16 Bank loans n.e.c.	23.2	67.1	38.6	66.5	14.2	63.0	21.0	56.2	12.2	120.8	−24.6	53.1
17 Open market paper	−.8	21.7	14.6	−9.3	2.3	16.8	14.4	14.8	−13.1	−5.5	4.5	.1
18 Other	31.3	62.2	35.5	41.0	40.8	74.7	36.8	34.2	36.2	45.8	32.9	48.6
19 By borrowing sector	363.6	555.1	631.1	616.7	543.9	583.3	518.0	744.3	471.8	761.6	503.0	584.7
20 State and local governments	34.0	27.4	91.8	44.3	33.3	38.6	56.3	127.2	4.3	84.3	35.4	31.2
21 Households	188.2	234.6	293.4	281.1	245.6	234.2	259.8	327.1	233.0	329.3	240.4	250.7
22 Farm	4.1	−.1	−13.9	−15.1	−10.0	.4	−7.0	−20.8	−16.9	−13.3	−17.8	−2.2
23 Nonfarm noncorporate	77.0	97.0	93.1	116.2	102.5	92.2	85.7	100.5	96.7	135.6	100.7	104.2
24 Corporate	60.3	196.0	166.7	190.2	172.6	217.8	123.2	210.3	154.7	225.8	144.3	200.9
25 Foreign net borrowing in United States	17.3	8.3	1.2	9.0	3.1	−19.4	−5.8	8.2	21.5	−3.5	−7.4	13.5
26 Bonds	3.1	3.8	3.8	2.6	6.3	6.3	5.5	2.1	6.2	−1.1	−1.7	14.2
27 Bank loans n.e.c.	3.6	−6.6	−2.8	−1.0	−3.9	−11.9	−5.8	.1	1.5	−3.5	−3.2	−4.6
28 *Open market paper*	6.5	6.2	6.2	11.5	2.1	−4.3	2.8	9.6	19.1	3.9	−5.3	9.5
29 U.S. government loans	4.1	5.0	−6.0	−4.0	−1.5	−9.6	−8.2	−3.7	−5.3	−2.7	2.7	−5.7
30 **Total domestic plus foreign**	**567.5**	**762.2**	**856.0**	**840.7**	**688.3**	**771.0**	**716.9**	**995.0**	**700.5**	**980.9**	**646.4**	**730.3**
	Financial sectors											
31 **Total net borrowing by financial sectors**	**99.3**	**151.9**	**199.0**	**295.3**	**283.4**	**150.7**	**175.1**	**222.8**	**242.3**	**348.2**	**318.5**	**248.8**
By instrument												
32 U.S. government related	67.8	74.9	101.5	178.1	169.3	77.3	96.8	106.3	136.1	220.1	180.5	158.6
33 Sponsored credit agency securities	1.4	30.4	20.6	15.2	29.9	31.5	26.6	14.6	8.7	21.7	8.1	51.7
34 Mortgage pool securities	66.4	44.4	79.9	163.3	140.2	45.8	70.3	89.5	126.5	200.0	174.0	106.9
35 Loans from U.S. government	.....	.....	1.1	−.4	−.8	.....	.....	2.2	.8	−1.5	−1.5	.....
36 Private financial sectors	31.5	77.0	97.4	117.2	114.1	73.5	78.3	116.5	106.2	128.1	138.0	90.2
37 Corporate bonds	17.4	36.2	48.6	69.0	62.0	41.5	48.9	48.3	72.1	66.0	79.5	44.6
38 Mortgages	*	.4	.1	.1	.3	.4	*	.1	.6	−.5	.2	.4
39 Bank loans n.e.c.	−.1	.7	2.6	4.0	−1.1	.7	2.3	2.9	4.0	4.0	−4.7	2.6
40 Open market paper	21.3	24.1	32.0	24.2	28.4	16.0	14.6	49.4	15.1	33.4	49.4	7.4
41 Loans from Federal Home Loan Banks	−7.0	15.7	14.2	19.8	24.4	14.9	12.5	15.9	14.4	25.2	13.6	35.2
By sector												
42 Sponsored credit agencies	1.4	30.4	21.7	14.9	29.2	31.5	26.6	16.8	9.5	20.2	6.6	51.7
43 Mortgage pools	66.4	44.4	79.9	163.3	140.2	45.8	70.3	89.5	126.5	200.0	174.0	106.9
44 Private financial sectors	31.5	77.0	97.4	117.2	114.1	73.5	78.3	116.5	106.2	128.1	138.0	90.2
45 Commercial banks	5.0	7.3	−4.9	−3.6	8.5	−5.3	−4.7	−5.0	−2.7	−4.6	14.1	2.9
46 Bank affiliates	12.1	15.6	14.5	4.6	4.8	10.8	10.2	18.9	−1.7	10.9	11.5	−1.8
47 Savings and loan associations	−2.1	22.7	22.3	29.8	35.2	23.3	14.2	30.4	25.5	34.0	29.1	41.3
48 Finance companies	12.9	18.9	53.9	49.7	26.5	29.6	49.7	58.1	53.1	46.3	30.8	22.2
49 REITs	−.1	.1	−.7	−.3	.9	.1	−.6	−.8	.6	−1.3	*	1.9
50 CMO Issuers	3.7	12.4	12.2	37.1	38.1	15.0	9.5	14.9	31.4	42.8	52.5	23.7
	All sectors											
51 **Total net borrowing**	**666.8**	**914.1**	**1,054.9**	**1,136.0**	**971.7**	**921.8**	**892.1**	**1,217.8**	**942.8**	**1,329.1**	**964.9**	**979.1**
52 U.S. government securities	254.4	273.8	324.2	393.5	311.5	284.5	301.7	346.6	342.5	444.5	332.8	290.6
53 State and local obligations	53.7	50.4	136.4	30.8	31.3	67.0	67.0	205.8	−15.6	77.2	32.7	29.8
54 Corporate and foreign bonds	36.5	86.1	126.1	192.9	193.7	117.6	116.6	135.7	213.6	172.1	205.2	182.2
55 Mortgages	183.6	217.4	237.7	300.7	300.1	206.0	221.2	254.2	246.5	354.9	310.8	289.5
56 Consumer credit	56.6	90.4	94.6	65.8	30.1	86.2	95.3	93.9	71.0	60.6	19.5	40.7
57 Bank loans n.e.c.	26.7	61.1	38.3	69.5	9.3	51.8	17.5	59.2	17.7	121.3	−32.5	51.2
58 Open market paper	26.9	52.0	52.8	26.4	32.8	28.6	31.8	73.7	21.0	31.7	48.6	17.0
59 Other loans	28.4	82.9	44.8	56.5	63.0	80.0	41.1	48.6	46.1	66.8	47.8	78.1
	External corporate equity funds raised in United States											
60 **Total new share issues**	**61.8**	**−36.4**	**19.9**	**91.6**	**−9.3**	**−24.9**	**3.0**	**36.7**	**100.8**	**82.3**	**84.5**	**−103.2**
61 Mutual funds	27.2	29.3	85.7	163.3	64.5	32.2	64.2	107.1	155.5	171.1	147.2	−18.2
62 All other	34.6	−65.7	−65.8	−71.7	−73.8	−57.1	−61.2	−70.4	−54.7	−88.7	−62.7	−85.0
63 Nonfinancial corporations	28.3	−74.5	−81.5	−80.8	−76.5	−69.4	−75.5	−87.5	−68.7	−92.7	−70.0	−83.0
64 Financial corporations	2.6	7.8	12.0	8.3	5.1	8.8	11.2	12.8	7.5	9.1	5.4	4.8
65 Foreign shares purchased in United States	3.7	.9	3.7	.7	−2.4	3.5	3.1	4.3	6.6	−5.1	1.9	−6.8

1.58 DIRECT AND INDIRECT SOURCES OF FUNDS TO CREDIT MARKETS

Billions of dollars, except as noted; half-yearly data are at seasonally adjusted annual rates.

Transaction category, or sector	1983	1984	1985	1986	1987	1984	1985		1986		1987	
						H2	H1	H2	H1	H2	H1	H2
1 **Total funds advanced in credit markets to domestic nonfinancial sectors**	**550.2**	**753.9**	**854.8**	**831.7**	**685.2**	**790.4**	**722.7**	**986.8**	**679.1**	**984.4**	**653.7**	**716.8**
By public agencies and foreign												
2 Total net advances	114.0	157.6	202.3	319.7	233.6	182.5	195.8	208.7	264.7	374.6	247.7	219.4
3 U.S. government securities	26.3	39.3	47.1	84.8	51.4	51.0	50.3	43.9	74.0	95.6	48.3	54.5
4 Residential mortgages	76.1	56.5	94.6	160.3	136.7	57.4	88.6	100.7	123.7	196.9	166.8	106.8
5 FHLB advances to savings and loans	−7.0	15.7	14.2	19.8	24.4	14.9	12.5	15.9	14.4	25.2	13.6	35.2
6 Other loans and securities	18.6	46.2	46.3	54.7	21.0	59.2	44.4	48.2	52.6	56.9	19.0	22.9
Total advanced, by sector												
7 U.S. government	9.7	17.1	16.8	9.5	−9.7	26.6	25.1	8.4	10.8	8.2	−9.3	−10.6
8 Sponsored credit agencies	69.8	74.3	101.5	177.3	166.0	75.2	96.4	106.7	128.2	226.5	168.1	164.4
9 Monetary authorities	10.9	8.4	21.6	30.2	8.6	4.8	27.5	15.8	13.2	47.2	10.8	6.5
10 Foreign	23.7	57.9	62.3	102.6	68.6	75.9	46.8	77.8	112.5	92.7	78.0	59.2
Agency and foreign borrowing not in line 1												
11 Sponsored credit agencies and mortgage pools	67.8	74.9	101.5	178.1	169.3	77.3	96.8	106.3	136.1	220.1	180.5	158.6
12 Foreign	17.3	8.3	1.2	9.0	3.1	−19.4	−5.8	8.2	21.5	−3.5	−7.4	13.5
Private domestic funds advanced												
13 Total net advances	521.3	679.5	755.2	699.2	624.1	665.7	618.0	892.5	571.9	826.4	579.2	669.4
14 U.S. government securities	228.1	234.5	277.0	308.7	260.1	233.5	251.3	302.7	268.6	348.9	284.5	236.1
15 State and local obligations	53.7	50.4	136.4	30.8	31.3	67.0	67.0	205.8	−15.6	77.2	32.7	29.8
16 Corporate and foreign bonds	14.5	35.1	40.8	83.4	110.1	53.0	39.7	42.0	100.2	66.6	100.0	120.3
17 Residential mortgages	55.0	98.2	86.4	74.0	99.6	84.8	75.5	97.4	71.5	76.5	89.9	109.2
18 Other mortgages and loans	162.4	276.9	228.8	222.1	147.3	242.3	197.0	260.6	161.7	282.4	85.7	209.2
19 LESS: Federal Home Loan Bank advances	−7.0	15.7	14.2	19.8	24.4	14.9	12.5	15.9	14.4	25.2	13.6	35.2
Private financial intermediation												
20 Credit market funds advanced by private financial institutions	395.8	559.8	579.5	726.9	567.7	532.1	483.8	675.2	638.5	815.3	585.9	549.5
21 Commercial banking	144.3	168.9	186.3	194.7	127.5	145.5	143.3	229.4	117.2	272.3	103.1	151.8
22 Savings institutions	135.6	150.2	83.0	105.5	140.7	133.5	54.5	111.4	94.5	116.6	104.5	176.8
23 Insurance and pension funds	100.1	121.8	156.0	176.7	203.6	95.3	139.4	172.5	169.0	184.4	215.9	191.4
24 Other finance	15.8	118.9	154.2	249.9	95.9	157.8	146.5	161.9	257.9	241.9	162.4	29.4
25 Sources of funds	395.8	559.8	579.5	726.9	567.7	532.1	483.8	675.2	638.5	815.3	585.9	549.5
26 Private domestic deposits and RPs	215.4	316.9	213.2	271.4	128.3	353.5	191.4	235.0	252.2	290.6	55.2	199.2
27 Credit market borrowing	31.5	77.0	97.4	117.2	114.1	73.5	78.3	116.5	106.2	128.1	138.0	90.2
28 Other sources	148.9	165.9	268.9	338.3	325.3	105.1	214.1	323.6	280.1	396.5	392.7	260.0
29 Foreign funds	14.6	8.8	19.7	12.9	45.3	1.7	10.8	28.6	11.9	14.0	24.5	66.0
30 Treasury balances	−5.3	4.0	10.3	1.7	5.0	10.8	13.9	6.6	−4.2	7.6	4.3	5.7
31 Insurance and pension reserves	109.7	118.6	141.0	152.8	207.8	74.6	118.6	163.4	136.6	168.9	217.7	197.9
32 Other, net	30.0	34.5	98.1	170.9	67.2	18.0	71.4	124.7	135.8	206.1	146.2	−9.6
Private domestic nonfinancial investors												
33 Direct lending in credit markets	157.0	196.7	273.2	89.4	170.5	207.1	212.5	333.9	39.7	139.2	131.3	210.2
34 U.S. government securities	99.3	123.6	145.3	47.1	54.8	84.3	156.2	134.5	42.2	51.9	67.3	42.8
35 State and local obligations	40.3	30.4	47.6	−5.4	52.2	50.4	14.8	80.4	−67.6	56.8	19.5	84.8
36 Corporate and foreign bonds	−11.6	5.2	11.8	34.7	50.2	36.9	15.4	8.2	68.8	.7	12.1	88.3
37 Open market paper	12.0	9.3	43.9	−4.8	5.3	3.0	3.5	84.2	−17.3	7.7	24.2	−13.5
38 Other	17.0	28.1	24.6	17.9	8.0	32.5	22.6	26.6	13.6	22.1	8.2	7.8
39 Deposits and currency	232.8	320.4	223.5	291.8	141.1	354.0	198.3	248.7	261.9	321.6	40.3	239.8
40 Currency	14.3	8.6	12.4	14.4	15.6	3.6	15.9	8.8	10.7	18.2	9.6	21.6
41 Checkable deposits	28.8	28.0	41.5	100.1	−9.3	29.9	13.8	69.2	82.5	117.8	−21.5	2.8
42 Small time and savings accounts	215.4	150.7	138.6	120.8	69.3	169.9	162.1	115.1	112.6	129.0	52.1	86.5
43 Money market fund shares	−39.0	49.0	8.9	43.8	22.3	73.4	10.6	7.1	46.9	40.6	−3.1	47.6
44 Large time deposits	−8.3	84.3	7.6	−11.6	18.2	79.1	−7.3	22.5	.2	−23.3	5.0	29.3
45 Security RPs	18.5	5.0	16.6	18.3	27.9	1.2	12.2	21.1	10.0	26.5	22.7	33.0
46 Deposits in foreign countries	3.1	−5.1	−2.1	5.9	−2.8	−3.1	−9.0	4.9	−.9	12.8	−24.5	19.0
47 **Total of credit market instruments, deposits, and currency**	**389.9**	**517.1**	**496.7**	**381.2**	**311.6**	**561.1**	**410.7**	**582.6**	**301.6**	**460.9**	**171.6**	**450.1**
48 Public holdings as percent of total	20.1	20.7	23.6	38.0	33.9	23.7	27.3	21.0	37.8	38.2	38.3	30.0
49 Private financial intermediation (in percent)	75.9	82.4	76.7	104.0	91.0	79.9	78.3	75.6	111.6	98.7	101.2	82.1
50 Total foreign funds	38.2	66.7	82.0	115.5	113.9	77.6	57.7	106.4	124.4	106.7	102.6	125.2
MEMO: Corporate equities not included above												
51 **Total net issues**	**61.8**	**−36.4**	**19.9**	**91.6**	**−9.3**	**−24.9**	**3.0**	**36.7**	**100.8**	**82.3**	**84.5**	**−103.2**
52 Mutual fund shares	27.2	29.3	85.7	163.3	64.5	32.2	64.2	107.1	155.5	171.1	147.2	−18.2
53 Other equities	34.6	−65.7	−65.8	−71.7	−73.8	−57.1	−61.2	−70.4	−54.7	−88.7	−62.7	−85.0
54 Acquisitions by financial institutions	51.1	19.7	43.4	50.6	45.9	39.7	59.5	27.3	46.5	54.6	72.6	19.2
55 Other net purchases	10.7	−56.1	−22.9	41.0	−55.2	−64.6	−55.8	9.5	54.3	27.7	11.9	−122.4

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.

2.10 NONFINANCIAL BUSINESS ACTIVITY Selected Measures[1]

1977 = 100; monthly and quarterly data are seasonally adjusted. Exceptions noted.

Measure	1985	1986	1987	1987 Aug.	Sept.	Oct.	Nov.	Dec.	1988 Jan.	Feb.[r]	Mar.[r]	Apr.
1 **Industrial production**	**123.7**	**125.1**	**129.8**	**131.2**	**131.0**	**132.5**	**133.2**	**133.9**	**134.4**	**134.4**	**134.7**	**135.6**
Market groupings												
2 Products, total	130.6	133.3	138.3	139.9	139.4	140.9	141.0	141.3	142.7[r]	143.5	143.6	144.3
3 Final, total	131.0	132.5	136.8	138.4	137.8	139.3	139.2	139.8	141.1	141.7	141.9	142.6
4 Consumer goods	119.8	124.0	127.7	129.4	127.7	129.0	129.4	129.8	131.2[r]	131.5	131.2	131.9
5 Equipment	145.8	143.6	148.8	150.2	151.2	153.0	152.2	153.1	154.3[r]	155.3	156.1	156.9
6 Intermediate	129.3	136.2	143.5	145.3	144.9	146.1	147.3	146.5	148.1[r]	149.5	149.3	150.1
7 Materials	114.3	113.8	118.2	119.4	119.7	121.2	122.5	123.7	123.0	122.1	122.5	123.6
Industry groupings												
8 Manufacturing	126.4	129.1	134.6	135.9	135.7	137.3	137.9	138.9	139.4[r]	139.5	140.0	140.9
Capacity utilization (percent)[2]												
9 Manufacturing	80.1	79.8	81.0	81.5	81.3	82.0	82.2	82.5	82.7[r]	82.6	82.6	83.0
10 Industrial materials industries	80.2	78.5	80.5	81.1	81.2	82.1	82.9	83.7	83.0	82.1	82.4	82.9
11 Construction contracts (1982 = 100)[3]	150.0[r]	158.0[r]	161.0[r]	174.0	160.0	164.0	157.0	157.0	145.0	159.0	154.0	144.0
12 Nonagricultural employment, total[4]	118.3	120.8	123.8	124.0	124.2	124.9	125.2	125.6	125.9	126.6	126.9	127.1
13 Goods-producing, total	102.4	102.4	102.2	102.2	102.4	103.0	103.4	103.8	103.5	104.2	104.5	104.8
14 Manufacturing, total	97.8	96.5	97.1	97.2	97.4	97.8	98.2	98.5	98.5	98.6	98.7	98.9
15 Manufacturing, production-worker	92.6	91.2	92.1	92.2	92.5	92.9	93.3	93.6	93.7	93.9	93.8	94.1
16 Service-producing	125.0	128.9	132.9	133.1	133.4	134.1	134.4	134.8	135.3	135.9	136.3	136.5
17 Personal income, total	207.0	219.9	233.1	233.9	235.3	239.8	238.9[r]	240.7	240.9	242.3	245.1	245.3
18 Wages and salary disbursements	198.7	210.2	222.6	224.2	225.4	227.1	228.6	229.5	230.7	232.3	233.8	234.6
19 Manufacturing	172.8	176.4	181.5	182.0	183.7	184.7	185.7	186.0	186.6	187.1	190.1	188.1
20 Disposable personal income[5]	206.0	219.1	230.7	231.6	232.9	237.8	236.4	238.1	239.0	241.0	243.3	241.0
21 Retail sales[6]	189.6[r]	199.5[r]	209.3[r]	216.5[r]	212.9[r]	211.2[r]	211.9[r]	214.2[r]	214.5[r]	216.7	220.5	219.1
Prices[7]												
22 Consumer (1982 = 100)	107.6	109.6	113.6	114.4	115.0	115.3	115.4	115.4	115.7	116.0	116.5	117.1
23 Producer finished goods (1982 = 100)	104.7	103.2	105.4	105.9	105.7	106.2[r]	106.3[r]	105.8[r]	106.2	105.9	106.2	106.9

1. A major revision of the industrial production index and the capacity utilization rates was released in July 1985. See "A Revision of the Index of Industrial Production" and accompanying tables that contain revised indexes (1977=100) through December 1984 in the FEDERAL RESERVE BULLETIN, vol. 71 (July 1985), pp. 487–501. The revised indexes for January through June 1985 were shown in the September BULLETIN.

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 last two months are preliminary and estimated, respectively.

2.11 LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Thousands of persons; monthly data are seasonally adjusted. Exceptions noted.

Category	1985	1986	1987	1987				1988			
				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[r]	Mar.[r]	Apr.
HOUSEHOLD SURVEY DATA											
1 **Noninstitutional population**[1]	**180,440**	**182,822**	**185,010**	**185,428**	**185,575**	**185,737**	**185,882**	**186,083**	**186,219**	**186,361**	**186,478**
2 Labor force (including Armed Forces)[1]	117,695	120,078	122,122	122,230	122,651	122,861	122,984	123,436	123,598	123,153	123,569
3 Civilian labor force	115,461	117,834	119,865	119,963	120,387	120,594	120,722	121,175	121,348	120,903	121,323
Employment											
4 Nonagricultural industries[2]	103,971	106,434	109,232	109,688	109,961	110,332	110,529	110,836	111,182	110,899	111,485
5 Agriculture	3,179	3,163	3,208	3,184	3,249	3,172	3,215	3,293	3,228	3,204	3,228
Unemployment											
6 Number	8,312	8,237	7,425	7,091	7,177	7,090	6,978	7,046	6,938	6,801	6,610
7 Rate (percent of civilian labor force)	7.2	7.0	6.2	5.9	6.0	5.9	5.8	5.8	5.7	5.6	5.4
8 Not in labor force	62,745	62,744	62,888	63,198	62,924	62,876	62,898	62,647	62,621	63,208	62,909
ESTABLISHMENT SURVEY DATA											
9 **Nonagricultural payroll employment**[3]	***97,519***	***99,610***	***102,105***	***102,434***	***102,983***	***103,285***	***103,612***	***103,827***	***104,365***	***104,661***	***104,835***
10 Manufacturing	19,260	18,994	19,112	19,169	19,247	19,336	19,382	19,401	19,421	19,433	19,477
11 Mining	927	783	742	759	764	759	756	746	748	751	767
12 Contract construction	4,673	4,904	5,032	4,989	5,053	5,074	5,121	5,058	5,185	5,265	5,262
13 Transportation and public utilities	5,238	5,244	5,377	5,416	5,436	5,459	5,473	5,485	5,507	5,533	5,545
14 Trade	23,073	23,580	24,056	24,129	24,239	24,294	24,329	24,503	24,611	24,617	24,648
15 Finance	5,955	6,297	6,588	6,629	6,650	6,657	6,668	6,684	6,689	6,701	6,718
16 Service	22,000	23,099	24,136	24,295	24,406	24,493	24,612	24,683	24,902	24,990	25,044
17 Government	16,394	16,710	17,063	17,048	17,188	17,213	17,271	17,267	17,302	17,371	17,374

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	Output (1977 = 100) 1987 Q2	1987 Q3	1987 Q4	1988 Q1	Capacity (percent of 1977 output) 1987 Q2	1987 Q3	1987 Q4	1988 Q1	Utilization rate (percent) 1987 Q2	1987 Q3	1987 Q4	1988 Q1[r]
1 **Total industry**	**128.2**	**130.9**	**133.0**	**134.5**	**160.4**	**161.3**	**162.2**	**163.1**	**79.9**	**81.2**	**82.1**	**82.4**
2 Mining	99.0	100.6	103.2	102.5	129.7	129.0	128.4	127.7	76.3	78.0	81.2	80.2
3 Utilities	108.3	111.6	112.5	115.1	138.3	138.8	139.4	139.8	78.3	80.5	80.6	82.3
4 **Manufacturing**	**133.2**	**135.7**	**137.9**	**139.6**	**165.6**	**166.7**	**167.7**	**168.9**	**80.5**	**81.4**	**82.3**	**82.7**
5 Primary processing	116.1	119.2	122.1	122.7	139.0	139.8	140.6	141.6	83.5	85.3	86.9	86.8
6 Advanced processing	143.5	145.8	147.5	149.6	181.6	182.9	184.1	185.6	79.0	79.7	80.1	80.7
7 **Materials**	**116.5**	**119.1**	**121.9**	**122.6**	**146.7**	**147.2**	**147.8**	**148.5**	**79.4**	**81.0**	**82.9**	**82.5**
8 Durable goods	122.9	125.5	129.6	131.3	163.1	163.9	164.7	165.7	75.4	76.7	79.1	79.4
9 Metal materials	77.0	83.6	91.1	86.6	110.0	109.4	108.8	108.8	70.0	76.5	84.0	79.0
10 Nondurable goods	124.0	128.2	129.3	130.3	143.8	144.7	145.6	146.8	86.2	88.6	89.3	88.0
11 Textile, paper, and chemical	125.1	130.5	132.3	133.1	143.4	144.4	145.4	146.7	87.2	90.4	91.5	89.6
12 Paper	137.7	144.5	......	......	143.9	145.1	......	......	95.7	99.6	99.2	98.8
13 Chemical	125.3	130.7	......	......	149.8	150.9	......	......	83.6	86.3	89.1	86.8
14 Energy materials	98.7	100.0	101.8	100.9	120.2	120.1	119.9	119.7	82.1	83.3	85.2	84.4

Series	Capacity utilization rate (percent) Previous cycle[2] High	Previous cycle[2] Low	Latest cycle[3] High	Latest cycle[3] Low	1987 Apr.	1987 Aug.	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.[r]	1988 Feb.[r]	1988 Mar.[r]	1988 Apr.
15 **Total industry**	**88.6**	**72.1**	**86.9**	**69.5**	**79.6**	**81.4**	**81.1**	**81.9**	**82.1**	**82.4**	**82.5**	**82.4**	**82.4**	**82.7**
16 Mining	92.8	87.8	95.2	76.9	75.9	78.2	79.1	80.6	81.5	81.5	80.7	79.6	80.3	81.5
17 Utilities	95.6	82.9	88.5	78.0	76.8	81.3	80.0	80.5	81.2	80.4	82.4	82.8	81.8	81.1
18 **Manufacturing**	**87.7**	**69.9**	**86.5**	**68.0**	**80.2**	**81.5**	**81.3**	**82.0**	**82.2**	**82.5**	**82.7**	**82.6**	**82.6**	**83.0**
19 Primary processing	91.9	68.3	89.1	65.1	83.5	85.3	85.1	86.2	87.0	87.8	87.1	86.6	86.6	87.1
20 Advanced processing	86.0	71.1	85.1	69.5	78.7	79.9	79.5	80.1	80.0	80.1	80.7	80.8	80.7	81.1
21 **Materials**	**92.0**	**70.5**	**89.1**	**68.5**	**79.1**	**81.1**	**81.2**	**82.1**	**82.9**	**83.7**	**83.0**	**82.2**	**82.4**	**82.9**
22 Durable goods	91.8	64.4	89.8	60.9	75.0	76.6	77.0	78.3	79.0	80.2	79.7	79.2	79.2	79.9
23 Metal materials	99.2	67.1	93.6	45.7	68.8	77.5	78.3	82.4	83.3	87.6	80.1	78.5	78.3	79.1
24 Nondurable goods	91.1	66.7	88.1	70.7	86.5	88.6	88.7	88.2	89.0	90.5	88.8	87.5	87.8	88.1
25 Textile, paper, and chemical	92.8	64.8	89.4	68.8	87.5	90.5	90.7	90.4	91.0	92.7	90.8	88.7	89.3	89.6
26 Paper	98.4	70.6	97.3	79.9	95.1	99.9	98.5	97.4	98.7	101.6	100.6	97.8	98.1	......
27 Chemical	92.5	64.4	87.9	63.5	83.9	86.4	87.4	88.0	88.6	90.8	87.8	86.1	86.7	......
28 Energy materials	94.6	86.9	94.0	82.3	81.3	84.0	83.5	84.9	85.7	85.1	84.7	84.1	84.4	84.8

1. These data also appear in the Board's G.3 (402) release. For address, see inside front cover.
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	1977 proportion	1987 avg.	1987 Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1988 Jan.[r]	Feb.	Mar.[p]	Apr.[e]
			Index (1977 = 100)												
MAJOR MARKET															
1 **Total index**	**100.00**	**129.8**	**127.4**	**128.4**	**129.1**	**130.6**	**131.2**	**131.0**	**132.5**	**133.2**	**133.9**	**134.4**	**134.4**	**134.7**	**135.6**
2 Products	57.72	138.3	137.2	137.2	137.8	139.5	139.9	139.4	140.9	141.0	141.3	142.7	143.5	143.6	144.3
3 Final products	44.77	136.8	134.5	135.8	136.2	137.9	138.4	137.8	139.3	139.2	139.8	141.1	141.7	141.9	142.6
4 Consumer goods	25.52	127.7	126.6	128.2	127.2	128.9	129.4	127.7	129.0	129.4	129.8	131.2	131.5	131.2	131.9
5 Equipment	19.25	148.8	144.9	145.8	148.1	149.7	150.2	151.2	153.0	152.2	153.1	154.3	155.3	156.1	156.9
6 Intermediate products	12.94	143.4	139.9	142.1	143.3	145.0	145.3	144.9	146.1	147.3	146.5	148.1	149.5	149.3	150.1
7 Materials	42.28	118.2	116.2	116.3	117.2	118.5	119.4	119.7	121.2	122.5	123.7	123.0	122.1	122.5	123.6
Consumer goods															
8 Durable consumer goods	6.89	120.2	118.1	120.2	117.4	120.4	121.2	118.6	124.3	123.9	120.3	121.7	120.8	120.8	122.3
9 Automotive products	2.98	118.5	115.7	118.0	114.9	117.5	118.0	114.2	124.3	121.3	115.4	118.7	117.6	121.0	122.3
10 Autos and trucks	1.79	115.1	111.5	113.1	107.9	112.3	112.4	107.2	122.2	118.7	110.2	112.8	111.8	116.4	118.0
11 Autos, consumer	1.16	90.7	91.8	91.0	87.4	86.4	76.8	79.1	94.7	91.9	83.7	77.5	79.5	86.3	91.0
12 Trucks, consumer	.63	160.5	148.1	154.2	146.0	160.4	178.4	159.4	173.2	168.5	159.5	178.3	171.6	172.2	....
13 Auto parts and allied goods	1.19	123.5	121.9	125.3	125.4	125.3	126.6	124.8	127.5	125.2	123.3	127.7	126.4	127.8	128.7
14 Home goods	3.91	121.6	119.9	121.8	119.3	122.5	123.6	121.9	124.3	125.8	123.9	124.0	123.2	120.6	122.4
15 Appliances, A/C and TV	1.24	141.5	137.7	142.2	133.4	141.7	147.1	141.8	145.7	150.1	142.7	142.2	140.6	133.1	137.0
16 Appliances and TV	1.19	142.1	139.2	142.3	133.4	142.6	145.5	140.6	146.1	150.5	142.6	140.9	141.4	133.0	....
17 Carpeting and furniture	.96	130.7	133.5	133.3	132.3	134.1	132.0	131.6	132.9	133.5	133.9	134.2	132.3	133.1	....
18 Miscellaneous home goods	1.71	102.0	99.4	100.7	101.8	102.2	102.0	102.2	104.1	103.9	104.8	105.2	105.5	104.6	....
19 Nondurable consumer goods	18.63	130.5	129.8	131.1	130.9	132.1	132.5	131.0	130.8	131.5	133.3	134.7	135.4	135.1	135.4
20 Consumer staples	15.29	137.3	136.4	137.7	137.6	138.9	139.2	137.8	137.4	138.3	140.7	142.3	143.0	142.5	142.8
21 Consumer foods and tobacco	7.80	136.2	134.4	135.6	136.0	137.2	137.4	137.0	137.5	137.3	139.2	140.3	140.7	139.7	....
22 Nonfood staples	7.49	138.5	138.5	139.9	139.2	140.6	141.2	138.6	137.2	139.4	142.2	144.3	145.4	145.4	145.7
23 Consumer chemical products	2.75	162.9	164.7	165.9	164.4	165.7	167.4	163.6	160.0	163.5	167.7	170.7	171.7	171.7	....
24 Consumer paper products	1.88	151.8	148.9	152.9	153.1	153.8	153.9	153.2	151.8	152.8	157.0	157.1	158.7	158.5	....
25 Consumer energy	2.86	106.3	106.5	106.4	105.9	108.0	107.7	105.0	105.8	107.4	108.0	110.6	111.6	111.5	....
26 Consumer fuel	1.44	93.1	94.5	92.1	91.9	92.7	91.4	91.6	92.4	93.2	95.4	95.4	97.0	98.5	....
27 Residential utilities	1.42	119.8	118.7	121.0	120.2	123.6	124.3	118.7	119.4	121.8	120.7	126.0	126.4	....	....
Equipment															
28 Business and defense equipment	18.01	153.6	150.0	150.8	153.2	154.4	154.5	155.2	157.2	156.6	157.8	159.2	160.3	160.9	161.9
29 Business equipment	14.34	144.5	140.8	141.7	144.2	145.6	145.6	146.3	148.7	148.3	149.8	151.2	152.3	153.2	154.5
30 Construction, mining, and farm	2.08	62.2	58.6	61.2	63.0	65.0	66.4	66.1	66.5	66.3	67.4	67.1	67.6	68.4	69.0
31 Manufacturing	3.27	117.9	111.1	111.5	117.2	120.4	120.9	122.0	120.5	120.6	122.2	125.4	124.9	125.8	127.6
32 Power	1.27	82.6	82.4	84.0	84.0	81.8	82.8	81.1	83.0	83.1	84.2	86.2	88.3	88.3	88.6
33 Commercial	5.22	226.5	220.9	222.0	226.7	227.9	227.7	229.1	232.4	232.1	235.5	238.0	240.4	240.8	242.1
34 Transit	2.49	108.4	110.4	110.1	105.4	106.1	104.7	105.1	112.5	111.2	109.1	106.5	107.6	109.9	111.7
35 Defense and space equipment	3.67	188.9	186.1	186.5	188.6	188.7	189.1	189.8	190.3	188.7	188.9	190.6	191.5	190.9	190.6
Intermediate products															
36 Construction supplies	5.95	131.5	127.3	128.3	131.5	133.1	132.5	132.3	133.3	134.2	133.8	136.8	137.7	136.6	137.2
37 Business supplies	6.99	153.5	150.5	153.8	153.4	155.2	156.3	155.6	157.1	158.4	157.4	157.8	159.6	160.1	....
38 General business supplies	5.67	158.6	155.5	158.2	158.5	160.5	161.0	160.9	162.3	164.3	163.3	163.1	165.2	165.7	....
39 Commercial energy products	1.31	131.1	129.0	135.0	131.1	132.3	135.8	132.7	134.6	132.9	131.8	135.0	135.5	135.7	....
Materials															
40 Durable goods materials	20.50	125.0	122.2	121.6	124.0	125.2	125.5	126.4	128.7	130.2	132.0	131.8	131.2	131.5	132.9
41 Durable consumer parts	4.92	100.9	96.2	95.2	99.2	98.5	99.6	99.0	102.3	103.1	104.6	104.7	104.2	104.0	105.7
42 Equipment parts	5.94	159.0	157.1	156.0	158.3	159.3	159.5	161.1	162.2	163.2	165.3	167.4	167.4	168.1	169.6
43 Durable materials n.e.c.	9.64	116.4	114.1	113.9	115.5	117.7	117.9	118.9	121.6	123.6	125.5	123.7	122.6	122.9	124.2
44 Basic metal materials	4.64	86.7	81.8	81.9	83.6	86.6	90.4	91.3	95.3	96.5	100.0	92.9	90.7	90.5	91.5
45 Nondurable goods materials	10.09	125.8	125.4	125.3	124.1	127.6	128.3	128.6	128.2	129.6	132.5	129.9	128.4	129.4	130.3
46 Textile, paper, and chemical materials	7.53	127.6	126.9	126.5	125.1	129.6	130.6	131.2	131.0	132.3	135.6	132.7	130.2	131.6	132.6
47 Textile materials	1.52	111.7	125.0	....	111.9	117.8	116.7	116.0	113.0	112.7	113.6	112.6	110.2	111.8	....
48 Pulp and paper materials	1.55	141.0	137.4	137.4	139.0	145.4	145.0	143.3	142.0	144.4	149.0	148.0	144.4	145.3	....
49 Chemical materials	4.46	128.4	125.0	125.0	124.9	128.1	130.4	132.2	133.4	134.7	138.4	134.2	132.1	133.6	....
50 Miscellaneous nondurable materials	2.57	120.4	121.1	122.0	120.9	122.0	121.4	120.9	119.7	121.7	123.3	121.8	123.2	....	....
51 Energy materials	11.69	99.8	97.5	99.3	99.4	99.0	100.9	100.2	101.8	102.8	101.7	101.4	100.7	100.9	101.4
52 Primary energy	7.57	105.0	102.3	103.6	104.0	102.5	104.6	104.6	106.8	108.4	107.7	107.3	105.0	104.8	....
53 Converted fuel materials	4.12	90.3	88.7	91.4	91.0	92.5	94.1	92.2	92.7	92.6	90.7	90.6	92.8	93.8	....

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

Groups	SIC code	1977 proportion	1987 avg.	1987 Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1988 Jan.[r]	Feb.	Mar.[p]	Apr.[e]
				Index (1977 = 100)												
MAJOR INDUSTRY																
1 Mining and utilities	.....	15.79	104.3	101.4	103.1	103.0	103.7	105.4	105.4	106.8	107.9	107.3	107.8	107.0	106.9	107.4
2 Mining	.....	9.83	100.7	98.6	99.2	99.2	99.2	100.9	101.9	103.6	104.6	104.6	103.3	101.7	102.4	103.8
3 Utilities	.....	5.96	110.3	106.0	109.6	109.4	111.2	112.9	111.2	112.1	113.2	111.7	115.2	115.7	114.4	113.5
4 Manufacturing	.....	84.21	134.6	132.4	133.2	134.0	135.6	135.9	135.7	137.3	137.9	138.9	139.4	139.5	140.0	140.9
5 Nondurable	.....	35.11	136.7	134.6	135.7	136.9	138.5	138.8	138.6	138.1	139.6	141.3	141.4	141.2	141.5	142.0
6 Durable	.....	49.10	133.1	130.9	131.4	132.0	133.5	133.8	133.7	136.8	136.7	137.3	137.9	138.3	138.9	140.1
Mining																
7 Metal	10	.50	77.5	65.7	71.7	70.7	71.4	79.3	86.5	85.6	90.4	96.5	91.5	84.2	......	......
8 Coal	11.12	1.60	131.8	121.9	127.2	128.8	127.9	130.5	133.3	140.3	142.9	140.6	140.2	133.7	129.1	131.5
9 Oil and gas extraction	13	7.07	92.7	93.1	92.1	91.8	91.8	93.0	93.3	94.1	94.2	94.1	93.1	92.6	94.5	95.6
10 Stone and earth minerals	14	.66	128.2	125.4	127.6	128.5	130.7	130.3	130.0	131.0	134.1	135.6	132.1	134.5	135.1	......
Nondurable manufactures																
11 Foods	20	7.96	137.7	136.0	137.4	137.7	138.5	138.8	139.5	138.0	138.9	140.1	141.2	142.0	141.4	......
12 Tobacco products	21	.62	103.4	99.6	106.6	107.0	106.8	110.4	101.7	103.7	106.5	110.5	105.8	105.3	......	......
13 Textile mill products	22	2.29	115.8	116.6	115.7	117.2	118.3	119.8	118.2	116.8	117.3	118.2	116.2	115.3	116.0	......
14 Apparel products	23	2.79	107.4	105.3	106.4	107.7	109.7	108.4	107.6	108.0	109.4	107.8	108.7	108.0	......	......
15 Paper and products	26	3.15	144.4	140.5	141.3	142.6	148.8	148.9	147.4	146.0	148.3	150.6	149.9	148.0	149.6	......
16 Printing and publishing	27	4.54	172.0	169.2	171.4	174.1	174.0	174.7	174.9	175.2	175.7	176.9	177.5	179.6	179.5	179.7
17 Chemicals and products	28	8.05	140.1	137.3	138.1	139.3	140.8	142.3	142.4	141.5	144.4	147.9	147.9	145.8	146.2	......
18 Petroleum products	29	2.40	93.5	94.0	92.6	92.3	94.1	92.9	93.5	94.6	93.3	96.1	96.3	95.9	97.6	98.7
19 Rubber and plastic products	30	2.80	163.6	160.5	162.2	165.4	167.2	164.8	165.2	166.7	169.9	170.6	170.5	172.3	172.5	......
20 Leather and products	31	.53	60.0	60.2	61.4	60.8	59.2	61.3	60.7	59.6	60.7	57.5	58.3	59.7	59.9	......
Durable manufactures																
21 Lumber and products	24	2.30	130.3	127.8	130.3	131.1	132.8	131.1	126.9	129.8	134.0	133.6	136.3	139.4	137.1	......
22 Furniture and fixtures	25	1.27	152.8	148.2	150.5	153.9	156.2	155.2	155.9	156.0	158.5	159.4	158.0	158.5	159.2	......
23 Clay, glass, stone products	32	2.72	119.1	120.6	117.2	117.9	118.8	116.5	118.6	118.9	120.5	120.1	120.4	121.6	121.9	......
24 Primary metals	33	5.33	81.5	76.1	77.0	78.8	81.4	85.1	84.5	90.6	90.2	90.6	86.5	85.3	84.9	86.0
25 Iron and steel	331.2	3.49	70.8	65.0	65.7	68.3	70.9	76.0	74.6	82.0	79.7	81.9	77.8	75.6	74.3	......
26 Fabricated metal products	34	6.46	111.0	109.9	108.5	111.1	111.1	110.1	111.1	113.5	113.6	115.8	117.1	117.8	118.8	119.5
27 Nonelectrical machinery	35	9.54	152.7	150.4	149.7	151.8	155.3	154.3	156.6	158.0	157.2	161.0	162.9	163.5	164.6	166.2
28 Electrical machinery	36	7.15	172.3	168.4	171.1	170.5	172.5	174.3	173.4	175.5	175.6	175.9	177.4	177.6	177.0	179.3
29 Transportation equipment	37	9.13	129.2	127.8	129.4	126.5	127.6	128.1	125.5	132.0	130.4	128.1	128.6	128.4	130.0	131.3
30 Motor vehicles and parts	371	5.25	111.8	109.8	112.0	107.4	109.4	109.1	105.6	116.0	114.0	110.2	109.7	109.3	113.1	115.4
31 Aerospace and miscellaneous transportation equipment	372–6.9	3.87	152.8	152.3	153.1	152.4	152.3	153.9	152.5	153.7	152.7	152.4	154.2	154.5	153.0	153.0
32 Instruments	38	2.66	143.9	142.8	142.1	144.5	143.8	146.3	145.6	146.7	147.8	145.5	148.2	149.2	149.9	150.8
33 Miscellaneous manufactures	39	1.46	102.6	101.4	101.9	101.2	100.5	102.2	102.1	104.6	104.5	105.6	105.0	106.1	105.5	......
Utilities																
34 Electric	.....	4.17	126.6	122.3	128.8	128.8	131.0	132.0	127.5	126.8	127.5	125.6	130.3	130.7	129.2	......
		Gross value (billions of 1982 dollars, annual rates)														
MAJOR MARKET																
35 Products, total	.....	**517.5**	**1,735.8**	**1,710.0**	**1,723.0**	**1,720.4**	**1,732.5**	**1,741.7**	**1,735.9**	**1,774.1**	**1,772.4**	**1,778.8**	**1,790.6**	**1,798.7**	**1,808.9**	**1,818.2**
36 Final	.....	405.7	1,333.8	1,316.5	1,324.7	1,320.1	1,326.6	1,334.9	1,330.3	1,360.9	1,359.9	1,359.4	1,375.5	1,382.0	1,388.6	1,396.9
37 Consumer goods	.....	272.7	866.0	857.1	862.8	855.1	863.2	866.4	856.9	876.6	879.8	881.2	893.6	894.7	896.4	901.8
38 Equipment	.....	133.0	467.8	459.4	461.9	465.0	463.5	468.5	473.4	484.4	480.1	478.2	481.9	487.3	492.3	495.1
39 Intermediate	.....	111.9	402.0	393.6	398.4	400.3	405.9	406.8	405.6	413.2	412.5	419.4	415.1	416.7	420.3	421.3

1. These data also appear in the Board's G.12.3 (414) release. For address, see inside front cover.

A major revision of the industrial production index and the capacity utilization rates was released in July 1985. See "A Revision of the Index of Industrial Production" and accompanying tables that contain revised indexes (1977=100) through December 1984 in the FEDERAL RESERVE BULLETIN, vol. 71 (July 1985), pp. 487–501. The revised indexes for January through June 1985 were shown in the September BULLETIN.

2.14 HOUSING AND CONSTRUCTION

Monthly figures are at seasonally adjusted annual rates except as noted.

Item	1985	1986	1987	1987 June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1988 Jan.[r]	Feb.[r]	Mar.
	Private residential real estate activity (thousands of units)												
NEW UNITS													
1 Permits authorized	1,733	1,750	1,535[r]	1,539[r]	1,510[r]	1,514[r]	1,501[r]	1,453[r]	1,459[r]	1,372[r]	1,248	1,429	1,476
2 1-family	957	1,071	1,024[r]	1,022[r]	994[r]	1,014[r]	983[r]	962[r]	971[r]	957[r]	918	1,003	1,030
3 2-or-more-family	777	679	511[r]	517[r]	516[r]	500[r]	518[r]	491[r]	488[r]	415[r]	330	426	446
4 Started	1,742	1,805	1,621	1,583	1,594	1,583	1,679	1,538	1,661	1,399	1,382	1,519	1,554
5 1-family	1,072	1,179	1,146	1,086	1,142	1,109	1,211	1,105	1,129	1,035	1,016	1,102	1,176
6 2-or-more-family	669	626	474	497	452	474	468	433	532	364	366	417	378
7 Under construction, end of period[1]	1,063	1,074	987	1,060	1,052	1,044	1,046	1,044	1,042	1,016	1,008	988	1,005
8 1-family	539	583	591	622	621	621	627	627	625	618	614	600	622
9 2-or-more-family	524	490	397	438	431	423	419	417	417	398	394	388	383
10 Completed	1,703	1,756	1,669	1,612	1,680	1,633	1,591	1,565	1,571	1,624	1,550	1,442	1,568
11 1-family	1,072	1,120	1,123	1,111	1,112	1,069	1,100	1,114	1,088	1,104	1,098	1,031	1,076
12 2-or-more-family	631	637	546	501	568	564	491	451	483	520	452	411	492
13 Mobile homes shipped	284	244	233	234	243	234	240	234	222	227	200	208	212
Merchant builder activity in 1-family units													
14 Number sold	688	748	672	640	672	673	644	653	625	586[r]	552	630	655
15 Number for sale, end of period[1]	350	361	370	359	359	361	361	360	362	365	369	362	377
Price (thousands of dollars)[2]													
Median													
16 Units sold	84.3	92.2	104.7[r]	109.0	105.0	106.8	106.5	106.5	117.0	111.8[r]	118.0	110.0	101.1
Average													
17 Units sold	101.0	112.2	127.9	135.8	128.6	128.5	133.5	125.8	139.2	136.2[r]	144.9	137.8	130.3
EXISTING UNITS (1-family)													
18 Number sold	3,217	3,566	3,530	3,580	3,470	3,410	3,430	3,470	3,370	3,330	3,170	3,250	3,330
Price of units sold (thousands of dollars)[2]													
19 Median	75.4	80.3	85.6	85.9	88.3	86.5	85.5	84.6	85.0	85.4	87.4	88.1	87.9
20 Average	90.6	98.3	106.2	107.1	109.8	107.0	106.9	106.1	106.6	107.1	108.7	110.4	110.7
	Value of new construction[3] (millions of dollars)												
CONSTRUCTION													
21 Total put in place	**355,995**	**388,815**	**398,189**	**397,191**	**398,465**	**402,872**	**402,782**	**398,930**	**403,963**	**403,884**	**394,453**	**396,022**	**401,830**
22 Private	291,665	316,589	322,948	324,256	323,847	329,831	324,857	322,213	327,020	326,272	319,175	317,928	319,521
23 Residential	158,475	187,147	190,508	200,864	198,005	200,241	196,969	194,521	193,731	194,535	191,979	189,914	191,361
24 Nonresidential, total	133,190	129,442	132,440	123,392	125,842	129,590	127,888	127,692	133,289	131,737	127,196	128,014	128,160
Buildings													
25 Industrial	15,769	13,747	13,095	13,023	13,005	13,659	14,387	13,536	14,336	13,579	13,324	13,720	14,735
26 Commercial	59,629	56,762	53,201	51,831	52,537	54,055	52,800	53,912	57,683	54,982	54,351	54,132	53,933
27 Other	12,619	13,216	15,254	14,769	15,317	14,888	15,079	15,593	16,158	17,321	16,444	17,773	17,035
28 Public utilities and other	45,173	45,717	44,728	43,769	44,983	46,988	45,622	44,651	45,112	45,855	43,077	42,389	42,457
29 Public	64,326	72,225	75,239	72,935	74,618	73,041	77,924	76,716	76,943	77,613	75,278	78,094	82,309
30 Military	3,283	3,919	4,204	4,352	5,009	4,193	6,083	4,308	4,738	3,164	4,667	4,367	4,844
31 Highway	21,756	23,360	23,248	21,704	22,441	22,005	23,489	24,993	24,713	25,792	25,018	25,835	27,604
32 Conservation and development	4,746	4,668	5,142	5,498	5,328	5,127	4,978	5,445	4,725	5,565	4,371	4,577	5,489
33 Other	34,541	40,278	42,645	41,381	41,840	41,716	43,374	41,970	42,767	43,092	41,222	43,315	44,372

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 prior 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 Apr. 1988 (1982 = 100)[1]
	1987 Apr.	1988 Apr.	1987 June	1987 Sept.	1987 Dec.ʳ	1988 Mar.ʳ	1987 Dec.	1988 Jan.ʳ	1988 Feb.	1988 Mar.	1988 Apr.	
Consumer Prices[2]												
1 **All items**	**3.8**	**3.9**	**4.3**	**3.9**	**3.2**	**4.2**	**.2**	**.3**	**.2**	**.5**	**.4**	**117.1**
2 Food	4.7	3.4	5.8	2.1	2.8	1.4	.4	.3	−.3	.3	.7	116.6
3 Energy items	.2	1.0	6.6	6.0	−3.9	−4.9	−.8	−.7	−.6	.0	.8	87.3
4 All items less food and energy	4.2	4.3	3.8	3.8	4.4	5.4	.2	.5	.2	.6	.4	122.4
5 Commodities	3.1	3.6	3.7	2.9	2.5	4.7	−.2	.4	.1	.7	.6	115.5
6 Services	4.7	4.6	4.4	4.3	5.0	5.9	.4	.6	.4	.5	.2	126.5
Producer Prices												
7 Finished goods	2.7	1.7	3.5	3.8	−1.9	2.3	−.3ʳ	.2	−.2	.6	.4	106.9
8 Consumer foods	4.1	.9	9.6	−1.8	−5.7	5.6	−1.3	1.7	−1.1	.7	.4	110.2
9 Consumer energy	−1.9	−1.3	2.0	16.5	−9.6	−19.6	−.8ʳ	−5.3	−.8	.9	3.1	60.9
10 Other consumer goods	2.8	3.1	1.8	4.6	1.7	5.3	.3	.5	.3	.4	.0	117.2
11 Capital equipment	2.0	1.8	1.1	4.0	−.7	3.2	.2	.2	.2	.4	.2	113.6
12 Intermediate materials[3]	1.2	5.3	5.3	5.6	4.3	3.9	.2ʳ	.4	.0	.6	.8	105.7
13 Excluding energy	1.6	6.7	4.2	5.3	7.2	7.8	.5	1.0	.2	.7	.7	113.7
Crude materials												
14 Foods	9.0	4.4	25.2	−4.8	−4.8	16.7	.7ʳ	.8	2.3	.8	.4	101.2
15 Energy	2.9	−4.9	11.3	5.9	−15.2	−23.6	−1.5ʳ	−3.9	−.3	−2.4	2.5	70.5
16 Other	3.3	23.6	27.2	39.4	18.0	13.8	.4ʳ	1.1	.8	1.4	.2	133.6

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	1985	1986	1987	1987				1988
				Q1	Q2	Q3	Q4	Q1[r]
GROSS NATIONAL PRODUCT								
1 **Total**	**4,010.3**	**4,235.0**	**4,488.5**	**4,377.7**	**4,445.1**	**4,524.0**	**4,607.4**	**4,668.7**
By source								
2 Personal consumption expenditures	2,629.4	2,799.8	2,967.8	2,893.8	2,943.7	3,011.3	3,022.6	3,071.9
3 Durable goods	368.7	402.4	413.7	396.1	409.0	436.8	413.0	426.4
4 Nondurable goods	913.1	939.4	982.9	969.9	982.1	986.4	993.1	998.8
5 Services	1,347.5	1,458.0	1,571.2	1,527.7	1,552.6	1,588.1	1,616.5	1,646.8
6 Gross private domestic investment	641.6	671.0	717.5	699.9	702.6	707.4	760.2	756.7
7 Fixed investment	631.6	655.2	671.5	648.2	662.3	684.5	690.8	704.3
8 Nonresidential	442.6	436.9	443.4	422.8	434.6	456.6	459.6	477.4
9 Structures	152.5	137.4	134.2	128.7	129.7	137.1	141.1	140.0
10 Producers' durable equipment	290.1	299.5	309.2	294.1	304.9	319.5	318.5	337.4
11 Residential structures	189.0	218.3	228.1	225.4	227.7	227.9	231.2	226.9
12 Change in business inventories	10.0	15.7	46.1	51.6	40.3	22.9	69.4	52.4
13 Nonfarm	13.6	16.8	36.2	48.7	27.3	11.1	57.5	36.2
14 Net exports of goods and services	−79.2	−105.5	−119.6	−112.2	−118.4	−123.7	−124.3	−109.4
15 Exports	369.9	376.2	427.8	397.3	416.5	439.2	458.1	482.7
16 Imports	449.2	481.7	547.4	509.5	534.8	562.9	582.4	592.1
17 Government purchases of goods and services	818.6	869.7	922.8	896.2	917.1	929.0	948.8	949.5
18 Federal	353.9	366.2	379.4	366.9	379.6	382.1	388.9	379.7
19 State and local	464.7	503.5	543.4	529.3	537.6	546.9	559.9	569.8
By major type of product								
20 Final sales, total	4,000.3	4,219.3	4,442.5	4,326.0	4,404.8	4,501.1	4,537.9	4,616.3
21 Goods	1,637.9	1,693.8	1,782.2	1,738.7	1,763.5	1,798.3	1,828.4	1,854.1
22 Durable	704.3	726.8	773.3	747.0	756.7	785.7	803.8	812.8
23 Nondurable	933.6	967.0	1,008.9	991.7	1,006.8	1,012.6	1,024.6	1,041.3
24 Services	1,969.2	2,116.2	2,271.2	2,212.0	2,252.2	2,289.3	2,331.5	2,372.8
25 Structures	403.1	425.0	435.0	426.9	429.4	436.4	447.5	441.8
26 Change in business inventories	10.0	15.7	46.1	51.6	40.3	22.9	69.4	52.4
27 Durable goods	7.3	4.8	25.3	35.2	22.1	−1.9	46.0	17.8
28 Nondurable goods	2.7	10.9	20.7	16.5	18.2	24.8	23.4	34.7
29 MEMO **Total GNP in 1982 dollars**	**3,607.5**	**3,713.3**	**3,821.0**	**3,772.2**	**3,795.3**	**3,835.9**	**3,880.8**	**3,918.0**
NATIONAL INCOME								
30 **Total**	**3,229.9**	**3,422.0**	**3,636.0**	**3,548.3**	**3,593.3**	**3,659.0**	**3,743.5**	**3,792.8**
31 Compensation of employees	2,370.8	2,504.9	2,647.6	2,589.9	2,623.4	2,663.5	2,713.5	2,764.5
32 Wages and salaries	1,974.7	2,089.1	2,212.7	2,163.3	2,191.4	2,226.5	2,269.9	2,308.7
33 Government and government enterprises	372.3	394.8	421.4	412.2	418.1	424.5	430.9	439.1
34 Other	1,602.6	1,694.3	1,791.3	1,751.1	1,773.3	1,801.9	1,839.0	1,869.6
35 Supplement to wages and salaries	396.1	415.8	434.8	426.6	432.0	437.0	443.6	455.8
36 Employer contributions for social insurance	203.8	214.7	224.6	220.0	222.5	225.9	230.1	240.5
37 Other labor income	192.3	201.1	210.2	206.7	209.5	211.1	213.5	215.4
38 Proprietors' income[1]	257.3	289.8	327.4	320.9	323.1	322.7	342.7	338.5
39 Business and professional[1]	227.6	252.6	279.0	269.7	275.8	282.1	288.4	292.6
40 Farm[1]	29.7	37.2	48.4	51.3	47.3	40.6	54.3	45.9
41 Rental income of persons[2]	9.0	16.7	19.3	20.0	18.9	17.3	20.9	22.1
42 Corporate profits[1]	277.6	284.4	304.7	294.0	296.8	314.9	313.0	309.9
43 Profits before tax[3]	224.8	231.9	274.1	257.0	268.7	284.9	285.6	280.6
44 Inventory valuation adjustment	−.7	6.5	−17.5	−11.3	−20.0	−17.6	−21.3	−16.4
45 Capital consumption adjustment	53.5	46.0	48.2	48.2	48.0	47.7	48.7	45.7
46 Net interest	315.3	326.1	337.1	323.6	331.1	340.6	353.3	357.8

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	1985	1986	1987	1987				1988
				Q1	Q2	Q3	Q4	Q1r
PERSONAL INCOME AND SAVING								
1 **Total personal income**	**3,327.0**	**3,534.3**	**3,746.5**	**3,662.0**	**3,708.6**	**3,761.0**	**3,854.4**	**3,902.3**
2 Wage and salary disbursements	1,974.9	2,089.1	2,212.7	2,163.3	2,191.4	2,226.1	2,270.2	2,308.7
3 Commodity-producing industries	609.2	623.3	641.1	632.9	635.0	641.8	654.7	663.8
4 Manufacturing	460.9	470.5	484.0	477.2	479.0	485.1	494.7	501.2
5 Distributive industries	473.0	497.1	522.9	511.5	518.9	526.3	535.0	543.0
6 Service industries	520.4	573.9	627.3	606.7	619.3	633.9	649.3	662.8
7 Government and government enterprises	372.3	394.8	421.4	412.2	418.1	424.2	431.2	439.1
8 Other labor income	192.3	201.1	210.2	206.7	209.5	211.1	213.5	215.4
9 Proprietors' income[1]	257.3	289.8	327.4	320.9	323.1	322.7	342.7	338.5
10 Business and professional[1]	227.6	252.6	279.0	269.7	275.8	282.1	288.4	292.6
11 Farm[1]	29.7	37.2	48.4	51.3	47.3	40.6	54.3	45.9
12 Rental income of persons[2]	9.0	16.7	19.3	20.0	18.9	17.3	20.9	22.1
13 Dividends	76.3	81.2	87.5	84.5	86.3	88.7	90.5	92.1
14 Personal interest income	476.5	497.6	516.2	499.8	506.3	520.0	538.8	545.8
15 Transfer payments	489.7	518.3	543.1	533.7	541.5	545.8	551.4	569.1
16 Old-age survivors, disability, and health insurance benefits	253.4	269.2	282.8	278.0	282.3	284.4	286.5	297.8
17 LESS: Personal contributions for social insurance	148.9	159.6	169.9	166.7	168.4	170.7	173.6	189.4
18 EQUALS: Personal income	3,327.0	3,534.3	3,746.5	3,662.0	3,708.6	3,761.0	3,854.4	3,902.3
19 LESS: Personal tax and nontax payments	485.9	512.2	564.8	536.1	578.0	565.7	579.4	576.8
20 EQUALS: Disposable personal income	2,841.1	3,022.1	3,181.7	3,125.9	3,130.6	3,195.3	3,275.0	3,325.5
21 LESS: Personal outlays	2,714.1	2,891.5	3,062.7	2,987.5	3,037.4	3,106.5	3,119.3	3,170.3
22 EQUALS: Personal saving	127.1	130.6	119.0	138.4	93.2	88.8	155.7	155.2
MEMO								
Per capita (1982 dollars)								
23 Gross national product	15,073.7	15,369.6	15,672.6	15,523.4	15,586.4	15,714.4	15,859.4	15,972.2
24 Personal consumption expenditures	9,830.2	10,142.8	10,242.8	10,188.9	10,215.6	10,326.5	10,235.4	10,317.5
25 Disposable personal income	10,622.0	10,947.0	10,980.0	11,008.0	10,865.0	10,958.0	11,090.0	11,169.0
26 Saving rate (percent)	4.5	4.3	3.7	4.4	3.0	2.8	4.8	4.7
GROSS SAVING								
27 **Gross saving**	**531.3**	**532.0**	**565.2**	**554.3**	**551.3**	**559.3**	**595.9**	**618.1**
28 Gross private saving	664.2	679.8	672.6	683.8	639.9	648.7	718.2	724.1
29 Personal saving	127.1	130.6	119.0	138.4	93.2	88.8	155.7	155.2
30 Undistributed corporate profits[1]	99.6	92.6	74.6	75.6	70.1	76.8	75.7	76.3
31 Corporate inventory valuation adjustment	-.7	6.5	-17.5	-11.3	-20.0	-17.6	-21.3	-16.4
Capital consumption allowances								
32 Corporate	269.1	282.8	296.2	291.8	294.5	297.8	300.9	304.6
33 Noncorporate	168.5	173.8	182.8	178.0	182.1	185.3	186.0	188.0
34 Government surplus, or deficit (-), national income and product accounts	-132.9	-147.8	-107.4	-129.5	-88.6	-89.3	-122.3	-106.0
35 Federal	-196.0	-204.7	-151.4	-170.5	-139.2	-135.8	-160.2	-151.8
36 State and local	63.1	56.8	44.0	41.0	50.6	46.5	37.9	45.8
37 **Gross investment**	**525.7**	**527.1**	**560.6**	**552.1**	**548.1**	**548.4**	**593.8**	**609.5**
38 Gross private domestic	641.6	671.0	717.5	699.9	702.6	707.4	760.2	756.7
39 Net foreign	-115.9	-143.9	-156.9	-147.7	-154.5	-159.0	-166.4	-147.3
40 **Statistical discrepancy**	**-5.6**	**-4.9**	**-4.6**	**-2.2**	**-3.1**	**-10.9**	**-2.1**	**-8.6**

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	1985	1986	1987	1986	1987			
				Q4	Q1	Q2	Q3	Q4[p]
1 Balance on current account	−116,394	−141,352	−160,682	−37,977	−36,909	−41,338	−43,442	−38,993
2 Not seasonally adjusted	....	....	....	−36,398	−33,435	−42,028	−48,317	−36,902
3 Merchandise trade balance[2]	−122,148	−144,339	−159,201	−38,595	−38,920	−39,742	−40,365	−40,174
4 Merchandise exports	215,935	224,361	250,814	57,021	56,769	59,875	65,110	69,060
5 Merchandise imports	−338,083	−368,700	−410,015	−95,616	−95,689	−99,617	−105,475	−109,234
6 Military transactions, net	−3,338	−3,662	−2,078	−495	−37	29	−735	−1,335
7 Investment income, net[3]	25,398	20,844	14,483	4,492	5,513	1,589	294	7,088
8 Other service transactions, net	−1,005	1,463	−418	759	−390	−150	289	−168
9 Remittances, pensions, and other transfers	−4,079	−3,885	−3,526	−1,151	−989	−837	−833	−868
10 U.S. government grants (excluding military)	−11,222	−11,772	−9,942	−2,987	−2,086	−2,227	−2,092	−3,536
11 Change in U.S. government assets, other than official reserve assets, net (increase, −)	−2,831	−1,920	1,219	15	225	−177	355	816
12 Change in U.S. official reserve assets (increase, −)	−3,858	312	9,150	132	1,956	3,419	32	3,743
13 Gold	0	0	0	0	0	0	0	0
14 Special drawing rights (SDRs)	−897	−246	−509	−31	76	−171	−210	−205
15 Reserve position in International Monetary Fund	908	1,500	2,070	283	606	335	407	722
16 Foreign currencies	−3,869	−942	7,590	−120	1,274	3,255	−165	3,226
17 Change in U.S. private assets abroad (increase, −)[3]	−24,711	−94,374	−74,166	−32,351	13,170	−18,320	−27,559	−41,457
18 Bank-reported claims	−1,323	−59,039	−33,431	−31,800	25,686	−15,685	−20,107	−23,325
19 Nonbank-reported claims	1,361	−3,986	....	170	−1,163	2,603	−327	....
20 U.S. purchase of foreign securities, net	−7,481	−3,302	−3,654	3,113	−1,345	384	−923	−1,770
21 U.S. direct investments abroad, net[3]	−17,268	−28,047	−38,194	−3,834	−10,008	−5,622	−6,202	−16,362
22 Change in foreign official assets in the United States (increase, +)	−1,140	34,698	44,289	1,003	13,953	10,070	363	19,904
23 U.S. Treasury securities	−838	34,515	43,301	4,572	12,145	11,084	860	19,212
24 Other U.S. government obligations	−301	−1,214	1,570	−117	−62	256	714	662
25 Other U.S. government liabilities[4]	823	1,723	−3,227	−607	−1,381	−1,504	−377	35
26 Other U.S. liabilities reported by U.S. banks	645	554	3,705	−2,435	3,611	547	−211	−242
27 Other foreign official assets[5]	−1,469	−880	−1,060	−410	−360	−313	−624	237
28 Change in foreign private assets in the United States (increase, +)[3]	131,012	178,689	158,296	57,428	12,802	39,494	67,026	38,974
29 U.S. bank-reported liabilities	41,045	77,350	77,857	34,604	−13,614	14,823	44,358	32,290
30 U.S. nonbank-reported liabilities	−450	−2,791	....	1,035	1,761	1,526	525	....
31 Foreign private purchases of U.S. Treasury securities, net	20,433	8,275	−6,088	−3,074	−1,570	−2,211	−2,855	548
32 Foreign purchases of other U.S. securities, net	50,962	70,802	42,134	12,269	18,499	15,870	12,693	−4,928
33 Foreign direct investments in the United States, net[3]	19,022	25,053	40,581	12,594	7,726	9,486	12,305	11,064
34 Allocation of SDRs	0	0	0	0	0	0	0	0
35 Discrepancy	17,920	23,947	21,892	11,750	−5,197	6,852	3,226	17,013
36 Owing to seasonal adjustments	....	....	....	3,904	2,959	−1,700	−4,833	3,577
37 Statistical discrepancy in recorded data before seasonal adjustment	17,920	23,947	21,892	7,846	−8,156	8,552	8,059	13,437
MEMO								
Changes in official assets								
38 U.S. official reserve assets (increase, −)	−3,858	312	9,150	132	1,956	3,419	32	3,743
39 Foreign official assets in the United States (increase, +) excluding line 25	−1,963	32,975	47,516	1,610	15,334	11,574	739	19,869
40 Change in Organization of Petroleum Exporting Countries official assets in the United States (part of line 22 above)	−6,709	−8,508	−10,006	−5,195	−2,901	−2,651	−1,721	−2,733
41 Transfers under military grant programs (excluded from lines 4, 6, and 10 above)	46	101	94	53	8	26	13	47

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. Includes reinvested earnings.
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 not seasonally adjusted.

Item	1985	1986	1987	1987				1988		
				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1 EXPORTS of domestic and foreign merchandise excluding grant-aid shipments, f.a.s. value	218,815	226,808	252,866	20,986	21,752	23,799	24,801	22,330	23,559	28,971
2 GENERAL IMPORTS including merchandise for immediate consumption plus entries into bonded warehouses, c.i.f. value	352,463	382,964	424,082	35,062	39,383	37,016	37,003	34,767	37,387	38,718
3 **Trade balance**	**−133,648**	**−156,156**	**−171,217**	**−14,076**	**−17,631**	**−13,218**	**−12,202**	**−12,437**	**−13,828**	**−9,746**

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. 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	1984	1985	1986	1987			1988			
				Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1 **Total**	**34,934**	**43,186**	**48,511**	**46,200**	**46,779**	**45,798**	**42,955**	**43,064**	**43,186**	**42,730**
2 Gold stock, including Exchange Stabilization Fund[1]	11,096	11,090	11,064	11,085	11,082	11,078	11,068	11,063	11,063	11,063
3 Special drawing rights[2,3]	5,641	7,293	8,395	9,373	9,937	10,283	9,765	9,761	9,899	9,589
4 Reserve position in International Monetary Fund[2]	11,541	11,947	11,730	11,157	11,369	11,349	10,804	10,445	10,645	10,803
5 Foreign currencies[4]	6,656	12,856	17,322	14,585	14,391	13,088	11,318	11,795	11,579	11,275

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	1984	1985	1986	1987			1988			
				Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1 Deposits	267	480	287	236	351	244	355	343	534	215
Assets held in custody										
2 U.S. Treasury securities[2]	118,000	121,004	155,835	182,072	187,767	195,126	206,675	215,308	222,407	224,725
3 Earmarked gold[3]	14,242	14,245	14,048	13,998	13,965	13,919	13,882	13,824	13,773	13,719

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.
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	1984	1985	1986	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.p
				All foreign countries						
1 **Total, all currencies**	**453,656**	**458,012**	**456,628**	**490,469r**	**521,757r**	**525,894r**	**519,095r**	**503,665r**	**495,482**	**502,774**
2 Claims on United States	113,393	119,706	114,563	137,468	138,221	140,425r	138,132	131,376	131,062	135,404
3 Parent bank	78,109	87,201	83,492	101,885	99,450	102,814	105,943	95,482	94,348	99,066
4 Other banks in United States	13,664	13,057	13,685	15,949	17,826	16,701	16,416	14,910	15,388	14,507
5 Nonbanks	21,620	19,448	17,386	19,634	20,945	20,910r	15,773	20,984	21,326	21,831
6 Claims on foreigners	320,162	315,676	312,955	319,861r	347,614r	346,819r	342,408r	334,110r	326,544	328,477
7 Other branches of parent bank	95,184	91,399	96,281	103,281	116,558r	116,509	122,057	115,250r	111,595	108,947
8 Banks	100,397	102,960	105,237	108,482	118,248r	115,591r	108,856r	108,186r	105,622	106,911
9 Public borrowers	23,343	23,478	23,706	21,642r	22,157r	22,385r	21,828r	21,365r	21,339	21,930
10 Nonbank foreigners	101,238	97,839	87,731	86,456r	90,651r	92,334r	89,667r	89,309r	87,988	90,689
11 Other assets	20,101	22,630	29,110	33,140r	35,922r	38,650r	38,555r	38,179r	37,876	38,893
12 **Total payable in U.S. dollars**	**350,636**	**336,520**	**317,487**	**340,956r**	**354,544r**	**353,073r**	**350,597r**	**335,651r**	**331,147**	**334,250**
13 Claims on United States	111,426	116,638	110,620	131,934	131,659	[illegible]	132,121	124,820	124,836	128,835
14 Parent bank	77,229	85,971	82,082	100,026	97,257	[illegible]	103,349	92,393	91,271	95,801
15 Other banks in United States	13,500	12,454	12,830	13,942	15,627	14,632	14,657	13,439	13,886	13,190
16 Nonbanks	20,697	18,213	15,708	17,966	18,775	18,976	14,115r	18,988	19,679	19,844
17 Claims on foreigners	228,600	210,129	195,063	195,125r	209,137r	203,963r	202,329	196,154r	190,846	190,693
18 Other branches of parent bank	78,746	72,727	72,197	77,699	86,695r	[illegible]	88,186	84,443	82,987	81,667
19 Banks	76,940	71,868	66,421	64,516	68,931	[illegible]	63,706	61,384	58,207	58,257
20 Public borrowers	17,626	17,260	16,708	14,943	14,988	[illegible]	14,730	14,720	14,619	14,813
21 Nonbank foreigners	55,288	48,274	39,737	37,967r	38,523r	[illegible]	35,707r	35,607r	35,033	35,956
22 Other assets	10,610	9,753	11,804	13,897	13,748	[illegible]	16,147	14,677	15,465	14,722
				United Kingdom						
23 **Total, all currencies**	**144,385**	**148,599**	**140,917**	**149,633**	**163,472**	[illegible]	**159,186**	**160,244**	**157,575**	**155,657**
24 Claims on United States	27,675	33,157	24,599	32,581	33,904	[illegible]	32,518	32,464	32,869	29,446
25 Parent bank	21,862	26,970	19,085	27,128	27,710	[illegible]	27,350	26,923	27,484	24,512
26 Other banks in United States	1,429	1,106	1,612	1,349	1,870	[illegible]	1,259	1,558	1,527	1,111
27 Nonbanks	4,384	5,081	3,902	4,104	4,324	[illegible]	3,909	3,983	3,858	3,823
28 Claims on foreigners	111,828	110,217	109,508	108,562	120,079	[illegible]	115,700	118,407	115,430	117,110
29 Other branches of parent bank	37,953	31,576	33,422	33,334	37,402	[illegible]	39,903	39,702	38,077	34,278
30 Banks	37,443	39,250	39,468	38,390	42,929	[illegible]	36,735	39,697	38,654	40,422
31 Public borrowers	5,334	5,644	4,990	4,725	4,881	[illegible]	4,752	4,639	4,613	5,272
32 Nonbank foreigners	31,098	33,747	31,628	32,113	34,867	[illegible]	34,310	34,369	34,086	37,138
33 Other assets	4,882	5,225	6,810	8,490	9,489	[illegible]	10,968	9,373	9,276	9,101
34 **Total payable in U.S. dollars**	**112,809**	**108,626**	**95,028**	**99,656**	**105,515**	[illegible]	**101,065**	**102,075**	**101,642**	**95,972**
35 Claims on United States	26,868	32,092	23,193	30,791	31,820	[illegible]	30,439	30,083	30,971	27,253
36 Parent bank	21,495	26,568	18,526	26,423	26,850	[illegible]	26,304	25,781	26,565	23,217
37 Other banks in United States	1,363	1,005	1,475	1,105	1,504	[illegible]	1,044	1,132	1,273	945
38 Nonbanks	4,010	4,519	3,192	3,263	3,466	[illegible]	3,091	3,170	3,133	3,091
39 Claims on foreigners	82,945	73,475	68,138	64,561	69,276	68,864	64,560	67,458	66,313	64,382
40 Other branches of parent bank	33,607	26,011	26,361	25,600	27,810	29,166	28,635	29,336	29,813	26,812
41 Banks	26,805	26,139	23,251	21,522	22,941	21,833	19,188	20,814	19,516	19,831
42 Public borrowers	4,030	3,999	3,677	3,377	3,426	3,472	3,313	3,313	3,347	3,824
43 Nonbank foreigners	18,503	17,326	14,849	14,062	15,099	14,393	13,424	13,995	13,637	13,915
44 Other assets	2,996	3,059	3,697	4,304	4,419	5,016	6,066	4,534	4,358	4,337
				Bahamas and Caymans						
45 **Total, all currencies**	**146,811**	**142,055**	**142,592**	**152,146**	**156,951**	**155,100**	**160,321**	**148,718**	**143,630**	**153,254**
46 Claims on United States	77,296	74,864	78,048	81,913	83,383	82,366	85,318	79,893	78,015	85,872
47 Parent bank	49,449	50,553	54,575	53,902	53,289	52,759	60,048	51,249	48,402	56,355
48 Other banks in United States	11,544	11,204	11,156	13,538	14,721	13,980	14,277	12,472	13,042	12,400
49 Nonbanks	16,303	13,107	12,317	14,473	15,373	15,627	10,993	16,172	16,571	17,117
50 Claims on foreigners	65,598	63,882	60,005	65,622	68,713	67,658	70,162	63,469	60,111	61,927
51 Other branches of parent bank	17,661	19,042	17,296	18,698	18,936	18,905	21,277	19,777	18,460	19,343
52 Banks	30,246	28,192	27,476	31,692	35,014	33,479	33,751	29,365	27,705	28,612
53 Public borrowers	6,089	6,458	7,051	6,988	7,018	7,196	7,428	7,257	7,071	6,899
54 Nonbank foreigners	11,602	10,190	8,182	8,244	7,745	8,078	7,706	7,070	6,875	7,073
55 Other assets	3,917	3,309	4,539	4,611	4,855	5,076	4,841	5,356	5,504	5,455
56 **Total payable in U.S. dollars**	**141,562**	**136,794**	**136,813**	**142,622**	**145,841**	**144,525**	**151,434**	**141,135**	**135,916**	**145,050**

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	1984	1985	1986	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.[p]
	All foreign countries									
57 **Total, all currencies**	**453,656**	**458,012**	**456,628**	**490,469[r]**	**521,757[r]**	**525,894[r]**	**519,095[r]**	**503,665[r]**	**495,482**	**502,774**
58 Negotiable CDs	37,725	34,607	31,629	35,724	36,796	34,690	30,929	29,277[r]	31,158	31,854
59 To United States	147,583	156,281	152,465	153,931[r]	156,762[r]	156,206[r]	161,390[r]	150,678[r]	149,747	157,287
60 Parent bank	78,739	84,657	83,394	81,047[r]	80,297[r]	83,929[r]	87,720[r]	78,725[r]	85,198	91,673
61 Other banks in United States	18,409	16,894	15,646	17,246	18,870[r]	18,871[r]	20,559[r]	15,801[r]	14,237	14,833
62 Nonbanks	50,435	54,730	53,425	55,638	57,595	53,406	53,111	56,152[r]	50,312	50,781
63 To foreigners	247,907	245,939	253,775	281,191[r]	307,161[r]	312,596[r]	304,790[r]	302,040[r]	293,015	289,840
64 Other branches of parent bank	93,909	89,529	95,146	104,033[r]	114,863[r]	117,036[r]	124,601[r]	116,432[r]	111,755	109,118
65 Banks	78,203	76,814	77,809	85,700[r]	98,121[r]	97,490[r]	87,261[r]	89,552[r]	88,400	88,157
66 Official institutions	20,281	19,520	17,835	20,267[r]	20,370	21,873	19,564	21,130	20,373	18,608
67 Nonbank foreigners	55,514	60,076	62,985	71,191[r]	73,807[r]	76,197[r]	73,364[r]	74,926[r]	72,487	73,957
68 Other liabilities	20,441	21,185	18,759	19,623[r]	21,038[r]	22,402[r]	21,986[r]	21,670[r]	21,562	23,793
69 **Total payable in U.S. dollars**	**367,145**	**353,712**	**336,406**	**352,276[r]**	**365,879[r]**	**361,698[r]**	**361,438[r]**	**344,805[r]**	**341,721**	**344,279**
70 Negotiable CDs	35,227	31,063	28,466	30,933	32,117	30,075	26,768	24,785	26,386	26,869
71 To United States	143,571	150,905	144,483	143,862[r]	145,462[r]	143,188[r]	148,442[r]	139,187[r]	138,931	145,029
72 Parent bank	76,254	81,631	79,305	75,752[r]	74,788[r]	77,810[r]	81,897[r]	73,199[r]	79,419	84,846
73 Other banks in United States	17,935	16,264	14,609	15,829	17,315[r]	17,197[r]	19,155[r]	14,433[r]	12,918	13,519
74 Nonbanks	49,382	53,010	50,569	52,281	53,359	48,181	47,390	51,555[r]	46,594	46,664
75 To foreigners	178,260	163,583	156,806	169,590[r]	179,506[r]	179,526[r]	177,711[r]	172,283[r]	167,523	163,115
76 Other branches of parent bank	77,770	71,078	71,181	78,104[r]	84,448[r]	84,630[r]	90,469[r]	84,296[r]	82,802	81,013
77 Banks	45,123	37,365	33,850	35,312[r]	40,167[r]	38,932[r]	35,065[r]	33,315[r]	32,278	30,588
78 Official institutions	15,773	14,359	12,371	14,247	13,405	14,161	12,409	12,736	12,071	10,489
79 Nonbank foreigners	39,594	40,781	39,404	41,927	41,486[r]	41,803	39,768[r]	41,936[r]	40,372	41,025
80 Other liabilities	10,087	8,161	6,651	7,891[r]	8,794	8,909[r]	8,517[r]	8,550[r]	8,881	9,266
	United Kingdom									
81 **Total, all currencies**	**144,385**	**148,599**	**140,917**	**149,633**	**163,472**	**167,726**	**159,186**	**160,244**	**157,575**	**155,657**
82 Negotiable CDs	34,413	31,260	27,781	31,451	32,523	30,475	26,988	25,184	26,786	27,279
83 To United States	25,250	29,422	24,657	22,462	22,868	24,961	23,470	25,209	26,533	22,896
84 Parent bank	14,651	19,330	14,469	13,357	12,251	14,018	13,223	14,177	15,527	14,506
85 Other banks in United States	3,125	2,974	2,649	2,073	2,382	2,103	1,740	1,596	1,615	1,768
86 Nonbanks	7,474	7,118	7,539	7,032	8,235	8,840	8,507	9,436	9,391	6,622
87 To foreigners	77,424	78,525	79,498	86,813	98,215	101,686	98,689	100,001	94,084	94,878
88 Other branches of parent bank	21,631	23,389	25,036	26,094	29,718	30,727	33,078	33,344	30,350	30,211
89 Banks	30,436	28,581	30,877	31,681	38,502	37,690	34,290	34,820	33,520	33,316
90 Official institutions	10,154	9,676	6,836	10,387	10,248	12,000	11,015	11,571	11,048	9,624
91 Nonbank foreigners	15,203	16,879	16,749	18,651	19,747	21,269	20,306	20,266	19,166	21,727
92 Other liabilities	7,298	9,392	8,981	8,907	9,866	10,604	10,039	9,850	10,172	10,604
93 **Total payable in U.S. dollars**	**117,497**	**112,697**	**99,707**	**102,202**	**108,440**	**108,481**	**102,550**	**105,138**	**105,162**	**98,982**
94 Negotiable CDs	33,070	29,337	26,169	28,776	29,991	27,999	24,926	22,875	24,281	24,716
95 To United States	24,105	27,756	22,075	19,528	18,819	19,800	17,752	20,799	23,019	19,116
96 Parent bank	14,339	18,956	14,021	12,609	11,283	12,792	12,026	13,307	14,626	13,622
97 Other banks in United States	2,980	2,826	2,325	1,883	2,080	1,789	1,512	1,398	1,401	1,556
98 Nonbanks	6,786	5,974	5,729	5,036	5,456	5,219	4,214	6,094	6,992	3,938
99 To foreigners	56,923	51,980	48,138	50,386	55,209	56,443	55,919	57,620	53,444	50,590
100 Other branches of parent bank	18,294	18,493	17,951	17,994	20,018	20,826	22,334	22,870	21,753	21,292
101 Banks	18,356	14,344	15,203	14,359	17,786	17,024	15,580	16,119	14,401	13,106
102 Official institutions	8,871	7,661	4,934	8,060	7,115	7,970	7,530	7,993	7,045	5,181
103 Nonbank foreigners	11,402	11,482	10,050	9,973	10,290	10,623	10,475	10,638	10,245	11,011
104 Other liabilities	3,399	3,624	3,325	3,512	4,421	4,239	3,953	3,844	4,418	4,560
	Bahamas and Caymans									
105 **Total, all currencies**	**146,811**	**142,055**	**142,592**	**152,146**	**156,951**	**155,100**	**160,321**	**148,718**	**143,630**	**153,254**
106 Negotiable CDs	615	610	847	886	890	861	885	851	940	1,069
107 To United States	102,955	104,556	106,081	108,205	111,976	108,039	113,950	105,149	99,840	110,468
108 Parent bank	47,162	45,554	49,481	47,165	49,387	50,065	53,353	46,729	49,032	56,042
109 Other banks in United States	13,938	12,778	11,715	13,596	14,872	15,204	17,224	13,017	11,455	11,829
110 Nonbanks	41,855	46,224	44,885	47,444	47,717	42,770	43,373	45,403	39,353	42,597
111 To foreigners	40,320	35,053	34,400	41,417	42,295	44,398	43,815	40,820	41,215	40,021
112 Other branches of parent bank	16,782	14,075	12,631	16,965	17,090	17,812	19,185	18,627	18,585	17,243
113 Banks	12,405	10,669	8,617	10,435	11,589	12,611	10,769	9,344	9,825	9,404
114 Official institutions	2,054	1,776	2,719	1,814	2,158	2,064	1,504	1,377	1,179	1,873
115 Nonbank foreigners	9,079	8,533	10,433	12,203	11,458	11,911	12,357	11,472	11,626	11,501
116 Other liabilities	2,921	1,836	1,264	1,638	1,790	1,802	1,671	1,898	1,635	1,696
117 **Total payable in U.S. dollars**	**143,582**	**138,322**	**138,774**	**145,402**	**149,472**	**146,485**	**152,927**	**141,750**	**136,636**	**145,252**

3.15 SELECTED U.S. LIABILITIES TO FOREIGN OFFICIAL INSTITUTIONS

Millions of dollars, end of period

Item	1985	1986	1987				1988		
			Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.^{p}
1 **Total**[1]	**178,380**	**211,834**	**239,689**	**252,551**	**254,080**	**259,635**	**267,049^r**	**276,355^r**	**285,029**
By type									
2 Liabilities reported by banks in the United States[2]	26,734	27,920	32,044	38,337	34,259	31,821	32,522^r	32,113^r	30,575
3 U.S. Treasury bills and certificates[3]	53,252	75,650	75,701	78,819	82,542	88,829	90,635	93,407	95,624
U.S. Treasury bonds and notes									
4 Marketable	77,154	91,368	116,442	118,909	120,762	122,556	127,674	134,843^r	142,856
5 Nonmarketable[4]	3,550	1,300	300	300	300	300	300	300	792
6 U.S. securities other than U.S. Treasury securities[5]	17,690	15,596	15,202	16,186	16,217	16,129	15,918	15,692^r	15,182
By area									
7 Western Europe[1]	74,447	88,629	108,398	116,510	117,628	124,609	127,733^r	127,594^r	129,038
8 Canada	1,315	2,004	4,529	5,152	4,884	4,961	6,182	6,839	7,954
9 Latin America and Caribbean	11,148	8,417	8,561	9,217	8,924	8,308	7,925	8,271	9,202
10 Asia	86,448	105,868	109,487	114,106	116,417	116,208	119,309	127,427	131,672
11 Africa	1,824	1,503	1,618	1,474	1,562	1,402	1,458	1,493	1,512
12 Other countries[6]	3,199	5,412	7,094	6,089	4,665	4,147	4,442	4,682	5,653

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	1984	1985	1986	1987			
				Mar.	June	Sept.	Dec.^{r}
1 Banks' own liabilities	8,586	15,368	29,702	38,168	39,102	45,872	54,913
2 Banks' own claims	11,984	16,294	26,180	34,539	34,244	41,744	50,785
3 Deposits	4,998	8,437	14,129	15,466	12,034	15,753	18,119
4 Other claims	6,986	7,857	12,052	19,074	22,210	25,992	32,666
5 Claims of banks' domestic customers[2]	569	580	2,507	2,012	923	1,067	551

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 Payable in U.S. dollars

Millions of dollars, end of period

Holder and type of liability	1984	1985	1986	1987				1988		
				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.p
1 **All foreigners**	**407,306**	**435,726**	**540,996**	**586,148**	**605,116**	**605,074**	**618,622**	**601,118r**	**605,080**	**605,846**
2 Banks' own liabilities	306,898	341,070	406,485	448,220	462,986	457,634	469,487	446,221r	446,077	443,709
3 Demand deposits	19,571	21,107	23,789	20,869	22,876	23,736	22,704	21,445r	22,162	21,984
4 Time deposits[1]	110,413	117,278	130,891	148,106	151,925	147,162	148,152	139,077r	140,120	138,734
5 Other[2]	26,268	29,305	42,705	50,164	53,047	52,474	51,059	51,836r	51,537	46,291
6 Own foreign offices[3]	150,646	173,381	209,100	229,081	235,138	234,262	247,571	233,862r	232,259	236,701
7 Banks' custody liabilities[4]	100,408	94,656	134,511	137,928	142,130	147,440	149,135	154,897	159,003	162,137
8 U.S. Treasury bills and certificates[5]	76,368	69,133	90,398	89,747	91,374	96,612	101,743	103,861	107,088	109,234
9 Other negotiable and readily transferable instruments[6]	18,747	17,964	15,417	16,042	15,933	16,737	16,712	16,654	15,573	16,121
10 Other	5,293	7,558	28,696	32,139	34,823	34,090	30,680	34,383	36,342	36,783
11 **Nonmonetary international and regional organizations[7]**	**4,454**	**5,821**	**5,807**	**7,751**	**3,594**	**5,809**	**4,373**	**5,875**	**8,640**	**5,311**
12 Banks' own liabilities	2,014	2,621	3,958	4,580	1,680	3,195	2,612	4,052	6,629	3,309
13 Demand deposits	254	85	199	80	107	74	249	790	1,124	234
14 Time deposits[1]	1,267	2,067	2,065	1,235	986	1,094	1,523	1,583	2,481	1,342
15 Other[2]	493	469	1,693	3,264	586	2,027	839	1,678	3,024	1,734
16 Banks' custody liabilities[4]	2,440	3,200	1,849	3,171	1,914	2,614	1,761	1,823	2,011	2,002
17 U.S. Treasury bills and certificates	916	1,736	259	1,793	285	747	265	613	415	635
18 Other negotiable and readily transferable instruments[6]	1,524	1,464	1,590	1,378	1,624	1,811	1,497	1,210	1,521	1,351
19 Other	0	0	0	0	6	55	0	0	75	16
20 **Official institutions[8]**	**86,065**	**79,985**	**103,569**	**107,745**	**117,156**	**116,801**	**120,650**	**123,157r**	**125,520**	**126,199**
21 Banks' own liabilities	19,039	20,835	25,427	28,344	34,785	31,066	28,686	29,895r	29,227	27,624
22 Demand deposits	1,823	2,077	2,267	1,800	1,905	1,820	1,948	1,605	1,861	2,020
23 Time deposits[1]	9,374	10,949	10,497	14,266	16,584	13,707	12,429	11,907r	11,649	12,480
24 Other[2]	7,842	7,809	12,663	12,278	16,296	15,539	14,309	16,383r	15,717	13,124
25 Banks' custody liabilities[4]	67,026	59,150	78,142	79,401	82,372	85,735	91,965	93,262	96,294	98,575
26 U.S. Treasury bills and certificates[5]	59,976	53,252	75,650	75,701	78,819	82,542	88,829	90,635	93,407	95,624
27 Other negotiable and readily transferable instruments[6]	6,966	5,824	2,347	3,540	3,328	2,993	2,990	2,442	2,592	2,750
28 Other	84	75	145	160	225	200	146	185	294	201
29 **Banks[9]**	**248,893**	**275,589**	**351,745**	**390,742**	**405,636**	**400,611**	**414,024**	**391,711r**	**390,862**	**394,367**
30 Banks' own liabilities	225,368	252,723	310,166	347,002	359,316	354,402	371,204	345,529r	344,040	346,840
31 Unaffiliated foreign banks	74,722	79,341	101,066	117,922	124,178	120,140	123,633	111,666r	111,781	110,139
32 Demand deposits	10,556	10,271	10,303	9,799	11,369	11,862	10,918	9,774	9,747	10,014
33 Time deposits[1]	47,095	49,510	64,232	77,468	79,583	76,658	79,926	71,284r	71,749	71,058
34 Other[2]	17,071	19,561	26,531	30,656	33,225	31,621	32,790	30,608r	30,285	29,067
35 Own foreign offices[3]	150,646	173,381	209,100	229,081	235,138	234,262	247,571	233,862r	232,259	236,701
36 Banks' custody liabilities[4]	23,525	22,866	41,579	43,739	46,321	46,209	42,819	46,182	46,823	47,527
37 U.S. Treasury bills and certificates	11,448	9,832	9,984	9,206	8,961	9,480	9,134	8,979	9,526	9,598
38 Other negotiable and readily transferable instruments[6]	7,236	6,040	5,165	5,221	5,454	5,586	5,390	5,580	4,436	4,627
39 Other	4,841	6,994	26,431	29,312	31,906	31,143	28,296	31,624	32,861	33,303
40 **Other foreigners**	**67,894**	**74,331**	**79,875**	**79,911**	**78,729**	**81,853**	**79,575**	**80,374r**	**80,058**	**79,969**
41 Banks' own liabilities	60,477	64,892	66,934	68,294	67,206	68,970	66,985	66,745r	66,182	65,936
42 Demand deposits	6,938	8,673	11,019	9,190	9,495	9,981	9,589	9,275	9,430	9,716
43 Time deposits	52,678	54,752	54,097	55,137	54,772	55,703	54,275	54,303r	54,241	53,854
44 Other[2]	861	1,467	1,818	3,966	2,940	3,287	3,121	3,166r	2,511	2,366
45 Banks' custody liabilities[4]	7,417	9,439	12,941	11,617	11,523	12,882	12,589	13,629	13,876	14,034
46 U.S. Treasury bills and certificates	4,029	4,314	4,506	3,046	3,309	3,842	3,515	3,633	3,740	3,378
47 Other negotiable and readily transferable instruments[6]	3,021	4,636	6,315	5,904	5,527	6,347	6,836	7,422	7,024	7,393
48 Other	367	489	2,120	2,668	2,686	2,693	2,238	2,575	3,112	3,263
49 MEMO: Negotiable time certificates of deposit in custody for foreigners	10,476	9,845	7,496	6,501	6,676	7,361	7,314	7,647	7,370	7,325

1. Excludes negotiable time certificates of deposit, which are included in "Other negotiable and readily transferable instruments."
2. Includes borrowing under repurchase agreements.
3. 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.
4. Financial claims on residents of the United States, other than long-term securities, held by or through reporting banks.
5. Includes nonmarketable certificates of indebtedness and Treasury bills issued to official institutions of foreign countries.
6. Principally bankers acceptances, commercial paper, and negotiable time certificates of deposit.
7. 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.
8. Foreign central banks, foreign central governments, and the Bank for International Settlements.
9. Excludes central banks, which are included in "Official institutions."

3.17 Continued

Area and country	1984	1985	1986	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.[p]
1 **Total**	**407,306**	**435,726**	**540,996**	**586,148**	**605,116**	**605,074**	**618,622**	**601,118[r]**	**605,080**	**605,846**
2 **Foreign countries**	**402,852**	**429,905**	**535,189**	**578,397**	**601,522**	**599,265**	**614,249**	**595,243[r]**	**596,440**	**600,535**
3 Europe	153,145	164,114	180,556	215,293	233,296	229,008	234,662	225,499[r]	226,513	212,164
4 Austria	615	693	1,181	1,280	1,166	1,254	920	992	964	1,022
5 Belgium-Luxembourg	4,114	5,243	6,729	10,463	10,833	10,917	9,304	9,397[r]	9,798	8,677
6 Denmark	438	513	482	590	704	628	757	547	656	926
7 Finland	418	496	580	507	571	461	377	401	369	405
8 France	12,701	15,541	22,862	27,899	28,255	27,522	29,954	28,198	28,868	28,448
9 Germany	3,358	4,835	5,762	6,834	8,562	8,548	7,061	7,788	8,957	6,506
10 Greece	699	666	700	690	738	715	689	638	639	656
11 Italy	10,762	9,667	10,875	8,410	10,282	10,016	12,063	11,259[r]	11,001	10,077
12 Netherlands	4,731	4,212	5,600	6,119	6,725	6,490	5,013	5,272	5,302	5,445
13 Norway	1,548	948	735	663	1,187	1,074	1,362	1,196	828	874
14 Portugal	597	652	699	684	724	858	801	725	780	877
15 Spain	2,082	2,114	2,407	2,526	2,683	2,614	2,619	2,359	2,433	2,617
16 Sweden	1,676	1,422	884	1,639	1,582	2,882	1,379	1,393	1,719	1,836
17 Switzerland	31,740	29,020	30,534	27,332	29,053	30,167	33,754	31,925	32,001	31,718
18 Turkey	584	429	454	398	550	433	703	674	539	620
19 United Kingdom	68,671	76,728	85,334	110,235	119,308	115,122	116,778	111,752[r]	112,164	100,603
20 Yugoslavia	602	673	630	519	508	485	711	541	557	550
21 Other Western Europe[1]	7,192	9,635	3,326	7,958	9,180	8,184	9,798	9,683[r]	8,340	9,304
22 U.S.S.R	79	105	80	51	87	36	31	37	49	317
23 Other Eastern Europe[2]	537	523	702	494	599	602	588	721[r]	549	688
24 Canada	16,059	17,427	26,345	26,065	25,740	28,681	30,083	28,691	25,966	27,321
25 Latin America and Caribbean	153,381	167,856	210,318	214,096	217,859	214,306	220,313	212,002[r]	212,606	221,849
26 Argentina	4,394	6,032	4,757	4,674	5,075	5,267	4,994	4,893	5,079	5,356
27 Bahamas	56,897	57,657	73,619	70,718	72,547	70,946	74,589	69,111[r]	64,913	70,129
28 Bermuda	2,370	2,765	2,922	2,234	2,442	2,231	2,335	2,197[r]	2,021	2,196
29 Brazil	5,275	5,373	4,325	4,413	3,691	4,136	4,000	3,936	3,745	4,070
30 British West Indies	36,773	42,674	72,263	78,582	80,303	78,236	81,632	78,503[r]	82,625	88,017
31 Chile	2,001	2,049	2,054	2,248	2,191	2,218	2,210	2,122	2,361	2,314
32 Colombia	2,514	3,104	4,285	4,199	4,195	4,305	4,205	3,947	3,897	3,833
33 Cuba	10	11	7	7	12	9	12	8	9	8
34 Ecuador	1,092	1,239	1,236	1,097	1,062	1,087	1,082	1,115	1,133	1,169
35 Guatemala	896	1,071	1,123	1,072	1,053	1,032	1,080	1,098	1,098	1,182
36 Jamaica	183	122	136	156	140	150	160	150	148	208
37 Mexico	12,303	14,060	13,745	14,286	14,325	14,508	14,534	15,024[r]	15,127	15,770
38 Netherlands Antilles	4,220	4,875	4,970	5,218	5,305	5,234	4,972	4,987	5,231	5,210
39 Panama	6,951	7,514	6,886	7,179	7,457	7,503	7,400	7,329	6,983	4,303
40 Peru	1,266	1,167	1,163	1,206	1,205	1,205	1,271	1,235	1,328	1,366
41 Uruguay	1,394	1,552	1,537	1,492	1,494	1,526	1,579	1,670	1,753	1,762
42 Venezuela	10,545	11,922	10,171	9,866	9,929	9,075	9,035	9,174	9,729	9,409
43 Other	4,297	4,668	5,119	5,451	5,434	5,639	5,223	5,502	5,426	5,545
44 Asia	71,187	72,280	108,831	112,294	115,683	118,834	121,177	121,181[r]	122,882	129,216
China										
45 *Mainland*	1,153	1,607	1,476	1,775	1,699	1,435	1,162	1,336	1,352	1,562
46 Taiwan	4,990	7,786	18,902	15,197	18,302	21,564	21,494	22,869	23,884	24,003
47 Hong Kong	6,581	8,067	9,393	8,653	9,590	10,541	10,196	9,579[r]	9,996	10,011
48 India	507	712	674	771	606	701	588	571[r]	880	662
49 Indonesia	1,033	1,466	1,547	1,440	1,336	1,677	1,399	1,474	1,587	1,547
50 Israel	1,268	1,601	1,892	1,105	2,170	1,221	1,477	1,270[r]	1,333	1,399
51 Japan	21,640	23,077	47,410	53,747	53,268	52,735	54,109	55,221[r]	56,327	60,344
52 Korea	1,730	1,665	1,141	1,714	1,557	1,606	1,599	1,709[r]	1,502	1,593
53 Philippines	1,383	1,140	1,866	1,152	1,331	1,259	1,085	1,035	1,009	1,095
54 Thailand	1,257	1,358	1,119	1,116	1,275	1,483	1,345	1,433	1,354	1,189
55 Middle-East oil-exporting countries[3]	16,804	14,523	12,352	14,043	13,660	13,379	13,993	12,503	12,409	12,733
56 Other	12,841	9,276	11,058	11,580	10,888	11,232	12,730	12,181	11,248	13,076
57 Africa	3,396	4,883	4,021	4,011	3,918	4,065	3,944	3,757	3,755	4,033
58 Egypt	647	1,363	706	1,118	1,104	1,169	1,150	1,142	1,118	1,099
59 Morocco	118	163	92	81	70	75	194	71	69	75
60 South Africa	328	388	270	198	280	246	202	214	194	387
61 Zaire	153	163	74	81	71	82	67	89	86	81
62 Oil-exporting countries[4]	1,189	1,494	1,519	1,179	1,081	1,108	1,014	981	1,047	1,062
63 Other	961	1,312	1,360	1,354	1,313	1,386	1,316	1,261	1,241	1,329
64 Other countries	5,684	3,347	5,118	6,638	5,026	4,372	4,069	4,114	4,717	5,952
65 Australia	5,300	2,779	4,196	5,684	4,057	3,711	3,325	3,319	3,814	4,904
66 All other	384	568	922	955	969	661	744	795	903	1,048
67 Nonmonetary international and regional organizations	4,454	5,821	5,807	7,751	3,594	5,809	4,373	5,875	8,640	5,311
68 International[5]	3,747	4,806	4,620	6,103	2,107	3,724	2,739	4,301	6,600	3,609
69 Latin American regional	587	894	1,033	1,126	1,155	1,478	1,272	1,181	1,505	1,305
70 Other regional[6]	120	121	154	522	331	608	362	393	536	397

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 Payable in U.S. Dollars

Millions of dollars, end of period

Area and country	1984	1985	1986	1987				1988		
				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[p]
1 **Total**	**400,162**	**401,608**	**444,745**	**447,788**	**461,224**	**459,788**	**458,714**	**442,141[r]**	**440,621**	**439,903**
2 **Foreign countries**	**399,363**	**400,577**	**441,724**	**443,104**	**458,393**	**452,618**	**454,131**	**439,493[r]**	**438,418**	**438,048**
3 Europe	99,014	106,413	107,823	105,925	111,006	107,259	101,409	97,019[r]	100,046	94,078
4 Austria	433	598	728	683	929	927	793	762	800	850
5 Belgium-Luxembourg	4,794	5,772	7,498	9,586	10,133	9,551	9,377	9,629	9,796	8,236
6 Denmark	648	706	688	747	790	881	718	852	746	903
7 Finland	898	823	987	1,266	1,089	1,030	1,010	876	835	731
8 France	9,157	9,124	11,356	12,780	14,348	13,512	13,473	11,687	12,258	12,310
9 Germany	1,306	1,267	1,816	1,487	2,104	1,557	2,060	2,194[r]	1,928	1,902
10 Greece	817	991	648	406	430	452	463	579[r]	710	696
11 Italy	9,119	8,848	9,043	6,542	7,412	7,286	7,467	6,508[r]	6,165	6,454
12 Netherlands	1,356	1,258	3,296	3,247	3,964	3,813	2,619	2,902	2,879	2,784
13 Norway	675	706	672	722	812	938	934	842	747	628
14 Portugal	1,243	1,058	739	638	570	545	477	471	499	429
15 Spain	2,884	1,908	1,492	2,234	1,859	2,032	1,849	1,629	1,966	1,762
16 Sweden	2,230	2,219	1,964	2,746	2,527	2,640	2,269	2,106	2,274	2,229
17 Switzerland	2,123	3,171	3,352	2,614	2,825	2,880	2,659	2,566[r]	3,076	2,268
18 Turkey	1,130	1,200	1,543	1,681	1,564	1,566	1,675	1,637[r]	1,660	1,609
19 United Kingdom	56,185	62,566	58,335	54,739	55,906	53,960	49,959	48,326[r]	50,111	46,829
20 Yugoslavia	1,886	1,964	1,835	1,741	1,750	1,697	1,700	1,694	1,702	1,640
21 Other Western Europe[1]	596	998	539	608	539	662	665	578	725	735
22 U.S.S.R.	142	130	345	544	473	437	389	386	380	328
23 Other Eastern Europe[2]	1,389	1,107	948	915	983	892	852	795[r]	790	757
24 Canada	16,109	16,482	21,006	21,599	21,402	25,313	25,269	23,380	21,909	21,134
25 Latin America and Caribbean	207,862	202,674	208,825	214,718	217,010	211,906	213,253	206,917[r]	202,483	207,433
26 Argentina	11,050	11,462	12,091	11,857	12,119	12,054	11,987	12,106	11,975	12,153
27 Bahamas	58,009	58,258	59,342	64,951	63,666	61,437	64,788	60,916[r]	57,549	56,670
28 Bermuda	592	499	418	328	418	331	478	380	321	3,051
29 Brazil	26,315	25,283	25,716	26,047	25,803	25,453	25,288	25,358	25,343	25,306
30 British West Indies	38,205	38,881	46,284	47,866	51,721	49,549	48,757	47,041[r]	46,538	52,211
31 Chile	6,839	6,603	6,558	6,469	6,388	6,429	6,304	6,332	6,260	6,028
32 Colombia	3,499	3,249	2,821	2,730	2,730	2,730	2,739	2,709	2,668	2,651
33 Cuba	0	0	0	0	0	0	1	0	0	0
34 Ecuador	2,420	2,390	2,439	2,367	2,396	2,334	2,286	2,339	2,238	2,229
35 Guatemala[3]	158	194	140	124	131	145	144	134	140	149
36 Jamaica[3]	252	224	198	198	191	184	188	202	190	201
37 Mexico	34,885	31,799	30,698	30,591	30,307	30,101	29,526	29,138[r]	29,217	27,533
38 Netherlands Antilles	1,350	1,340	1,041	1,034	1,013	1,113	980	1,009[r]	1,141	1,159
39 Panama	7,707	6,645	5,436	4,580	4,566	4,685	4,739	4,304	3,819	3,095
40 Peru	2,384	1,947	1,661	1,479	1,457	1,459	1,323	1,316	1,336	1,249
41 Uruguay	1,088	960	940	962	961	975	968	961	955	929
42 Venezuela	11,017	10,871	11,108	11,277	11,224	11,109	10,998	10,920[r]	11,038	10,966
43 Other Latin America and Caribbean	2,091	2,067	1,936	1,857	1,920	1,818	1,761	1,753[r]	1,755	1,853
44 Asia	66,316	66,212	96,126	93,361	100,328	100,272	106,231	104,951[r]	106,733	108,108
China										
45 Mainland	710	639	787	894	543	870	968	886	887	1,090
46 Taiwan	1,849	1,535	2,681	2,980	4,224	4,784	4,577	3,877[r]	3,813	3,549
47 Hong Kong	7,293	6,797	8,307	6,953	6,887	7,312	8,135	7,591	7,910	8,459
48 India	425	450	321	551	527	502	510	495	548	566
49 Indonesia	724	698	723	622	625	601	580	571	632	645
50 Israel	2,088	1,991	1,634	1,591	1,331	1,293	1,363	1,278[r]	1,211	1,237
51 Japan	29,066	31,249	59,674	60,120	65,679	64,767	69,098	71,230[r]	73,231	72,836
52 Korea	9,285	9,226	7,182	4,616	4,996	4,982	5,004	4,919	4,734	5,011
53 Philippines	2,555	2,224	2,217	2,126	2,082	2,040	2,069	1,961	1,966	2,063
54 Thailand	1,125	845	578	453	446	439	491	517	520	541
55 Middle East oil-exporting countries[4]	5,044	4,298	4,122	4,848	5,063	5,157	4,841	3,567	3,452	3,534
56 Other Asia	6,152	6,260	7,901	7,608	7,924	7,524	8,596	8,060	7,829	8,576
57 Africa	6,615	5,407	4,650	4,707	5,375	4,668	4,742	4,807[r]	4,869	4,822
58 Egypt	728	721	567	541	538	526	521	513[r]	469	483
59 Morocco	583	575	598	582	605	585	542	491	490	471
60 South Africa	2,795	1,942	1,550	1,508	1,546	1,494	1,507	1,520	1,461	1,435
61 Zaire	18	20	28	40	38	36	15	36	82	46
62 Oil-exporting countries[5]	842	630	694	887	1,530	903	1,003	1,019	1,086	1,131
63 Other	1,649	1,520	1,213	1,149	1,118	1,123	1,153	1,229	1,280	1,256
64 Other countries	3,447	3,390	3,294	2,793	3,272	3,201	3,228	2,418	2,378	2,473
65 Australia	2,769	2,413	1,949	1,837	2,035	2,093	2,189	1,428	1,430	1,455
66 All other	678	978	1,345	955	1,237	1,109	1,039	991	947	1,018
67 Nonmonetary international and regional organizations[6]	800	1,030	3,021	4,684	2,830	7,170	4,583	2,648[r]	2,204	1,855

1. Includes the Bank for International Settlements. Beginning April 1978, also includes Eastern European countries not listed in line 23.
2. Beginning April 1978 comprises Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania.
3. Included in "Other Latin America and Caribbean" through March 1978.
4. Comprises Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).
5. Comprises Algeria, Gabon, Libya, and Nigeria.
6. Excludes the Bank for International Settlements, which is included in "Other 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	1984	1985	1986	1987				1988		
				Sept.	Oct.	Nov.	Dec.	Jan.[r]	Feb.	Mar.[p]
1 **Total**	**433,078**	**430,489**	**478,650**	**481,597**	....	....	**496,440**	....	....	**439,903**
2 Banks' own claims on foreigners	400,162	401,608	444,745	447,788	461,224	459,788	458,714	442,141	440,621	439,903
3 Foreign public borrowers	62,237	60,507	64,095	67,104	64,967	69,483	65,329	63,360	62,334	61,426
4 Own foreign offices[2]	156,216	174,261	211,533	210,267	218,396	220,479	223,110	217,060	218,184	220,349
5 Unaffiliated foreign banks	124,932	116,654	122,946	127,475	134,104	126,389	127,319	119,773	118,426	116,487
6 Deposits	49,226	48,372	57,484	60,143	63,193	58,052	60,250	54,730	55,276	54,542
7 Other	75,706	68,282	65,462	67,332	70,911	68,337	67,068	65,043	63,150	61,945
8 All other foreigners	56,777	50,185	46,171	42,941	43,756	43,437	42,957	41,947	41,678	41,641
9 Claims of banks' domestic customers[3]	32,916	28,881	33,905	33,809	....	....	37,726	....	....	....
10 Deposits	3,380	3,335	4,413	3,103	....	....	3,672	....	....	....
11 Negotiable and readily transferable instruments[4]	23,805	19,332	24,044	22,071	....	....	26,684	....	....	....
12 Outstanding collections and other claims	5,732	6,214	5,448	8,636	....	....	7,370	....	....	....
13 MEMO: Customer liability on acceptances	37,103	28,487	25,706	21,788	....	....	23,834[r]	....	....	....
Dollar deposits in banks abroad, reported by nonbanking business enterprises in the United States[5]	40,714	38,102	41,434	39,734	42,272	37,905	37,919	34,216	39,387	....

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.
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
Payable in U.S. Dollars

Millions of dollars, end of period

Maturity; by borrower and area	1984	1985	1986	1987			
				Mar.	June	Sept.	Dec.[r]
1 **Total**	**243,952**	**227,903**	**232,295**	**226,297**	**236,828**	**236,490**	**235,092**
By borrower							
2 Maturity of 1 year or less[1]	167,858	160,824	160,555	155,156	167,488	166,156	164,075
3 Foreign public borrowers	23,912	26,302	24,842	25,382	24,088	27,157	25,993
4 All other foreigners	143,947	134,522	135,714	129,774	143,400	138,998	138,082
5 Maturity over 1 year[1]	76,094	67,078	71,740	71,141	69,340	70,334	71,017
6 Foreign public borrowers	38,695	34,512	39,103	38,751	39,341	39,470	38,591
7 All other foreigners	37,399	32,567	32,637	32,390	29,999	30,864	32,425
By area							
Maturity of 1 year or less[1]							
8 Europe	58,498	56,585	61,784	57,987	68,872	62,228	58,780
9 Canada	6,028	6,401	5,895	5,568	5,603	5,733	5,697
10 Latin America and Caribbean	62,791	63,328	56,271	54,733	55,489	58,439	56,426
11 Asia	33,504	27,966	29,457	29,688	31,155	32,133	36,437
12 Africa	4,442	3,753	2,882	3,154	2,989	2,871	2,845
13 All other[2]	2,593	2,791	4,267	4,026	3,380	4,751	3,891
Maturity of over 1 year[1]							
14 Europe	9,605	7,634	6,737	6,755	6,479	6,753	6,830
15 Canada	1,882	1,805	1,925	1,855	1,664	1,579	2,661
16 Latin America and Caribbean	56,144	50,674	56,719	56,214	55,580	55,089	53,758
17 Asia	5,323	4,502	4,043	4,123	3,495	3,497	3,666
18 Africa	2,033	1,538	1,539	1,630	1,512	1,622	1,726
19 All other[2]	1,107	926	777	564	611	1,794	2,375

1. Remaining time to maturity.
2. 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	1983	1984	1985	1986				1987			
				Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
1	**Total**	**434.0**	**405.7**	**385.3**	**385.6**	**389.7**	**389.5**	**389.6**	**393.4**	**382.9**	**384.4[r]**	**381.1[r]**
2	G-10 countries and Switzerland	167.8	148.1	146.0	152.8	160.3	159.0	158.0	162.2	157.7	154.7[r]	160.4[r]
3	Belgium-Luxembourg	12.4	8.7	9.2	8.2	9.0	8.5	8.4	9.0	8.3	8.2[r]	10.1
4	France	16.2	14.1	12.1	13.6	15.1	14.7	13.8	13.3	12.5	13.7	13.8[r]
5	Germany	11.3	9.0	10.5	11.2	11.5	12.5	11.7	12.7	11.2	10.5	12.6
6	Italy	11.4	10.1	9.6	8.3	9.3	8.1	9.0	8.6	7.5	6.6	7.3
7	Netherlands	3.5	3.9	3.7	3.5	3.4	3.9	4.6	4.4	7.3	4.8	4.1
8	Sweden	5.1	3.2	2.7	2.8	2.9	2.7	2.4	3.0	2.4	2.6	2.1
9	Switzerland	4.3	3.9	4.4	5.3	5.6	4.8	5.8	5.8	5.7	5.4	5.5
10	United Kingdom	65.3	60.3	63.0	67.4	69.2	70.3	71.9	73.4	71.8	71.4[r]	69.2[r]
11	Canada	8.3	7.9	6.8	6.0	7.0	6.2	5.4	5.1	4.6	4.6	5.6
12	Japan	29.9	27.1	23.9	26.5	27.2	27.4	25.0	26.9	26.3	27.0	30.1
13	Other developed countries	36.0	33.6	29.9	31.1	30.7	29.5	26.2	25.7	25.2	25.9[r]	26.3[r]
14	Austria	1.9	1.6	1.5	1.5	1.7	1.7	1.7	1.9	1.8	1.9	1.9
15	Denmark	3.4	2.2	2.3	2.5	2.4	2.3	1.7	1.7	1.5	1.6	1.7
16	Finland	2.4	1.9	1.6	1.9	1.6	1.7	1.4	1.4	1.4	1.4	1.3
17	Greece	2.8	2.9	2.6	2.5	2.6	2.3	2.3	2.1	2.0	1.9	2.0
18	Norway	3.3	3.0	2.9	2.7	3.0	2.7	2.4	2.2	2.1	2.0[r]	2.3
19	Portugal	1.5	1.4	1.2	1.0	1.1	1.0	.8	.8	.8	.8	.6
20	Spain	7.1	6.5	5.8	6.4	6.4	6.7	5.8	6.3	6.1	7.4	8.0
21	Turkey	1.7	1.9	1.8	2.1	2.5	2.1	2.0	1.7	1.7	1.5	1.6
22	Other Western Europe	1.8	1.7	2.0	2.4	2.1	1.6	1.4	1.4	1.5	1.6	1.6
23	South Africa	4.7	4.5	3.2	3.1	3.1	3.1	3.1	3.0	3.0	2.9	2.9
24	Australia	5.4	6.0	5.0	4.9	4.2	4.1	3.5	3.2	3.1	2.9	2.5
25	OPEC countries[3]	28.4	24.9	21.3	20.4	20.6	20.0	19.6	20.2	19.0	19.1	17.3
26	Ecuador	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.0	1.9
27	Venezuela	9.9	9.3	8.9	8.7	8.8	8.7	8.6	8.7	8.6	8.4	8.2
28	Indonesia	3.4	3.3	3.0	3.3	3.0	2.8	2.5	2.4	2.2	2.0	1.9
29	Middle East countries	9.8	7.9	5.3	4.5	5.0	4.6	4.5	5.4	4.4	4.9	3.6
30	African countries	3.0	2.3	2.0	1.8	1.7	1.7	1.7	1.6	1.7	1.7	1.7
31	Non-OPEC developing countries	110.8	111.8	104.2	102.9	102.0	100.0	99.7	99.3	99.6[r]	96.6	96.7[r]
	Latin America											
32	Argentina	9.5	8.7	8.8	8.8	9.2	9.3	9.5	9.5	9.5	9.3	9.4
33	Brazil	23.1	26.3	25.4	25.6	25.5	25.4	25.3	25.5	24.4	24.5	24.1
34	Chile	6.4	7.0	6.9	7.0	7.1	7.2	7.1	7.2	7.2	7.0	6.9
35	Colombia	3.2	2.9	2.6	2.3	2.2	2.0	2.1	2.0	1.9	1.9	2.0
36	Mexico	25.8	25.7	23.9	23.9	24.0	24.0	24.0	23.9	25.3	24.7	23.6
37	Peru	2.4	2.2	1.8	1.7	1.6	1.5	1.5	1.4	1.3	1.2	1.1
38	Other Latin America	4.2	3.9	3.4	3.3	3.3	3.3	3.1	3.0	3.0	2.8	2.8
	Asia											
	China											
39	Mainland	.3	.7	.5	.6	.6	.6	.4	.9	.6	.3	.3
40	Taiwan	5.2	5.1	4.5	4.3	3.7	4.3	4.9	5.5	6.6	5.9	8.2
41	India	.9	.9	1.2	1.2	1.3	1.3	1.2	1.7	1.7	1.9	1.9
42	Israel	1.9	1.8	1.6	1.3	1.6	1.4	1.5	1.4	1.3	1.3	1.0
43	Korea (South)	11.2	10.6	9.2	9.2	8.7	7.3	6.7	6.2	5.6	4.9	4.9
44	Malaysia	2.8	2.7	2.4	2.2	2.0	2.1	2.1	1.9	1.7	1.6	1.5
45	Philippines	6.1	6.0	5.7	5.6	5.7	5.4	5.4	5.4	5.4	5.4	5.1
46	Thailand	2.2	1.8	1.4	1.3	1.1	1.0	.9	.9	.8	.7	.7
47	Other Asia	1.0	1.1	1.0	.9	.8	.7	.7	.6	.7	.7	.6[r]
	Africa											
48	Egypt	1.5	1.2	1.0	.9	.9	.7	.7	.6	.6	.6	.5
49	Morocco	.8	.8	.9	.9	.9	.9	.9	.9	.9	.8	.9
50	Zaire	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.0
51	Other Africa[4]	2.3	2.1	1.9	1.9	1.7	1.6	1.6	.9	1.1	1.0	1.1
52	Eastern Europe	5.3	4.4	4.1	4.0	4.0	3.4	3.2	3.0	3.3	3.3[r]	3.0
53	U.S.S.R.	.2	.1	.1	.3	.3	.1	.1	.1	.3	.5	.4
54	Yugoslavia	2.4	2.3	2.2	2.0	2.0	1.9	1.7	1.6	1.7	1.7	1.6
55	Other	2.8	2.0	1.8	1.7	1.7	1.4	1.4	1.3	1.3	1.2	1.0
56	Offshore banking centers	68.9	65.6	62.9	57.5	55.4	60.5	63.2	63.2	60.2	63.1[r]	53.1
57	Bahamas	21.7	21.5	21.2	21.2	17.1	19.9	22.3	24.0	19.7	25.6[r]	17.1
58	Bermuda	.9	.9	.7	.7	.4	.4	.7	.8	.6	.6	.6
59	Cayman Islands and other British West Indies	12.2	11.8	11.6	9.2	12.2	12.8	13.6	11.1	12.4	10.7	11.2
60	Netherlands Antilles	4.2	3.4	2.2	2.2	2.4	1.9	1.8	1.7	1.3	1.2	1.2
61	Panama[5]	5.8	6.7	6.0	4.3	4.2	5.1	4.1	5.4	5.2	4.5[r]	4.5
62	Lebanon	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
63	Hong Kong	13.8	11.4	11.4	11.4	9.5	10.5	11.2	11.4	12.5	12.3	11.2
64	Singapore	10.3	9.8	9.8	8.4	9.3	9.7	9.4	8.6	8.3	8.1	7.0
65	Others[6]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66	Miscellaneous and unallocated[7]	16.8	17.3	16.9	16.8	16.8	17.2	19.8	19.8	18.0	21.7[r]	24.4[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	1983	1984	1985	1986 Dec.	1987 Mar.	1987 June	1987 Sept.	1987 Dec.
1 Total	**25,346**	**29,357**	**27,825**	**25,850**	**27,551**	**28,953**	**28,339**	**27,322**
2 Payable in dollars	22,233	26,389	24,296	21,996	23,361	24,466	24,018	22,192
3 Payable in foreign currencies	3,113	2,968	3,529	3,854	4,190	4,487	4,321	5,129
By type								
4 Financial liabilities	10,572	14,509	13,600	12,371	13,232	14,148	12,839	11,310
5 Payable in dollars	8,700	12,553	11,257	9,886	10,496	11,249	10,127	8,068
6 Payable in foreign currencies	1,872	1,955	2,343	2,485	2,737	2,899	2,712	3,242
7 Commercial liabilities	14,774	14,849	14,225	13,479	14,318	14,805	15,500	16,012
8 Trade payables	7,765	7,005	6,685	6,447	6,985	7,139	7,389	7,394
9 Advance receipts and other liabilities	7,009	7,843	7,540	7,032	7,333	7,666	8,111	8,618
10 Payable in dollars	13,533	13,836	13,039	12,110	12,865	13,218	13,891	14,125
11 Payable in foreign currencies	1,241	1,013	1,186	1,368	1,453	1,587	1,609	1,887
By area or country								
Financial liabilities								
12 Europe	5,742	6,728	7,700	8,138	8,484	9,765	9,188	7,577
13 Belgium-Luxembourg	302	471	349	270	232	257	230	202
14 France	843	995	857	661	758	822	615	415
15 Germany	502	489	376	368	463	402	386	583
16 Netherlands	621	590	861	704	693	669	641	1,014
17 Switzerland	486	569	610	646	663	655	636	480
18 United Kingdom	2,839	3,297	4,305	5,199	5,414	6,698	6,394	4,690
19 Canada	764	863	839	399	431	441	407	357
20 Latin America and Caribbean	2,596	5,086	3,184	1,961	2,366	1,744	961	845
21 Bahamas	751	1,926	1,123	614	669	398	280	278
22 Bermuda	13	13	4	4	0	0	0	0
23 Brazil	32	35	29	32	26	22	22	25
24 British West Indies	1,041	2,103	1,843	1,163	1,545	1,223	581	475
25 Mexico	213	367	15	22	30	29	17	13
26 Venezuela	124	137	3	0	0	2	3	0
27 Asia	1,424	1,777	1,815	1,805	1,882	2,131	2,204	2,428
28 Japan	991	1,209	1,198	1,398	1,480	1,751	1,734	2,042
29 Middle East oil-exporting countries[2]	170	155	82	8	7	7	7	8
30 Africa	19	14	12	1	3	1	2	4
31 Oil-exporting countries[3]	0	0	0	1	1	0	0	1
32 All other[4]	27	41	50	67	67	66	76	98
Commercial liabilities								
33 Europe	3,245	4,001	4,074	4,494	4,521	4,987	4,973	5,629
34 Belgium-Luxembourg	62	48	62	101	85	111	56	125
35 France	437	438	453	351	379	422	437	449
36 Germany	427	622	607	722	591	594	679	915
37 Netherlands	268	245	364	460	372	339	350	437
38 Switzerland	241	257	379	387	484	557	556	558
39 United Kingdom	732	1,095	976	1,346	1,309	1,380	1,475	1,660
40 Canada	1,841	1,975	1,449	1,393	1,352	1,253	1,263	1,285
41 Latin America and Caribbean	1,473	1,871	1,088	890	1,089	1,037	1,050	862
42 Bahamas	1	7	12	32	28	13	22	19
43 Bermuda	67	114	77	132	297	245	223	165
44 Brazil	44	124	58	61	82	88	40	46
45 British West Indies	6	32	44	48	88	63	44	20
46 Mexico	585	586	430	213	185	160	231	189
47 Venezuela	432	636	212	217	224	203	176	162
48 Asia	6,741	5,285	6,046	5,098	5,818	5,921	6,516	6,566
49 Japan	1,247	1,256	1,799	2,051	2,468	2,480	2,422	2,579
50 Middle East oil-exporting countries[2,5]	4,178	2,372	2,829	1,686	1,948	1,870	2,109	1,956
51 Africa	553	588	587	622	520	524	571	584
52 Oil-exporting countries[3]	167	233	238	197	170	166	151	135
53 All other[4]	921	1,128	982	981	1,019	1,083	1,128	1,085

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	1983	1984	1985	1986	1987			
					Dec.	Mar.	June	Sept.	Dec.
1	Total	**34,911**	**29,901**	**28,876**	**33,519**	**34,103**	**31,644**	**31,390**	**29,965**
2	Payable in dollars	31,815	27,304	26,574	30,989	31,303	28,518	28,695	26,716
3	Payable in foreign currencies	3,096	2,597	2,302	2,530	2,800	3,126	2,696	3,249
	By type								
4	Financial claims	23,780	19,254	18,891	23,424	24,149	21,691	21,055	19,426
5	Deposits	18,496	14,621	15,526	17,283	17,407	14,871	15,827	13,505
6	Payable in dollars	17,993	14,202	14,911	16,726	16,573	13,666	14,954	12,132
7	Payable in foreign currencies	503	420	615	557	833	1,205	873	1,373
8	Other financial claims	5,284	4,633	3,364	6,141	6,742	6,820	5,228	5,921
9	Payable in dollars	3,328	3,190	2,330	4,792	5,400	5,551	4,114	4,772
10	Payable in foreign currencies	1,956	1,442	1,035	1,349	1,342	1,269	1,114	1,149
11	Commercial claims	11,131	10,646	9,986	10,095	9,954	9,953	10,335	10,539
12	Trade receivables	9,721	9,177	8,696	8,902	8,898	8,910	9,394	9,538
13	Advance payments and other claims	1,410	1,470	1,290	1,192	1,056	1,043	942	1,001
14	Payable in dollars	10,494	9,912	9,333	9,471	9,330	9,301	9,626	9,812
15	Payable in foreign currencies	637	735	652	624	624	652	709	727
	By area or country								
	Financial claims								
16	Europe	6,488	5,762	6,929	8,827	9,403	9,958	9,473	9,014
17	Belgium-Luxembourg	37	15	10	41	15	6	23	6
18	France	150	126	184	138	172	154	169	330
19	Germany	163	224	223	111	163	92	98	64
20	Netherlands	71	66	161	151	132	140	157	282
21	Switzerland	38	66	74	185	77	98	44	76
22	United Kingdom	5,817	4,864	6,007	7,957	8,491	9,268	8,783	8,046
23	Canada	5,989	3,988	3,260	3,965	3,782	3,330	2,885	2,805
24	Latin America and Caribbean	10,234	8,216	7,846	9,209	9,550	7,553	7,502	6,725
25	Bahamas	4,771	3,306	2,698	2,628	3,951	2,588	2,518	1,865
26	Bermuda	102	6	6	6	3	6	2	2
27	Brazil	53	100	78	73	71	103	102	53
28	British West Indies	4,206	4,043	4,571	6,078	5,150	4,404	3,687	4,351
29	Mexico	293	215	180	174	164	167	173	172
30	Venezuela	134	125	48	21	20	20	18	19
31	Asia	764	961	731	1,316	1,189	776	1,105	760
32	Japan	297	353	475	999	931	439	737	480
33	Middle East oil exporting countries[2]	4	13	4	7	7	6	10	10
34	Africa	147	210	103	85	84	58	71	65
35	Oil-exporting countries[3]	55	85	29	28	19	9	14	7
36	All other[4]	159	117	21	22	140	16	20	58
	Commercial claims								
37	Europe	3,670	3,801	3,533	3,718	3,703	3,855	4,121	4,004
38	Belgium-Luxembourg	135	165	175	133	145	137	168	175
39	France	459	440	426	410	417	437	413	588
40	Germany	349	374	346	447	451	532	551	549
41	Netherlands	334	335	284	173	165	182	199	139
42	Switzerland	317	271	284	217	196	187	205	184
43	United Kingdom	809	1,063	898	998	1,070	1,072	1,227	981
44	Canada	829	1,021	1,023	928	927	929	904	901
45	Latin America and Caribbean	2,695	2,052	1,753	1,981	1,944	1,882	1,852	2,094
46	Bahamas	8	8	13	28	11	14	12	19
47	Bermuda	190	115	93	170	157	153	125	159
48	Brazil	493	214	206	235	217	202	227	222
49	British West Indies	7	7	6	51	18	12	13	45
50	Mexico	884	583	510	411	445	347	367	369
51	Venezuela	272	206	157	234	171	201	189	294
52	Asia	3,063	3,073	2,982	2,751	2,707	2,645	2,783	2,882
53	Japan	1,114	1,191	1,016	881	926	952	1,022	1,148
54	Middle East oil-exporting countries[2]	737	668	638	565	529	455	436	451
55	Africa	588	470	437	495	432	379	407	406
56	Oil-exporting countries[3]	139	134	130	135	141	123	124	144
57	All other[4]	286	229	257	222	240	262	268	252

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	1986	1987	1988	1987				1988		
			Jan.–Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.[p]
	U.S. corporate securities									
STOCKS										
1 Foreign purchases	148,114	249,072	47,299	22,489	30,237	13,626	13,627	12,916	16,343	18,040
2 Foreign sales	129,395	232,849	48,059	19,455	27,784	20,325	16,630	12,891	16,720	18,448
3 Net purchases, or sales (−)	**18,719**	**16,223**	**−761**	**3,034**	**2,452**	**−6,699**	**−3,004**	**25**	**−377**	**−408**
4 Foreign countries	**18,927**	**16,271**	**−727**	**2,944**	**2,438**	**−6,651**	**−2,943**	**56**	**−345**	**−438**
5 Europe	9,559	1,886	−908	1,312	138	−5,948	−2,329	−226	−324	−358
6 France	459	905	−132	−15	58	−541	−393	−96	−29	−7
7 Germany	341	−74	201	−12	380	−183	−149	67	−37	171
8 Netherlands	936	890	−236	79	−40	169	32	−72	59	−223
9 Switzerland	1,560	−1,163	−399	435	294	−1,574	−743	−114	−253	−32
10 United Kingdom	4,826	539	−599	770	−624	−3,407	−959	−136	−130	−333
11 Canada	816	1,048	−80	−52	252	169	111	147	−167	−60
12 Latin America and Caribbean	3,031	1,314	217	157	−512	−561	−50	−143	261	100
13 Middle East[1]	976	−1,360	−933	135	569	−83	−448	104	−251	−786
14 Other Asia	3,876	12,896	803	1,242	2,014	−28	−160	156	70	577
15 Africa	297	123	−6	20	7	11	−6	7	−18	5
16 Other countries	373	365	181	132	−30	−211	−61	12	85	84
17 Nonmonetary international and regional organizations	**−208**	**−48**	**−34**	**90**	**15**	**−48**	**−61**	**−32**	**−33**	**31**
BONDS[2]										
18 Foreign purchases	123,169	105,823	19,249	8,662	9,158	5,716	6,773	5,024	6,453	7,772
19 Foreign sales	72,520	78,128	16,842	4,786	7,275	5,386	5,461	5,193[r]	6,039	5,609
20 Net purchases, or sales (−)	**50,648**	**27,695**	**2,407**	**3,876**	**1,883**	**330**	**1,313**	**−169[r]**	**414**	**2,163**
21 Foreign countries	**49,801**	**26,955**	**3,149**	**3,836**	**1,874**	**72**	**913**	**458[r]**	**532**	**2,158**
22 Europe	39,313	22,176	2,004	3,149	922	409	550	272[r]	263	1,468
23 France	389	194	121	37	55	−34	−13	51	13	57
24 Germany	−251	−8	440	−56	−98	−26	17	61	118	260
25 Netherlands	387	269	16	116	36	16	1	−13	−1	30
26 Switzerland	4,529	1,651	−11	166	136	−39	−203	−56[r]	60	−14
27 United Kingdom	33,900	19,934	1,365	2,828	1,012	371	751	333	49	982
28 Canada	548	1,296	87	47	305	68	114	29	−29	87
29 Latin America and Caribbean	1,476	2,473	490	682	524	−15	292	−22	316	197
30 Middle East[1]	−2,961	−551	−95	−87	42	−92	−20	−164	−76	144
31 Other Asia	11,270	1,606	705	52	65	−254	−25	347	88	270
32 Africa	16	16	−20	−6	24	−10	3	0	−22	3
33 Other countries	139	−61	−22	−1	−9	−33	0	−4	−8	−10
34 Nonmonetary international and regional organizations	**847**	**740**	**−741**	**40**	**10**	**257**	**400**	**−627**	**−119**	**5**
	Foreign securities									
35 Stocks, net purchases, or sales (−)	−2,360	1,127	−882	483	2,089	704	841	517	−678	−721
36 Foreign purchases	49,587	95,208	17,391	8,816	12,974	7,592	4,897	4,989	5,717	6,685
37 Foreign sales	51,947	94,082	18,274	8,333	10,885	6,889	4,055	4,472	6,395	7,406
38 Bonds, net purchases, or sales (−)	−3,685	−7,601	−3,877	−638	−2,566	−1,929	−1,379	−1,324[r]	−1,433	1,120
39 Foreign purchases	166,992	199,121	45,234	13,031	18,119	17,753	12,433	12,812[r]	15,858	16,564
40 Foreign sales	170,677	206,722	49,111	13,669	20,684	19,682	13,812	14,136	17,291	17,684
41 Net purchases, or sales (−), of stocks and bonds	**−6,045**	**−6,474**	**−4,759**	**−155**	**−477**	**−1,225**	**−538**	**−807[r]**	**−2,111**	**−1,841**
42 Foreign countries	**−7,000**	**−6,618**	**−4,941**	**−476**	**289**	**−1,125**	**−224**	**−873[r]**	**−2,131**	**−1,938**
43 Europe	−18,533	−11,972	−3,490	−505	−926	−1,582	−381	−319	−1,626	−1,544
44 Canada	−876	−4,065	−1,668	−274	−37	−498	107	−654[r]	−648	−366
45 Latin America and Caribbean	3,476	828	202	−20	−152	329	2	126	−64	141
46 Asia	10,858	9,322	−310	85	1,330	421	159	−197	37	−149
47 Africa	52	89	60	14	16	3	10	9	3	48
48 Other countries	−1,977	−820	264	224	59	201	−121	163	169	−68
49 Nonmonetary international and regional organizations	**955**	**144**	**182**	**320**	**−767**	**−101**	**−314**	**65**	**20**	**97**

1. Comprises oil-exporting countries as follows: Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (Trucial States).

2. Includes state and local government securities, and securities of U.S. government agencies and corporations. Also includes issues of new debt securities sold abroad by U.S. corporations organized to finance direct investments abroad.

3.25 MARKETABLE U.S. TREASURY BONDS AND NOTES Foreign Transactions

Millions of dollars

Country or area	1986	1987	1988 Jan.–Mar.	1987 Sept.	1987 Oct.	1987 Nov.	1987 Dec.	1988 Jan.	1988 Feb.	1988 Mar.[p]
	Transactions, net purchases or sales (−) during period[1]									
1 **Estimated total[2]**	**19,388**	**25,755**	**26,688**	**523**	**−1,232**	**6,380**	**2,675**	**4,645**	**12,083**	**9,960**
2 Foreign countries[2]	20,491	31,057	27,584	704	−5,497	7,676	4,290	5,740	12,832	9,012
3 Europe[2]	16,326	23,611[r]	13,380	−1,167	−954	6,340	1,282	4,321	5,878	3,181
4 Belgium–Luxembourg	−245	653	1,144	−25	165	−2	−103	469	242	433
5 Germany[2]	7,670	13,295	5,358	130	31	1,820	1,121	3,045	1,397	916
6 Netherlands	1,283	−911	305	−296	−707	314	−76	−337	334	309
7 Sweden	132	233	−280	−156	4	182	51	−61	26	−245
8 Switzerland[2]	329	1,925	−558	−99	−609	−297	−522	118	−1,188	512
9 United Kingdom	4,546	3,955	4,013	−985	−642	3,163	1,200	−101	4,373	−260
10 Other Western Europe	2,613	4,479	3,376	259	804	1,158	−391	1,179	678	1,518
11 Eastern Europe	0	−19	23	5	0	3	1	9	16	−3
12 Canada	881	4,534	1,288	203	−389	679	720	356	559	372
13 Latin America and Caribbean	926	−2,146	1,217	−29	−117	472	−141	219	630	368
14 Venezuela	−96	150	19	55	−63	35	1	0	−1	20
15 Other Latin America and Caribbean	1,130	−1,096	842	−155	−227	367	167	184	320	338
16 Netherlands Antilles	−108	−1,200	356	72	173	69	−309	36	311	10
17 Asia	1,345	4,707	12,270	1,762	−5,304	1,476	2,429	772	5,921	5,577
18 Japan	−22	877	12,305	799	−5,272	1,757	2,020	2,979	4,996	4330
19 Africa	−54	−56	−8	3	2	−29	49	−38	25	5
20 All other	1,067	407	−563	−68	1,263	−1,260	−48	110	−182	−491
21 Nonmonetary international and regional organizations	−1,104	−5,301	−896	−180	4,265	−1,296	−1,615	−1,095	−748	947
22 International	−1,430	−4,387	−950	111	4,326	−1,492	−1,620	−1,023	−879	953
23 Latin American regional	157	3	1	−10	0	0	0	8	−2	−5
Memo										
24 Foreign countries[2]	20,491	31,057	27,584	704	−5,497	7,676	4,290	5,740	12,832	9,012
25 Official institutions	14,214	31,188	20,300	1,341	2,466	1,854	1,794	5,118	7,169	8,013
26 Other foreign[2]	6,283	−135	7,284	−637	−7,965	5,822	2,497	622	5,663	999
Oil-exporting countries										
27 Middle East[3]	−1,529	−3,111	−377	−509	−695	−891	368	−809	−296	728
28 Africa[4]	5	16	1	0	−1	−1	−1	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 Apr. 30, 1988		Country	Rate on Apr. 30, 1988		Country	Rate on Apr. 30, 1988	
	Percent	Month effective		Percent	Month effective		Percent	Month effective
Austria	3.0	Dec. 1987	France[1]	7.25	Jan. 1988	Norway	8.0	June 1983
Belgium	6.5	Mar. 1988	Germany, Fed. Rep. of	2.5	Dec. 1987	Switzerland	2.5	Dec. 1987
Brazil	49.0	Mar. 1981	Italy	12.0	Aug. 1987	United Kingdom[2]	....	....
Canada	9.06	Apr. 1988	Japan	2.5	Feb. 1987	Venezuela	8.0	Oct. 1985
Denmark	7.0	Oct. 1983	Netherlands	3.25	Jan. 1988			

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	1985	1986	1987	1987			1988			
				Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1 Eurodollars	8.27	6.70	7.07	8.29	7.41	7.86	7.11	6.73	6.74	7.05
2 United Kingdom	12.16	10.87	9.65	9.92	8.87	8.71	8.84	9.18	8.83	8.25
3 Canada	9.64	9.18	8.38	9.12	8.70	8.95	8.75	8.58	8.63	8.90
4 Germany	5.40	4.58	3.97	4.70	3.92	3.65	3.40	3.29	3.38	3.37
5 Switzerland	4.92	4.19	3.67	4.03	3.65	3.51	2.09	1.48	1.61	1.83
6 Netherlands	6.29	5.56	5.24	5.63	4.99	4.65	4.24	3.98	3.97	3.98
7 France	9.91	7.68	8.14	8.15	8.66	8.48	8.19	7.54	7.89	7.99
8 Italy	14.86	12.60	11.15	11.85	11.36	11.25	10.47	10.80	11.11	10.54
9 Belgium	9.60	8.04	7.01	6.84	6.93	6.57	6.49	6.19	6.09	6.08
10 Japan	6.47	4.96	3.87	3.89	3.90	3.90	3.88	3.82	3.82	3.80

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	1985	1986	1987	1987		1988			
				Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1 Australia/dollar[2]	70.026	67.093	70.136	68.60	71.06	71.11	71.40	73.29	74.80
2 Austria/schilling	20.676	15.260	12.649	11.843	11.500	11.635	11.920	11.767	11.744
3 Belgium/franc	59.336	44.662	37.357	35.190	34.186	34.576	35.473	35.126	34.962
4 Canada/dollar	1.3658	1.3896	1.3259	1.3167	1.3075	1.2855	1.2682	1.2492	1.2353
5 China, P.R./yuan	2.9434	3.4615	3.7314	3.7314	3.7314	3.7314	3.7314	3.7314	3.7314
6 Denmark/krone	10.598	8.0954	6.8477	6.4962	6.3043	6.3562	6.4918	6.4261	6.4207
7 Finland/markka	6.1971	5.0721	4.4036	4.1392	4.0462	4.0391	4.1159	4.0483	4.0064
8 France/franc	8.9799	6.9256	6.0121	5.7099	5.5375	5.5808	5.7323	5.6893	5.6704
9 Germany/deutsche mark	2.9419	2.1704	1.7981	1.6821	1.6335	1.6537	1.6963	1.6770	1.6710
10 Greece/drachma	138.40	139.93	135.47	132.42	129.46	131.92	135.56	134.60	133.86
11 Hong Kong/dollar	7.7911	7.8037	7.7985	7.7968	7.7726	7.7872	7.7978	7.8028	7.8166
12 India/rupee	12.332	12.597	12.943	12.972	12.934	13.040	13.065	12.979	13.158
13 Ireland/punt[2]	106.62	134.14	148.79	158.08	162.63	160.64	156.87	159.33	159.81
14 Italy/lira	1908.90	1491.16	1297.03	1238.89	1203.74	1216.88	1249.62	1240.67	1240.99
15 Japan/yen	238.47	168.35	144.60	135.40	128.24	127.69	129.17	127.11	124.90
16 Malaysia/ringgit	2.4806	2.5830	2.5185	2.4989	2.4944	2.5400	2.5812	2.5689	2.5743
17 Netherlands/guilder	3.3184	2.4484	2.0263	1.8931	1.8382	1.8584	1.9051	1.8837	1.8749
18 New Zealand/dollar[2]	49.752	52.456	59.327	61.915	64.664	65.818	66.386	66.239	66.143
19 Norway/krone	8.5933	7.3984	6.7408	6.4233	6.3820	6.3538	6.4167	6.3337	6.2140
20 Portugal/escudo	172.07	149.80	141.20	136.84	133.77	135.87	138.84	137.48	136.77
21 Singapore/dollar	2.2008	2.1782	2.1059	2.0444	2.0127	2.0261	2.0185	2.0133	2.0044
22 South Africa/rand	2.2343	2.2918	2.0385	1.9738	1.9525	1.9755	2.0529	2.1330	2.1428
23 South Korea/won	861.89	884.61	825.93	802.30	798.34	791.31	776.85	757.37	745.31
24 Spain/peseta	169.98	140.04	123.54	113.26	110.80	112.34	114.36	112.38	110.80
25 Sri Lanka/rupee	27.187	27.933	29.471	30.519	30.644	30.825	30.859	30.892	30.939
26 Sweden/krona	8.6031	7.1272	6.3468	6.0744	5.9473	5.9749	6.0524	5.9497	5.8892
27 Switzerland/franc	2.4551	1.7979	1.4918	1.3825	1.3304	1.3466	1.3916	1.3863	1.3823
28 Taiwan/dollar	39.889	37.837	31.756	29.813	29.004	28.628	28.665	28.687	28.695
29 Thailand/baht	27.193	26.314	25.774	25.495	25.249	25.235	25.324	25.232	25.171
30 United Kingdom/pound[2]	129.74	146.77	163.98	177.54	182.88	180.09	175.82	183.30	187.82
MEMO									
31 United States/dollar[3]	143.01	112.22	96.94	91.49	88.70	89.29	91.08	89.73	88.95

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
e	Estimated
p	Preliminary
r	Revised (Notation appears on column heading when about half of the figures in that column are changed.)
*	Amounts insignificant in terms of the last decimal place shown in the table (for example, less than 500,000 when the smallest unit given is millions)
0	Calculated to be zero
n.a.	Not available
n.e.c.	Not elsewhere classified
IPCs	Individuals, partnerships, and corporations
REITs	Real estate investment trusts
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

	Issue	*Page*
Anticipated schedule of release dates for periodic releases	July 1988	A77

SPECIAL TABLES

Published Irregularly, with Latest Bulletin Reference

Assets and liabilities of commercial banks, March 31, 1987	October 1987	A70
Assets and liabilities of commercial banks, June 30, 1987	February 1988	A70
Assets and liabilities of commercial banks, September 30, 1987	April 1988	A70
Assets and liabilities of commercial banks, December 31, 1987	June 1988	A70
Assets and liabilities of U.S. branches and agencies of foreign banks, March 31, 1987	August 1987	A70
Assets and liabilities of U.S. branches and agencies of foreign banks, June 30, 1987	November 1987	A70
Assets and liabilities of U.S. branches and agencies of foreign banks, September 30, 1987	February 1988	A76
Assets and liabilities of U.S. branches and agencies of foreign banks, December 31, 1987	June 1988	A76
Terms of lending at commercial banks, February 1987	May 1987	A70
Terms of lending at commercial banks, May 1987	September 1987	A70
Terms of lending at commercial banks, August 1987	January 1988	A70
Terms of lending at commercial banks, November 1987	May 1988	A70
Pro forma balance sheet and income statements for priced service operations, June 30, 1987	November 1987	A74
Pro forma balance sheet and income statements for priced service operations, September 30, 1987	February 1988	A80

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Index to Statistical Tables

References are to pages A3–A68 although the prefix "A" is omitted in this index

ACCEPTANCES, bankers (*See* Bankers acceptances)
Agricultural loans, commercial banks, 19, 20
Assets and liabilities (*See also* Foreigners)
  Banks, by classes, 18–20
  Domestic finance companies, 37
  Federal Reserve Banks, 10
  Financial institutions, 26
  Foreign banks, U.S. branches and agencies, 21
  Nonfinancial corporations, 36
Automobiles
  Consumer installment credit, 40, 41
  Production, 47, 48

BANKERS acceptances, 9, 23, 24
Bankers balances, 18–20. (*See also* Foreigners)
Bonds (*See also* U.S. government securities)
  New issues, 34
  Rates, 24
Branch banks, 21, 55
Business activity, nonfinancial, 44
Business expenditures on new plant and equipment, 36
Business loans (*See* Commercial and industrial loans)

CAPACITY utilization, 46
Capital accounts
  Banks, by classes, 18
  Federal Reserve Banks, 10
Central banks, discount rates, 67
Certificates of deposit, 24
Commercial and industrial loans
  Commercial banks, 16, 19
  Weekly reporting banks, 19–21
Commercial banks
  Assets and liabilities, 18–20
  Commercial and industrial loans, 16, 18, 19, 20, 21
  Consumer loans held, by type, and terms, 40, 41
  Loans sold outright, 19
  Nondeposit funds, 17
  Real estate mortgages held, by holder and property, 39
  Time and savings deposits, 3
Commercial paper, 23, 24, 37
Condition statements (*See* Assets and liabilities)
Construction, 44, 49
Consumer installment credit, 40, 41
Consumer prices, 44, 50
Consumption expenditures, 51, 52
Corporations
  Nonfinancial, assets and liabilities, 36
  Profits and their distribution, 35
  Security issues, 34, 65
Cost of living (*See* Consumer prices)
Credit unions, 26, 40, (*See also* Thrift institutions)
Currency and coin, 18,
Currency in circulation, 4, 13
Customer credit, stock market, 25

DEBITS to deposit accounts, 15
Debt (*See specific types of debt or securities*)
Demand deposits
  Banks, by classes, 18–21
Demand deposits—Continued
  Ownership by individuals, partnerships, and corporations, 22
  Turnover, 15
Depository institutions
  Reserve requirements, 8
  Reserves and related items, 3, 4, 5, 12
Deposits (*See also specific types*)
  Banks, by classes, 3, 18–20, 21
  Federal Reserve Banks, 4, 10
  Turnover, 15
Discount rates at Reserve Banks and at foreign central banks and foreign countries (*See* Interest rates)
Discounts and advances by Reserve Banks (*See* Loans)
Dividends, corporate, 35

EMPLOYMENT, 45
Eurodollars, 24

FARM mortgage loans, 39
Federal agency obligations, 4, 9, 10, 11, 31, 32
Federal credit agencies, 33
Federal finance
  Debt subject to statutory limitation, and types and ownership of gross debt, 30
  Receipts and outlays, 28, 29
  Treasury financing of surplus, or deficit, 28
  Treasury operating balance, 28
Federal Financing Bank, 28, 33
Federal funds, 6, 17, 19, 20, 21, 24, 28
Federal Home Loan Banks, 33
Federal Home Loan Mortgage Corporation, 33, 38, 39
Federal Housing Administration, 33, 38, 39
Federal Land Banks, 39
Federal National Mortgage Association, 33, 38, 39
Federal Reserve Banks
  Condition statement, 10
  Discount rates (*See* Interest rates)
  U.S. government securities held, 4, 10, 11, 30
Federal Reserve credit, 4, 5, 10, 11
Federal Reserve notes, 10
Federal Savings and Loan Insurance Corporation insured institutions, 26
Federally sponsored credit agencies, 33
Finance companies
  Assets and liabilities, 37
  Business credit, 37
  Loans, 40, 41
  Paper, 23, 24
Financial institutions
  Loans to, 19, 20, 21
  Selected assets and liabilities, 26
Float, 4
Flow of funds, 42, 43
Foreign banks, assets and liabilities of U.S. branches and agencies, 21
Foreign currency operations, 10
Foreign deposits in U.S. banks, 4, 10, 19, 20
Foreign exchange rates, 68
Foreign trade, 54
Foreigners
  Claims on, 55, 57, 60, 61, 62, 64
  Liabilities to, 20, 54, 55, 57, 58, 63, 65, 66

GOLD
  Certificate account, 10
  Stock, 4, 54
Government National Mortgage Association, 33, 38, 39
Gross national product, 51

HOUSING, new and existing units, 49

INCOME, personal and national, 44, 51, 52
Industrial production, 44, 47
Installment loans, 40, 41
Insurance companies, 26, 30, 39
Interest rates
  Bonds, 24
  Consumer installment credit, 41
  Federal Reserve Banks, 7
  Foreign central banks and foreign countries, 67
  Money and capital markets, 24
  Mortgages, 38
  Prime rate, 23
International capital transactions of United States, 53–67
International organizations, 57, 58, 60, 63, 64
Inventories, 51
Investment companies, issues and assets, 35
Investments (*See also specific types*)
  Banks, by classes, 18, 19, 20, 21, 26
  Commercial banks, 3, 16, 18–20, 39
  Federal Reserve Banks, 10, 11
  Financial institutions, 26, 39

LABOR force, 45
Life insurance companies (*See* Insurance companies)
Loans (*See also specific types*)
  Banks, by classes, 18–20
  Commercial banks, 3, 16, 18–20
  Federal Reserve Banks, 4, 5, 7, 10, 11
  Financial institutions, 26, 39
  Insured or guaranteed by United States, 38, 39

MANUFACTURING
  Capacity utilization, 46
  Production, 46, 48
Margin requirements, 25
Member banks (*See also* Depository institutions)
  Federal funds and repurchase agreements, 6
  Reserve requirements, 8
Mining production, 48
Mobile homes shipped, 49
Monetary and credit aggregates, 3, 12
Money and capital market rates, 24
Money stock measures and components, 3, 13
Mortgages (*See* Real estate loans)
Mutual funds, 35
Mutual savings banks (*See* Thrift institutions)

NATIONAL defense outlays, 29
National income, 51

OPEN market transactions, 9

PERSONAL income, 52
Prices
  Consumer and producer, 44, 50
  Stock market, 25
Prime rate, 23
Producer prices, 44, 50
Production, 44, 47
Profits, corporate, 35

REAL estate loans
  Banks, by classes, 16, 19, 20, 39
Real estate loans—Continued
  Financial institutions, 26
  Terms, yields, and activity, 38
  Type of holder and property mortgaged, 39
Repurchase agreements, 6, 17, 19, 20, 21
Reserve requirements, 8
Reserves
  Commercial banks, 18
  Depository institutions, 3, 4, 5, 12
  Federal Reserve Banks, 10
  U.S. reserve assets, 54
Residential mortgage loans, 38
Retail credit and retail sales, 40, 41, 44

SAVING
  Flow of funds, 42, 43
  National income accounts, 51
Savings and loan associations, 26, 39, 40, 42. (*See also* Thrift institutions)
Savings banks, 26, 39, 40
Savings deposits (*See* Time and savings deposits)
Securities (*See also specific types*)
  Federal and federally sponsored credit agencies, 33
  Foreign transactions, 65
  New issues, 34
  Prices, 25
Special drawing rights, 4, 10, 53, 54
State and local governments
  Deposits, 19, 20
  Holdings of U.S. government securities, 30
  New security issues, 34
  Ownership of securities issued by, 19, 20, 26
  Rates on securities, 24
Stock market, selected statistics, 25
Stocks (*See also* Securities)
  New issues, 34
  Prices, 25
Student Loan Marketing Association, 33

TAX receipts, federal, 29
Thrift institutions, 3. (*See also* Credit unions *and* Savings and loan associations)
Time and savings deposits, 3, 13, 17, 18, 19, 20,21
Trade, foreign, 54
Treasury cash, Treasury currency, 4
Treasury deposits, 4, 10, 28
Treasury operating balance, 28

UNEMPLOYMENT, 45
U.S. government balances
  Commercial bank holdings, 18, 19, 20
  Treasury deposits at Reserve Banks, 4, 10, 28
U.S. government securities
  Bank holdings, 18–20, 21, 30
  Dealer transactions, positions, and financing, 32
  Federal Reserve Bank holdings, 4, 10, 11, 30
  Foreign and international holdings and transactions, 10, 30, 66
  Open market transactions, 9
  Outstanding, by type and holder, 26, 30
  Rates, 24
U.S. international transactions, 53–67
Utilities, production, 48

VETERANS Administration, 38, 39

WEEKLY reporting banks, 19–21
Wholesale (producer) prices, 44, 50

YIELDS (*See* Interest rates)

Federal Reserve Banks, Branches, and Offices

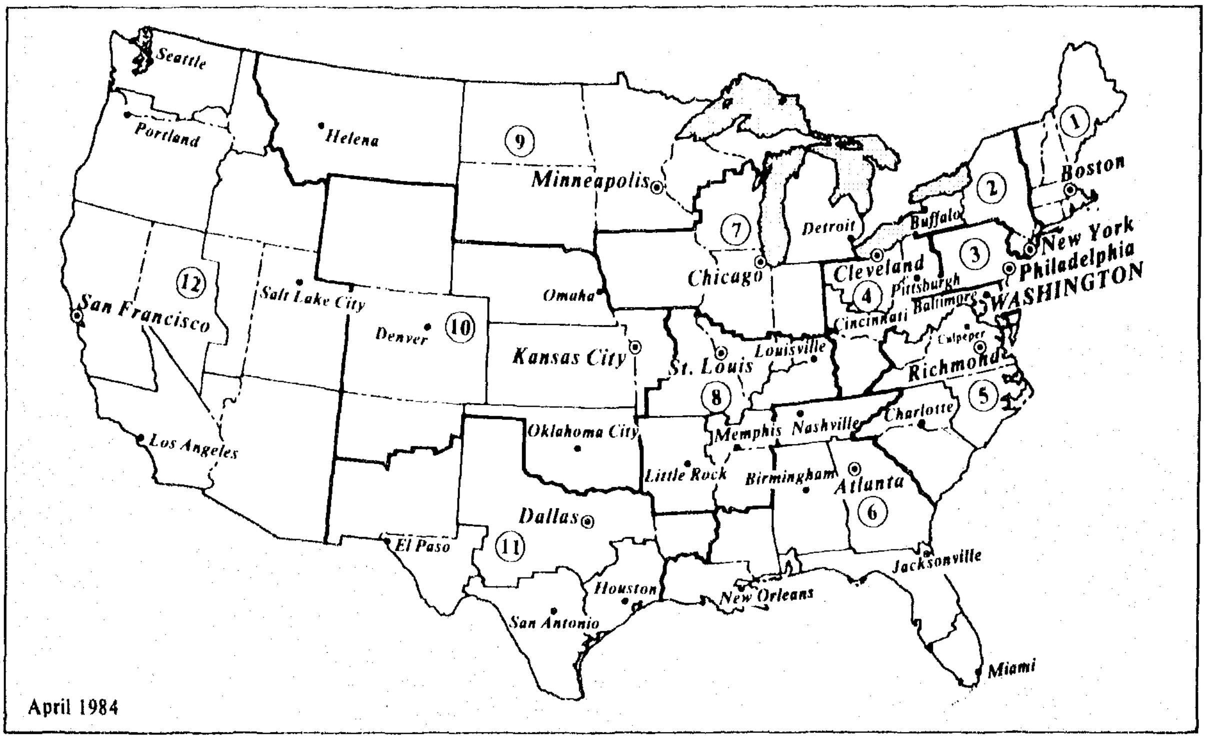
FEDERAL RESERVE BANK, branch, or *facility* Zip	Chairman Deputy Chairman	President First Vice President	Vice President in charge of branch
BOSTON*.................02106	George N. Hatsopoulos Richard N. Cooper	Frank E. Morris Robert W. Eisenmenger	
NEW YORK*............10045	John R. Opel To be announced	E. Gerald Corrigan To be announced	
Buffalo...................14240	Mary Ann Lambertsen		John T. Keane
PHILADELPHIA........19105	Nevius M. Curtis Peter A. Benoliel	Edward G. Boehne William H. Stone, Jr.	
CLEVELAND*..........44101	Charles W. Parry John R. Miller	W. Lee Hoskins William H. Hendricks	
Cincinnati................45201	Owen B. Butler		Charles A. Cerino[1]
Pittsburgh................15230	James E. Haas		Harold J. Swart[1]
RICHMOND*............23219	Robert A. Georgine Hanne M. Merriman	Robert P. Black Jimmie R. Monhollon	
Baltimore 21203	Thomas R. Shelton		Robert D. McTeer, Jr.[1]
Charlotte 28230	G. Alex Bernhardt		Albert D. Tinkelenberg[1]
Culpeper Communications and Records Center 22701			John G. Stoides[1]
ATLANTA................30303	Bradley Currey, Jr. Larry L. Prince	Robert P. Forrestal Jack Guynn	Delmar Harrison[1]
Birmingham 35283	Roy D. Terry		Fred R. Herr[1]
Jacksonville 32231	E. William Nash, Jr.		James D. Hawkins[1]
Miami......................33152	Sue McCourt Cobb		James Curry III
Nashville.................37203	Condon S. Bush		Donald E. Nelson
New Orleans............70161	Sharon A. Perlis		Robert J. Musso
CHICAGO*...............60690	Robert J. Day Marcus Alexis	Silas Keehn Daniel M. Doyle	
Detroit....................48231	Richard T. Lindgren		Roby L. Sloan[1]
ST. LOUIS................63166	Robert L. Virgil, Jr. H. Edwin Trusheim	Thomas C. Melzer James R. Bowen	
Little Rock 72203	James R. Rodgers		John F. Breen
Louisville 40232	Lois H. Gray		James E. Conrad
Memphis 38101	Sandra B. Sanderson		Paul I. Black, Jr.
MINNEAPOLIS..........55480	Michael W. Wright John A. Rollwagen	Gary H. Stern Thomas E. Gainor	
Helena....................59601	Marcia S. Anderson		Robert F. McNellis
KANSAS CITY..........64198	Irvine O. Hockaday, Jr. Fred W. Lyons, Jr.	Roger Guffey Henry R. Czerwinski	
Denver....................80217	James C. Wilson		Enis Alldredge, Jr.
Oklahoma City 73125	Patience S. Latting		William G. Evans
Omaha....................68102	Kenneth L. Morrison		Robert D. Hamilton
DALLAS 75222	Bobby R. Inman Hugh G. Robinson	Robert H. Boykin William H.Wallace	Tony J. Salvaggio[1]
El Paso 79999	Peyton Yates		Sammie C. Clay
Houston..................77252	Walter M. Mischer, Jr.		Robert Smith, III[1]
San Antonio............78295	Robert F. McDermott		Thomas H. Robertson
SAN FRANCISCO 94120	Robert F. Erburu Carolyn S. Chambers	Robert T. Parry Carl E. Powell	John F. Hoover[1]
Los Angeles.............90051	Richard C. Seaver		Thomas C. Warren[2]
Portland 97208	Paul E. Bragdon		Angelo S. Carella[1]
Salt Lake City..........84125	Don M. Wheeler		E. Ronald Liggett[1]
Seattle 98124	Carol A. Nygren		Gerald R. Kelly[1]

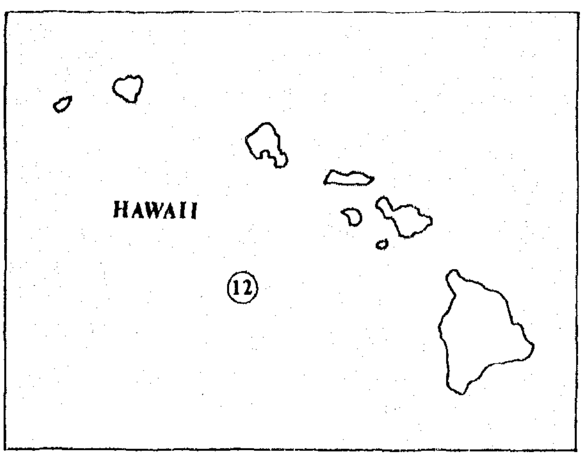
*Additional offices of these Banks are located at Lewiston, Maine 04240; Windsor Locks, Connecticut 06096; Cranford, New Jersey 07016; Jericho, New York 11753; Utica at Oriskany, New York 13424; Columbus, Ohio 43216; Columbia, South Carolina 29210; Charleston, West Virginia 25311; Des Moines, Iowa 50306; Indianapolis, Indiana 46204; and Milwaukee, Wisconsin 53202.

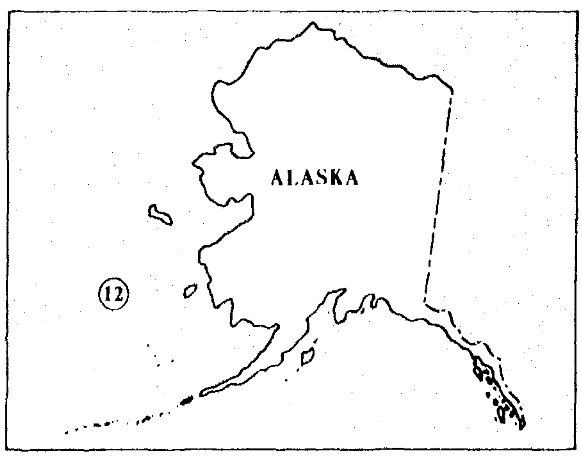
1. Senior Vice President.
2. Executive Vice President.

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