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Industrial Production: 1989 Developments and Historical Revision

Kenneth Armitage and Dixon A. Trantum, of the Board's Industrial Output Section in the Division of Research and Statistics, prepared this article. Rona J. McNeil provided research assistance.

The Board of Governors of the Federal Reserve System has completed a revision of its index of industrial production. The index has been revised back to 1977, and it now uses 1987 instead of 1977 as its reference period.

This discussion of the revision falls into two main parts. The first part reviews the recent performance of the industrial sector in light of the new data. The second part presents highlights of the revision and discusses areas in which the new estimates have shown changes in industrial production trends over the past thirteen years. Technical aspects of the revision appear in an appendix.

MAJOR INDUSTRIAL DEVELOPMENTS IN 1989

The revision to the industrial production index has altered only slightly the picture of major developments in the industrial sector during 1989. The revised index still shows that output decelerated markedly throughout 1989, after sizable advances in the preceding two years (table 1). Much of the slowdown in 1989 stemmed from a decrease in domestic purchases of goods made in the United States, particularly those relating to the motor vehicle industry. Some of this decline in demand for domestic goods was offset by further healthy gains in exports. In response to the slowing in overall demand, manufacturers quickly adjusted output to prevent a large buildup of inventories. This timely reaction helped prevent a significant contraction in overall industrial activity.

1. Annual rates of change in industrial production, by major group, 1987-89¹
Percent

Item	1987	1988	1989	1989:H1	1989:H2
Total industrial production ²	6.5 (5.8)	4.5 (5.0)	1.1 (1.6)	2.7 (2.7)	-.4 (.5)
<i>Major market groups</i>					
Products	6.1	4.7	1.8	3.8	-.1
Materials	7.1	4.1	0	1.0	-1.0
<i>Major industry groups</i>					
Mining	4.9	-.9	-.6	-.7	-.6
Manufacturing	7.1	5.0	.9	2.9	-1.0
Utilities	2.6	3.3	5.5	4.3	6.8
MEMO					
Domestic purchases of goods and structures ³	5.3	2.3	.3	.2	.3
U.S.-produced	4.7	1.6	-1.0	-.2	-1.7
Foreign-produced	7.4	5.0	4.9	1.7	8.3
Nonagricultural merchandise exports	23.2	17.1	11.5	15.3	7.8

1. Percent change from the final quarter of previous period to the final quarter of the period indicated.
2. Numbers in parentheses are from the previous, unrevised index.
3. Purchases in the United States of goods and structures wherever produced (defined as GNP for goods and structures plus merchandise imports less mer-

chandise exports, farm inventories, and Commodity Credit Corporation inventory change).

SOURCE: "National Income and Product Accounts," *Survey of Current Business*, vol. 70 (February 1990), various tables.

Nonetheless, the production adjustment resulted in a loss of manufacturing jobs. Factory employment, which had risen 90,000 in the first quarter of 1989, fell nearly 200,000 during the remainder of the year. About one-fourth of the decline occurred in the motor vehicle industry, and significant reductions were made in related industries, such as steel and metal stampings. Cutbacks in employment also occurred in electrical machinery, particularly in appliances and communication equipment. Although the adjustment of labor input to output changes was relatively prompt, the implied growth in productivity for production workers in manufacturing slowed in 1989 to about 2½ percent, compared with the trend of about 4 percent per year that had prevailed since 1981.

Motor Vehicles

The most significant declines in industrial production last year occurred in motor vehicles and related industries (table 2). During much of 1989, dealers faced a persistent excess of stocks. In response, manufacturers of autos and light trucks adjusted production and offered more sales incentives during the year. Even so, by late autumn, inventories were still uncomfortably high in relation to the lackluster pace of sales. As a result, dealers became reluctant to place orders, and in late December the major producers of motor vehicles announced drastic cuts in output and increased their sales incen-

tives even further in an attempt to reduce inventories.

The decline in the manufacture of cars by the domestic companies more than accounted for the overall drop in industrial output of autos in 1989. At the same time, foreign car companies increased their output of autos produced in the United States about 300,000 units. As a result, the share of these so-called transplants in total auto production rose to 15 percent from about 11 percent in 1988.

Over the first half of 1989, the output of light trucks, most of which consumers purchase, although down somewhat from late 1988, remained relatively high. During the second half, however, it was slashed sharply. The output of medium and heavy trucks, all of which are included in business equipment, was weak throughout much of the year.

The proportion of motor vehicles and parts in total industrial production in 1987 was about 4¾ percent. However, this proportion does not include the value added in production of various materials and equipment—including steel, rubber and plastics, machinery, chemicals, and textiles—that are used in assembling motor vehicles. Data from various sources suggest that the effect on total industrial output of these upstream industries is nearly equal to the direct effect of the change in motor vehicles and parts.

Because of the lack of detailed statistics, monthly industrial production estimates are available for only some of the parts and materials

2. Annual rates of change in the industrial production of motor vehicles, parts, and related materials, 1987-89¹
Percent

Series	1987 proportion ²	1987	1988	1989	1989:H1	1989:H2
Total	6.0	5.2	9.7	-10.1	-6.7	-13.5
Motor vehicles and parts	4.7	3.9	9.3	-11.1	-7.6	-14.4
Autos	1.6	-6.3	12.6	-14.5	-12.9	-16.1
Trucks	1.1	19.1	9.9	-11.4	-9.0	-13.7
<i>Related materials</i>						
Tires, original equipment .....	.1	6.3	13.7	-17.6	7.3	-36.8
Steel ³ .....	.3	6.7	14.6	-21.5	-14.0	-28.3
Metal stampings ⁴	1.0	9.8	9.7	-1.3	-.8	-1.8

1. Percent change from the final quarter of the previous period to the final quarter of the period indicated.

2. Proportion of the total industrial production index derived from value-added data from the 1987 Census of Manufactures. Details may not sum to totals because of rounding.

3. Steel mill products for consumer durables. In the 1989 shipments data

published by the American Iron and Steel Institute, about 80 percent of steel shipments for use in the manufacture of durable consumer goods go to the motor vehicle industry.

4. According to the value-added data from the 1987 Census of Manufactures, about 50 percent of the output of this industry represents automotive stampings.

used primarily in the manufacture of motor vehicles (table 2). The recent pattern of output in these industries parallels that for motor vehicles: After increasing rapidly in 1987 and over much of 1988, output of these parts and materials dropped sharply in 1989. In most cases, particularly in steel and tires, the largest reductions occurred late in the year.

Industrial Production outside the Motor Vehicle Sector

Industrial production excluding motor vehicles and related parts and materials rose at a relatively robust 3.4 percent annual rate during the first half of 1989 but leveled off in the second half (table 3). Some of the stagnation in the non-motor-vehicle portion of industrial production reflected the influence of the motor vehicle sector on upstream industries that cannot be separated out. For example, the textiles used in making seats are included in total fabrics.

Among final products, the slowdown over the year was widespread. During the first half of the year, particularly strong increases in the production of linens and curtains, cutlery, and toys and sporting goods boosted the growth in the output of consumer durables. Output of these goods grew further in the second half, but production of

other goods for the home, such as appliances, carpeting, and furniture, which had advanced during the first half of the year, sagged during the third quarter. In the fourth quarter, appliance production fell sharply, and furniture output remained weak.

Growth in the output of nondurable consumer goods continued throughout 1989. The production of consumer paper products, particularly periodicals, books, and sanitary paper products, advanced noticeably over the year. The output of food continued to rise throughout the year, but clothing production, which had increased early in the year, weakened in the second half as imports picked up. The production of consumer chemical products—for example, drugs and medicines and soaps and toiletries—also increased late in the year after changing little, on balance, since the fourth quarter of 1988. The production of consumer fuel, mainly automotive gasoline, remained steady until late in the year when extremely cold weather caused temporary disruptions in production. The cold weather led to extraordinary demands for heating; and, as a result, the output of gas and electricity for residential use jumped sharply in December.

During the first half of 1989, the output of business equipment, led by continued rapid growth in information-processing and related

3. Annual rates of change of industrial production, by market group, excluding motor vehicles, parts, and related materials, 1987-89¹
Percent

Series	1987 proportion ²	1987	1988	1989	1989:H1	1989:H2
Total	94.0	6.6	4.1	1.9	3.4	.5
Products	57.6	6.3	4.4	2.7	4.7	.7
Final products	42.9	5.6	4.8	2.9	5.4	.4
Consumer goods	24.5	3.1	3.9	2.7	2.9	2.5
Durable	4.1	6.4	4.4	2.1	5.1	-8
Nondurable	20.4	2.3	3.9	2.8	2.4	3.2
Business equipment	12.6	11.0	11.0	4.1	11.0	-2.3
Information processing and related equipment	5.6	14.0	10.2	6.3	13.5	-5
Industrial equipment	4.0	5.6	8.2	1.8	6.0	-2.3
Transit equipment	1.1	6.7	33.7	1.9	19.6	-13.2
Other equipment	1.9	11.4	6.3	4.1	6.7	1.6
Defense and space equipment	5.4	1.8	-3.1	-2	1.8	-2.2
Intermediate products	14.7	8.4	2.9	2.0	2.6	1.5
Construction supplies	6.0	6.7	2.6	1.2	1.9	.5
Materials	36.4	7.0	3.8	.6	1.2	0
Durable	16.6	10.9	6.7	.3	1.1	-5
Nondurable	9.0	6.2	2.0	1.1	2.9	-7
Energy	10.9	2.5	.3	.8	.2	1.5

1. Percent change from the final quarter of the previous period to the final quarter of the period indicated.

2. Proportion of the total industrial production index derived from value-

added data from the 1987 Census of Manufactures. Details may not sum to totals because of rounding.

equipment, particularly computers, was a significant source of strength to industrial production.¹ In the second half, the output of computers leveled out, and near the end of the year, new bookings for computers weakened. The output of the other types of information-processing and related equipment, including communications equipment and instruments, declined over the summer and then remained sluggish through the end of 1989.

The output of the other major sectors within business equipment also rose sharply during the first half of 1989, but then declined, in most cases, during the second half. For example, production of industrial equipment, which includes machinery used in manufacturing, in mining, and in the generation and distribution of electricity, grew rapidly earlier in the year; but by summer, new orders for most of these goods had weakened. Producers reacted quickly and curtailed output over the remainder of the year.

The rapid increase in the output of transit equipment other than motor vehicles during the first half of last year reflected mainly another surge in the production of commercial aircraft as order books remained full. However, a strike at the Boeing Company during October and November depressed commercial aircraft output in the fourth quarter; but production was back to normal in December, and capacity utilization returned to a very high level.

The output of farm equipment, which is included in the category "other equipment," weakened during most of 1989 partially because of a curtailment in exports coupled with a large rise in imports. Toward the end of the year, exports rebounded somewhat, and production increased. Output of the remaining components of the "other equipment" category—office furniture and service equipment—increased early in the year and then weakened.

After increasing during most of the 1980s, output of defense and space equipment declined in 1988 and then remained essentially unchanged in 1989. The weakness in the past two years has

resulted from the reduction in defense appropriations for hardware that began in 1986.

The revised data for construction supplies indicate that a deceleration in output growth began in mid-1988, somewhat earlier than previously estimated. During 1989, the growth of production slowed to a 1¼ percent rate. This anemic pace is generally consistent with the softness observed throughout the year in outlays for both nonresidential and residential structures.

The growth in the production of materials was similar to that of total products during 1987 and 1988. During 1989, while the output of total products slowed, the rate of growth in the production of materials decreased more sharply, the deceleration occurring mainly in durables production. For example, the production of parts used in the manufacture of equipment and the output of basic metals slowed during the first six months of 1989 and then flattened in the latter half of the year.

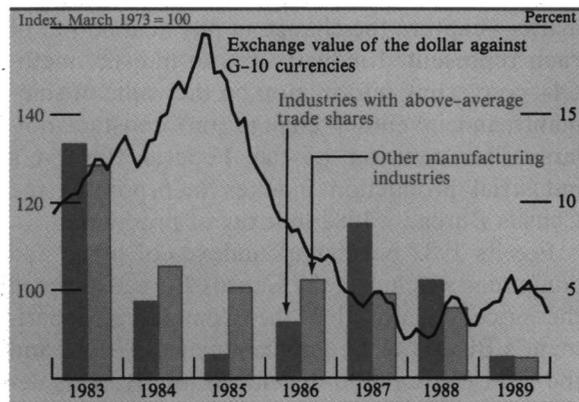
Among nondurable materials industries, the output of textiles, mainly those used in making clothing, surged during the first half of 1989, after a sharp drop in 1988. Much of the rebound stemmed from increased orders from domestic apparel producers. However, the production of textiles declined in the second half of 1989, when most major users curtailed output.

The production of chemical materials remained at a high level during 1989 after several years of rapid growth. Unlike the output of most products and materials, which in 1989 generally followed the path of demand, the output of chemical materials was limited to some extent by the high level of capacity utilization in this industry. Some expansion in capacity over 1989 lessened production constraints a bit; as a result, price pressures eased during the year. The situation was similar for paper materials: Output was well maintained, on balance, over 1989; and utilization rates, although a little lower than those in late 1988, remained quite high.

Despite a weather-related surge in electricity generation and gas transmission late in the year, the output of energy materials remained sluggish over 1989 as crude oil production continued to decline. The oil spill in Alaska, which led to a temporary curtailment of oil flow through the Alaskan pipeline, aggravated the downward

1. Within the category of business equipment, new aggregates have been created (see table A.2 for their definition). Of the old groups, only transit equipment has been retained.

1. Change in output of industries with above-average trade shares and of other manufacturing industries¹



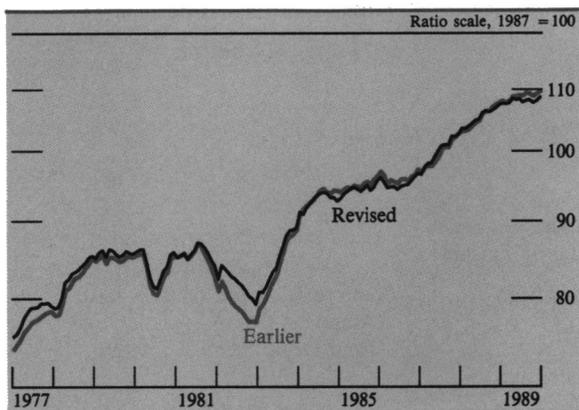
1. Percent changes are from the fourth quarter of the previous year to the fourth quarter of the year indicated. Data are seasonally adjusted. The bar scale is on the left; the curve scale is on the right.

trend in oil extraction. Despite a strike in the spring, the output at coal mines was little changed, on balance, over 1989.

Foreign Trade and U.S. Industrial Performance

Changes in foreign trade have heavily influenced recent developments in industrial production. Although in 1989 real net exports of the United States rose, they did so less rapidly than during the previous two years; the deceleration occurred during the second half of the year, when the growth of merchandise imports picked up while the growth in merchandise exports slowed.

2. Revised and earlier industrial production indexes¹



1. Monthly data, seasonally adjusted.

These developments related partly to an increase in the foreign exchange value of the dollar during much of 1988 and 1989: The change in the foreign exchange value of the dollar adversely influenced the competitiveness of U.S. goods in markets abroad as well as their ability to compete with imports in the domestic market.

As a result of these developments, growth in those domestic industries with above-average volumes of trade relative to factory shipments slowed more sharply in 1989 than did that in other industries (chart 1).² Important among the group of industries with above-average trade shares are producers of capital goods—such as computers and most other nonelectrical machinery, electronic components, and aircraft. Exports of these goods, in real terms, continued to expand rapidly in 1989, but imports accelerated.

Other industries that typically are heavily influenced by changes in the overall terms of trade include materials, particularly chemicals, paper, textiles, and metals. Real net exports of nonagricultural industrial supplies rose about \$12 billion in 1988 and 1989. However, all of the 1989 gain occurred during the first half of the year; real net exports of industrial materials, reflecting the weakness in demand for materials, actually fell nearly \$4 billion in the second half.

HIGHLIGHTS OF THE 1990 REVISION

The revised index of industrial production shows slower growth from 1977 to 1989, on average, than previously reported (chart 2). The revision also indicates that the recession in 1982 was somewhat less severe than originally estimated. These results stem from the incorporation into the index of available benchmark, annual, and monthly source data from 1977 to the present, including a revision of the Federal Reserve's index of industrial electricity use. The revision

2. Trade shares were calculated (using data from 1985 on) by summing exports and imports and dividing by shipments. In general, data were gathered at the three-digit Standard Industrial Classification (SIC) level. Manufacturing industries were then divided into two groups—those with trade shares greater than the total manufacturing average and those with less. In terms of 1987 value added, the former group accounted for a little more than half of manufacturing.

also introduces new weights to aggregate the individual series into industry and market groups and has set 1987 as the comparison-base year, when all index numbers are equal to 100. These changes are outlined in the box "Summary of statistical revisions" and documented in greater detail in the appendix.

The primary purpose of the 1990 revision was to include the latest available benchmark and annual information on the levels of the 250 basic series that now make up the index. When appropriate and where possible, the levels of the basic series in the industrial production index are determined by direct physical measures of output—for example, tons of primary aluminum ingot or barrels of motor gasoline. In many cases, however, comprehensive physical-product data are not available. In these cases, changes in output from one census year to the next for the basic series are derived from the indexes of production developed by the Census Bureau from the cen-

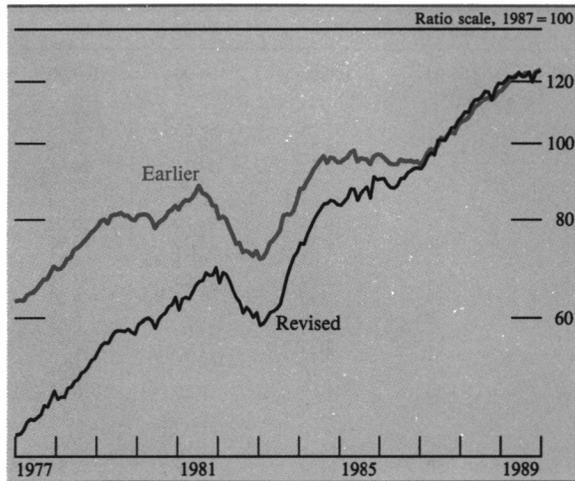
suses of manufactures and minerals industries, which have been published every five years since 1939. The Census Bureau indexes—called benchmarks—capture the change in physical output of each represented industry by an indirect method—converting information on the value of shipments and inventory change into constant dollars. This revision to the Federal Reserve's industrial production indexes incorporates the Census Bureau's 1982 indexes of production.

For its 1982 benchmark indexes of office and computing machines, the Census Bureau adopted the price deflator that the Commerce Department's Bureau of Economic Analysis (BEA) and the IBM Corporation developed jointly. This deflator, in turn, has been incorporated into the index of industrial production, and the result has been a significant upward revision of the growth rate in the nonelectrical machinery industry (chart 3). With the introduction of this deflator in the industrial production index, most major statistical

Summary of statistical revisions, 1977-89

Item	1990 revision	Previous index
<i>Benchmark information</i>		
Mining	Latest monthly physical data from Department of Energy Annual physical data from Bureau of Mines through 1986	Same Annual physical data from Bureau of Mines through 1982
Manufacturing	1982 Census indexes of production Annual Survey of Manufactures for 1978-81 and 1983-86 Information from 1987 Census of Manufactures	1977 Census indexes of production Annual Survey of Manufactures for 1978-81
Utilities	Latest monthly physical data from Department of Energy	Latest monthly physical data from Department of Energy and American Gas Association
Weighting	1977-81: 1977 weights 1982-86: 1982 weights 1987- : 1987 weights	1977- : 1977 weights
Base year	1987	1977
<i>Series and structure modifications</i>		
Textiles	New series for cotton and synthetic fabrics, yarns, and fabric finishing	...
Gas utilities	All series based on data from Department of Energy	Some series based on data from American Gas Association and rest from Department of Energy
Changes in market groups	New aggregates compiled for business equipment	...

3. Revised and earlier industrial production indexes of nonelectrical machinery¹



1. Monthly data, seasonally adjusted.

series produced by U.S. government agencies measuring output now treat computers consistently. BEA initially introduced the deflator for computers, which incorporates both matched-model and hedonic components, in the National Income and Product Accounts in 1985.³ It accepted this new price measure on the basis of research conducted by several economists that indicated that conventional methods of calculating price indexes may not completely capture changes in quality in a rapidly evolving industry like computers.⁴

An important feature of the 1990 revision of the industrial production index is the introduction of two new weight periods. Updated Census value-added weights have been used for 1982–86 and for 1987–90. Previously, the index used 1977 Census value-added weights for the entire period.

3. See, for example, Allan H. Young, "BEA's Measurement of Computer Output," *Survey of Current Business*, vol. 69 (July 1989), pp. 108–15; and David W. Cartwright, "Improved Deflation of Purchases of Computers," *Survey of Current Business*, vol. 66 (March 1986), pp. 7–10.

4. Rosanne Cole and others, "Quality-Adjusted Price Indexes for Computer Processors and Selected Peripheral Equipment," *Survey of Current Business*, vol. 66 (January 1986), pp. 41–50; and Ellen R. Dulberger, "The Application of a Hedonic Model to a Quality-Adjusted Price Index for Computer Processors," in Dale W. Jorgenson and Ralph Landau, *Technology and Capital Formation* (MIT Press, 1989).

In the index, series that measure the output of an individual industry are weighted according to their proportion in the total value-added output of all industries. If prices and costs changed uniformly across industries, different weight years in different periods would not be needed; but such factors do change. To represent as accurately as possible the relative price and cost structure of industries, the industrial production index, which extends back to 1919, is built for the most part in five-year chronological segments that are chainlinked to form a continuous index expressed as a percentage of output in a comparison-base year. Thus, the introduction of two new weight periods in the 1990 revision reflects more accurately the evolution of relative prices from 1977 to the present.

Table 4 shows the value-added proportions used in the index for the period since 1963. The ten-point dip in 1982 in the proportion of manufacturing, accompanied by a similar rise in mining and utilities, partly reflects the elevated crude oil prices of the late 1970s and early 1980s. The relative proportions of mining and manufacturing shown for 1987 are closer to those of 1977, the previous reference year, and reflect in part a decline in the output of oil and gas extraction in 1982–87 and a softening of crude oil prices.

Few modifications were made to the structure of the index and its monthly compilation as reported in *Industrial Production—1986 Edition*. Modifications that have been made to series in the index include a newly developed structure for the monthly measurement of textile mill products and the use of new annual and monthly data to measure output at gas utilities. Also, as mentioned previously, new aggregates within the category of business equipment have been created.

Results of the Revision

The average annual rate of growth for the total index is now 2.7 percent over 1977–89, or about 0.2 percentage point less than previously reported (table 5). Excluding office and computing machinery, the downward revision in the average annual growth rate of the index is 0.7 percentage point.

Market Groups. The revision led to little change in the estimate of the overall growth of total

4. Proportions of value added in industrial production, by major market group and major industry group, selected years, 1963-87¹

Percent

Series	1963	1967	1972	1977	1982	1987
Total	100.00	100.00	100.00	100.00	100.00	100.00
<i>Major market group</i>						
Products, total	61.48	61.30	61.91	57.72	56.05	60.79
Final products	47.88	47.82	47.67	44.77	44.10	46.05
Consumer goods	29.88	27.65	27.90	25.52	23.71	26.02
Durable	8.05	7.89	7.97	6.89	4.80	5.58
Nondurable	21.83	19.79	19.94	18.63	18.91	20.44
Total equipment ²	18.00	20.23	19.77	19.25	20.39	20.02
Business	10.61	13.27	14.08	14.34	13.75	13.93
Defense and space	7.39	6.96	4.80	3.67	4.21	5.35
Intermediate products	13.60	13.42	14.24	12.94	11.95	14.74
Construction supplies	6.35	6.51	6.80	5.96	4.51	6.05
Business supplies	7.25	6.91	7.44	6.99	7.43	8.69
Materials	38.52	38.70	38.09	42.28	43.95	39.21
Durable	20.68	20.29	19.81	20.50	16.99	19.35
Nondurable	14.51	10.10	9.80	10.10	7.76	9.01
Energy	3.33	8.31	8.48	11.69	19.20	10.85
<i>Major industry group</i>						
Mining	7.09	6.36	6.59	9.83	16.92	7.93
Metals .....	.63	.51	.58	.50	.29	.32
Coal .....	.77	.69	.91	1.60	1.68	1.22
Oil and gas extraction	4.91	4.40	4.44	7.07	14.39	5.73
Stone and earth minerals .....	.78	.75	.66	.66	.57	.67
Manufacturing	87.27	87.95	87.33	84.22	74.71	84.44
Durables	50.09	51.98	51.08	49.10	42.36	47.27
Lumber and products	1.79	1.64	2.50	2.30	1.41	2.00
Furniture and fixtures	1.37	1.37	1.48	1.27	1.16	1.45
Clay, glass, and stone products	3.14	2.74	3.05	2.72	2.12	2.47
Primary metals	6.80	6.57	5.63	5.33	2.73	3.32
Fabricated metal products	5.66	5.93	6.51	6.46	5.30	5.38
Nonelectrical machinery	7.72	9.15	9.09	9.54	9.20	8.55
Office and computing machines .....	.73	1.10	1.19	1.41	2.10	2.46
Electrical machinery	7.58	8.05	7.40	7.15	7.61	8.62
Transportation equipment	9.74	9.27	9.63	9.13	7.57	9.80
Instruments	1.78	2.11	2.56	2.66	3.03	3.26
Miscellaneous manufactures	1.59	1.51	1.64	1.46	1.27	1.24
Nondurables	37.18	35.97	36.26	35.11	32.36	37.17
Foods	9.73	8.75	8.62	7.96	7.96	8.76
Tobacco products .....	.75	.67	.64	.62	.81	1.02
Textile mill products	2.73	2.68	2.84	2.29	1.67	1.84
Apparel products	3.50	3.31	3.27	2.79	2.35	2.36
Paper and products	3.30	3.21	3.16	3.15	3.00	3.58
Printing and publishing	4.67	4.72	4.89	4.54	4.90	6.37
Chemicals and products	7.84	7.74	7.85	8.05	6.81	8.60
Petroleum products	1.66	1.79	1.47	2.40	1.99	1.32
Rubber and plastics products	2.07	2.24	2.82	2.80	2.45	3.02
Leather and products .....	.93	.86	.71	.53	.43	.30
Utilities	5.64	5.69	6.08	5.96	8.36	7.63
Electric	4.32	3.88	4.13	4.18	6.26	6.01
Gas	1.31	1.81	1.96	1.78	2.10	1.62

1. Details may not sum to totals because of rounding and the omission of some series.

2. Beginning in 1972, oil and gas well drilling is included in total equipment,

but not in business equipment. Also, in 1972, prefabricated buildings were moved from intermediate products to total equipment.

products: A slight upward revision in final products was about offset by a downward revision of about 0.8 percentage point per year in the less heavily weighted intermediate products group. The annual growth rate of materials production, which accounts for about 40 percent of the index, was revised down about 0.3 percentage point per year over the entire period of the revision. As a result, the disparity in rates of growth between total products and materials that began in the early 1980s is more pronounced than before the revision. Although the production of materials is

more cyclical than that of products, from 1954 to 1980 their overall growth rates were similar. During the 1980s, however, domestic producers of raw materials faced stiffer competition from foreign producers. Moreover, the use of imported parts that are classified as materials—such as semiconductors, auto engines, and specialty steel—increased in the domestic assembly of final products, leading to a slower growth rate of domestically produced materials relative to products throughout the decade.

Within the category of final products, the average

5. Rates of growth in industrial production, by major market group, 1977-89

Series	Average annual rate of growth, revised index (percent)				Growth rate calculated with revised index minus growth rate calculated with earlier index			
	1977-82	1982-87	1987-89	1977-89	1977-82	1982-87	1987-89	1977-89
Total index .....	.9	4.1	4.0	2.7	.3	-.6	-.5	-.2
Products, total	1.9	4.7	4.2	3.4	.4	-.4	-.6	-.1
Final products	2.4	4.4	4.5	3.6	.6	-.2	-.3	.1
Consumer goods	-.1	3.4	3.3	1.9	-.4	-1.3	-1.2	-.9
Durable	-4.3	7.8	3.9	2.0	-.6	.1	.1	-.2
Nondurable	1.2	2.2	3.1	1.9	-.4	-1.6	-1.6	-1.1
Total equipment	5.5	5.4	6.0	5.5	1.8	1.0	.9	1.3
Business	5.2	6.5	9.1	6.4	2.6	1.6	1.4	2.0
Defense and space	6.0	8.8	-1.3	5.9	.1	1.5	1.2	.8
Intermediate products .....	.1	5.9	3.4	3.0	-.3	-1.2	-1.4	-.8
Construction supplies	-2.7	6.7	2.9	2.1	-.2	-1.6	-.8	-.8
Business supplies	2.2	5.4	3.7	3.7	-.3	-.9	-1.9	-.8
Materials	-.5	3.3	3.6	1.7	.2	-.8	-.5	-.3
Durable	-.5	6.4	5.7	3.3	.7	.6	.1	.5
Nondurable	-1.1	4.0	2.6	1.6	-.4	-1.4	-1.8	-1.0
Energy	-.1	-.1	.7	0	-.3	.1	.3	0
Excluding computers								
Total index	0	3.2	3.6	1.9	-.2	-1.3	-.6	-.7
Products, total .....	.6	3.5	3.7	2.3	-.2	-1.3	-.6	-.7
Final products .....	.8	2.8	3.9	2.1	-.2	-1.3	-.3	-.7
Business equipment	0	1.7	7.8	2.0	.3	-2.0	1.2	-.5
Materials	-1.0	2.8	3.4	1.3	-.1	-1.2	-.5	-.6

annual growth rate of consumer goods was revised down about 0.9 percentage point for the 1977-89 period, whereas that of equipment was revised up about 1.3 percentage points. The output of both durable and nondurable consumer goods is estimated to be lower, but the downward revision to nondurable goods is particularly significant. The estimates of the production of consumer foods, chemical products, and paper products were all revised downward substantially because of the incorporation of annual data.

The revised annual growth rate of business equipment is quite a bit stronger than shown previously because of the sharply faster growth of office and computing machines. Excluding this series, business equipment was revised down and shows much slower growth for 1982-87. Output of defense and space equipment was revised up, on average. Even so, estimated production for 1987-89 declined.

The downward revision to the intermediate products category was widespread among component series for construction and business supplies. The bulk of the revision occurred in the 1982-84 recovery period; for that period, the annual rate of growth of the new index is estimated at about 8 percent, about 4 percentage points less per year than that of the old index.

In the materials sector, the growth of output of durable goods materials revised up about 0.5 percentage point, on net, with a substantial upward revision of 2 percentage points in equipment parts largely offset by a downward adjustment of nearly 1 percentage point in the growth rate of consumer durable parts. The market group of equipment parts includes several high-technology components, such as computer and aircraft parts; the consumer durable parts aggregate includes several series related to motor vehicles, such as metal stampings and original equipment motor vehicle parts.

Among nondurables, output in three series—textiles, paper, and chemicals—is now estimated to have risen much more slowly than estimated previously. In particular, the heavily weighted series for industrial organic chemicals revised down significantly. Comprehensive constant-dollar data for many other chemical materials series also showed lower levels of output than previously reported. The revision made little change to the production of energy materials.

Industry Groups. As table 6 shows, the revision for 1977-89 did not change the estimate for the average annual growth of manufacturing. Growth in the manufacturing of durable goods was up

6. Rates of growth in industrial production, by major industry group, 1977-89

Series	Average annual rate of growth, revised index (percent)				Growth rate calculated with revised index minus growth rate calculated with earlier index			
	1977-82	1982-87	1987-89	1977-89	1977-82	1982-87	1987-89	1977-89
Mining	1.5	-1.8	.3	-.1	-.3	-.1	-.7	-.3
Metals	-3.1	2.8	18.5	2.7	3.4	1.1	4.2	2.6
Coal	3.7	1.8	2.8	2.8	0	-.1	.2	0
Oil and gas extraction	1.8	-2.6	-2.2	-.7	-.3	-.9	-.8	.1
Stone and earth minerals	-4.6	4.8	6.7	1.1	-3.6	-1.4	-1.2	-2.3
Manufacturing .....	.9	5.5	4.4	3.4	.5	-.2	-.5	0
Durables	1.1	6.6	5.3	4.1	1.1	.7	.4	.8
Lumber and products	-3.9	8.2	1.4	1.9	-.2	-1.3	-1.0	-.8
Furniture and fixtures	-.1	6.2	2.6	3.0	-1.0	-1.7	-2.2	-1.5
Clay, glass, and stone products	-2.9	4.4	3.9	1.2	-.7	-1.5	1.7	-.6
Primary metals	-7.3	3.7	4.5	-.9	.7	-.6	.1	.1
Fabricated metal products	-2.1	3.7	3.6	1.2	.7	-1.3	-2.4	-.6
Nonelectrical machinery	7.2	9.4	10.3	8.6	4.3	3.7	.1	3.4
Excluding computing and office machinery	-2.6	-.1	7.5	.1	.3	-3.4	-2.2	-1.6
Office and computing machines	35.0	28.4	17.0	29.1	11.8	18.9	6.3	13.9
Electrical machinery	5.4	5.7	4.6	5.4	.2	-.4	1.9	.3
Transportation equipment	-2.6	9.1	3.5	3.2	.1	1.0	2.3	.8
Instruments	4.9	4.1	7.9	5.1	.3	1.3	1.5	.9
Miscellaneous manufactures	-1.6	1.8	7.3	1.3	.5	-.9	.3	-.1
Nondurables .....	.6	3.9	3.1	2.4	-.5	-1.4	-1.8	-1.1
Foods	2.1	2.7	2.6	2.4	-.7	-1.0	-1.1	-.9
Tobacco products .....	.7	-.3	-.5	.1	-.3	0	.4	-.1
Textile mill products	-1.9	3.8	1.0	.9	.3	-1.6	-1.7	-.8
Apparel products	-.3	2.1	2.1	1.1	2.3	-2.1	.6	.2
Paper and products	1.0	4.1	1.6	2.4	-.8	-1.6	-1.1	-1.2
Printing and publishing	3.2	5.9	4.3	4.5	-.6	-1.6	-3.8	-1.5
Chemicals and products	-.4	4.1	4.2	2.2	-1.1	-2.1	-2.7	-1.8
Petroleum products	-3.1	2.3	3.0	.1	.2	.2	1.0	.3
Rubber and plastics products .....	.4	8.7	4.3	4.4	-1.6	.5	-1.0	-.7
Leather and products	-4.0	-7.2	1.6	-4.4	0	-1.2	1.4	-.3
Utilities .....	.4	1.7	3.4	1.4	-.5	.7	.9	.2

somewhat less than 1 percentage point, and that of nondurable goods was down about 1 percentage point. Output in mining and utilities changed little. Much of the downward revision within manufacturing occurred in foods, textiles, lumber, furniture and fixtures, paper, printing and publishing, chemicals, and nonelectrical machinery other than office and computing machinery. For these industries, annual rates of growth between 1977 and 1989 were revised down from $\frac{3}{4}$ of a percentage point to $\frac{1}{4}$ percentage points. The growth rates of three individual series within the machinery group—construction and mining machinery, metalworking machinery, and general industrial machinery—revised down between $2\frac{1}{2}$ and $3\frac{1}{2}$ percentage points by 1989. Offsetting these downward revisions were a striking upward revision in office and computing machinery and noticeable upward adjustments to output growth in transportation equipment and instruments.

Implied Production-Worker and Kilowatt-Hour Productivity

The revision caused little change in overall measures of production-worker productivity (that is, output per hour worked) in the industrial sector and in manufacturing for 1977-89 (table 7). Over the period, the annual rate of productivity growth for total industrial production remained about 3 percent, and that for manufacturing remained about $3\frac{1}{2}$ percent. This apparent stability in the aggregate masks two offsetting underlying developments—a large upward revision to the measure of output per hour in the computer industry and smaller downward revisions in a variety of other industries. Consequently, output per hour for the total industrial sector excluding office and computing machinery was revised down nearly half a percentage point.

Output per kilowatt hour trended downward

7. Average annual rate of growth in output per production-worker hour and in output per kilowatt hour, 1977-89
Percent

Item	Output per production-worker hour		Output per kilowatt hour	
	Unrevised	Revised	Unrevised	Revised
Total index	3.0	2.9	2.1	1.8
Manufacturing	3.4	3.5	2.5	2.5
Foods	3.1	2.2	.9	0
Tobacco products	2.1	2.1	0	-.1
Textile mill products	3.7	3.4	.9	.1
Apparel products	2.0	2.1	-1.5	-1.3
Lumber and products	2.5	1.5	-.5	-1.2
Furniture and fixtures	3.8	2.3	1.1	-.3
Paper and products	3.4	2.3	1.3	.2
Printing and publishing	3.0	1.5	1.0	-.5
Chemicals and products	3.0	1.2	4.5	2.7
Petroleum products	1.3	1.6	-1.5	-1.2
Rubber and plastics products	2.5	1.8	1.4	.8
Leather and products	1.1	.7	-4.1	-4.4
Clay, glass, and stone products	2.1	1.5	1.1	.5
Primary metals	3.9	3.8	-.2	-.1
Fabricated metal products	2.9	2.3	-.6	-1.2
Nonelectrical machinery	5.9	9.6	3.0	6.2
Electrical machinery	4.4	4.6	2.2	2.4
Transportation equipment	2.9	4.0	.8	1.5
Instruments	3.1	3.7	-.6	.3
Miscellaneous manufactures	2.7	2.6	.7	.6
<i>Excluding computers</i>				
Total index	2.6	2.1	1.7	1.1
Manufacturing	3.0	2.5	2.1	1.6
Nonelectrical machinery	2.7	1.1	.5	-1.0

during the 1960s; but, spurred by higher oil prices, it began an upward trend in the 1970s.⁵ As table 7 shows, the upward trend has continued through the 1980s, as kilowatt-hour productivity in the total industrial sector increased at an average annual rate of nearly 2 percent from 1977 to 1989. Gains in four large industries—chemicals, nonelectrical machinery, electrical machinery, and transportation equipment—accounted for much of the advance in the total. Elsewhere, kilowatt-hour productivity grew little or declined.

SUMMARY

Industrial output weakened over the course of 1989, particularly during the second half. While the most pronounced declines occurred in motor vehicles and related industries, the output of other industries slowed significantly as both domestic and foreign demand softened. The response by producers to the overall slowing in demand in 1989 was relatively rapid and, on balance, pre-

vented an excessive buildup of factory inventories.

The revision indicates that the rate of growth of total industrial production over 1977-89 was slower than it appeared in the previous index. However, the revised index shows the growth rate for 1977-82 to be stronger and the 1982 recession to be milder than previously estimated. For 1982 to date, the annual average growth rate has been revised down more than 0.5 percentage point, and the index now shows growth of output in the industrial sector at a rate of about 4 percent per year.

APPENDIX

As the text indicates, the most important aspect of the 1990 revision is the benchmarking of many of the indexes of industrial production to the value-added-weighted production indexes from the 1982 Indexes of Production developed by the Census Bureau. "Benchmarking" is the process of adjusting the 250 components of the monthly industrial production index to annual levels derived

5. Board of Governors of the Federal Reserve System, *Industrial Production—1986 Edition* (Board of Governors, 1986), p.39.

A.1. Industry structure and composition of industrial production: classification, value-added weights, and description of selected series

Group and series ¹	Classification ²		Value added ³						Type of series ⁴	Units, composition, source for series, and beginning date
			1977		1982		1987			
	SIC code	Market	Millions of dollars	Proportion of total industrial production	Millions of dollars	Proportion of total industrial production	Millions of dollars	Proportion of total industrial production		
Textile mill products	22		16,105	2.29	18,549	1.67	25,705	1.84	1947	
Fabrics	221-4		5,399	.77	5,940	.53	7,371	.53	1954	
Cotton and synthetic fabrics	221,2	Mnt	4,735	.68	5,126	.46	6,254	.45	Prod. Index, production of broadwoven goods, American Textile Manufactures Institute (ATMI); shipments, pounds, filament fibers from Fiber Economics Bureau. 1954; two series before 1982	
Wool fabrics*	223	Mnt	313	.04	349	.03	507	.03	Kwh Linear yards, wool apparel fabrics (gray), Census Bureau, 1954-76. 1954	
Narrow fabrics*	224	Mnt	351	.05	465	.04	610	.04	Pwh 1972	
Knit goods	225		3,863	.55	4,985	.45	6,103	.44	1954	
Hosiery	2251,2	Cc	859	.12	1,395	.13	1,729	.12	Prod. Pairs, weighted combination of total hosiery and pantyhose, National Association of Hosiery Manufactures. 1954	
Knit garments	2253,4,7-9	Cc	3,004	.43	3,590	.32	4,374	.31	Kwh Production-worker hours for 1954-62. 1954	
Fabric finishing	226	Mnt	1,417	.20	1,590	.14	2,308	.16	Prod. Index, production of broadwoven goods by weaving mills, ATMI; linear yards, finished cotton, finished synthetic, and silk fabrics, Census Bureau for 1954-81. 1954	
Carpeting	227		1,530	.22	1,712	.15	3,181	.23	1954	
Woven carpets*	2271,9	Ch	92	.01	127	.01	248	.02	Prod. Square yards, Carpet and Rug Institute, 1954	
Tufted carpeting*	2272	Ch	1,438	.20	1,585	.14	2,933	.21	Prod. Square yards, Carpet and Rug Institute; Production-worker hours for 1954-62; kilowatt hours for 1963-66. 1954; two series before 1977	
Yarns and miscellaneous textiles	228,9		3,896	.55	4,322	.39	6,742	.48	1954	
Yarns and thread*	228		2,255	.32	2,318	.21	3,822	.27	Prod. Tons, consumption of cotton and synthetic fibers, Census Bureau, 1954	
Miscellaneous textiles*	229	Mnt	1,641	.23	2,004	.18	2,920	.21	Kwh Production-worker hours for 1954-62. 1954	
Gas utilities*	492,493pt		12,548	1.78	17,839	2.10	15,820	1.62	Department of Energy (DOE). 1947	
Gas transmission*		Me	4,465	.63	9,756	.88	7,737	.55	Prod. Cubic feet, sales by major pipeline companies of gas for transmission adjusted to annual data for marketed gas production. 1967	
Sales, gas*			8,083	1.15	13,600	1.22	14,898	1.07		
Residential gas*		Cs	3,296	.47	5,100	.46	7,732	.55	Prod. Cubic feet, sales, DOE. 1954	
Nonresidential gas*			4,787	.68	8,500	.77	7,166	.51		
Industrial gas*		Me	3,251	.46	5,848	.53	3,635	.26	Prod. Cubic feet, sales, DOE. 1954	
Commercial and other gas*		Ib	1,536	.22	2,652	.24	3,531	.25	Prod. Cubic feet, sales, DOE. 1954	

1. Series with asterisks are included in published totals but are not shown separately in the monthly report.

2. SIC numbers are from the *Standard Industrial Classification Manual*, 1977 edition, published by the U.S. Office of Management and Budget. The abbreviation "pt" means part. Market classifica-

tion codes are as follows: Mnt—textile, paper, and chemical materials; Cc—clothing; Ch—home goods; Me—energy materials; Cs—consumer staples; and Ib—business supplies.

3. Details may not sum to totals because of rounding.

4. Prod.—physical product data; Kwh—kilowatt-hour data; Pwh—production-worker-hour data.

A.2. Market structure of business equipment: classification and weights

Group and series ¹	Classification ²		Value added ³					
			1977		1982		1987	
	SIC code	Market	Millions of dollars	Proportion of total industrial production	Millions of dollars	Proportion of total industrial production	Millions of dollars	Proportion of total industrial production
Business equipment		Eb	101,027	14.34	152,856	13.75	194,563	13.93
Information processing and related equipment		Ebi	27,897	3.96	54,635	4.92	77,762	5.57
Office and computing machines*	357pt		8,213	1.17	18,148	1.63	27,074	1.94
Telephone apparatus*	3661		4,192	.60	7,121	.64	6,809	.49
Nondefense electronic communication equipment*	3662pt		3,313	.47	7,059	.63	11,768	.84
Scientific and optical goods*	381,3		2,185	.31	4,469	.40	7,540	.54
Medical instruments*	384		3,262	.46	6,978	.63	11,496	.82
Copiers and related equipment*	386		6,732	.96	10,860	.98	13,075	.94
Industrial equipment		Ebn	41,205	5.85	55,636	5.00	56,389	4.04
Boiler shop products*	3443		4,075	.58	4,136	.37	3,395	.24
Turbines	3511		1,553	.22	2,153	.19	1,967	.14
Construction and mining equipment	3531-3		9,200	1.31	13,173	1.18	11,675	.84
Materials handling machinery*	3534-7		2,635	.37	3,317	.30	3,837	.27
Metalworking machinery*	354		8,747	1.24	11,284	1.01	13,006	.93
Special industry machinery*	355		5,271	.75	7,416	.67	9,590	.69
General industrial equipment*	3561, 3-5, 7, 9		6,388	.91	9,573	.86	7,225	.52
Electrical distribution equipment*	361		3,336	.47	4,584	.41	5,694	.41
Transit equipment		Ebt	17,559	2.49	22,946	2.06	34,428	2.46
Autos, business	371pt		4,630	.66	4,976	.45	9,390	.67
Trucks, business	371pt		2,870	.41	2,555	.23	7,950	.57
Truck trailers	3715		646	.09	592	.05	1,117	.08
Commercial aircraft*	3721pt		3,539	.50	6,591	.59	6,330	.45
Commercial aircraft equipment n.e.c.*	3724, 8pt		1,952	.28	3,853	.35	7,505	.54
Commercial ships*	3731pt		2,039	.29	3,961	.36	852	.06
Railroad equipment	374		1,883	.27	418	.04	1,284	.09
Other equipment		Ebo	14,366	2.04	19,639	1.77	25,984	1.86
Fixtures and office furniture	252, 4, 9		3,294	.47	5,795	.52	9,888	.71
Farm and garden equipment	352		5,490	.78	6,146	.55	5,624	.40
Service industry equipment*	358pt		5,582	.79	7,698	.69	10,472	.75

1. See table A.1, note 1. N.e.c. means not elsewhere classified.
 2. See table A.1, note 2. Market classification codes are as follows: Eb—business equipment; Ebi—information processing and related equipment;

Ebn—industrial equipment; Ebt—transit equipment; and Ebo—other equipment.

3. Details may not sum to totals because of rounding.

from data sources more comprehensive than those available for the monthly compilation. "Value-added-weighted production index" refers to the concept of production to which the index of industrial production, as a measure, most closely adheres. This concept is known as "Census value added;" from the sum of the gross outputs of each industrial establishment it excludes the flows among establishments within the industrial sector and the inputs from other sectors.⁶

The 1990 revision also incorporates a considerable amount of other new benchmark information. The general sources of this information are presented in the summary of statistical changes (see box). This appendix documents more fully the way in which the revision uses this information; it also evaluates the effect of the new weights.

6. Census value-added data do not exclude outlays for business services purchased outside the industrial sector, such as advertising, insurance, and the like. For a discussion of concepts of industrial production, see Clayton Gehman and Cornelia Motheral, "Industrial Production Measurement in the United States: Concepts, Uses, and Compilation Practices" (reply to an inquiry from the Economic Commission of Europe, Board of Governors of the Federal Reserve System, Division of Research and Statistics, February 1964).

The structure of the basic series and the monthly source data used in the compilation of the monthly index are fundamentally unchanged, so the appendix does not present the complete series structure. Descriptions of several additions—the new textile industry series, the new source in gas utilities, and the new business equipment aggregates—appear in tables A.1 and A.2. A copy of the complete 1990 index of industrial production structure and series composition is available upon written request to Industrial Output Section, Mail Stop 82, Division of Research

and Statistics, Federal Reserve Board, Washington, D.C. 20551.

Benchmark and Annual Data

The Census value-added-weighted production indexes are used at the four-digit Standard Industrial Classification (SIC) level, yielding measures of change in industry output from 1977 to 1982. For years in which Census indexes are unavailable, 1978–81 and 1983–86, staff members of the Federal Reserve Board developed annual indexes of production that are similar in concept to the Census indexes to form a consistent time series for the benchmarking of the industrial production index. The annual indexes are based on industry output in terms of current dollars, defined as value added plus the cost of materials, reported in the Annual Survey of Manufactures; the current dollars are converted to constant

dollars with deflators from the Bureau of Economic Analysis, which are based mostly on producer price indexes published by the Bureau of Labor Statistics.

In the 1990 revision, the annual indexes have also incorporated preliminary reports from the 1987 Censuses of Manufactures and Mineral Industries. The 1987 Census data are organized according to a new basis for industry classification, the 1987 SIC. However, the 1977 SIC remains the basis of classification for the industrial production index because most monthly source data are still reported according to it. For many industries, the changes have had little or no effect on the representation of industrial production series; for other industries, such as electrical and nonelectrical machinery, extensive changes have affected series in the index. Thus, the annual indexes and the weights constructed from the 1987 Census data adjusted to approximate the

A.3. Sources of annual levels for basic series in the 1990 revision of the index of industrial production, by two-digit Standard Industrial Classification code¹

Series and SIC code	Annual physical product data		Annual average of monthly physical product data		Annual index constructed from constant-dollar data	
	Number of series	1987 proportion	Number of series	1987 proportion	Number of series	1987 proportion
Mining	7	1.38	10	6.52	1	.03
10	3	.14	2	.15	1	.03
11-12 .....	..	..	2	1.22	..	..
13	1	.58	6	5.15	..	..
14	3	.67	..	..	..	..
Manufacturing	11	2.80	56	11.66	156	69.98
20 .....	..	..	14	2.61	15	6.15
21 .....	..	..	2	.94	1	.08
22 .....	..	..	..	..	10	1.84
23 .....	..	..	..	..	6	2.35
24 .....	..	..	1	.48	7	1.51
25 .....	..	..	..	..	3	1.45
26 .....	..	..	4	2.34	4	1.24
27	1	.36	1	1.37	2	4.63
28	3	.99	5	.78	10	6.83
29 .....	..	..	7	1.11	1	.20
30	1	.25	4	.40	4	2.37
31 .....	..	..	1	.10	2	.20
32 .....	..	..	2	.06	10	2.40
33	5	1.14	8	1.09	7	1.10
34 .....	..	..	..	..	13	5.38
35 .....	..	..	1	.04	13	8.52
36	1	.06	5	.29	19	8.26
37 .....	..	..	1	.05	19	9.75
38 .....	..	..	..	..	5	3.26
39 .....	..	..	..	..	2	1.24
91 .....	..	..	..	..	3	1.18
Utilities (49) .....	..	..	9	7.63	..	..
Total index	18	4.18	75	25.81	157	70.01

1. This table refers to the source of annual levels to which the three types of monthly indicator (physical-product, kilowatt-hour, or production-worker

data) are benchmarked. The table does not show the proportion of the three types of monthly indicator used in the index of industrial production.

1977 SIC are subject to further revision when the industrial production index switches to the 1987 SIC.

Approximately 70 percent of the index is benchmarked to the annual indexes derived from comprehensive constant-dollar measures of industry output (table A.3). Benchmarking to constant-dollar measures occurs almost exclusively in the manufacturing portion of the index. A smaller portion of the manufacturing series is benchmarked to a second type of basic source data—comprehensive physical-product data that are available on a monthly basis. An example is the index of primary aluminum ingot, which is shown in chart A.1 with an annual index derived from constant-dollar data. As is typical, the movements and levels of the two types of indexes, though similar, are not identical.

The third type of basic source data—annual physical-product data—is used for benchmarking only 11 of the 223 individual manufacturing series. For example, the predominant source of data for the annual levels for the mining and utilities industries in the industrial production index are physical measures of annual output available from the Bureau of Mines and the Department of Energy. The Bureau of Mines' *Minerals Yearbooks* through 1986 provided the basic data for most of the revised annual levels for the metal mining and stone and earth minerals series. Coal and oil and gas extraction series, as well as all utilities series, reflect the latest data available from the Department of Energy.

The use of physical-product data for benchmarking should not be confused with their use in determining month-to-month movements in the index. In the revised index, as in the old, series that use physical-product data as a monthly

indicator account for about 40 percent of the index in terms of its value-added proportions. No monthly indicators in the index require deflation. In all cases, the adjustment of monthly indicators to annual benchmark levels is performed as described in *Industrial Production—1986 Edition*.

Weighting of the Index

As the text indicates, this revision incorporates new weight periods. The index now uses 1977 value-added weights for 1977–81; 1982 weights for 1982–86; and 1987 weights for 1987–90. The chainlinking of intercensus segments of the index follows procedures established in the 1959 version of the index, as modified and reported in *Industrial Production—1986 Edition*.

Because weighting is often difficult to understand, it should be recognized that the word *weight* commonly is used in two ways. One is in reference to proportions in the index showing the relative importance of each series in a weight-base year. Such figures have been published as “1977 proportion” in the Federal Reserve statistical release *Industrial Production*, and comparable figures will be shown as “1987 proportion” for the revised index in the new release *Industrial Production and Capacity Utilization*. (A summary of these figures and those for earlier years was presented in table 4.) A second usage of *weight* refers to the price element of the value-added data used to calculate the proportions. Only the price element changes when one weight base replaces another.⁷

7. Consider a weighted relative quantity index,

$$I_n = \frac{\sum(q_n/q_0) w}{\sum w},$$

where q_n and q_0 are the quantity relatives and the w 's are value weights (with both price and quantity elements) to indicate the relative importance of the quantities. Then with

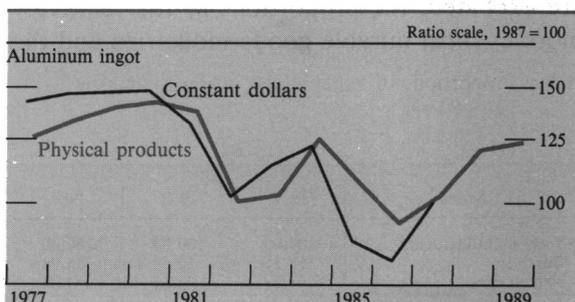
$$w = \frac{q_0 p_0}{\sum q_0 p_0},$$

the expression for I_n given above is algebraically equivalent to the equation

$$I_n = \frac{\sum q_n p_0}{\sum q_0 p_0}.$$

This is a Laspeyres quantity index, which shows changes in quantities with prices held fixed at base-year values. Therefore, introducing new weights in an index—shifting the base year—updates the price element.

A.1 Annual indexes based on constant-dollar and physical-product data



A.4. Effects of alternative weight years on the industrial production index, 1977-89¹

Weight year	1977-82		1982-87		1987-89		1977-89	
	Percentage increases							
1977	4.7	(-.2)	34.2	(20.3)	12.2	(7.6)	57.6	(29.1)
1982	1.1	(-.6)	22.1	(17.2)	8.4	(6.5)	33.7	(24.1)
1987	-.5	(-1.1)	20.4	(18.4)	8.1	(7.4)	29.5	(25.7)
Linked	4.7	(-.2)	22.1	(17.2)	8.1	(7.4)	38.2	(25.6)
	Average annual rate of growth							
1977 .....	.9	(0)	6.1	(3.8)	5.9	(3.7)	3.9	(2.2)
1982 .....	.2	(-.1)	4.1	(3.2)	4.1	(3.2)	2.5	(1.8)
1987	-.1	(-.2)	3.8	(3.4)	4.0	(3.6)	2.2	(1.9)
Linked .....	.9	(0)	4.1	(3.2)	4.0	(3.6)	2.7	(1.9)

1. Numbers in parentheses show the effect of excluding office and computing machines from the aggregates.

As explained and illustrated in *Industrial Production—1971 Edition*, in a segment of the industrial production index for which the weights are held fixed, the proportion of fast-growing industries in the index rises with time, whereas that of industries with relatively slow or declining growth falls. Because fast-growing industries generally show less-than-average increases in prices, the composition of the index—the proportions in the total—may be substantially altered with the introduction of new weights. For the most part such changes, reflecting changes in price relationships since the previous weight year, tend to reverse the changes in proportions that have already occurred as a result of quantity changes.

Thus, one can analyze the revisions in the new index over 1977-89, and compare them with the old index, according to the increases or decreases owing to the introduction of two new weight periods. With this analysis, upward influences that arise from reweighting slow-growing industries such as textiles, primary metals, fabricated metals, and nonelectrical machinery excluding office and computing machines, almost offset in the aggregate downward influences owing to the reweighting of fast-growing industries, such as printing and publishing, electrical machinery, and instruments. Consequently, as in the past, the new weight periods cause a slight downward revision to the index, as the relative importance of industries that have been growing rapidly is reduced.

The use of alternative weight years for the separate periods beginning in 1977 affects the index's representation of total industrial output. As table A.4 shows, the use of various single

weight years, rather than linked segments, to aggregate component series of the index distorts the representation of total industrial output in periods distant from the base year. As the lower portion of the right column shows, total industrial output is calculated, with 1977 as a single weight year, to grow at an almost 4 percent rate on average for 1977-89, whereas the linked index grows at a more representative 2.7 percent rate. As shown by the figures in parentheses, these effects are exaggerated by the rapid growth of the office and computing machinery industry, which since 1977 has been estimated to have expanded at an average rate of almost 30 percent per year.

A factor thought to complicate the use of 1982 weights is that year's recession, which might have distorted relationships in the value-added proportions between cyclical and noncyclical series. However, in view of the calculations in table A.4, where the growth rates shown are similar for 1982-87 with alternative 1982 and 1987 weight bases, the use of 1982 as a weight year has made little difference. Moreover, one can eliminate most of the effect of the oil crisis evident in the value-added proportions shown in table 4 by excluding mining and utilities from total industrial production. When those groups are excluded, the proportions of the relatively more cyclical durable goods industries and the

A.5. Proportions of value added in manufacturing, 1977-87¹

Series	Percent		
	1977	1982	1987
Total manufacturing	100.00	100.00	100.00
Durables	58.31	56.69	55.98
Nondurables	41.69	43.31	44.02

A.6. Comparison of rates of growth in industrial production, by type of monthly indicator, 1977-89

Indicator	Average annual rate of growth, revised index				Growth rate calculated with revised index minus growth rate calculated with earlier index			
	1977-82	1982-87	1987-89	1977-89	1977-82	1982-87	1987-89	1977-89
Physical product	-1.2	1.7	2.1	.5	-.4	-1.6	-.2	-.8
Kilowatt hours	2.9	6.7	5.9	5.0	-.9	.2	-1.8	.2
Kilowatt hours, excluding computers	-.2	4.0	4.9	2.4	-.6	-2.0	-2.3	-1.4
Production-worker hours	1.9	4.7	4.2	3.5	.7	-.1	.9	.4

less cyclically sensitive nondurable goods industries within manufacturing alone appear undistorted by the recession (table A.5).

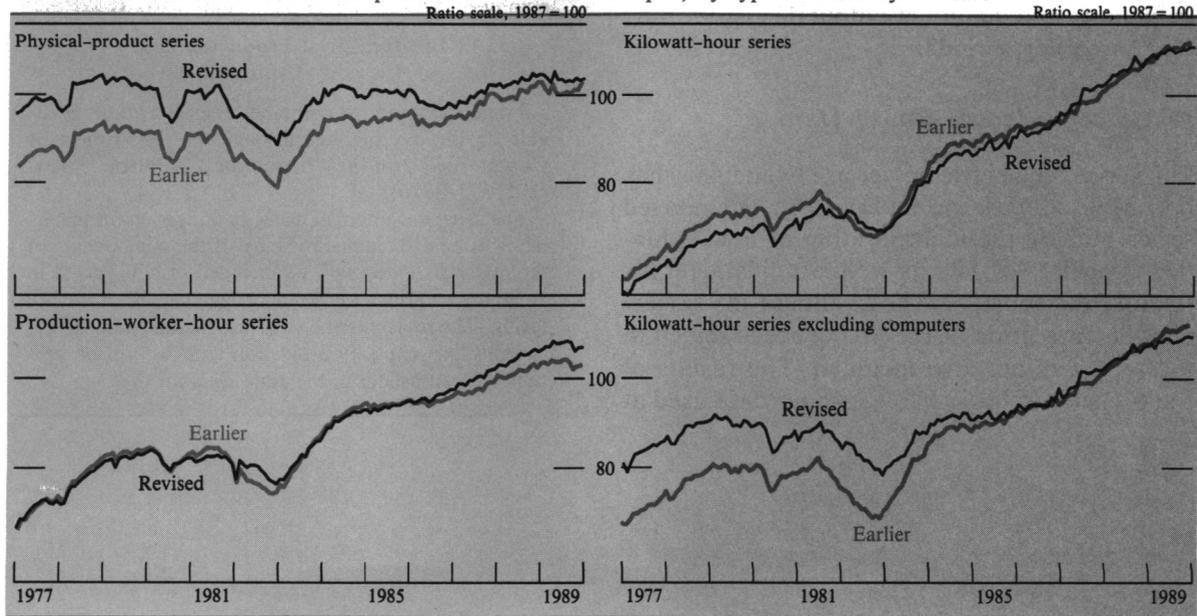
Revisions of Basic Series by Type of Monthly Indicator

The industrial production index relies on three major types of indicators of monthly production: (1) physical-product series, (2) kilowatt hours of electricity used by industry, and (3) aggregate hours for which production workers are paid. The reliability of each series as a measure of output depends on two factors: (1) the accuracy of the indicator in reflecting changes in industry activity on a monthly basis and (2) the accuracy with which the basic indicators are transformed into measures of production. With physical-product data, the

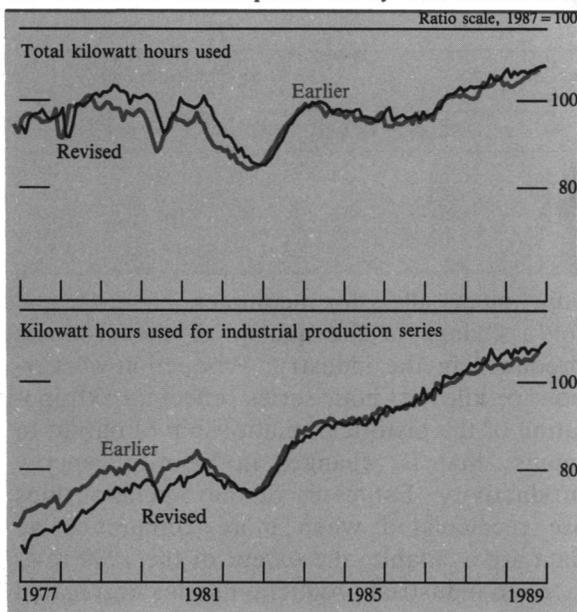
adjustments allow for incomplete coverage and for a change in the quality of the products produced in the industry. Production-worker-hour or kilowatt-hour series reflect an extrapolation of the historical relationship of output to inputs, that is, changes in labor or energy productivity. Estimates of these relationships are recalculated when more comprehensive data are available; the extent of the 1990 revisions to industrial production series aggregated by type of indicator is shown in chart A.2.

In the overall 1977-89 period, the annual growth rates of the series whose initial estimates were derived from the kilowatt-hour and production-worker-hour series revised upward 0.4 and 0.2 percentage point respectively. Excluding the office and computing machinery industry from the estimates, the growth rate of the kilowatt-hour series revised down about 1½ percentage

A.2 Revised and earlier industrial production indexes of output, by type of monthly indicator



A.3 Indexes of electric power use by U.S. industries



point, the largest revision shown in table A.6. The aggregate of series based on physical-product information revised downward 0.9 percentage point. On balance, these series had been thought to require more adjustment than the revision now indicates. This development suggests that the physical product indicators, which are more prevalent in relatively mature industries, were more representative of changes in quantity and quality of output during 1977-87 than in earlier periods.

Revision of Electric Power Data

The series on electric power use by industry has been revised back to January 1972. The revised series include the incorporation of new voluntary reporters of data as well as adjustment for the loss of reporters. The results of the review and the correction of the SIC codes assigned to the reporters are also included. The results of the revision of basic kilowatt-hour data used at

the total industrial level appears in the top panel of chart A.3. Overall, the difference between the old series and the revised ones is small; however, the revised data for 1977-82 show a somewhat stronger cyclical pattern than do the earlier data, especially in the steeper decline in kilowatt hours now shown during the 1982 recession. Although the growth rate of total industrial use was little changed, changes at lower levels of aggregation were significant. The bottom panel of chart A.3 shows an aggregate of kilowatt-hour use for those industries for which the electric power series are used as monthly indicators in industrial production indexes. The panel, which shows the basic kilowatt-hour data before they were converted to a measure of output, indicates a more rapid growth rate for the revised aggregate than before, especially in 1977-82.

On April 17, 1990, revised Federal Reserve statistics of industrial production, capacity utilization, and electric power use by industries will be released. Historical data from all of these time series will be available on a single magnetic tape from the National Technical Information Service (703-487-4650).

The G.12.3 statistical release, *Industrial Production*, and the G.3(402) release, *Capacity Utilization*, will be combined into the single publication:

G.17(419) **Industrial Production and Capacity Utilization**

All data shown in the combined release will be available on the day of issue through the Department of Commerce's online Economic Bulletin Board (202-377-3870).

The separate system of capacity utilization for materials will be discontinued. Many of the components of the materials group will be included in mining and in an improved primary processing aggregate for manufacturing. The revisions and structure modifications to the capacity and capacity utilization indexes will be presented in an article in the June *Bulletin*.

Treasury and Federal Reserve Foreign Exchange Operations

This quarterly report, covering the period November 1989 through January 1990, provides information on Treasury and System foreign exchange operations. It was presented 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. George G. Bentley was primarily responsible for preparation of the report.¹

Movements of the dollar against individual currencies diverged widely between November 1989 and January 1990—a period when the rapid opening up of Eastern Europe benefited the German mark and a number of factors continued to weigh against the Japanese yen. The dollar experienced occasional bouts of upward pressure against the yen, and on several of these occasions the U.S. monetary authorities intervened to resist the dollar's rise against that currency, selling a total of \$750 million for yen. On balance, the dollar declined against the mark and other European currencies, moving down 8½ percent, 7¼ percent, and 6 percent respectively against the mark, Swiss franc, and British pound. The dollar rose, however, about 1 percent against both the yen and the Canadian dollar. On a trade-weighted basis, as measured by the staff of the Board of Governors of the Federal Reserve System, the dollar declined 5¾ percent.

NOVEMBER THROUGH MID-DECEMBER

The movement in dollar exchange rates against the European currencies was most marked dur-

1. Federal Reserve reciprocal currency arrangements
Millions of dollars

Institution	Amount of facility, January 31, 1990
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
Deutsche Bundesbank	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
<i>Bank for International Settlements</i>	
Dollars against Swiss Francs	600
Dollars against other authorized European currencies	1,250
Total	30,100

ing the first half of the reporting period. Positive sentiment toward the mark built rapidly after the opening on November 9 of the borders between East and West Germany. Market participants anticipated that an influx of East German immigrants would benefit the German economy by providing a new supply of skilled labor. At the same time, the new immigrants were expected to stimulate domestic demand and thereby spur higher mark interest rates as the Bundesbank sought to contain any potential inflationary pressures. More broadly, international investors focused on the prospects for greatly expanded market opportunities for German enterprises, and the German equity market surged in response to actual and anticipated capital inflows.

Against this background, the mark strengthened against all major currencies, and talk began to circulate, especially around the December 8–9 European Community summit, that exchange market pressures would lead to a revaluation of the mark within the European Monetary System

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.

(EMS). Germany has had large sustained trade surpluses against most of its European trading partners. Moreover, the German authorities were presumed to welcome any developments that would foster adjustment of the trade surplus or help dampen inflationary impulses to the economy. Market participants believed that a realignment within the EMS would be viewed by Bundesbank officials as consistent with both of these objectives. Accordingly, speculative flows into marks increased, and reports circulated in the market that the Bundesbank's partner central banks were intervening to sell both dollars and marks to support their own currencies.

In the process, the dollar declined steadily against the mark. From DM1.8415 at the beginning of November, the dollar declined by mid-December to around DM1.7300, a drop of 6 percent.

Against the yen, the dollar showed less of a trend, although it experienced upward pressure from time to time when there were reports of strong Japanese investor demand for portfolio and direct investments in the United States. Market participants were particularly impressed that Japanese interest in investing in dollar-denominated assets appeared to remain strong, even though market commentary about the outlook for U.S. and Japanese monetary policy implied that the interest rate differentials favoring the dollar would continue to narrow. Once in November and again in early December, the U.S. monetary authorities, in keeping with understandings in the Group of Seven on exchange rate cooperation, intervened to sell a total of \$150 million against yen. These operations were coordinated with the Bank of Japan. By mid-December, the dollar was trading around ¥144.00, a level $\frac{3}{4}$ percent higher than at the start of the reporting period.

MID-DECEMBER THROUGH JANUARY

In mid-December, one focus of market attention was the extent to which monetary policies in the United States and Japan might move in opposite directions. Economic statistics released through mid-December suggested that the U.S. economy was still sluggish and price pressures subdued,

keeping alive expectations that U.S. interest rates would continue to move lower. The market's hope that the Federal Reserve had intended to signal a new easing of monetary policy in November had proved unfounded. But market participants were still confident that the Federal Reserve would continue to respond, as it had in preceding months, to evidence of a decelerating economy by allowing short-term interest rates to ease a bit further. Indeed, the Federal Reserve moved on December 20 to supply liquidity under circumstances that led market participants to believe that another such move had occurred, and they anticipated that further moves would be forthcoming early in the new year.

In Japan, market participants had noted that short-term market interest rates had drifted progressively higher for several months, and that this trend had continued even after the Bank of Japan raised its discount rate in a surprise move in October. Trying to anticipate the authorities' next action, dealers were sensitive to the possibility that the Bank of Japan might again raise its discount rate to follow up on the move in market rates. When such an action did not occur by mid-December, market participants began to suspect that these expectations might not be fulfilled. They began to doubt that the authorities would move on interest rates at a time of impending changes in Bank of Japan leadership and so soon before parliamentary elections in early 1990. Market participants were surprised, therefore, when Japanese newspapers reported on December 18 that the Bank of Japan would soon raise its discount rate, a move that indeed took place on December 25. When worldwide trading resumed after the Christmas holidays, the dollar declined to its period low against the yen of ¥141.70 on December 27 and a twenty-month low against the mark of DM1.6752 on December 28—1 percent and 9 percent lower respectively than at the start of November.

In early January, the market's assessment of the outlook for dollar interest rates began to change. Accumulating signs that the U.S. economy had stopped decelerating began to raise doubts about both the timing and the extent of any further easing of U.S. monetary policy. Data released around the turn of the year suggested that growth might not be as fragile as had previ-

ously been thought and that the slowdown in some manufacturing sectors in late 1989 had not spilled over into other sectors of the economy. Unseasonably cold weather led to a sharp runup in oil prices and heightened concerns about renewed price pressures in the food and energy sectors. The January 12 report of an unexpectedly large jump in U.S. producer prices was then interpreted as justifying concerns that little scope remained for further immediate declines in dollar interest rates. Later in January, the dollar received additional support as market participants focused on interpretive press reports indicating the Federal Reserve's concerns with inflation and its more optimistic assessment of economic growth prospects in 1990. When trading resumed after the new year, this reassessment helped to move the dollar up from its lows of late December and provided continuing support to the dollar throughout the rest of January.

Against the yen, the dollar also benefited early in January from the potential uncertainties surrounding the upcoming parliamentary elections in Japan. Around the start of the new year, rumors of scandals involving members of the ruling Liberal Democratic Party once again unsettled the exchange markets, and the dollar reached its three-month high against the yen at ¥146.80 on January 3. With upward pressure on the dollar-yen exchange rate persisting throughout the first half of the month, the U.S. monetary authorities again intervened, on three days, to sell \$600 million against yen. These operations, which were coordinated with the Bank of Japan, brought the total of U.S. intervention for the November-January period to \$750 million, shared equally by the Federal Reserve and the U.S. Treasury. The dollar closed the period at ¥144.45, roughly 1 percent higher than at the start of November.

The dollar recovered little against the mark in early January. At this time, talk revived of a revaluation of the German mark within the EMS. In fact, an adjustment of the EMS was announced on January 5 to accommodate a request from the Italian government to bring the Italian lira within the narrow band of the exchange rate mechanism of the EMS. When this relatively modest adjustment occurred smoothly and without a generalized realignment, expectations of

further near-term adjustments of exchange rates diminished. The dollar's low for the period was DM1.6630 on January 8.

For the remainder of January, movements in the dollar-mark exchange rate were dominated by events in Eastern Europe. Although indications of heavy investor demand for the mark continued to support that currency, reports in mid-January began to reveal the fragility of the government structure in East Germany and elsewhere in Eastern Europe. Doubts also were voiced about political stability in the Soviet Union, especially in light of mounting separatist movements in several Soviet republics. These fears somewhat dampened the near-term enthusiasm for the mark, which traded with little clear direction for the rest of the month. The dollar closed the period against the mark at DM1.6850.

Uncertainty about the implications of the widespread political and economic changes taking place was reflected in increased volatility in the world equity and bond markets during January. This volatility, together with convergence of long-term interest rates in the United States, Germany, and Japan, and the attraction of new investment opportunities in Europe, revived concerns about the continued smooth financing of the U.S. current account deficit. In this context, dollar rates from day to day were sometimes influenced by sharp movements in other financial markets. But for the month as a whole, these developments appeared to have little lasting effect on dollar exchange rates.

Against the Canadian dollar, the dollar trended lower throughout the three-month period until mid-January. The dollar reversed its course at that time, when a move by the Bank of Canada to ease interest rates precipitated a sell-off of the Canadian currency.

In other operations, the U.S. Treasury through the Exchange Stabilization Fund (ESF), together with the Bank for International Settlements (BIS), acting for certain participating central banks, agreed to provide short-term support of \$500 million to the National Bank of Poland for its economic stabilization and reform efforts, effective December 27. The ESF's share in the facility was \$200 million. On December 28, Poland drew \$86 million of the ESF's portion.

Also during the period, Bolivia on December

2. Drawings and repayments by foreign central banks under special swap arrangements with the U.S. Treasury¹
Millions of dollars; drawings or repayments (-)

Central bank drawing on the U.S. Treasury	Amount of facility	Outstanding as of October 31, 1989	November	December	January	Outstanding as of January 31, 1990
Bank of Mexico ²	425.0	384.1	-6.5	-35.8	-7.7	334.1
Central Bank of Bolivia	{ 100.0 ³	{ 75.0 ³	...	-75.0 ³	...	0
	{ 75.0 ⁴	{ ...	...	75.0 ⁴	-75.0 ⁴	0
National Bank of Poland ⁵	200.0	...	...	86.0	...	86.0

1. Data are on a value-date basis.

2. Represents the ESF portion of \$2,000 million near-term credit facility.

3. The facility, which was established for \$100 million on July 11, 1989, was renewed on September 15, 1989.

4. The latest facility was established on December 29, 1989, and expired upon repayment on January 12, 1990.

5. Represents the ESF portion of a \$500 million short-term credit facility established on December 27, 1989.

3. Drawings and repayments by foreign central banks¹
Millions of dollars; drawings or repayments (-)

Central bank	Amount of facility	Outstanding as of October 31, 1989	November	December	January	Outstanding as of January 31, 1990
Under reciprocal currency arrangements with the Federal Reserve System						
Bank of Mexico ²	700.0	700.0	...	...	...	700.0
Under special swap arrangements with the Federal Reserve System						
Bank of Mexico ²	125.0	84.1	-6.5	-35.8	-7.7	34.1

1. Data are on a value-date basis.

2. Drawn as part of the \$2,000 million near-term credit facility established on September 21, 1989.

29 repaid in full its \$75 million outstanding drawing of a \$100 million facility established with the ESF. On the same day, Bolivia drew the full amount of a newly established facility of \$75 million. The drawing was fully repaid upon maturity on January 12 (table 2).

On four separate occasions, Mexico repaid portions of its outstanding swap commitments under the \$2,000 million facility established with the U.S. monetary authorities, the BIS (acting for certain participating central banks), and the Bank of Spain. The Federal Reserve and the ESF each received a total of \$50 million (table 3).

As of the end of January, cumulative bookkeeping or valuation gains on outstanding foreign currency balances were \$2,709.6 million for the Federal Reserve and \$2,011.0 million for the ESF (table 4). (Valuation gains on holdings warehoused by the ESF with the Federal Reserve are excluded in the first figure and, correspondingly, included in the second figure.) These valuation gains represent the increase in 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.

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 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 January, holdings of such securities by the Federal Reserve amounted to \$7,180.4 million equivalent, and holdings by the ESF amounted to the equivalent of \$7,477.6 million.

4. Net profits or losses (-) on U.S. Treasury and Federal Reserve current foreign exchange operations¹
Millions of dollars

Period and item	Federal Reserve	U.S. Treasury Exchange Stabilization Fund
October 1, 1989-January 31, 1990		
Realized.....	.0	.0
Valuation profits and losses on outstanding assets and liabilities as of January 31, 1990.....	2,709.6	2,011.0

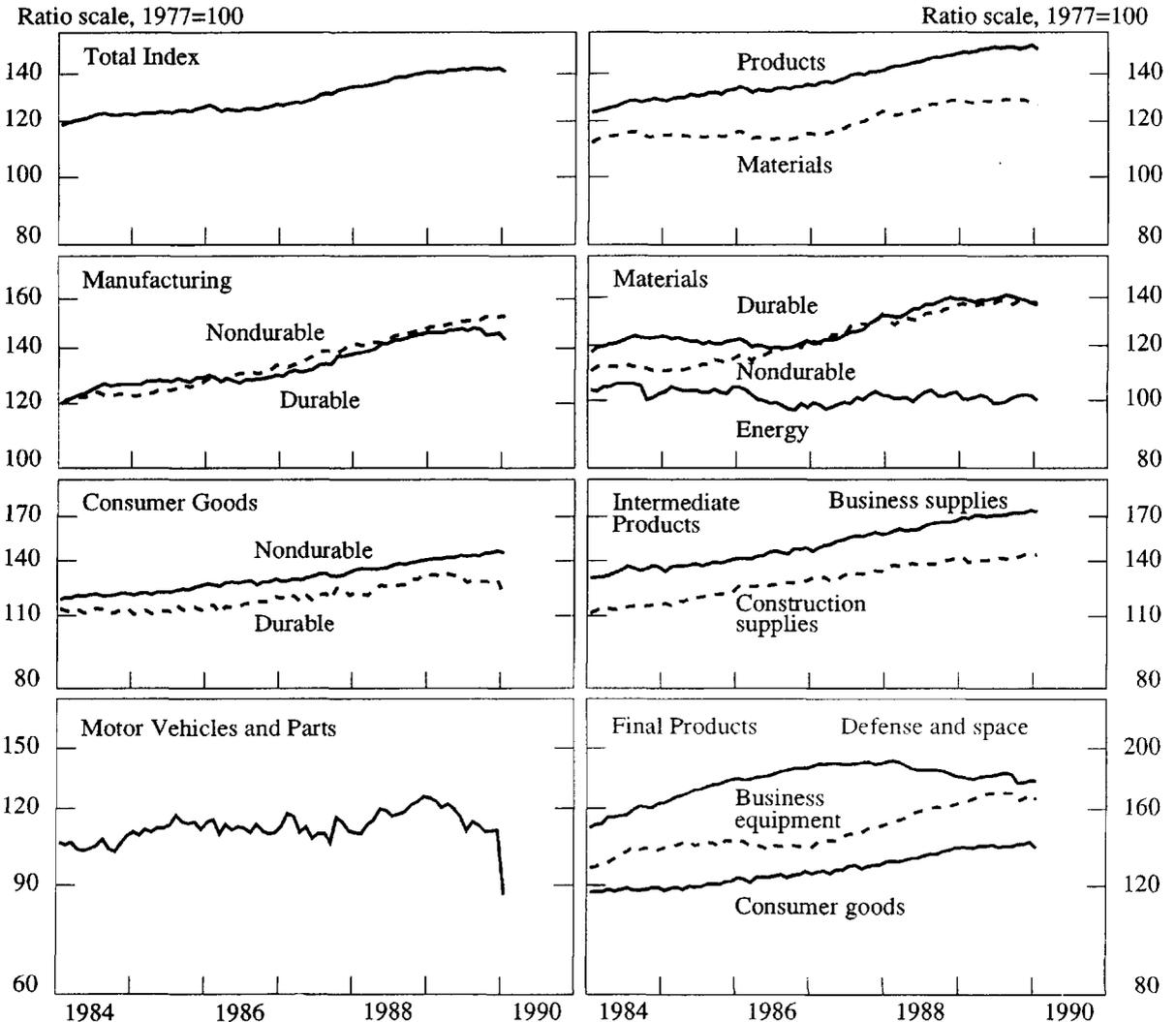
1. Data are on a value-date basis.

Industrial Production

Released for publication February 16

Industrial production fell 1.2 percent in January following a revised increase of 0.2 percent in December. In January, the output of motor vehicles was curtailed drastically, and the extremely warm weather caused a sharp drop in utilities output. Elsewhere, industrial production, on bal-

ance, rose slightly. At 140.9 percent of the 1977 annual average, the total index was little changed from a year earlier. Manufacturing output declined 0.9 percent in January, and factory utilization dropped to 81.9 percent from 82.9 percent in December. Detailed data for capacity utilization are shown separately in "Capacity Utilization," Federal Reserve monthly statistical release G.3.



All series are seasonally adjusted. Latest series: January.

Group	1977 = 100		Percentage change from preceding month					Percentage change, Jan. 1989 to Jan. 1990
	1989	1990	1989				1990	
	Dec.	Jan.	Sept.	Oct.	Nov.	Dec.	Jan.	
Major market groups								
Total industrial production	142.5	140.9	-.1	-.3	.3	.2	-1.2	.1
Products, total	153.5	151.3	-.1	-.6	.5	.7	-1.4	.8
Final products	151.5	148.8	-.2	-.9	.5	.8	-1.8	.4
Consumer goods	141.4	138.2	-.2	.9	.2	.6	-2.2	-.2
Durable	128.5	119.7	-.6	.0	-.4	.8	-6.8	-9.0
Nondurable	146.1	145.1	-.1	1.2	.4	.6	-.7	2.8
Business equipment	168.8	165.9	-.2	-2.8	1.1	1.3	-1.7	1.2
Defense and space	177.7	177.7	-.3	-3.4	.3	.6	.0	-1.3
Intermediate products	160.3	159.9	.2	.5	.6	.5	-.3	2.1
Construction supplies	143.7	144.0	-.4	1.2	.9	-.1	.2	1.2
Materials	127.6	126.6	-.2	.0	-.2	-.7	-.7	-1.1
Major industry groups								
Manufacturing	148.6	147.2	-.2	-.6	.3	.1	-.9	.1
Durable	145.9	143.3	-.4	-1.6	.4	.3	-1.7	-2.0
Nondurable	152.4	152.7	.0	.8	.2	-.2	.2	2.8
Mining	102.4	104.6	1.1	.8	.2	-2.0	2.1	1.5
Utilities	122.8	109.6	1.0	.9	-.1	6.3	-10.7	-3.8

NOTE. Indexes are seasonally adjusted.

In market groups, the production of consumer goods fell 2.2 percent in January as automobile assemblies plunged to an annual rate of 4.1 million units from a rate of 6.2 million units in December, and light truck production for consumer use fell more than 30 percent. In addition, the sale of electricity and gas for residential use was down sharply because of warmer than usual weather over most of the nation. Output of home goods, however, picked up as appliances rebounded after significant cutbacks in each of the two preceding months.

Business equipment also was down sharply because of the decline in production of motor vehicles. Excluding motor vehicles, business

equipment was about unchanged, output of construction, mining, and farm equipment advanced further, but commercial equipment, particularly computers, weakened. Construction supplies were essentially unchanged again last month, but business supplies, which include the sale of electricity and gas to commercial users, declined. Materials output was down 0.7 percent in January as output of consumer durable parts, mainly for motor vehicles, and energy materials, primarily electricity generation, fell sharply. However, these declines were moderated somewhat by increases in steel and coal output.

In industry groups, output in manufacturing declined 0.9 percent in January, with motor vehicles and parts more than accounting for the drop. Fabricated metals and rubber and plastics products, which are partially related to motor vehicles, also declined. In addition, declines occurred in lumber, nonelectrical machinery, and textiles. However, there were sharp increases in petroleum refining and iron and steel output. Outside manufacturing, mining rose because of increased coal production, and utilities fell because the warm weather lowered the demand for heating.

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
Oct.	141.8	141.8	-.4	-.3
Nov.	142.3	142.2	.3	.3
Dec.	142.8	142.5	.4	.2
Jan. ....	...	140.9	...	-1.2

Statements to the Congress

Statement by Wayne D. Angell, Member, 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, February 21, 1990.

I am pleased to appear today to discuss with you issues related to the security of large-dollar value electronic funds transfer systems and the influence of technology on the future development of these systems. The security of funds transfer and financial message processing systems is the subject of a report by the General Accounting Office (GAO).¹

My testimony is divided into three parts and addresses topics identified by the subcommittee as being of particular interest. First, I will provide an update on progress with respect to implementation of the GAO's recommendations addressing security on Fedwire, the large-dollar funds transfer system operated by the Federal Reserve Banks. Second, I will provide the Board's views on the need for clarification of its authority to oversee other funds transfer and financial message systems, such as the Clearing House Interbank Payments System (CHIPS) and the Society for Worldwide Interbank Financial Telecommunication (S.W.I.F.T.). Finally, I will provide a broader perspective on future technology trends as they will influence the international financial marketplace, with particular reference to payments networks.

As background to the update on the Federal Reserve's response to the GAO recommendations regarding Fedwire, it may be useful to highlight three distinguishing features of this system. First, the modern technology base that

serves as the automation "platform" for Fedwire has evolved from decades of experience in applying new technology to meet business requirements. The electronic transfer of reserve balances on the books of the Federal Reserve Banks began in 1918, using the telegraph. Today, the Federal Reserve uses state-of-the-art computers and data communications to operate Fedwire and is investing in research and development to ensure that the most current technology is used effectively, with a strong focus on security. Second, Fedwire is truly the nation's funds transfer system. All depository institutions have access to Fedwire, and the Reserve Banks currently connect more than 11,000 end points in all parts of the nation. These end points include the smallest to the largest depository institutions. As a truly national payment system, Fedwire must be responsive to a variety of needs presented by depository institutions having diverse characteristics. Third, Fedwire is the chief vehicle for effecting immediate final settlement for U.S. dollar payments, that is, the irrevocable transfer of value on the books of the Federal Reserve Banks, regardless of whether the payment originated domestically, or in London or Tokyo and was sent through a U.S. banking office. In short, when describing the role of Fedwire for settling interbank dollar transactions, it is no exaggeration to say that "the buck stops here."

As noted in the Board's November 9, 1989, response to GAO's draft report on oversight of electronic funds transfer systems, the Federal Reserve is strongly committed to providing the most secure electronic payment services possible. Such a commitment is essential in the case of a funds transfer system like Fedwire that handles about 240,000 transfers each day with an average value per transfer of \$3.1 million. We believe that it is important to begin any discussion of Fedwire security, as did the GAO, with the statement that there have not been any reported incidents (I can say with assurance no incidents) of fraudulent

1. See U.S. General Accounting Office, *Electronic Funds Transfer: Oversight of Critical Banking Systems Should Be Strengthened*, report number IMTEC-90-14 (GAO, January 1990).

transfers by the employees who operate the system. Moreover, in the case of Fedwire, the same holds true for so-called interloper fraud.

The Federal Reserve's commitment to security begins with a sound Fedwire security "architecture," or unified structure of security safeguards and features, which, in combination, define an organization's approach to security. The Federal Reserve security architecture incorporates a wide range of safeguards, which total more than 100. These safeguards are, by the way, the result of our work with an outside consultant. To put the GAO recommendations in the proper perspective, it is important to understand the Federal Reserve's overall security architecture. I would now like to take a few moments to describe the safeguards and mechanisms that protect the Fedwire system within the overall security architecture.

The Fedwire safeguards are grouped into the following categories:

Physical security—to limit access to terminals and computer operations areas to those individuals who require access to perform their duties. Guards, surveillance equipment, and card key access devices are relied upon to prevent and detect unauthorized physical access to restricted computer spaces.

Access controls—both software and code words, to prevent unauthorized access to sensitive data and programs.

Encryption—to protect the confidentiality and integrity of Fedwire transactions, especially from interlopers. Nearly 100 percent of transmissions between depository institutions and Reserve Banks are encrypted and, as I will discuss later, the "backbone" communications network that links the twelve Federal Reserve Banks will be encrypted by July 1990.

Administrative controls—to govern employment practices, separation of duties, and software development standards.

Capacity planning and disaster recovery programs are also key components of the architecture to ensure that Fedwire provides secure and reliable services. In recent years, Fedwire computer uptime has improved steadily as a result of added attention to the need for a secure, resilient, and reliable automation environment. For example, in 1987 and 1988, Fedwire computer

uptime averaged 99.14 and 99.21 percent respectively. In 1989, Fedwire computer uptime averaged more than 99.71 percent. I might note that last year's uptime statistic covers the period of the San Francisco earthquake on October 17, 1989. As a result of careful preparation and skillful action on the scene, the Federal Reserve Bank of San Francisco was able to recover operations quickly after the earthquake, with no disruption to electronic payments processing.

We welcome the opportunity to refine the implementation of the security safeguards that make up the Fedwire security architecture by responding to the recommendations recently made by the GAO. The GAO's recommendations represent opportunities to tighten further the implementation of a very solid security architecture.

We agree fully with fifteen of the seventeen GAO findings. In twelve of the fifteen cases, full corrective action has already been taken. Corrective action for the other three findings will be fully completed by the end of June. Moreover, steps are being taken to ensure that the conditions leading to the GAO's findings do not exist at the eight Reserve Banks that were not reviewed by the GAO.

The Federal Reserve's internal oversight of security is being focused to ensure that appropriate attention is given to the issues raised by the GAO. As we noted to the GAO, the Federal Reserve has for many years had a program of internal oversight based on independent operations review, financial examination, and audit staffs at both the Board and the Reserve Banks. The Board's operations review and financial examination programs will scrutinize Fedwire security in these areas during 1990. Additionally, every Reserve Bank's internal audit function will perform a review of the Fedwire system, including security, to be completed by midyear.

Two specific GAO findings relating to (1) the separation of duties between computer and network operators, and (2) hardware redundancy on the "backbone" network linking the twelve Reserve Banks may be due to some confusion regarding how Fedwire security is implemented in these areas. The GAO report indicates that there should be a complete separation of duties between computer and network operators. Our

view is that combining these functions has no detrimental effect on security and is industry practice. Adequate hardware redundancy already exists on the backbone communications network as part of a comprehensive and sound backup plan to provide quick recovery for the failure of any network component. This backup plan, which is tested quarterly and has been used successfully in production, has contributed to our network availability record of more than 99.99 percent since the network was implemented in 1982. A detailed discussion of our response regarding network backup is appended to the GAO report.

The GAO also makes two systemwide recommendations. First, the GAO recommends that the Board require annual external reviews of Fedwire security. We agree that it is useful to engage the services of outside consultants to assess security. We believe, however, that such outside consultation can best be used when conditions support such a need, as opposed to regular annual consultations. The System has a history of employing outside technical consultants to assess security, as I already noted in the case of the development of the Federal Reserve's security safeguards. More recently, an outside assessment of Fedwire security has just been completed at the Federal Reserve Bank of New York. An outside consultant specializing in security performed a risk assessment of the Bank's Fedwire operations, including both automation and business areas. Use of a firm with specialized security expertise is intended, in part, to introduce a view that is unconstrained by acceptance of traditional safeguards. It is a way to take a "fresh look" at what we do. The results of this security review will be shared among all the Federal Reserve Banks. In addition, the Board retains a public accounting firm each year to review a range of operations review and financial examination procedures. This year, the firm will review electronic data processing, including a review of security. We will continue to employ consultative services such as these when, based on management judgement, the circumstances warrant such input.

The GAO's second systemwide recommendation is that the Federal Reserve use both encryption and message authentication (known as MAC

or message authentication codes) to enhance security. As noted earlier, nearly 100 percent of Fedwire links between Reserve Banks and depository institutions are already encrypted. Further, encryption of the backbone network will be completed by July 1990.

The Federal Reserve has made significant resource investments in studying the use of message authentication codes for Fedwire. These investments include active participation in study groups of the American National Standards Institute to develop bona fide national standards for message authentication and the complex process of key management that is a necessary part of a message authentication system. On a large network with a variety of end points, such as Fedwire, use of message authentication codes must take place in a manner consistent with approved technical standards for both authentication and management of authentication keys. Reliance on national standards is important to avoid unique technical solutions that ultimately raise the costs of the depository institutions connected to Fedwire. Further, commercially available solutions that are cost effective for the range of depository institutions that use Fedwire must be available.

The first phase of a Federal Reserve effort to test emerging commercial message authentication code products that meet national standards has just been completed. These tests have not uncovered any technical impediments to the use of message authentication codes on Fedwire. With the results of this phase of our program to investigate message authentication codes complete, plans to adopt message authentication as an additional security enhancement for Fedwire are currently under review. Adoption of message authentication on Fedwire has my strong personal support.

I will now turn to the GAO recommendation that the Federal Reserve Board work with other central banks and bank supervisory authorities to ensure effective oversight and regulation of the S.W.I.F.T. system and similar systems that serve the international banking community. S.W.I.F.T. processes a large volume of payment orders that result in the transfer of very large sums between depository institutions, both domestically and abroad. S.W.I.F.T. differs from

Fedwire and CHIPS, however, in the manner of settlement for these payment orders. In Fedwire, payment orders result in virtually instantaneous debits and credits on the books of the Reserve Banks without any independent action on the part of the sending or receiving bank. Similarly, CHIPS messages are settled virtually automatically at the end of the day. Payment orders sent over S.W.I.F.T., on the other hand, must be settled independently of the S.W.I.F.T. system through correspondent accounts or through Fedwire or CHIPS transfers. In this regard, S.W.I.F.T. is only one of several means that banks use to communicate payment orders. Payment orders may be transmitted telephonically or by data transmission, using a variety of providers of telecommunications services.

For any system used to transmit payment orders that may result in the transfer of large sums, however, a depository institution receiving the payment order should be responsible for verifying the authenticity and the content of the payment order before acting on it. A proposed new Article 4A to the Uniform Commercial Code makes it clear that depository institutions are liable if they act on unauthorized payment orders unless they use commercially reasonable security procedures. In some cases, a receiving bank may have sufficient confidence in the controls and the integrity of the system through which it receives payment orders to rely on this system's authentication and verification procedures. In other cases, a depository institution may wish to verify and authenticate payment orders by means of its own procedures.

We believe that the appropriate role of bank supervisors is to ensure that depository institutions maintain adequate authentication and verification procedures and that they do not rely on others to perform these critical functions without assuring themselves that these functions are performed adequately. Ordinarily, the supervisory focus should be on the institution receiving a payment order rather than on a telecommunications system transmitting the order. When a receiving depository institution relies on an authentication procedure provided by a telecommunications service provider, such as CHIPS, we may need to be able to examine the communications systems on which they rely to assure

ourselves that depository institutions are not delegating these functions inappropriately. At the same time, however, we do not want to encourage depository institutions to delegate these functions to service providers merely because the service providers enjoy some degree of federal oversight. We will continue to monitor and evaluate bank reliance on telecommunications systems, including the S.W.I.F.T. system. When we discover problems stemming from banks' reliance on telecommunications systems we will take steps to strengthen our supervisory oversight and, when appropriate, coordinate any regulatory activities with supervisory authorities or central banks in other countries. We believe, however, that the principal responsibility to authenticate payment orders lies with the banks receiving these orders.

The subcommittee has also asked for the Federal Reserve's broader perspective on the importance of technology in the future of the international financial marketplace. We expect a continuing and increasing reliance on automation and communications to provide secure, reliable, and efficient payment services. In our discussions with central bankers from other developed nations, it is evident that their approach to using advanced technologies for payment system applications is quite similar to that in the United States. Most of the G-10 countries and Switzerland have state-of-the-art computer systems with many of the features found in comparable U.S. banking systems. These systems rely on sophisticated computer systems, sound test procedures, and advanced recovery features designed to provide high availability. Generally, the same technology used in the United States for encryption, physical security, and access control is available in many other nations. As the cost effectiveness of automation improves, the use of advanced automation and communications technologies will continue to grow. Even today, the technology is available to link international financial markets around the clock.

The benefits and promise of this advanced technology, however, can only be achieved through its careful management. As payment systems become more reliant on sophisticated technology to deliver basic functions, the consequences of a systems failure or security breach is

expanded significantly. We believe that close attention by senior management to automation planning, disaster recovery, and security is essential.

In conclusion, we are confident in the security architecture surrounding Fedwire and in this system's ability to provide high reliability in a secure environment. We appreciate the analysis

conducted by the GAO and, in most cases, we agree with the findings and have moved quickly to correct the problems that have been identified. As I stated at the outset, the GAO's findings represent an opportunity to tighten the implementation of a security program that we believe is exceptionally sound. □

Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, February 22, 1990.

I appreciate the opportunity to testify today on the Federal Reserve's semiannual Monetary Policy Report to the Congress.¹ My prepared remarks discuss our monetary policy actions and plans in the context not only of the current and projected state of the economy, but also against the background of our longer-term objectives and strategy for achieving them. The testimony also addresses some issues for monetary policy raised by the increasingly international character of financial markets.

ECONOMIC AND MONETARY POLICY DEVELOPMENTS IN 1989

Last year marked the seventh year of the longest peacetime expansion of the U.S. economy on record. Some 2½ million jobs were created, and the civilian unemployment rate held steady at 5¼ percent. Inflation was held to a rate no faster than that in recent years, but unfortunately no progress was made in 1989 toward price stability. Thus, while we can look back with satisfaction at the economic progress made last year, there is still important work to be done.

About a year ago, Federal Reserve policy was in the final phase of a period of gradual tightening, designed to inhibit a buildup of inflation pressures. Interest rates moved higher through

the winter, but started down when signs of more restrained aggregate demand and of reduced potential for higher inflation began to appear. As midyear approached, a marked strengthening of the dollar on foreign exchange markets further diminished the threat of accelerating inflation. New economic data suggested that the balance of risks had shifted toward the possibility of an undue weakening in economic activity. With M2 and M3 below the lower bounds of their annual ranges in the spring, the Federal Reserve in June embarked on a series of measured easing steps that continued through late last year. Across the maturity spectrum, interest rates declined further, to levels about 1½ percentage points below March peaks. Reductions in inflation expectations and reports of a softer economy evidently contributed to the drop in rates in longer-term markets.

The decrease in short-term rates lifted M2 to around the middle of its annual range in the latter part of the year. Efforts under the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989 to close insolvent thrift institutions and strengthen undercapitalized thrift institutions led to a cutback of the industry's assets and funding needs. This behavior held down M3 growth in the second half of the year, and that aggregate ended the year around the lower end of its annual range. The restructuring of the thrift industry did not, however, seem to appreciably affect the overall cost and availability of residential mortgage credit, as other suppliers of this credit stepped into the breach. In the aggregate, the debt of nonfinancial sectors slowed somewhat, along with spending, to a rate just below the midpoint of its annual range.

So far this year, the federal funds rate has remained around 8¼ percent, but rates on Trea-

1. See "Monetary Policy Report to the Congress," *Federal Reserve Bulletin*, vol. 76 (March 1990), pp. 107-19.

sure securities and longer-term private instruments have reversed some of their earlier declines. Investors have reacted to economic data that were stronger than expected, a runup in energy prices, and increasingly attractive investment opportunities abroad, especially in Europe.

THE ULTIMATE OBJECTIVES AND MEDIUM-TERM STRATEGY OF MONETARY POLICY

Monetary policy was conducted again last year with an eye on long-run policy goals, and economic developments in 1989 were consistent with the Federal Reserve's medium-term strategy for reaching them. The ultimate objective of economic policy is to foster the maximum sustainable rate of economic growth. This outcome depends on market mechanisms that provide incentives for economic progress by encouraging creativity, innovation, saving, and investment. Markets perform these tasks most effectively when individuals can reasonably believe that by forgoing consumption or leisure in the present they can reap adequate rewards in the future. Inflation insidiously undermines such confidence. It raises doubts in people's minds about the future real value of their nominal savings and earnings, and it distorts decisionmaking. Faced with inflation, investors are more likely to divert their attention to protecting the near-term purchasing power of their wealth. Modern day examples of economies stunted by rapid inflation are instructive. In countries with high rates of inflation, people tend to put their savings in foreign currencies and commodities rather than in the financial investments and claims on productive assets that can best foster domestic growth. By ensuring stable prices, monetary policy can play its most important role in promoting economic progress.

The strategy of the Federal Open Market Committee (FOMC) for moving toward this goal remains the same—to restrain growth in money and aggregate demand in coming years enough to establish a clear downward tilt to the trend of inflation and inflation expectations, while avoiding a recession. Approaching price stability may involve a period of expansion in activity at a rate

below the growth in the economy's potential, thereby relieving pressures on resources. Once some slack develops, real output growth can pick up to around its potential growth rate, even as inflation continues to trend down. Later, as price stability is approached, real output growth can move still higher, until full resource utilization is restored.

While these are the general principles, no one can be certain what path for the economy would, in practice, accompany the gradual approach to price stability. One key element that would minimize the costs associated with the transition would be a conviction of participants in the economy that the anti-inflation policy is credible, that is, likely to be effective and unlikely to be reversed.

Stability of the general price level will yield important long-run benefits. Nominal interest rates will be reduced with the disappearance of expectations of inflation, and real interest rates likely will be lower as well, as less uncertainty about the future behavior of overall prices induces a greater willingness to save. Higher saving and capital accumulation will enhance productivity, and the trend growth in real GNP will be greater than would be possible if the recent inflation rate continued.

If past patterns of monetary behavior persist, maintaining price stability will require an average rate of M2 growth over time approximately equal to the trend growth in output. During the transition, the decline of market interest rates in response to the moderation in inflation would boost the public's demand for M2 relative to nominal spending, lowering M2 velocity. M2 growth over several years accordingly may show little deceleration, and it could actually speed up from time to time, as interest rates decline in fits and starts. Hence, the FOMC would not expect to lower its M2 range mechanically each and every year in the transition to price stability.

This qualitative description of our medium-term strategy is easy to state, but actually implementing it will be difficult. Unexpected developments no doubt will require flexible policy responses. Any such adjustments will not imply a retreat from the medium-term strategy or from ultimate policy goals. Rather, they will be mid-course corrections that attempt to keep the econ-

omy and prices on track. The easing of reserve pressures starting last June is a case in point. Successive FOMC decisions to ease operating policy were intended to forestall an economic downturn, the chances of which seemed to be increasing as the balance of risks shifted away from greater inflation. The FOMC was in no way abandoning its long-run goal of price stability. Instead, it sought financial conditions that would support the moderate economic expansion judged to be consistent with progress toward stable prices. In the event, output growth was sustained last year, although in the fourth quarter a major strike at Boeing, combined with the first round of production cuts in the auto industry, accentuated the underlying slowdown. On the inflation side, price increases in the second half were appreciably lower than those in the first. Although the CPI for January, as expected, showed a sizable jump in energy and food prices in the wake of December's cold snap, a reversal is apparently under way.

MONETARY POLICY AND THE ECONOMIC OUTLOOK FOR 1990

Against this background, the Federal Reserve Governors and the Presidents of the Reserve Banks foresee continued moderate economic expansion over 1990, consistent with conditions that will foster progress toward price stability over time. At its meeting earlier this month, the FOMC selected ranges for growth in money and debt that it believes will promote this outcome.

My testimony last July indicated the very preliminary nature of the tentative ranges chosen for 1990, given the uncertain outlook for the economy, financial conditions, and appropriate growth of money and debt. With the economic situation not materially different from what was anticipated at that time, the FOMC reaffirmed the tentative growth range of 3 percent to 7 percent for M2 in 1990 that it set last July. This range, which is the same as that used in 1989, is expected by most FOMC members to produce somewhat slower growth in nominal GNP this year. The declines in short-term interest rates through late last year can be expected to continue to boost the public's demands for liquid balances in M2, at least for a

while longer. M2 growth over 1990 thus may be faster than in recent years, and M2 velocity could well decline over the four quarters of the year, absent a pronounced firming in short-term market interest rates.

In contrast to M2, the range for M3 has been reduced from its tentative range set last July. The new M3 range of 2½ percent to 6½ percent is intended to embody the same degree of restraint as the M2 range, but it was lowered to reflect the continued decline in thrift assets and funding needs now anticipated to accompany the ongoing restructuring of the thrift industry. This asset runoff began in earnest in the second half of last year, so its magnitude was not incorporated into the tentative M3 range for 1990 set last July. The bulk of the mortgage and real estate assets that thrift institutions will shed are expected to be acquired by the Resolution Trust Corporation and diversified investors other than depository institutions. Such assets thus will no longer be financed by monetary instruments included in M3. In addition, commercial banks are likely to be more cautious in their lending activities, reducing their need to issue wholesale managed liabilities included in M3. These influences should retard the growth of M3 relative to M2 again this year.

The debt of domestic nonfinancial sectors is expected to decelerate along with nominal GNP for a fourth straight year, and the Committee chose to lower the monitoring range for this aggregate to 5 percent to 9 percent for 1990. Merger and acquisition activity has retreated from the feverish pace of recent years, reflecting some well-publicized difficulties of restructured firms and more caution on the part of creditors. All other things equal, less restructuring activity and greater use of equity finance imply reduced corporate borrowing. An ebbing of growth in household debt also seems probable.

Over the last decade, money and debt aggregates have become less reliable guides for the Federal Reserve in conducting policy. The velocities of the aggregates have ranged widely from one quarter or one year to the next, in response to interest rate movements and special factors. In the coming year, the effects of the contraction of the thrift industry on the velocity of M3, and to a lesser extent on that of M2, are especially dif-

ficult to predict. While recognizing that the growth rates of the broader monetary aggregates over long periods are still good indicators of trends in inflation, the FOMC will continue to take an array of factors into account in guiding operating policy. Information about emerging patterns of inflationary pressure, business activity, and conditions in domestic and international financial markets again will need to supplement monetary data in providing the background for decisions about the appropriate operating stance.

The Committee's best judgment is that money and debt growth within these annual ranges will be compatible with a moderation in the expansion of nominal GNP. Most FOMC members and other Reserve Bank presidents foresee real GNP growing $1\frac{3}{4}$ percent to 2 percent over the year as a whole. Such a rate would be around last year's moderate pace, excluding the rebound in agricultural output from the 1988 drought. A slight easing of pressures on resources probably is in store. Inflation pressures should remain contained, even though the decline in the dollar's value over the past half year likely will reverse some of the beneficial effects on domestic inflation stemming from the dollar's earlier appreciation. The CPI this year is projected to increase 4 percent to $4\frac{1}{2}$ percent, as compared with last year's $4\frac{1}{2}$ percent.

RISKS TO THE ECONOMIC OUTLOOK

Experience has shown such macroeconomic forecasts to be subject to a variety of risks. Assessing the balance of risks between production shortfalls and inflation pressures in the current outlook is complicated by several crosscurrents in the domestic and international economic and financial situation.

One risk is that the weakness in economic activity evident around year-end may tend to cumulate, causing members' forecasts about production and employment this year to be overly optimistic. However, available indicators of near-term economic performance suggest that the weakest point may have passed. The inventory correction in the auto industry—a rapid one involving a sharp reduction in motor vehicle assemblies in January coupled with better motor

vehicle sales—seems to be largely behind us. Industrial activity outside of motor vehicles appears to be holding up. Production of business equipment, when evidence has accumulated of some stability—if not an increase—in orders for capital goods, is likely to support manufacturing output in coming months. Housing starts were depressed in December by severely cold weather in much of the country. But starts bounced back strongly in January, in line with the large gain in construction employment last month. From these and similar data, one can infer the beginnings of a modest firming in economic activity. While we cannot be certain that we are as yet out of the recessionary woods, such evidence warrants at least guarded optimism.

There are, however, other undercurrents that continue to signal caution. One that could disturb the sustainability of the current economic expansion has been the recent substantial deterioration in profit margins. A continuation of this trend could seriously undercut the still expanding capital goods market. However, if current signs of an upturn in economic activity broaden, profit margins can be expected to stabilize.

A more deep-seated concern with respect to the longer-run viability of the expansion is the increase in debt leverage. Although the trends of income and cash flow may have turned the corner, the structure of the economy's financial balance sheet weighs increasingly heavily on the dynamics of economic expansion. In recent years, business debt burdens have been enlarged through corporate restructurings, and as a consequence interest costs as a percent of cash flow have risen markedly. Responding to certain well-publicized, debt-servicing problems, creditors have become more selective in committing funds for these purposes. Within the banking industry, credit standards have been tightened for merger and leveraged buyout (LBO) loans, as well as for some other business customers. Credit for construction projects reportedly has become less available because of limits imposed by the FIRREA and heightened concerns about overbuilding in a number of real estate markets.

Among households, too, debt-servicing burdens have risen to historic highs relative to income, and delinquency rates have moved up of late. Suppliers of consumer and mortgage credit

appear to have tightened lending terms a little. Real estate values have softened in some locales, although prices have maintained an uptrend in terms of the national averages, especially for single-family residences. These and other financial forces merit careful monitoring. While welcome from a supervisory perspective, more cautious lending does have the potential for damping aggregate demand.

It is difficult to assess how serious a threat increased leverage is to the current levels of economic activity. Clearly, should the economy fall into a recession, excess debt service costs would intensify the problems of adjustment. But it is unlikely that in current circumstances strains coming from the economy's financial balance sheet can *themselves* precipitate a downturn. As I indicated earlier, we expect nonfinancial debt growth to continue to slow from its frenetic pace of the mid-1980s. This should lessen the strain and hopefully the threat to the economy.

INTERNATIONAL FINANCIAL MARKETS AND MONETARY POLICY

Among other concerns, recent events have highlighted the complex interactions between developments in the U.S. economy and financial markets and those in the other major industrial countries. Specifically, the parallel movements in long-term interest rates here and abroad over the early weeks of 1990 have raised questions: To what extent is the U.S. economy subject to influences from abroad? To what extent, as a consequence, have we lost control over our economic destiny? The simple answer to these questions is that the U.S. economy is influenced from abroad to a substantially greater degree than, say, two or three decades ago, but U.S. monetary policy is, nonetheless, able to carry out its responsibilities effectively.

The postwar period has seen markedly closer ties among the world's economies. Markets for goods have become increasingly, and irreversibly, integrated as a result of the downsizing of economic output and the consequent expansion of international trade. The past decade, in particular, also has witnessed the growing integration of financial markets around the world. Advancing

technology has fostered the unbundling and transfer of risk and engendered a proliferation of new financial products. Cross border financial flows have accordingly accelerated at a pace in excess of global trade gains. This globalization of financial markets has meant that events in one market or in one country can affect within minutes developments in markets throughout the world.

More integrated and open financial markets have enabled all countries to reap the benefits of enhanced competition and improved allocation of capital. Our businesses can raise funds almost anywhere in the world. Our savers can choose from a lengthening menu of investments as they seek the highest possible return on their funds. Our financial institutions enjoy wider opportunities to compete.

In such an environment, a change in the expected rate of return on financial assets abroad naturally can affect the actions of borrowers or lenders in the United States. In response, exchange rates, asset prices, and rates of return all may adjust to new values.

Strengthened linkages among world financial markets affect all markets and all investors. Just as U.S. markets are influenced by developments in markets abroad, foreign markets are influenced by events here. These channels of influence do not depend on whether a country is experiencing a deficit or a surplus in its current account. In today's financial markets, the net flows associated with current account surpluses and deficits are only the tip of the iceberg. What are more important are the huge stocks of financial claims—more than \$1.5 trillion held in the United States by foreigners and more than \$26 trillion of dollar-denominated claims on U.S. borrowers held by U.S. residents. This is in addition to the vast quantities of assets held in foreign currencies abroad. It is these holdings that can respond to changes in actual and expected rates of return.

In recent years we have seen several instances in which rates of return have changed essentially simultaneously around the world. For example, stock prices moved together in October 1987 and 1989, and in 1990 bond yields have risen markedly in many industrial countries.

However, we must be cautious in interpreting such events, and in drawing implications for the

United States. Frequently, such movements occur in response to a common worldwide influence. Currently, the world economy is adjusting to the implications of changes in Eastern Europe, where there are tremendous new opportunities to invest and to promote reconstruction and growth. Those opportunities, while contributing to the increase in interest rates in the United States, also open up new markets for our exports.

Moreover, despite globalization, financial markets do not necessarily move together—they also respond to more localized influences. Over 1989, for example, bond yields in West Germany and Japan rose about a percentage point, while those in the United States fell by a similar amount. The contrast between 1989 and 1990 illustrates the complexity of relationships among financial markets. Interactions can show through in movements in exchange rates as well as interest rates, and changes in the relative prices of assets depend on a variety of factors, including economic developments and inflation expectations in various countries as well as monetary and fiscal policies here and abroad.

The importance of foreign economic policies for domestic economic conditions has given rise in recent years to a formalized process of policy coordination among the major industrial countries. The purpose of such coordination is to help policymakers achieve better performance in their national economies. It begins with improved communication among authorities about economic developments within each country. It includes systematic analysis of the likely impact of these developments on the economies of the partner countries and on variables such as exchange rates that are inherently jointly determined in international markets. Within such a framework, it is possible to consider alternative choices for economic policies and to account explicitly for the impacts of likely policy measures in one country on the other economies.

The influence of economic policies abroad and other foreign developments on the U.S. economy is profound, and the Federal Reserve must carefully take them into account when considering its monetary policy. But these influences do not fundamentally constrain our ability to meet our most important monetary policy objectives. Developments within U.S. financial markets remain

the strongest influence on the asset prices and interest rates determined by those markets and, through them, on the U.S. economy. Exchange rates absorb much of the impact of developments in foreign asset markets, permitting U.S. interest rates to reflect primarily domestic economic conditions. Exchange rates influence the prices of products that do, or can, enter into international trade. Such factors can bring about changes in the composition of production between purely domestic goods and services and those entering international trade, and they can affect aggregate price movements for a time.

However, the overall pace of spending and output in the United States depends on the demands upon all sectors of the U.S. economy taken together. And our inflation rate, over time, depends on the strength of those demands relative to our ability to supply them out of domestic production. Because the Federal Reserve is able to affect short-term interest rates in U.S. financial markets, it is able to influence the pace of economic activity in the short run and inflationary pressures longer term. To be sure, monetary policy must currently balance more factors than in previous decades. But our goals are still achievable.

Monetary policy is only one tool, however, and it cannot be used successfully to meet multiple objectives. The Federal Reserve, for example, can address itself to either domestic prices or exchange rates but cannot be expected to achieve objectives for both simultaneously. Monetary policy alone is not readily capable of addressing today's large current account deficit, which is symptomatic of underlying imbalances among saving, spending, and production within the U.S. economy. Continued progress in reducing the federal deficit is a more appropriate instrument to raise domestic saving and free additional resources for productive investment. The long-term health of our economy requires the balanced use of monetary and fiscal policy to reach all of the nation's policy objectives.

CONSIDERATIONS REGARDING IMMEDIATE RELEASE OF FOMC OPERATING DECISIONS

Finally, you requested that I address an issue that has been prominent in recent discussions of

the procedures used to implement policy on a day-to-day basis. I refer to the way the Federal Reserve communicates its policy decisions to the public. The selection of money and debt ranges is aired promptly and thoroughly in the semiannual reports and testimonies. Changes in the discount rate are immediately announced in a press release.

Decisions made about open market operations at and between FOMC meetings are conveyed to the markets and to the public at large through those operations. In practice, there is little lag between a discrete change in operating policy and the wide recognition of that change, despite the absence of an immediate public announcement. Guidance for those operations is given to the Account Manager at the Federal Reserve Bank of New York as a Directive, which is made public shortly after the next FOMC meeting, six to seven weeks later.

Suggestions have been made that we release the Directive immediately after an FOMC meeting, or announce publicly any change in our operating objectives as it occurs. These suggestions have appeal: Surely more information is better than less in promoting efficient financial markets; and the need to infer the Federal Reserve's policy stance from its actions can give rise to mistakes and unnecessary market volatility.

Yet the amount of genuine new information that would be released is small; it is subject to misinterpretations; and its premature announcement could adversely affect the policy process.

For example, the Directive itself cannot capture all the considerations that guide Committee policy for the intermeeting period. It needs to be accompanied by the record of the Committee's deliberations, which takes several weeks to prepare properly. Moreover, early release could provoke overreactions in financial markets to contingencies or reserve pressure alternatives mentioned in a Directive that may not occur, or that may be superseded by intermeeting developments and adjustments. To the extent that market participants anticipate contingencies in the Directive that never materialize, the markets would be subjected to unnecessary volatility.

Earlier release of the Directive would, in addition, force the Committee itself to focus on the market impact of the announcement as well as on the ultimate economic impact of its actions. To avoid premature market reaction to mere contingencies, FOMC decisions could well lose their conditional character. Given the uncertainties in economic forecasts and in the links between monetary policy actions and economic outcomes, such an impairment of flexibility in the evolution of policy would be undesirable.

Wide movements in bond and stock prices occur when investors receive new information that significantly alters their expectations over a relatively long-term horizon. Normally, changing perceptions about the *current* operating stance of monetary policy play only a minor role in episodes of financial variability. For example, over the last two months, U.S. bond and stock prices fell appreciably on balance, with fairly wide day-to-day and even intraday swings, but there was no uncertainty or change of view about the *current* stance of operating policy. To the extent that any of these market movements reflected policy, they must have been reactions to *prospective* changes in policy. But announcements of future changes in operating policy are not possible, since they are contingent upon future economic developments.

Changes in our current operating stance, of course, have the potential to alter anticipations of future conditions, including future policy. At times, monetary policymakers wish to strengthen the market's sense of a more basic change in the thrust of policy through an announcement effect, as well as through a change in the instrument itself. Changes in the discount rate provide good examples.

More often, however, the Federal Reserve judges that policy implementation is better served through small, incremental operating moves that do not connote a significant alteration in policy intent and do not have major implications for financial conditions in the more distant future. Signaling such policy moves through open market operations usually avoids major and potentially destabilizing movements in bond and stock prices.

This way of distinguishing the nature of policy intent may well convey information to the financial markets about the future direction

of policy better than would a formal, immediate announcement of every policy change. □

Chairman Greenspan presented similar testimony before the Subcommittee on Domestic Monetary Policy of the House Committee on Banking, Finance and Urban Affairs, February 20, 1990.

Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Committee on Finance, U.S. Senate, February 27, 1990.

I am pleased to be here today to discuss the government's role in providing retirement security to present and future generations—an issue that has moved to the forefront of the policy debate. Senator Moynihan has introduced legislation to cut payroll taxes and return social security to a pay-as-you-go basis, and others would like to move its finances fully off budget.

In large part, such proposals arise out of frustration with the slow pace of deficit reduction, and they have helped to dramatize the seriousness of the current budget situation. But I am concerned that they will ultimately be counterproductive and hamper the efforts needed to meet our longer-term fiscal responsibilities. And, as I hope to make clear, they will increase the difficulty of providing for the needs of an aging population in a way that is equitable across generations. I shall address, in particular, how the social security system can contribute to those objectives; this issue was a main focus of the National Commission on Social Security Reform in the early 1980s. I shall also touch on the relationship of social security to the rest of the budget and its role in the setting of overall budget goals.

I have testified often before committees of the Congress about the corrosive effects that sustained large budget deficits have on the economy and about the way our economic prospects in coming years will hinge on our ability to increase national saving and investment. One factor that argues for running sizable budget surpluses by later this decade is the need to set aside re-

sources to meet the retirement needs of today's working population. Although the share of the total population that is in the labor force has risen steadily over the past few decades, that percentage will shrink considerably after the turn of the century as members of the so-called baby boom generation begin to retire. Barring a sharp upturn in the birth rate, a large influx of immigrants, or a significant increase in the age of retirement, growth of the labor force will slow appreciably.

The demographics are compelling. In 1960, there were twenty beneficiaries for every one hundred workers contributing to social security; currently there are thirty. The Social Security Administration—under intermediate economic and demographic assumptions—expects that number to approach fifty by about the year 2025 and to remain at that level at least through the middle of the twenty-first century.

Assuming their living standards keep pace with those of the working population, the elderly will of necessity consume a growing proportion of total output in the future. They will finance their consumption out of private and public pensions and by drawing down their own assets. Nonetheless, the goods and services they buy can only come from the output of then-active workers. The allocation of production to meet the needs of retirees necessarily will cut into what is available for consumption by the rest of the population and for investment in new equipment and structures.

We can do little to change the demographic forces. We can, however, take actions now that will help to lift the size of future output above that implied by the current pace of capital formation and the trend in productivity. Such actions will improve the likelihood that future workers can maintain their living standards while satisfying the retirement expectations of current work-

ers. Your decisions will also influence how much of the burden of its retirement the baby boom cohort will shoulder for itself and how much will fall on its children. Indeed, this is one of the few instances in which policymakers have had the luxury of being able to foresee a problem that a thoughtful policy response might ameliorate. Thus far, I believe, the plan for social security, given the conflicting political pressures, has been reasonable.

One element in the strategy is the accumulation of sizable balances in the social security trust funds over the next few decades. As you know, before the Social Security Amendments of 1977, the system operated, in effect, on a pay-as-you-go basis. The 1977 amendments set in motion an accumulation of trust fund assets that can be drawn down as required to meet the retirement needs of today's workers. This shift toward a funded system was given careful further consideration by the National Commission on Social Security Reform in the early 1980s.

The deliberations of the commission identified several complex issues. They included difficult questions of equity within and across generations and assessments of the effects social security has on incentives to work and save. We recognized, too, the political riskiness of accumulating large surpluses. On the whole, however, we concluded that each cohort of workers and their employers should make contributions into a fund that, with interest, at least approached the actuarial value of the benefits the workers will eventually receive. Notably, this requirement forces today's workers—including the baby boomers—to pay more in payroll taxes than is needed to cover the benefits of the relatively small group of current beneficiaries, so that sizable surpluses build up in the trust funds. In essence, the commission reaffirmed the intent of the 1977 amendments; our recommendations were largely accepted by the Congress and hence shaped the legislation of 1983. The current structure of social security may not be appropriate in all circumstances. But, at present, it is still the best option.

One reason to build surpluses in the trust funds is to set aside saving, and thus to divert part of the nation's current production away from consumption—both private and public. Assuming, of course, that the surpluses are not offset by re-

ductions in the saving of households and businesses or by larger dissaving, that is, deficits, elsewhere in the federal budget, they should boost investment and thus foster the growth of the nation's capital stock. And with more capital per worker than would otherwise be in place, productive capacity will be greater, and we will be better able to fulfill our promises to the retirees, while maintaining the standard of living of future workers.

The relationships among saving, the aggregate capital stock, and labor productivity are complex and difficult to pin down quantitatively, in part, because productivity depends not only on the amount of physical capital but on factors such as the education and skill level of the work force and the rate of technological progress. Nonetheless, I have little doubt that a larger, more modern capital stock will improve labor productivity and hence overall real income levels in coming years.

Building surpluses in the trust funds also contributes to fairness across generations. Given the demographics, the generation after the baby boomers will have to shoulder a fairly heavy burden to meet the retirement claims of their parents. This burden can be ameliorated only if current workers save enough during their working years to fund, in effect, their own retirement. Saving today will not reduce the share of GNP that will be transferred to retirees tomorrow; however, current saving directed toward capital formation will help to ensure that overall incomes in the future will be large enough to provide benefits to retirees without denting the standards of living of their children too deeply, if at all. The current social security system, when used properly, has such a focus and affords an opportunity for today's workers to lighten the burden on the workers of the next generation.

Pay-as-you-go financing does not have that focus. Rather, each year, workers and employers contribute only enough to cover the cost of providing benefits to current recipients and to maintain a contingency reserve sufficient to carry the system through periods of poor economic performance. Thus, returning to pay as you go now would confer a significant windfall on the baby boomers who, in effect, would benefit doubly from the size of their age cohort. Given their

numbers, each would make a disproportionately small contribution during his or her working years to the retirement of their elders. Yet in retirement, each would expect to receive full benefits, which could come only at a disproportionately high cost to their children. At that time, pressures may well emerge to stretch out benefits by, for example, increasing the retirement age to reflect rising life expectancies.

Linking an individual's benefits to his or her contributions has generally been considered equitable and desirable. Under the present system, the current generation of workers and the next will face the same Old Age, Survivors, and Disability Insurance (OASDI) tax rate of 12.4 percent, summing the employee and the employer shares. Assuming that benefits evolve according to existing laws—and that social security revenues are set aside, rather than used to lower other taxes or raise other outlays—the system moves in the direction of actuarial soundness; it confers no windfall gains or unforeseen losses on any particular generation. Accordingly, it offers some assurance to current and future workers that the government will keep its promises.

Senator Moynihan's proposal cuts the OASDI tax rate to 10.2 percent of covered wages in the 1990s. However, as his bill makes clear, with pay as you go, rates will have to rise sharply once the baby boomers begin to retire; the proposed rate for the years 2025 through 2044, for example, is 15.4 percent. Support for the system may well erode when the next generation is asked to take on a tax bill that their parents were unwilling—or too shortsighted—to assume during their own working years.

The choice of financing mechanism can also influence the mix of federal taxes. Indeed, the increase in the share of payroll taxes in total revenues—and the regressiveness of these taxes—is frequently cited as a reason to return to pay-as-you-go financing. However, looking at just the tax side presents an overly narrow view of the relationship between social security and the distribution of income in the United States. When considered from the perspective of an individual's lifetime—and when the formula for benefits as well as contributions is taken into account—social security clearly appears progressive.

The numbers are striking. Consider individuals who retire this year at age sixty-five after working forty years. All anticipate receiving a benefits annuity that equals or exceeds in present-value terms the sum of lifetime social security contributions plus accumulated interest. The return for low-income workers, however, is especially great. In fact, the average minimum-wage worker can expect benefits that—relative to contributions—are roughly one and one-half to two times as large as those received by persons with above-average earnings.

In any event, although the current system assigns them a leading role in providing retirement incomes in coming decades, the trust funds are only part of the story. In reality, the social security reserves are merely a bookkeeping entry within the federal sector. Ultimately, their size matters only to the extent that they lead to smaller overall federal budget deficits—or larger total surpluses—and thus to higher national saving than would otherwise be the case.

At present, the contribution of the trust funds to national saving is greatly diluted by the large deficits in the rest of the budget. As long as the non-social-security deficits remain sizable, Senator Moynihan and others are correct in pointing out that we are doing little to solve the future retirement problem. If, however, actions are taken to bring the rest of the budget into balance, the trust funds will no longer be financing current government consumption, but will translate dollar for dollar into national saving.

Where in the total unified budget the saving takes place—in social security or elsewhere—is of secondary importance. What matters in terms of reaching our longer-term growth objective is the government's net contribution to national saving. The important policy issue in the current context, therefore, is whether any of the major proposals regarding social security will help to achieve that goal. For example, is the federal government more likely to shift toward a position of positive net saving if social security is returned to pay-as-you-go financing? Given the large revenue loss implied by the plan, I think not.

Another proposal is to move the social security system fully "off-budget," so that the trust funds would be excluded from the official summary budget figures and from the setting of deficit

targets. Unlike Senator Moynihan's plan, a switch in budget accounting systems in isolation would not change the government's contribution to national saving and thus would have no direct effect on the economy. But the proposal raises other concerns.

First, splitting off social security—or any other program—would highlight a distinction that has little macroeconomic or analytical significance. Regardless of which numbers are reported, government saving or dissaving would continue to be well approximated by the surplus or deficit in the total federal budget as currently defined in the National Income and Product Accounts, a close variant of the total unified budget.

Moreover, the way budget numbers are presented can influence public perceptions of important fiscal issues and thus—for good or ill—shape the debate among policymakers. As a consequence, methods of accounting and presentation can play a role in determining the size of the overall deficit or surplus. In particular, I fear that adopting a system that draws attention to the surpluses in the trust funds might foster the illusion that we already are putting enough money aside to meet future obligations. Furthermore, it would tend to remove social security from the broader fiscal policy debate.

In large part, my concerns are grounded in the analytical issues I discussed earlier. But they are compounded by a technical factor that affects the interpretation of the commonly cited statistics on the social security trust funds. For example, the Congressional Budget Office (CBO) projects that the annual surplus in the OASDI trust funds will increase from \$66 billion in fiscal 1990 to \$128 billion in fiscal 1995. But, as the CBO points out, fully half of the difference between those two figures is accounted for by the interest received on the trust funds' holdings of government debt, which is forecast to grow from \$16 billion to \$50 billion over that period. The latter figure represents nearly 0.7 percent of the GNP projected by the CBO for that year. Moreover, in their report for 1989, the Social Security Board of Trustees projects that ratio to rise to 1.3 percent of GNP by the year 2030. Such intragovernmental interest payments are both an inflow to the trust funds and an outlay from the general funds and

wash out when the accounts are consolidated. But, because they result in an overstatement of both the saving taking place in the trust funds and the dissaving elsewhere, they can contribute to a significant misreading of saving trends when either part of the budget is considered in isolation.

The figures over longer time horizons are even more dramatic, magnified by the wonders of compound interest; but the story is much the same. For example, the Social Security Trustees project that net inflows to the trust funds—apart from interest—will remain at their current level of about 1 percent of GNP over the next twenty years, then turn sharply negative once the baby boomers retire in force. However, because of the surging interest payments, trust fund assets will continue to grow for a time, reaching a peak of about \$12 trillion around the year 2030. Excluding interest payments, those assets will rise to only about \$3 trillion around the year 2020 before turning down. Thus, the peak trust balance in 2030 will essentially represent interest receipts that are offset elsewhere in the federal accounts. While the contribution of social security to national saving is sizable—over both the medium and the long term—it is clearly much smaller than the conventional calculations suggest.

More generally, I fear that moving away from the unified budget concept will impede the achievement of the sizable deficit reductions that the nation so sorely needs. The arguments are well known. Many of them center on social security itself and on the inevitable pressures that would develop to expand benefits or to cut payroll taxes if the system were not subject to the discipline of an overall deficit constraint. In the absence of offsetting changes elsewhere in the budget, such actions would reduce national saving and over time worsen the burden on the generation after the baby boom.

Moreover, responsible budgeting requires a comprehensive framework for setting priorities and assessing competing claims on national resources. That function currently is filled by the unified budget process. If deficit targets were to be set exclusive of social security, they could be met—at least in part—by moving related programs into the social security account or by

shifting other trust funds off the books. Such actions would shrink the on-budget deficit but would not reduce federal demands on private saving or on credit markets.

Most important, we must not allow the choice of a budget accounting system to divert attention from the pressing need for meaningful deficit reduction. In other words, the Congress must take actions to set the federal government's claim on saving—however the budget deficit is measured—firmly on a downward track. Making a serious commitment to eliminating the unified deficit within the foreseeable future is an essential first step and meeting that commitment will be a formidable challenge. But

it is just a first step. If households and businesses continue to save relatively little, then the federal government should compensate by moving its budget in the direction of greater surplus.

Let me reiterate that the source of our fundamental budget problem is the persistence of enormous deficits at a time when demographic trends call for increases in private and government saving. Undoing a social security system that is the result of many years of careful consideration and compromise, in my judgment, will not address our fundamental policy needs. Indeed, it could be counterproductive. □

Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Committee on the Budget, U.S. House of Representatives, February 28, 1990.

I am pleased to have the opportunity to appear before you once again. As you know, the Federal Reserve's semiannual Monetary Policy Report to the Congress, which was submitted to the Congress last week, provided an extensive picture both of recent economic developments and of the Federal Reserve's policy actions and intentions.¹ Rather than take you through the details of that report this morning, I would like briefly to review some of its main themes and then turn to some of the specific budgetary issues that the committee has asked me to address.

ECONOMIC AND MONETARY POLICY DEVELOPMENTS IN 1989

About a year ago, in early 1989, Federal Reserve policy was in the final phase of a period of gradual tightening, designed to inhibit a buildup of inflation pressures. However, as the year progressed, the threat of accelerating inflation seemed to diminish, and at the same time, there

emerged an increasing risk of an undue weakening in economic activity. Consequently, the Federal Reserve in June embarked on a series of measured steps to ease reserve positions, and those steps continued through late last year. Interest rates, which had turned downward in the spring, declined further in the second half of the year, to levels about 1½ percentage points below March peaks. In the event, output growth slowed from the unsustainable pace of the two previous years, but still was sufficient to support the creation of 2½ million jobs and keep the civilian unemployment rate steady at 5¼ percent. Inflation was held to a rate no faster than that of recent years, but unfortunately no progress was made in 1989 toward price stability.

The policy adjustments that we undertook over the course of 1989 were more in the nature of a midcourse correction, rather than a reflection of a fundamental shift in policy. Our more basic goals and strategies remained unchanged from what they had been in previous years. The ultimate goal of monetary policy still is that of ensuring price stability so as to promote the maximum sustainable rate of economic growth. Similarly, the strategy for moving toward this goal still is that of restraining growth in money and aggregate demand in coming years enough to establish a clear downward tilt to the trend of inflation and inflation expectations, while avoiding a recession.

1. See "Monetary Policy Report to the Congress," *Federal Reserve Bulletin*, vol. 76 (March 1990), pp. 107–19.

MONETARY POLICY AND THE ECONOMIC OUTLOOK FOR 1990

Thus far in 1990, monetary policy basically has stayed on an even keel, and the federal funds rate has remained around 8¼ percent. Nonetheless, the interest rates on Treasury securities and longer-term private instruments have reversed, on net, some of their earlier declines, reflecting the reaction of investors to stronger-than-expected economic data, a firming of oil prices, and the prospect of greater demands on world saving to support development of the economies of Eastern Europe.

In assessing the economic prospects for 1990 as a whole, the Federal Reserve Governors and the Reserve Bank Presidents foresee continued moderate economic expansion, consistent with conditions that will foster progress toward price stability over time. At its meeting earlier this month, the Federal Open Market Committee (FOMC) selected ranges for growth in money and debt that it believes will promote this outcome. In brief, the FOMC reaffirmed the tentative growth range for M2 of 3 percent to 7 percent in 1990 that it set last July, and it reduced the M3 targets from their tentative range. The M2 range for 1990, which is the same as that used in 1989, is expected by most FOMC members to produce somewhat slower growth in nominal GNP this year. The new M3 range of 2½ percent to 6½ percent is intended to embody the same degree of restraint as the M2 range, but it was lowered to reflect the continued decline in thrift assets and funding needs anticipated to accompany the ongoing restructuring of the thrift industry. The monitoring range for debt was lowered from a range of 6½ percent to 10½ percent in 1989 to a range of 5 percent to 9 percent in 1990.

The overwhelming majority of the Committee believes that money growth within these annual ranges will be compatible with expansion of nominal GNP in a range of 5½ percent to 6½ percent. Expectations of real GNP growth center on a range of 1¾ percent to 2 percent over the four quarters of the year. A slight easing of pressures on resources probably is in store, and inflation pressures should remain contained, even though the decline in the dollar's value

since last summer likely will reverse some of the beneficial effects on domestic inflation stemming from the dollar's earlier consumer appreciation. The consumer price index (CPI) this year is projected to increase 4 percent to 4½ percent, as compared with last year's rise of 4½ percent.

RISKS TO THE ECONOMIC OUTLOOK

Economic forecasting, of course, is not an exact science, and at present, there are obvious risks in the outlook. For example, it is possible that the weakness in economic activity evident around the turn of the year may tend to cumulate, causing members' forecasts about production and employment this year to be overly optimistic. However, two major depressants of growth now seem behind us: Boeing has returned to full-scale production after last fall's long strike, and in January the auto industry greatly reduced its inventory problems by slashing production and boosting incentives to customers.

Still, we shall need to remain attentive to the risks posed in several areas in which the undercurrents have been troubling of late. Profit margins, for example, have deteriorated substantially in recent quarters, and a continuation of this trend could seriously undercut the expansion in capital investment.

Another concern is the increase in financial leverage in the economy. In recent years, business debt burdens have been enlarged through corporate restructurings, and as a consequence interest costs as a percent of cash flow have risen markedly. Among households, too, debt-servicing burdens have risen to historic highs relative to income, and delinquency rates have moved up a bit. Clearly, should the economy fall into a recession, excess debt-service costs would intensify the problems of adjustment. While these strains seem unlikely in themselves to precipitate a downturn, they are nonetheless worrisome. Fortunately, the growth of nonfinancial debt has slowed from its frenetic pace of the mid-1980s, and a continuation of this recent trend, along the lines that the FOMC is anticipating, should lessen the financial strains and, hopefully, the threat to the economy.

THE FEDERAL BUDGET DEFICIT AND SOCIAL SECURITY

A risk in the longer-run outlook for the economy—and one that is closer to the day-to-day work of this committee—is the possibility that the federal government might fail to build upon the progress that has been made to date in moving toward reduced federal budget deficits and eventually, I would hope, toward a position of surplus.

I have testified often before committees of the Congress about the adverse effects on our economy of sustained large budget deficits. Put simply, my central concern on this score is that deficits cut into national saving and investment and thereby limit our ability to expand and upgrade the nation's stock of productive capital. It is the size of that stock, together with the quality of the labor force, that ultimately determines overall productive capacity and the future standard of living of our population.

Unfortunately, much of the recent policy debate has shifted away from the budget deficit per se, and toward the financing over time of the nation's social security program. Senator Moynihan has introduced legislation to cut payroll taxes and return the system to a pay-as-you-go basis, and others would like to move its finances fully off-budget. As I stated yesterday in my testimony before the Senate Finance Committee, I am concerned that these changes, if enacted, will ultimately prove counterproductive and will hamper the efforts needed to meet our longer-term fiscal responsibilities. They also would likely increase the difficulty of providing for the needs of an aging population in a way that is equitable across generations. If I may frame the issue in the most basic way: We need to save and invest now to have the productive economy that can support a rapidly growing population of retirees two or three decades in the future; pay as you go would not be supportive of that saving-investment relationship, besides undermining the notion of equity across generations.

The need to take a long view of the issue arises from the compelling demographic trends that are now in progress. In 1960, there were twenty beneficiaries for every one hundred workers contributing to social security; currently there are

thirty. The Social Security Administration—under intermediate economic and demographic assumptions—expects that number to approach fifty by about the year 2025 and to remain at that level at least through the middle of the twenty-first century. Assuming that their living standards keep pace with those of the working population, the elderly will of necessity consume a growing proportion of total output in the future. They will finance their consumption out of private and public pensions and by drawing down their own assets. Nonetheless, the goods and services they buy can only come from the output of then-active workers, whose productivity will depend on the investments that we make in capital and new technologies in the interim.

Investment is possible, of course, only if there is saving—the diversion of part of the nation's current production away from consumption, both private and public. The present buildup in the social security trust funds is one source of the needed saving. While, in a sense, these funds exist on paper only, they also are very real claims on future taxpayers and hence on future real output. All else constant, the accumulation of saving in the trust funds increases the likelihood that the real output will be available to meet the needs of retirees without denting the living standards of their children too deeply, if at all. In particular, to the extent that the surpluses are not offset by reductions in the saving of households and businesses or by larger dissaving, that is, deficits, elsewhere in the federal budget, they should boost investment and thus foster growth of the nation's capital stock. And with more capital per worker than would otherwise be in place, productive capacity and output also will be higher.

At present, the contribution of the trust funds to national saving is being swamped by the large deficits in the rest of the budget. As long as the non-social-security deficits remain sizable, Senator Moynihan and others are correct in pointing out that we are doing little to solve the future retirement problem. If, however, actions are taken to bring the non-social-security part of the budget into balance, the trust funds no longer will be financing current government spending, but will translate dollar for dollar into national saving.

Ultimately, when saving takes place in the total unified budget—social security or elsewhere—is of secondary importance. What matters in terms of reaching our longer-term growth objective is the government's overall net contribution to national saving. Thus, a chief criterion for evaluating the major proposals regarding social security should perhaps be whether they would, in fact, help us to achieve the needed saving and investment. For example, is the federal government more likely to shift toward a position of positive net saving if social security is returned to pay-as-you-go financing? Given the large revenue loss implied by the plan, I think not.

A second key criterion for evaluating the proposals is whether they meet the test of equity across generations. Without going into great detail on this point, it would seem to me that the pay-as-you-go proposal again falls short. Indeed, returning now to pay-as-you-go financing would confer a significant windfall on the baby boomers who, in effect, would benefit doubly from the size of their age cohort. Given their numbers, each would make a disproportionately small contribution during his or her working years to the retirement of their elders. Yet, in retirement, each would expect to receive full benefits, which could come only at a disproportionately high cost to their children. The present structure, in my view, is more likely to ensure that an individual's contributions are linked equitably to his or her benefits.

MOVING SOCIAL SECURITY "OFF-BUDGET"

I also have deep reservations about proposals that would move the social security system fully "off-budget," so that the trust funds would be excluded from the official summary budget figures and from the setting of deficit targets. First, splitting off social security—or any other program—would highlight a distinction that has little macroeconomic or analytical significance. Regardless of which numbers are reported, government saving or dissaving would continue to be well approximated by the surplus or deficit in the total federal budget as currently defined in the

National Income and Product Accounts, a close variant of the total unified budget.

Second, the way budget numbers are presented can influence public perceptions of important fiscal issues and thereby—for good or ill—play a role in decisions that affect the size of the overall deficit or surplus. In particular, I fear that adopting a system that draws attention to the surpluses in the trust funds might foster the illusion that saving already is great enough to meet future obligations.

In large part, my concerns are grounded in the analytical issues I discussed earlier. But they are compounded by a technical factor, namely that much of the growth in the trust funds is reflecting interest received from the holdings of government debt. Such intragovernmental interest payments, which will approach 1 percent of GNP in a few years, are both an inflow to the trust funds and an outlay from the general funds, and they wash out when the accounts are consolidated. But, because they result in an overstatement of both the saving taking place in the trust funds and the dissaving elsewhere, they can contribute to a significant misreading of saving trends when either part of the budget is considered in isolation. Moreover, the very growth in anticipated social security surpluses, in large part the result of interest received, is mirrored in the increasing interest costs and widening deficits projected in the non-social-security part of the budget. The implied deficit-reduction targets might then be well out of political reach.

Accordingly, I fear that moving away from the unified budget concept will impede the achievement of the sizable deficit reductions that the country so sorely needs. In addition, the inevitable pressures to expand social security benefits or cut payroll taxes if the system were not subject to the discipline of an overall deficit constraint would mount. In the absence of offsetting changes elsewhere in the budget, such actions would reduce national saving and over time worsen the burden on the generation after the baby boom.

Responsible budgeting requires a comprehensive framework for setting priorities and assessing competing claims on national resources. That function currently is filled by the unified budget process. If deficit targets were to be set exclusive

of social security, for example, they could be met—at least in part—by moving related programs into the social security account or by shifting other trust funds off the books. Such actions would shrink the on-budget deficit but would not reduce federal demands on private saving or on credit markets.

THE NEED FOR FURTHER DEFICIT REDUCTION

Most important, we must not allow the choice of a budget accounting system to divert attention from the pressing need for meaningful deficit reduction, but rather must take actions to set the federal government's claim on saving—however the budget deficit is measured—on a firm downward track. Making a serious commitment to eliminating the unified deficit within the foreseeable future is an essential first step, and meeting that commitment will be a formidable challenge.

But it is just a first step. If households and businesses continue to save relatively little, then the federal government should compensate by moving its budget in the direction of greater surplus.

I would remind you, in closing, that budget decisions often have been shaped by short-run concerns and pressures. Those same decisions, though, many times have had longer-run repercussions that were unintended or perhaps even contrary to original intentions. I hope that in your deliberations on the budget—and particularly in your actions on the social security issue—you will give special attention to the long-run needs of the economy. It is the process of saving, investment, capital accumulation, and rising productivity that largely will determine the economic prospects of the next generation. These goals will be fostered to the extent that you keep us on the path toward reduced government deficits and increased national saving. □

Announcements

PROPOSED ACTIONS

The Federal Reserve Board issued for public comment on February 6, 1990, a proposed regulation that would set standards for appraisals conducted for state member banks and bank holding companies in federally related transactions. Comments should be received by the Board by April 10.

The Board also issued for public comment on February 14, 1990, a proposed regulation providing interim procedures for notifying the Board of changes in senior executive officers and directors at bank holding companies and state member banks that are newly chartered, undercapitalized, or in troubled condition. Comments are requested by April 23, 1990.

HOTLINE TELEPHONE NUMBER AVAILABLE FOR OFFICE OF THE INSPECTOR GENERAL AT THE BOARD

The Office of Inspector General at the Board has established a nationwide, toll-free hotline telephone number that can be used to report suspected cases of impropriety, wrongdoing, fraud, or waste and abuse in programs and operations administered or financed by the Board.

The hotline number is (800) 827-3340.

The Office may also be reached at the local Washington number (202) 452-6400, or by writing to the following address:

Office of Inspector General
Federal Reserve Board
Washington, D.C. 20551.

CHANGES IN BOARD STAFF

The Board of Governors announced the following official staff actions, effective February 14, 1990:

Robert J. Zemel has been promoted from Assistant Director to Associate Director in the Division of Applications Development and Statistical Services.

Marianne M. Emerson has been appointed Assistant Director in the Office of Executive Director for Information Resources Management.

Raymond H. Massey has been appointed Assistant Director in the Division of Applications Development and Statistical Services.

Po Kyung Kim has been appointed Assistant Director in the Division of Applications Development and Statistical Services.

Ms. Emerson joined the Board's staff in August 1982 and has rotated through several positions in Information Resources Management as a manager. She holds a B.A. from Bryn Mawr College and an M.S. in Computer Science from the University of Maryland.

Mr. Massey joined the Board's staff in February 1971 and has held several positions in the Division of Applications Development and Statistical Services and in the Division of Hardware and Software Systems.

Mr. Kim joined the Board's staff in April 1977 and has held several managerial positions in the Division of Applications Development and Statistical Services. He holds a B.A. in Economics from the University of North Carolina.

SYSTEM MEMBERSHIP: ADMISSION OF STATE BANKS

The following state bank was admitted to membership during the period from November 1, 1989, to January 31, 1990:

Pennsylvania

Troy First Bank of Troy

Record of Policy Actions of the Federal Open Market Committee

MEETING HELD ON DECEMBER 18–19, 1989

1. Domestic Policy Directive

The information reviewed at this meeting suggested that economic activity was expanding slowly in the fourth quarter, with the moderation from earlier in the year only partly attributable to strikes and other special factors. Abstracting from these factors, the growth of final demands had slowed, and the effects were especially evident in the manufacturing sector. By contrast, growth of the service sector appeared to be well sustained, and overall construction activity seemed relatively firm. Broad measures of inflation indicated that prices had risen more slowly on balance since midyear, partly reflecting sharp reductions in energy prices; recent wage data suggested no significant change in prevailing trends.

Total nonfarm payroll employment rose appreciably in November after a small gain in October. All of the November increase occurred at service, trade, and financial establishments. Job losses continued in manufacturing, especially in motor vehicle and related industries, but cut-backs were evident elsewhere, notably in electrical machinery. The civilian unemployment rate edged up to 5.4 percent in November, its highest level since January.

Industrial production rose slightly in November after a sizable decline in October that resulted from strike activity and other disruptions; adjusting for these temporary influences, production was down slightly, on balance, in recent months. Output of consumer goods declined in November as production of durables other than motor vehicles dropped sharply further. Output of business equipment increased appreciably, owing in part to a recovery in the production of computers in the aftermath of the earthquake in

the San Francisco area. Total industrial capacity utilization slipped a bit in November and was nearly 1½ percent below its level a year earlier.

Nominal retail sales in November partially retraced the sharp October decline; sales for the month were little changed from the third-quarter average, reflecting continued weakness in motor vehicles. Outside of vehicles, sales rebounded for a wide range of goods, especially for apparel items. Housing starts declined in November as construction of multifamily units fell back to about the average pace that had prevailed since April. However, for the October–November period, starts were up somewhat on average from their third-quarter level because of a pickup in single-family units.

Recent indicators of business capital spending suggested a weakening in expenditures after a substantial increase earlier in the year. Shipments of nondefense capital goods fell in October for a second straight month. Part of the October decline stemmed from the effects of the strike at Boeing on shipments of aircraft; small declines were widespread elsewhere, and a considerable drop occurred in computing equipment. The orders data for October suggested continued weakness in equipment outlays in the near term. Nonresidential construction activity posted another gain, led by a sizable increase in non-office commercial construction; however, office vacancy rates, construction permits, and other indicators pointed to renewed weakness. Total manufacturing and trade inventories rose in October at about the third-quarter pace. Accumulation of manufacturing inventories was moderate, and stocks remained at relatively low levels compared to shipments. Stocks at wholesalers jumped but, in relation to sales, remained in the middle of the range that has prevailed over the past two years. Retail inventories fell appreciably in October, reflecting a large decline in auto

dealers' stocks. Excluding auto dealers, the retail inventory-sales ratio increased in October to a level well above its range over the past year.

The nominal U.S. merchandise trade deficit widened appreciably in October from an upward revised September rate. Much of the widening reflected a sharp increase in imports of industrial supplies, notably paper, steel, and textiles. The value of exports showed a small increase for the third straight month as larger shipments of automotive products and other industrial goods outweighed a substantial decline in exports of aircraft. Indicators of economic activity in the major foreign industrial countries suggested a mixed performance in the third quarter, although growth remained fairly strong on balance. Economic growth appeared to have rebounded strongly in Japan and, adjusted for special factors, to have remained firm in Germany.

Producer prices for finished goods edged down in November after sizable increases in the previous two months and, on balance, had risen at lower rates since midyear. Prices of finished energy products, especially gasoline, fell sharply; the drop more than offset a second month of increases in finished food prices. Consumer prices excluding food and energy items rose a little faster in October and November than in other recent months. Over the October-November period, food prices were boosted by sharp increases in dairy products, meats, and fresh produce while the rise in energy prices was held down by a net decline in the price of gasoline. Average hourly earnings slipped in November, and the large increase initially reported for October was revised downward. However, the results of recent collective bargaining activity suggested a continuation of the larger wage settlements evident earlier in the year.

At its meeting on November 14, the Committee had adopted a directive that called for maintaining the existing degree of pressure on reserve positions and that provided for giving special weight to potential developments that might require some easing during the intermeeting period. The availability of reserves had been eased slightly earlier in November. With regard to the intermeeting period ahead, the Committee had agreed that slightly lesser reserve restraint would be acceptable, or slightly greater reserve re-

straint might be acceptable, depending on progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets. The contemplated reserve conditions were expected to be consistent with growth of M2 and M3 over the period from September through December at annual rates of about 7½ percent and 4½ percent respectively.

In the period since the November meeting, the Manager for Domestic Operations had directed open market transactions toward maintaining an unchanged degree of reserve availability. Conditions in reserve markets softened temporarily around Thanksgiving when operations to meet seasonal reserve needs were misread as signaling a further easing of monetary policy. Over most of the intermeeting period, however, federal funds traded around 8½ percent, the level prevailing at the time of the mid-November meeting. Adjustment plus seasonal borrowing fell to an average of around \$150 million in the first half of December. To reflect a continuing decline in seasonal borrowing, technical reductions were made at the start of the intermeeting period and in the second week of December in the assumed level of adjustment plus seasonal borrowing used in constructing the target paths for the provision of reserves.

Against the background of an unchanged monetary policy and incoming information that generally was viewed as consistent with expectations of continuing but slow growth in economic activity, most market interest rates changed little on balance over the intermeeting period. Major indexes of stock prices generally rose over the period. In foreign exchange markets, the trade-weighted value of the dollar in terms of the other G-10 currencies fell substantially despite some easing of short-term interest rates in Germany and Japan. The decline of the dollar primarily reflected the buoyancy of the German mark as exchange market participants interpreted political developments in Eastern Europe as having favorable implications for the German economy. The dollar declined somewhat less against other European currencies linked to the mark in the European Monetary System and was little changed against the yen.

Growth of the broader monetary aggregates accelerated somewhat further in November and remained robust in early December, despite a contraction in demand deposits that resulted in considerably slower expansion of M1. The expansion of M2 continued to reflect the effects of earlier reductions in market interest rates and related opportunity costs, and it seemed likely that the velocity of M2 would decline substantially further in the fourth quarter. Assets of thrift institutions and their associated funding needs apparently continued to contract, keeping growth of M3 below that of M2, but the decline seemed to be at a reduced pace and in November M3 grew at its fastest rate since the summer. Through November, M2 had expanded at a pace near the midpoint of the Committee's annual range while M3 had grown at a rate a little above the lower bound of its annual range.

The staff projection prepared for this meeting continued to suggest that the economy would expand at a reduced pace over the next several quarters. Growth in the first quarter was expected to rebound from temporary disturbances to production stemming from strike activity and natural disasters in the fourth quarter, although the extent of the rebound would be limited by further reductions in the production of motor vehicles in the early months of the year. Over the remainder of 1990, a relatively moderate expansion in consumer spending was projected to be a key factor in sustaining overall demand and production. Business outlays for fixed investment also were expected to increase, but at a much reduced pace in an environment of slow revenue growth and deteriorating cash flows. Housing construction was forecast to expand at a relatively sluggish pace over the course of the year. The projection continued to assume that the federal budget deficit would decline moderately and that net exports would make little contribution to domestic economic growth in 1990. Pressures on labor and other production resources were expected to ease only marginally, and the underlying trend of inflation was not projected to change significantly.

In the Committee's discussion of the economic situation and outlook, members emphasized that signs of a weaker expansion had accumulated and that the economy was likely to remain slug-

gish at least over the near term. While most members agreed that further economic growth was a reasonable expectation for the year ahead, several observed that recent developments suggested greater risks in the direction of a weaker economic performance. These members expressed concern that problems in some sectors of the economy such as motor vehicles and commercial and residential real estate might lead to greater caution in credit extensions and overall spending, especially given indications of some deterioration in business confidence, and to more widespread softening in the economy. Other members saw more favorable prospects for some strengthening of the expansion next year, though they did not anticipate a strong rebound in economic activity. These members recognized that there were imbalances in the economy, but they felt that, among other developments, prevailing patterns in orders and production, though softening, were not inconsistent with somewhat faster economic growth once current difficulties such as those in the automobile industry were worked through and the effects of the monetary policy easing over the past half year were felt more fully. It also was noted that certain forward-looking indicators, including commodity prices, monetary growth, foreign exchange rates, and the Treasury yield curve, were consistent with some pickup in economic expansion next spring. With regard to the outlook for inflation, those who believed the risks were on the side of a weaker economy and less pressure on production resources generally saw favorable prospects for further progress toward price stability next year. Some of the members who expected a somewhat stronger economy were less optimistic about the extent of such progress, if any, but they also believed that there was little risk of a pickup in the underlying rate of inflation.

In the course of the Committee's discussion, members reported more sluggish business conditions in a number of areas and some loss of business confidence, but overall economic activity appeared to be continuing to grow in most, if not all, parts of the country. With some notable exceptions, manufacturing activity had moderated across the country, with particular weakness in the production of motor vehicles, other durable consumer goods, and some types of

capital equipment. Members observed that conditions in the automobile industry probably would continue to have a negative effect on overall economic activity in the months ahead, and some noted that the longer-term outlook was difficult to predict because structural problems related to changing demand patterns appeared to be involved. Construction activity also was cited as a source of weakness in many areas, though it remained relatively robust in others. In general, nonresidential construction seemed likely to be damped by overcapacity in office and other commercial structures. Overall demand for new housing appeared to be essentially flat, though with considerable local variations, despite earlier declines in mortgage interest rates. It was noted that the availability of financing for the construction of housing appeared to have been reduced by tighter supervisory regulations and some decrease in the number of traditional institutional lenders to this industry. In addition, the availability of such financing appeared to have been adversely affected by the weakness of real estate markets in a number of areas and the large resulting losses on loans.

On a more positive note, a number of members commented that consumer spending was likely to be sustained by continuing gains in incomes and the ample liquid assets of households that were available to support greater spending. Consumer spending on services was likely to continue to grow. The outlook for retail sales was somewhat uncertain, including at this point the still very limited information on holiday sales, but outside the most depressed areas retailers appeared to be relatively optimistic. The recent depreciation of the dollar would tend over time to boost overall demand and economic growth. More generally, the recent slowing in the expansion could be attributed in part to special or temporary factors and to the lagged effects of the tightening of monetary policy through early 1989. On the whole, current demand conditions were not seen by most members as suggesting a cumulative weakening in the economy.

With regard to the outlook for inflation, the views of the members continued to differ to some extent. Several anticipated that little or no progress was likely to be made in reducing inflation over the year ahead, in part because the effects of

the recent decline of the dollar would tend to offset expected gains from diminished pressures on labor and other production resources. Some of these members also expressed concern that a possible resumption of economic growth at a pace closer to the economy's potential, perhaps later next year, would reverse any tendency for inflation to decline. Other members were somewhat more optimistic about the outlook for prices and wages. Some commented that they were encouraged by the performance of prices in the second half of 1989, and a number cited the strong competition for many products from both domestic and foreign producers, the behavior of industrial materials and commodity prices, and the growth of capacity in some key industries.

In the Committee's discussion of monetary policy for the intermeeting period ahead, the members focused on the possible need to ease reserve conditions slightly further to provide greater assurance that weaknesses in demand did not persist or deepen. The current slowdown in economic growth was to a considerable extent the result of the policy implemented much earlier to restrain emerging inflation pressures, and this policy seemed at least to have avoided an upsurge in inflation. Over time, a further damping of price pressures was needed if the economy was to realize the benefits of price stability, but that need not involve a downturn in the economy. Several members observed that the choice between some slight easing at this time or waiting for additional evidence that the economy might be weakening further was a close one. A majority indicated that on balance they viewed the risks of a shortfall in economic activity as sufficiently high to justify an immediate move to slightly easier reserve conditions, and one member expressed a preference for somewhat greater easing. In this regard, some noted that the next several months might be a critical period in terms of avoiding a recession and that some modest easing at this point might have a calming effect on financial markets and help to boost business confidence. Given downward pressures on many prices and softness in business conditions, some slight easing was not likely in this view to be inconsistent with the long-run objective of price stability or the public's perception of the importance that the System placed on that objective.

These members recognized that an easing of reserve pressures immediately after the meeting would make the need for further easing less likely over the coming intermeeting period. As a consequence, they favored a directive that did not contain a tilt toward less restraint but one that gave equal weight to potential intermeeting adjustments in either direction.

Members who supported an unchanged policy commented that current reserve conditions appeared to be consistent with ongoing expansion in business activity at a pace that over time would serve to moderate pressures on labor and other production resources, and they were concerned that further easing might overcompensate for current weaknesses in the economy at the cost of delaying progress toward price stability. In current circumstances, an easing also might foster some concern about the System's commitment to achieving price stability and put undesirable downward pressure on the dollar in the foreign exchange markets. At the same time, these members recognized the risk of some further weakening in the economy, and several favored a directive that incorporated a strong presumption that indications of such a development would trigger a prompt adjustment of reserve conditions. Most of these members were willing to accept a slight immediate move toward easier reserve conditions but, in that case, they doubted that any further easing would be appropriate over the intermeeting period unless the economy, prices, or financial developments deviated very substantially from current expectations. Two members indicated that they could not accept any further easing at this time, in part because of their concerns about the consequences for growth of the monetary aggregates and, more generally, for inflation expectations and inflation over time.

Members referred to the strong growth of M2 over the past several months and took note of a staff analysis that concluded that such growth would remain fairly strong over months ahead if reserve conditions stayed unchanged or were eased slightly. Earlier declines in short-term interest rates and typically slow adjustments of offering rates on M2-type deposits had tended to make such deposits relatively more attractive by reducing the opportunity costs of holding them.

The outlook for M3 was subject to considerable uncertainty, but growth of that aggregate was expected to remain below that of M2. The extent of the shortfall would depend in important measure on the degree to which solvent but capital-deficient thrift institutions continued to reduce assets to meet new capital requirements and on the extent of RTC activity in resolving insolvent thrift institutions.

At the conclusion of the Committee's discussion, all but two of the members indicated that they favored or could accept a directive that called for a slight easing of reserve conditions. In keeping with the Committee's usual approach to policy, the conduct of open market operations would be subject to further adjustment during the intermeeting period depending on progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets. On the basis of such developments, slightly greater or slightly lesser reserve restraint would be acceptable during the period ahead. The reserve conditions contemplated at this meeting were expected to be consistent with growth of M2 and M3 at annual rates of about 8½ and 5½ percent respectively over the four-month period from November 1989 through March 1990. In light of the easing of reserve conditions over the course of recent months and the further slight easing favored by a majority of the members at this meeting, the Committee decided to lower the intermeeting range for the federal funds rate by 1 percentage point to 6 to 10 percent. Such a reduction would center the range more closely around the average federal funds rate that was expected to prevail after this meeting.

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

The information reviewed at this meeting suggests that economic activity is expanding slowly in the current quarter. Total nonfarm payroll employment has increased at a reduced pace on average over the past several months, with declines continuing in the manufacturing sector. The civilian unemployment rate edged up to 5.4 percent in November. Industrial production rose slightly in November after a decline in October resulting from strike activity and other dis-

ruptions. Nominal retail sales excluding motor vehicles strengthened in November, but continued weak sales of vehicles held total retail sales for the month to a level that was little changed from the third-quarter average. Housing starts fell in November but for the October–November period were up somewhat on average from their third-quarter level. Indicators of business capital spending suggest a weakening in expenditures after a substantial increase earlier in the year. The preliminary data indicate that the nominal U.S. merchandise trade deficit widened appreciably in October from an upward revised September rate. Broad measures of inflation suggest that prices have risen more slowly on balance since midyear, partly reflecting sharp reductions in energy prices, but the latest data on labor compensation suggest no significant change in prevailing trends.

Interest rates have changed little on balance since the Committee meeting on November 14. In foreign exchange markets, the trade-weighted value of the dollar in terms of the other G-10 currencies declined substantially over the intermeeting period, with a particularly pronounced depreciation against the German mark and related European currencies in the last week of the period.

M2 continued to grow fairly briskly in November, largely reflecting strength in its retail deposit components; M2 has expanded this year at a pace near the midpoint of the Committee's annual range. Growth of M3 picked up in November but has remained more restrained than that of M2, as assets of thrift institutions and their associated funding needs apparently continued to contract; for the year to date, M3 has grown at a rate a little above the lower bound of the Committee's annual range.

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability, promote growth in output on a sustainable basis, and contribute to an improved pattern of international transactions. In furtherance of these objectives, the Committee at its meeting in July reaffirmed the ranges it had established in February for growth of M2 and M3 of 3 to 7 percent and $3\frac{1}{2}$ to $7\frac{1}{2}$ percent, respectively, measured from the fourth quarter of 1988 to the fourth quarter of 1989. The monitoring range for growth of total domestic nonfinancial debt also was maintained at $6\frac{1}{2}$ to $10\frac{1}{2}$ percent for the year. For 1990, on a tentative basis, the Committee agreed in July to use the same ranges as in 1989 for growth in each of the monetary aggregates and debt, measured from the fourth quarter of 1989 to the fourth quarter of 1990. The behavior of the monetary aggregates will continue to be evaluated in the light of movements in their velocities, developments in the economy and financial markets, and progress toward price level stability.

In the implementation of policy for the immediate future, the Committee seeks to decrease slightly the existing degree of pressure on reserve positions. Tak-

ing account of progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets, slightly greater reserve restraint or slightly lesser reserve restraint would be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth of M2 and M3 over the period from November through March at annual rates of about $8\frac{1}{2}$ and $5\frac{1}{2}$ percent respectively. The Chairman may call for Committee consultation if it appears to the Manager for Domestic Operations that reserve conditions during the period before the next meeting are likely to be associated with a federal funds rate persistently outside a range of 6 to 10 percent.

Votes for this action: Messrs. Greenspan, Corrigan, Guffey, Johnson, Keehn, Kelley, LaWare, Ms. Seger, and Mr. Syron. Votes against this action: Messrs. Angell and Melzer.

Messrs. Angell and Melzer dissented because they did not believe that policy should be eased. Mr. Angell was concerned that the Committee was responding to indicators of recent weakness in economic activity, a weakness that was a consequence of somewhat cautious policy responses earlier. Policy decisions should rely mainly on leading indicators, including commodity prices, the exchange rate, the yield curve, and money supply growth. Attention to such indicators had served policy well in the past. During the spring and summer while the dollar was appreciating and commodity prices, including gold, were generally falling, easing of reserve conditions was accompanied by the lower long-term interest rates necessary to undergird housing and other long-term investments. At this meeting, price-level indicators were not signaling a need for further ease. In these circumstances, an additional drop in the federal funds rate, coming after two previous easing moves in the fourth quarter, could raise doubts about the System's commitment to its objective of price stability, especially given that the easing would further stimulate M2 growth. Under such conditions, further easing of reserve pressures would tend to accommodate rising prices, foster uncertainty in financial markets, and drive up long-term interest rates, thereby increasing the likelihood of economic instability. Steady policy in pursuit of price stability, using forward-looking indicators, would reduce uncertainty

about price trends, bolster confidence in the dollar domestically and internationally, and bring about lower interest rates and higher economic growth.

Mr. Melzer dissented because he favored an unchanged degree of reserve restraint. He noted that policy had been eased considerably over the last six months in anticipation of prospective sluggishness in the economy and that ample liquidity was now being provided by the central bank. In addition, based on recent and projected growth in the monetary aggregates, he was concerned that long-term progress toward price stability would be jeopardized by a more accommodative short-run policy stance.

2. Foreign Currency Authorization

At this meeting, the Committee approved an increase in the limit on holdings of foreign currencies in the System Open Market Account.

Paragraph 1D of the Committee's Authorization for Foreign Currency Operations permitted the Federal Reserve Bank of New York, for the System Open Market Account, to maintain an overall open position in all foreign currencies not exceeding \$20 billion, based on historical costs. System purchases of foreign currencies, which were coordinated with similar transactions by the U.S. Treasury, had been relatively limited recently, but, with the accumulation of interest, total holdings were approaching the \$20 billion limit. The Manager for Foreign Operations advised that even in the absence of new market purchases, continuing accruals of interest would raise total holdings to the current limit by February. The Committee agreed to raise the limit to \$21 billion, effective immediately.

Votes for this action: Messrs. Greenspan, Corrigan, Angell, Guffey, Johnson, Keehn, Kelley, LaWare, Melzer, Ms. Seger, and Mr. Syron. Votes against this action: None.

Legal Developments

ORDER TERMINATING STATE EXEMPTIONS

The Board of Governors determined that certain financial institutions in Connecticut, Massachusetts, and New Jersey have previously been exempted from the Home Mortgage Disclosure Act because they were subject to substantially similar mortgage disclosure requirements under state law. Recent amendments to the act and to the Board's implementing rule, Regulation C, have produced discrepancies between the federal provisions and current state laws such that the state laws are no longer substantially similar to the federal statute and regulation, as amended. The Board is formally terminating the exemptions as of January 1, 1990, the date the amended federal act and regulation took effect.

Effective January 1, 1990, applications that are received prior to March 1, 1990, by a previously exempt institution, data on race or national origin and sex are to be reported if the institution has this information; institutions need not contact applicants again in order to obtain the data.

Introduction

The Board's Regulation C (12 C.F.R. Part 203) implements the Home Mortgage Disclosure Act of 1975 ("HMDA") (12 U.S.C. § 2801 *et seq.*). Prior to amendments that took effect January 1, 1990, the regulation required depository institutions, mortgage banking subsidiaries of holding companies, and savings and loan service corporations with more than \$10 million in assets and with offices in metropolitan statistical areas to disclose annually their originations and purchases of home mortgage and home improvement loans. Institutions compiled data about loans, itemizing this information by census tract (or by county, in some instances) and also by type of loan. The institutions disclosed this information to the public by March 31 following the calendar year for which the data were compiled. Copies were sent to the institutions' federal supervisory agencies for aggregation on an MSA-wide basis by the Federal Financial Institutions Examination Council.

The Financial Institutions Reform, Recovery and Enforcement Act ("FIRREA"), which was signed into law on August 9, 1989, made major revisions to HMDA. (FIRREA, Pub. L. No. 101-73, 103 Stat. 183

(1989)). The Board amended Regulation C to implement the provisions of section 1211 of FIRREA, publishing the revised regulation in final form in the *Federal Register* on December 15, 1989 (54 *Federal Register* 51,356). First, the coverage of HMDA and of Regulation C was expanded to include mortgage lenders that are not affiliated with depository institutions or holding companies. Second, the FIRREA amendments require reporting of data regarding loan applications; previously, institutions reported only data regarding loans originated or purchased. Third, the amendments require most covered lenders to report the race or national origin, sex, and income of mortgage applicants and borrowers (depository institutions with assets of \$30 million or less are exempt from this particular requirement). Fourth, the FIRREA amendments require that lenders identify the class of purchaser for mortgage loans that they sell. Fifth, the amendments to permit lenders to explain the basis for lending decisions to their supervisory agency. Finally, the revised Regulation C provides for a "register" form of reporting. Lenders will record certain data for each application that they receive (whether granted, denied, or withdrawn) and for each home purchase or home improvement loan that they originate or purchase, and will submit the registers to their supervisory agency at the close of the calendar year. Thus, covered institutions will no longer be required to cross-tabulate loan data, as was the case under federal law previously.

Under HMDA and Regulation C, the Board may grant exemptions to state-chartered or state-licensed financial institutions subject to state mortgage disclosure laws that are substantially similar to the Federal law and that contain adequate provision for enforcement. Exemptions are subject to termination if the Board determines that the state laws no longer meet these two conditions.

Based on the act and regulation in effect prior to the 1989 amendments, exemptions were previously granted for state-chartered financial institutions subject to the state mortgage disclosure laws of Connecticut, Massachusetts, and New Jersey. Following the adoption of the revised Regulation C, the Board published a notice of intent to terminate these state exemptions on December 15, 1989 (54 *Federal Register* 51,404), for a 30-day comment period.

Two comments were received. A state banking official from Connecticut noted that the state intends to amend its version of the Home Mortgage Disclosure Act and implementing regulation to make them substantially similar to federal law, and required either a continuance of the Connecticut exemption or its reinstatement upon the adoption of the requisite changes. The other comment, submitted by an industry group, did not take issue with the Board's position that substantial similarity no longer exists between the federal and state laws, but suggested that the revocation should not take effect on January 1, 1990, as proposed, but at a later date. In addition, officials from Massachusetts and New Jersey informally advised the Board of plans to change their laws to parallel the federal requirements.

The Board has determined that substantial similarity between the federal and state laws no longer exists. Thus, it is terminating the exemptions as of January 1, 1990, the effective date of the changes to HMDA and Regulation C. State-chartered institutions previously exempted from HMDA and Regulation C by virtue of the disclosure laws of Connecticut, Massachusetts, and New Jersey must comply with the data collection requirements of the federal law as of that date. Accordingly, these institutions must maintain loan/application registers showing the required information on the loans they originate or purchase, and for applications they receive, beginning January 1, 1990, except that for applications received by these institutions prior to March 1, 1990, data on race or national origin and sex are to be reported if the institution has this information; institutions are not required to contact applicants again in order to obtain the data.

The loan/application registers are to be submitted to institutions' federal supervisory agencies by March 1, 1991. If a state subsequently adopts new requirements that are substantially similar to the federal law, and those requirements are made effective as of January 1, 1990, the Board may grant a reinstatement of the exemption. If an exemption is reinstated, covered institutions would submit data about their mortgage lending only to the state supervisory agency, instead of having to send separate reports to federal and state regulators.

To meet the "substantially similar" test, it will be necessary for the state law to cover applications as well as loans granted and purchased; to require reporting of information on the location of the properties to which the covered loans or applications relate, and on the race or national origin, sex, and income of applicants and borrowers; to provide disclosure of the type of purchaser for loans sold by an institution; and to call for a register form of reporting.

The termination of these state exemptions in no way affects the mortgage disclosures required for loans made or purchased in calendar year 1989. Institutions previously exempt must submit reports on these loans to their state supervisory agency in keeping with state law requirements.

Order of Termination

The Board granted exemptions from the federal Home Mortgage Disclosure Act to state-chartered financial institutions in Connecticut, Massachusetts, and New Jersey in 1978, 1976, and 1978, respectively, based on the existence of substantially similar requirements imposed by state law and on the states' provisions for their enforcement. These exemptions were renewed in 1982 following changes in the federal act and regulation and corresponding changes in the state law.

Because the federal law was amended in 1989, and no comparable changes in the state laws have followed to date, the substantial similarity required for an exemption no longer exists between the federal and state laws. The Board is therefore terminating the exemptions for Connecticut, Massachusetts, and New Jersey. State-chartered financial institutions in these states that were previously exempted from the federal law shall comply with the federal Home Mortgage Disclosure Act and Regulation C beginning January 1, 1990, the date the amendments to HMDA and Regulation C became effective. In the case of applications received by these institutions prior to March 1, 1990, data on race or national origin and sex are to be reported if the institution has this information; institutions are not required to contact applicants again in order to obtain that data.

AMENDMENT TO REGULATION Y

The Board of Governors is amending its Regulation Y, section 225 of Title 12, Code of Federal Regulations, to implement the provisions of section 914 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 ("FIRREA"), Pub. L. 101-73, 103 Stat. 183. Section 914 of FIRREA requires bank holding companies and state member banks that have recently undergone a change in control, have less than minimum required capital, or are otherwise in troubled condition to file a notice with the Board of Governors of the Federal Reserve System ("Board") prior to adding a member of the board of directors, or employing an individual as a senior executive officer. This prior notice requirement also applies to state member banks that have been chartered within two years before the proposed management change. The Board may disapprove any proposed board member or senior

executive officer whose service is not considered to be in the best interests of the depositors of the bank or the public. The regulation defines the terms “troubled condition” and “senior executive officer.” The regulation also clarifies the types of changes in control of a state member bank or bank holding company that require a notice under section 914, and establishes the procedures for filing the required notice.

Because the provisions of section 914 became effective on the date of enactment of FIRREA, this regulation is immediately effective. The Board requests comment on any issue raised by this regulation; interested persons have 60 days in which to respond. After the close of the comment period, the Board may amend the regulation in response to the comments received.

Effective February 13, 1990, the Board amends 12 C.F.R. Part 225 as follows:

1. The authority citation for Part 225 is revised to read as follows:

Authority: 12 U.S.C. 1817(j)(13), 1818, 1831i, 1843(c)(8), 1844(b), 3106, 3108, 3907 and 3909.

2. Subpart H, consisting of sections 225.71 through 225.73, is added to read as follows:

Subpart H—Notice of Addition or Change of Directors and Senior Executive Officers

Section 225.71—Definitions

Section 225.72—Director and officer appointments; prior notice requirement

Section 225.73—Procedures for filing, processing, and acting on notices; standards for disapproval; waiver of notice

Subpart H—Notice of Addition or Change of Directors and Senior Executive Officers

Section 225.71—Definitions

(a) “Senior executive officer” means a person who, without regard to title, exercises the authority of one or more of the following positions: chief executive officer, chief operating officer, chief financial officer, chief lending officer, or chief investment officer. “Senior executive officer” also includes any other person with significant influence over major policymaking decisions of a state member bank or bank holding company.

(b) “Bank or bank holding company in troubled condition” means any state member bank or bank holding company that:

- (1) Has a composite rating, as determined in the most recent report of examination or inspection, of 4 or 5 under the commercial bank Uniform Interagency Bank Rating System or under the Federal Reserve bank holding company rating system;
- (2) Is subject to a cease and desist order or formal written agreement that requires action to improve the financial condition of the institution, unless otherwise informed in writing by the Board or the appropriate Reserve Bank; or,
- (3) Is expressly informed by the Board or Reserve Bank that it is in troubled condition for purposes of the requirements of this subpart on the basis of the institution’s most recent examination, report of condition, or inspection, or other information available to the Board.

Section 225.72—Director and officer appointments; prior notice requirement

(a) *Prior notice.* A state member bank or bank holding company shall give the Board 30 days written notice, as specified in section 225.73, before adding or replacing any member of the board of directors of employing or changing the responsibilities of any individual to a position as a senior executive officer of the bank or bank holding company, if:

- (1) The bank has been chartered less than two years;
- (2) Within the preceding two years, the bank or bank holding company has undergone a change in control that required a notice to be filed pursuant to the Change in Bank Control Act or Subpart E of this part;
- (3) Within the preceding two years, the bank holding company became a registered bank holding company, unless the bank holding company is owned or controlled by a registered bank holding company, or the bank holding company was established in a reorganization in which substantially all of the shareholders of the bank holding company were shareholders of the bank prior to the bank holding company’s formation; or
- (4) The bank or bank holding company is not in compliance with all minimum capital requirements applicable to the institution as determined on the basis of the institution’s most recent report of condition, examination or inspection, or is otherwise in troubled condition.

(b) *Advisory directors.*

(1) For purposes of this subpart, except as provided in paragraph (b)(2) of this section, the term “member of the board of directors” does not include an advisory director who:

- (i) Is not elected by the shareholders of the bank or bank holding company;

- (ii) Is not authorized to vote on any matters before the board of directors; and
 - (iii) Provides solely general policy advice to the board of directors.
- (2) The Board or Reserve Bank may otherwise determine that an advisory director is in fact functioning as a director or senior executive officer for purposes of this subpart.

Section 225.73—Procedures for filing, processing, and acting on notices; standards for disapproval; waiver of notice

- (a)(1) *Filing notice.* The notice required in section 225.72 shall be filed with the appropriate Reserve Bank and shall contain the information required by paragraph 6(A) of the Change in Bank Control Act (12 U.S.C. 1817(j)(6)(A)) or prescribed in the designated Board form, subject, in either case, to the authority of the Reserve Bank or the Board to modify these requirements or require additional information.
- (2) *Acceptance of notice.* The 30-day notice period specified in section 225.72 shall begin on the date all required information is received by the appropriate Reserve Bank or the Board. The Reserve Bank shall notify the bank or bank holding company submitting the notice of the date all such required information is received and the notice is accepted for processing, and of the date on which the 30-day notice period will expire.
- (b) *Commencement of service.*
- (1) *At expiration of period.* A proposed director or senior executive officer may begin service 30 days after a complete notice under paragraph (a) of this section has been accepted by the Reserve Bank unless the Board or Reserve Bank issues a notice of disapproval of the proposed addition or employment before the end of the 30-day period.
- (2) *Prior to expiration of period.* A proposed director or senior executive officer may begin service before the expiration of the 30-day period if the Board or the Reserve Bank notifies the bank or bank holding company in writing of the Board's intention not to disapprove the addition or employment.
- (c) *Notice of disapproval.* The Board or Reserve Bank must disapprove a notice under section 225.72 if the Board or Reserve Bank finds that the competence, experience, character, or integrity of the individual with respect to whom the notice is submitted indicates that it would not be in the best interests of the depositors of the bank or in the best interests of the public to permit the individual to be employed by, or associated with, the bank or bank holding company.

The notice of disapproval shall contain a statement of the basis for disapproval.

(d) *Appeal.*

- (1) The disapproved individual or the state member bank or bank holding company may appeal to the Board the disapproval of a notice under this subpart within 15 calendar days of the effective date of the notice of disapproval. An appeal shall be in writing and explain the reasons for the appeal and include all facts, documents, and arguments that the appealing party wishes to be considered in the appeal.
- (2) The Board may, in its sole discretion, order an informal hearing if the hearing is requested in writing by the disapproved individual or the notificant at the time of an appeal, and the Board finds that oral argument is appropriate or that a hearing is necessary to resolve disputes regarding material issues of fact.
- (3) The disapproved individual may not serve as a director or senior executive officer while the appeal is pending. Written notice of the final decision of the Board shall be sent to the appealing party.
- (e)(1) *Waiver of notice.* The Board or the Reserve Bank may waive the prior notice required under this subpart if it finds that:
- (i) Delay would threaten the safety or soundness of the state member bank or the bank holding company or any of its bank subsidiaries;
 - (ii) Delay would not be in the public interest; or
 - (iii) Other extraordinary circumstances exist that justify waiver of prior notice.
- (2) *Effect on disapproval authority.* Any waiver issued by the Board or Reserve Bank shall not affect the authority of the Board or Reserve Bank to issue a notice of disapproval within 30 days after such waiver.

ORDERS ISSUED UNDER BANK HOLDING COMPANY ACT

Orders Issued Under Section 3 of the Bank Holding Company Act

BankAmerica Corporation
San Francisco, California

Order Approving Acquisition of a Bank

BankAmerica Corporation, San Francisco, California ("BankAmerica"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied for the Board's approval under section 3(a)(3) of the BHC Act (12 U.S.C. § 1842(a)(3)) to acquire all the voting shares of Bank of

America State Bank, Concord, California ("State Bank"), a *de novo* state bank.

Notice of the application, affording an opportunity for interested persons to submit comments, has been duly published (54 *Federal Register* 29,620 (1989)). The time for filing comments has expired, and the Board has considered the application and all comments received, including those of various insurance industry trade associations ("protestants"), in light of the factors set forth in section 3(c) of the BHC Act.¹

BankAmerica operates two banking subsidiaries in California and Washington.² BankAmerica is the third largest commercial banking organization in the United States and is the largest commercial banking organization in California, controlling deposits of \$51.3 billion, representing approximately 23.4 percent of the total deposits in commercial banks in California.³ State Bank, a *de novo* institution, is organized as a state-chartered nonmember bank. In light of State Bank's *de novo* status and based upon the facts of record, the Board concludes that consummation of the proposed acquisition would not result in an adverse effect on the concentration of banking resources in California. In evaluating this application, the Board has carefully considered the financial resources of BankAmerica and the effect on those resources of the proposed acquisition. The Board has previously stated that it expects banking organizations contemplating expansion proposals to maintain strong capital levels substantially above the minimum levels specified in the Board's Capital Adequacy Guidelines, without significant reliance on intangibles, particularly goodwill.⁴ The Board carefully analyzes the effect of expansion proposals on the preservation or achievement of strong capital levels and has adopted a policy that there should be no significant diminution of finan-

cial strength below those levels for the purpose of effecting major expansion.⁵

The Board has previously noted that BankAmerica has taken the appropriate steps over the last few years to strengthen its capital position, both through the issuance of new equity and through the retention of earnings.⁶ BankAmerica's capital ratios are above the minimum requirements under the Board's Capital Adequacy Guidelines and the proposal would have no effect on BankAmerica's capital position. In light of these considerations, the Board concludes that the financial resources of BankAmerica are consistent with approval of the proposal.

State Bank is chartered under California law to engage in commercial banking business. State Bank intends to focus its banking activities primarily on providing the following services:

- (1) specialized community development lending activities to further economic and neighborhood revitalization and production of housing for low- and moderate-income households;⁷ and
- (2) cash management services for California corporate customers and public agencies.⁸ Based on the facts of record, the Board concludes that the managerial resources, future prospects, and convenience and needs considerations are also consistent with approval.

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

6. *BankAmerica Corporation (American Savings Corporation)*, 75 *Federal Reserve Bulletin* 827 (1989).

7. Except for investments in projects designed primarily to promote community welfare, such as the economic rehabilitation and development of low-income areas, State Bank will not make real estate or equity investments and will not make any investment not otherwise permissible for any national bank, a state member bank, or a nonbank subsidiary of a bank holding company, without the prior approval of the Federal Reserve System.

8. The cash management services involve collection services (lock-box, cash concentration, and cash vault services); information services (transmission of or direct access via terminal to checking account and investment information between State Bank and the customer); and disbursement services (controlled disbursement and electronic funds transfers). A controlled disbursement account allows customers to fund their account on the same day that checks are presented. Each morning the customer is advised of the total dollar amount of checks that have been presented for payment and the customer has until close of business that day to wire or otherwise transfer good funds to cover those checks. The ability to segregate controlled disbursement checks and report clearings early in the day is substantially facilitated by a distinct American Bankers Association transit routing number, which BankAmerica will obtain through State Bank. California law encourages the use of California disbursement banks by providing that, generally, wages paid by check must use checks payable at an established place of business in the state that is identified on the check. Cal. Labor Code § 212 (1989). In addition, competitors of BankAmerica currently offer controlled disbursement services through California banking subsidiaries.

1. The Board has received comments protesting the application from the Independent Insurance Agents of America, Inc., National Association of Casualty & Surety Agents, National Association of Life Underwriters, National Association of Professional Insurance Agents, National Association of Surety Bond Producers, New York Association of Life Underwriters, Professional Insurance Agents of New York, Inc., Independent Insurance Agents of New York, Inc., California Association of Life Underwriters, Professional Insurance Agents of California and Nevada, Inc., and Independent Insurance Agents & Brokers of California.

2. The Board has also recently approved BankAmerica's acquisition of a savings bank in Washington (*BankAmerica Corporation (American Savings Financial Corporation)*, 75 *Federal Reserve Bulletin* 827 (1989)) and a thrift in Nevada (*BankAmerica Corporation (Nevada First Development Corporation)*, 75 *Federal Reserve Bulletin* 825 (1989)).

3. All data are as of September 30, 1989.

4. *The Bank of New York Company, Inc.*, 74 *Federal Reserve Bulletin* 257 (1988); Capital Adequacy Guidelines, 50 *Federal Register* 16,057 (April 24, 1985).

State Bank also proposes to engage in insurance agency/brokerage activities permissible for state-chartered banks under California law.⁹ The Board has previously determined that insurance activities conducted by holding company banks directly under state law are not limited by the nonbanking provisions of section 4 of the BHC Act, except where the record demonstrates the type of evasion described in the *Citicorp (South Dakota)* case.¹⁰ In the *Citicorp (South Dakota)* case, the Board concluded that the proposal, taken as a whole, amounted to an evasion of the BHC Act and on that basis denied the application.¹¹ Protestants have urged the Board to deny BankAmerica's application under this precedent. However, State Bank is a bank within the BHC Act's definition (12 U.S.C. § 1841(c)) and, in the Board's view, BankAmerica's application presents material considerations that distinguish this record from the circumstances in the *Citicorp* proposal.

In *Citicorp (South Dakota)*, after reviewing the applicable legal framework governing competition for banking and insurance services within the state, the Board concluded that the South Dakota statute itself had the effect of enabling out-of-state bank holding companies to evade the nonbanking insurance prohibitions of the Garn–St Germain Act by authorizing, through an institution that was a bank in name only, a nationwide insurance franchise.¹² Accordingly, it was

9. Proposition 103, which repealed prohibitions against all insurance activities by California banks and bank holding companies, was approved by the voters in the November 8, 1988, general election and its constitutionality has been upheld by the California Supreme Court. *CalFarm Insurance Company v. Deukmejian*, 48 Cal. 3d. 805, 771 P.2d 1247 (1989). The California Superintendent of Banks has indicated that California state-chartered banks may engage in insurance agency/brokerage activities and protestants concede that California law would permit State Bank to conduct a general insurance agency business. State Bank would not engage in insurance underwriting or the reinsurance of any insurance policies. Additionally, State Bank will not enter into contingent commission or other arrangements with insurers that would expose State Bank to an underwriting loss. All insurance activities will be conducted directly in the bank and State Bank will only enter into agency agreements with insurers who are rated "A" or higher by A.M. Best and who exceed minimum capital and surplus requirements for the types of business they are underwriting.

10. *Merchants National Corporation*, 75 *Federal Reserve Bulletin* 388 (1989); affirmed by the United States Court of Appeals for the Second Circuit in *Independent Insurance Agents of America, Inc., et al. v. Board of Governors*, 890 F.2d 1275 (2d Cir. 1989) ("Merchants"). Protestants continue to maintain, however, that State Bank's proposed insurance activities are prohibited under section 4(c)(8) of the BHC Act, as amended by Title VI of the Garn–St Germain Depository Institutions Act of 1982 ("Garn–St Germain Act"). The Garn–St Germain Act provides that, with seven exceptions (not at issue in this application), insurance activities are not closely related to banking and thus are not generally permissible for bank holding companies.

11. *Citicorp (American State Bank)*, 71 *Federal Reserve Bulletin* 789 (1985) ("Citicorp (South Dakota)").

12. Under the applicable South Dakota statute, while an out-of-state bank holding company was significantly limited in its ability to

the grant of broad insurance powers, which were otherwise prohibited to bank holding companies, that replaced the opportunity to conduct a banking business in South Dakota as the incentive to attract out-of-state bank holding companies to acquire South Dakota banks. This incentive—crucial to the success of the South Dakota statute's articulated legislative purpose of attracting out-of-state bank holding companies as a means of increasing tax revenues and jobs in South Dakota—existed only because insurance activities were expressly prohibited for bank holding companies under the BHC Act. The insurance authorization provided under California law, however, contains no similar restrictive structure that effectively limits the incentive for acquiring a state-chartered bank to its potential as a vehicle for selling insurance and State Bank will, in fact, conduct banking activities in California.

The Board also concluded that the *Citicorp* operating plan required a dedication of significant resources for its insurance activities. Although BankAmerica has not developed financial projections or a definite operational plan for State Bank's insurance activities, the business operations differ significantly from *Citicorp*'s plans to engage primarily, if not solely, in insurance activities through its South Dakota bank.

Unlike the *Citicorp* proposal, State Bank intends to engage in traditional, although more focused, banking activities and will compete in the California market for community development and cash management banking services. BankAmerica has also indicated that, based on certain assumptions, the insurance agency business may comprise approximately one-third of the total revenues of State Bank.¹³ This plan of operation significantly contrasts with *Citicorp*'s plan to conduct insurance activities in its state bank to the fullest extent possible by investing approximately \$2.5 million in a facility and employing a minimum of 100-125 additional nonbanking personnel for a bank with \$17.5 million in assets and 28 employees.

conduct a banking business in South Dakota once it acquired a South Dakota bank, the out-of-state bank holding company was permitted to use the South Dakota bank franchise to conduct insurance activities nationwide without any limitation (other than that it restrict its insurance activities within South Dakota itself to avoid competing with South Dakota firms).

13. Using its current experience with the sale of insurance and securities products by a third-party vendor from leased branch office space, BankAmerica estimates, by comparing the revenues expected to be generated in 1989 from the sale of fixed-rate annuities (the only insurance product in the program) with the revenues expected to be generated from the sale of securities (including variable-rate annuities) and the banking services offered by State Bank, that in State Bank's third year of operation, insurance revenue would amount to approximately one-third of State Bank's total revenues. BankAmerica regards years 1 and 2 as a start-up period for establishing its market share of community development and cash management banking services.

On the basis of this record, the Board does not believe that BankAmerica's acquisition of State Bank will constitute an evasion of the insurance prohibitions of section 4 of the BHC Act. However, the Board, as a condition of this Order, retains supervisory authority to review State Bank's activities in order to ensure that no such evasion of the requirements of the BHC Act occurs.¹⁴

Protestants have requested a hearing on the application. Section 3(b) of the BHC Act does not require the Board to hold a hearing concerning an application to acquire a bank under section 3 of the BHC Act unless the appropriate banking authority for the bank to be acquired makes a timely written recommendation of denial of the application. In this case, no such recommendation of denial has been received from the California Superintendent of Banks.¹⁵

Furthermore, protestants have been given the opportunity to submit, and have submitted, written facts and arguments to the Board regarding this application. These materials, as well as responses by BankAmerica, have not provided any basis to believe that the material facts already before the Board are incomplete or insufficient to permit the Board to evaluate the application under the BHC Act or that further investigation would produce additional relevant information. The Board is not required to hold a formal hearing where a party disputes the conclusions to be drawn from established facts or where such proceedings would not serve to develop new or useful material facts.¹⁶

Protestants have alleged several factual disputes supporting their request for a hearing to determine whether BankAmerica's application is proposed primarily to provide BankAmerica with an insurance agency subsidiary thereby evading the BHC Act as

prohibited by the *Citicorp (South Dakota)* precedent. These factual disputes include the operational considerations in support of cash management services through State Bank, the accuracy of BankAmerica's estimate regarding income from State Bank's insurance activities or, alternatively, the substantiality of insurance activity demonstrated by the estimate, and BankAmerica's motivation for chartering a state bank in a state that permits banks to engage in insurance agency activities. In a more general sense, protestants allege that BankAmerica's credibility and real intent are at issue and that additional information in the form of documents and testimony from BankAmerica's officials and other witnesses is required to demonstrate the evasion that protestants have alleged.

These assertions, however, are not designed to dispute material facts in the record or even to provide a basis for eliciting new material facts relevant under the *Citicorp (South Dakota)* precedent. Rather than challenging existing facts, these assertions question inferences and conclusions drawn from the factual presentation in the application.

State Bank intends to engage in banking activities and to compete for banking services in California. As previously discussed, the statutory framework and the extent of the operational plans for insurance activities presented by this application differ significantly from the *Citicorp* proposal. Furthermore, protestants have failed to allege sufficient facts to demonstrate that BankAmerica's representations, including its representations regarding its insurance operations, are not credible or to justify convening a formal hearing for the purpose of providing protestants with the opportunity to enhance their protest.¹⁷ Under these circumstances, and with the recognition that the Board has retained authority to prevent any evasion of the BHC Act or this Order, the Board concludes that a formal hearing is unnecessary and, accordingly, protestants' request for a hearing is denied.

Based on the foregoing and all of the facts of record, including representations made by BankAmerica, the Board has determined that the application should be, and hereby is, approved. This transaction shall not be consummated before the thirtieth calendar day following the effective date of this Order, or later than three months after the effective date of this Order. State Bank shall be opened for business not later than six months after the effective date of this Order. The latter two periods may be extended for good cause by the Board or the Federal Reserve Bank of San Francisco, acting pursuant to delegated authority.

14. The insurance activities of State Bank will also be subject to the anti-tying restrictions of the 1970 Amendments to the BHC Act, which unlike section 4(a), explicitly apply to "banks." 12 U.S.C. § 1972(1).

15. 12 U.S.C. § 1842(b); *Farmers & Merchants Bank of Las Cruces v. Board of Governors*, 567 F.2d 1082, 1085 (D.C. Cir. 1977); *Grandview Bank & Trust Co. v. Board of Governors*, 550 F.2d 415, 421 (8th Cir. 1977), cert. denied, 434 U.S. 821 (1977); and *Northwest Bancorporation v. Board of Governors*, 303 F.2d 832, 842-44 (8th Cir. 1962). Nothing in section 5 of the BHC Act, relating to the Board's authority to prevent evasions, requires a hearing.

16. Section 4(c)(8) of the BHC Act provides that, in approving activities under that provision, the Board must provide notice and opportunity for hearing. However, this case does not involve an application under section 4 of the BHC Act. In light of the Board's determination in *Merchants*, section 4 does not apply to limit the direct activities of subsidiary state banks or require that an application under section 4(c)(8) be filed for approval for such bank. In addition, even where the applicable provision requires an opportunity for a hearing, such as under section 4(c)(8), a protestant is not entitled to discovery and a hearing on every application, but only when there are material issues of fact in dispute. *Connecticut Bankers Assn. v. Board of Governors*, 627 F.2d 245 (D.C. Cir. 1980). As discussed in this Order, there are no material issues of fact in dispute.

17. The Board notes that intentional violations of the BHC Act or regulations of the Board, including false statements of a bank holding company, carry both civil and criminal penalties. 12 U.S.C. § 1847.

By order of the Board of Governors, effective February 16, 1990.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Kelley, and LaWare.

JENNIFER J. JOHNSON
Associate Secretary of the Board

BankAmerica Corporation
San Francisco, California

Seafirst Corporation
Seattle, Washington

Order Approving Acquisition of a Bank Holding Company and Bank

BankAmerica Corporation, San Francisco, California ("BankAmerica"), and its wholly-owned subsidiary, Seafirst Corporation, Seattle, Washington ("Seafirst"), both bank holding companies within the meaning of the Bank Holding Company Act ("BHC Act"), have applied for the Board's approval under section 3 of the BHC Act (12 U.S.C. § 1842) to acquire by merger Woodburn Bancorp, Woodburn, Oregon ("Woodburn"), and thereby acquire Woodburn State Bank, Woodburn, Oregon ("Bank").¹

Notice of the application, affording an opportunity for interested persons to submit comments, has been duly published (54 *Federal Register* 48,940 (1989)). The time for filing comments has expired, and the Board has considered the application and all comments received, including those of various insurance trade associations ("Protestants"), in light of the factors set forth in section 3(c) of the BHC Act.²

Section 3(d) of the BHC Act, the Douglas Amendment, prohibits the Board from approving an application by a bank holding company to acquire control of any bank located outside of the bank holding company's home state, unless such acquisition is "specifically authorized by the statute laws of the State in which [the] bank is located, by language to that effect

and not merely by implication."³ Oregon's banking laws permit out-of-state bank holding companies, with the approval of the Oregon Department of Insurance and Finance, to acquire established Oregon banks and bank holding companies.⁴ The Board has determined previously that a California bank holding company may acquire a bank holding company and bank in Oregon.⁵ Accordingly, Board approval of this proposal is not barred by the Douglas Amendment.

BankAmerica operates two banking subsidiaries in California and Washington.⁶ BankAmerica is the third largest commercial banking organization in the United States and is the largest commercial banking organization in California, where it controls deposits of approximately \$51.2 billion, representing approximately 23.4 percent of the total deposits in commercial banks in California.⁷ Seafirst is the largest commercial banking organization in Washington, where it controls deposits of approximately \$8.5 billion, representing approximately 29.3 percent of the total deposits in commercial banks in Washington. Woodburn Bancorp is the 38th largest commercial banking organization in Oregon, where it controls deposits of approximately \$15.6 million, representing less than one percent of the total deposits in commercial banking organizations in Oregon. Based upon the facts of record, the Board concludes that consummation of the proposed acquisition would not result in any significantly adverse effect on the concentration of banking resources in Oregon.

BankAmerica, through Seafirst, competes directly with Woodburn in the Portland, Oregon, banking market.⁸ BankAmerica is the ninth largest commercial banking organization in the market, controlling depos-

1. 12 U.S.C. § 1842(d). A bank holding company's home state for purposes of the Douglas Amendment is that state in which the total deposits of its banking subsidiaries were largest on July 1, 1966, or on the date it became a bank holding company, whichever date is later. *Id.* BankAmerica's home state is California.

2. Or. Rev. Stat. § 715.065(1) (1989); see also Or. Rev. Stat. § 706.005(29) (1989). In addition, the Oregon Department of Insurance and Finance has determined that this proposal meets all the statutory considerations.

3. *Security Pacific Corporation*, 73 *Federal Reserve Bulletin* 381 (1987).

4. The Board also has recently approved BankAmerica's acquisition of a savings bank in Washington (*BankAmerica Corporation (American Savings Financial Corporation)*, 75 *Federal Reserve Bulletin* 827 (1989)); a thrift in Nevada (*BankAmerica Corporation (Nevada First Development Corporation)*, 75 *Federal Reserve Bulletin* 825 (1989)); and a *de novo* state-chartered bank in California (*BankAmerica Corporation (Bank of America State Bank)*, 76 *Federal Reserve Bulletin* 244 (Order dated February 16, 1990)).

5. State banking data are as of September 30, 1989. Market banking data are as of June 30, 1987.

6. The Portland, Oregon, banking market is approximated by the Portland Ranally Metropolitan Area, which includes several communities in Washington State. Seafirst's principal bank subsidiary operates branches in that portion of the Portland banking market which is within the State of Washington.

1. The proposed transaction would be effected through the exchange of newly issued BankAmerica shares for all the shares of Woodburn Bancorp, less dissenting shares. Immediately following the exchange, Woodburn Bancorp would merge with and into Seafirst.

2. The Board has received comments protesting the application from the Independent Insurance Agents of America, Inc., National Association of Casualty & Surety Agents, National Association of Life Underwriters, National Association of Professional Insurance Agents, National Association of Surety Bond Producers, New York Association of Life Underwriters, Professional Insurance Agents of New York, Inc., Independent Insurance Agents of New York, Inc., California Association of Life Underwriters, Professional Insurance Agents of California and Nevada, Inc., and Independent Insurance Agents & Brokers of California.

its of approximately \$119.8 million, representing approximately 1.5 percent of the total deposits in commercial banking organizations in the market. Woodburn is the 14th largest commercial banking organization in the market, controlling deposits of approximately \$13.4 million, representing less than one percent of the total deposits in commercial banking organizations in the market. Upon consummation of the proposed acquisition, BankAmerica would remain the ninth largest commercial banking organization in the market, controlling deposits of \$133.2 million, representing approximately 1.7 percent of the total deposits in commercial banking organizations in the market. The Herfindahl-Hirschman Index ("HHI") would increase by less than one percentage point to 2572 after consummation.⁹ Based upon the facts of record, the Board concludes that consummation of the proposed acquisition would not result in any significantly adverse effect on competition in any relevant market.

In evaluating this application, the Board has considered the financial resources of BankAmerica and Seafirst and the effect on those resources of the proposed acquisition. The Board has stated previously that it expects banking organizations contemplating expansion proposals to maintain strong capital levels substantially above the minimum levels specified in the Board's Capital Adequacy Guidelines, without significant reliance on intangibles, particularly goodwill.¹⁰ The Board carefully analyzes the effect of expansion proposals on the preservation or achievement of strong capital levels and has adopted a policy that there should be no significant diminution of financial strength below those levels for the purpose of effecting major expansion.¹¹

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

10. *BankAmerica Corporation (American Savings Financial Corporation)*, 75 *Federal Reserve Bulletin* 827 (1989); *The Bank of New York Company, Inc.*, 74 *Federal Reserve Bulletin* 257 (1988); Capital Adequacy Guidelines, 12 C.F.R. Part 225, Appendix B.

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

The Board has noted previously that BankAmerica has taken appropriate steps over the last few years to strengthen its capital position, both through the issuance of new equity and through the retention of earnings.¹² BankAmerica's capital ratios are above the minimum requirements under the Board's Capital Adequacy Guidelines. In addition, BankAmerica would effect this transaction through an exchange of shares, and the proposal would have a *de minimis* effect on BankAmerica's capital position. Moreover, this proposal would result in a small increase in BankAmerica's asset size in relative terms. In light of these considerations, the Board concludes that the financial resources of BankAmerica are consistent with approval of the proposal.

Based on the facts of record, the Board also concludes that the managerial resources, future prospects, and convenience and needs considerations are also consistent with approval.

Oregon law authorizes state-chartered banks, such as Bank, to conduct general insurance agency activities, subject to the State's insurance licensing provisions.¹³ Protestants allege that BankAmerica may conduct general insurance agency activities through Bank in the future and that such conduct would be prohibited by section 4 of the BHC Act.¹⁴

The Board previously determined in its *Merchants National* decision that the nonbanking restrictions of section 4 of the BHC Act do not apply to the direct activities of holding company banks, except where the record demonstrates the type of evasion described in *Citicorp (American State Bank)* (71 *Federal Reserve Bulletin* 789 (1985) "*Citicorp (South Dakota)*").¹⁵ Thus, subject to the type of situation presented in *Citicorp (South Dakota)*, a holding company's state bank may engage directly in insurance agency activities authorized under state law even though such activities are not permitted for bank holding companies.

The Board concludes that the record in this application does not support a finding of evasion of the

12. *BankAmerica Corporation (American Savings Financial Corporation)*, 75 *Federal Reserve Bulletin* 827 (1989).

13. Or. Rev. Stat. § 707.310(d) (1989). See also Or. Rev. Stat. §§ 744.002, 744.115 (1989).

14. Section 4(c)(8) of the BHC Act, as amended by Title VI of the Garn-St Germain Depository Institutions Act of 1982, provides that, with seven exceptions (not at issue in this application), insurance activities are not closely related to banking and thus are not generally permissible for bank holding companies.

15. *Merchants National Corporation*, 75 *Federal Reserve Bulletin* 388; affirmed by the United States Court of Appeals for the Second Circuit in *Independent Insurance Agents of America, Inc., et al. v. Board of Governors*, 890 F. 2d 1275 (1989). The Court of Appeals for the Second Circuit lifted its stay order in *Merchants National* on February 1, 1990, and the United States Supreme Court has denied a request to issue a stay.

BHC Act. Bank conducts a full-service banking business in Oregon, accepting demand deposits and engaging in the business of making commercial loans, and is a bank within the BHC Act's definition (12 U.S.C. § 1841(c)). Bank does not currently conduct general insurance agency activities or possess an Oregon insurance license, nor has Bank itself previously acted as a general insurance agent. Furthermore, BankAmerica has stated that, at present, it does not intend to engage in general insurance agency activities through Bank. Accordingly, the Board concludes that the record in this application, unlike the record of the *Citicorp (South Dakota)* order, does not indicate that the acquisition of Bank is primarily a device to permit the acquiring bank holding company to engage in prohibited insurance activities.

Based on the foregoing and all of the facts of record, including representations made by BankAmerica, the Board has determined that the application should be, and hereby is, approved. The transaction shall not be consummated before the thirtieth calendar day following the effective date of this Order, or later than three months after the effective date of the Order. The latter two periods may be extended for good cause by the Board or the Federal Reserve Bank of San Francisco, acting pursuant to delegated authority.

By order of the Board of Governors, effective February 26, 1990.

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

JENNIFER J. JOHNSON
Associate Secretary of the Board

Wells Fargo & Company
San Francisco, California

Order Approving the Acquisition of Bank Holding Companies

Wells Fargo & Company, San Francisco, California ("Wells Fargo"), a bank holding company within the meaning of the Bank Holding Company Act ("BHC Act"), has applied for the Board's approval under section 3(a)(5) of the BHC Act (12 U.S.C. § 1842(a)(5)) to merge with:

(1) Central Pacific Corporation, Bakersfield, California ("Central Pacific"), thereby acquiring its subsidiary bank, American National Bank, Bakersfield, California; and

(2) Torrey Pines Group, Solana Beach, California ("TPG"), thereby acquiring its subsidiary bank, Torrey Pines Bank, Solana Beach, California.¹

Notice of the applications, affording an opportunity for interested persons to submit comments, has been duly published (54 *Federal Register* 48,025 and 48,320 (1989)). The time for filing comments has expired, and the Board has considered the applications and all comments received in light of the factors set forth in section 3(c) of the BHC Act.²

Wells Fargo operates one banking subsidiary with numerous branches in California. Wells Fargo is the second largest commercial banking organization in California, controlling deposits of \$34 billion, representing approximately 15.5 percent of the total deposits in commercial banks in the state.³ Central Pacific is the 20th largest commercial banking organization in California, controlling deposits of \$817.8 million, representing less than 1 percent of the total deposits in commercial banks in the state. TPG is the 39th largest commercial banking organization in California, controlling deposits of \$424 million, representing less than 1 percent of the total deposits in commercial banks in the state. Upon consummation of the proposal, Wells Fargo would remain the second largest commercial banking organization in California, controlling deposits of \$35.3 billion, representing approximately 16.1 percent of the total deposits in commercial banks in California. Consummation of this proposal would not have a significantly adverse effect upon the concentration of commercial banking resources in California.

Wells Fargo and TPG compete directly in the San Diego RMA and Oceanside RMA banking markets. Upon consummation of this proposal, neither of the banking markets would be highly concentrated and the Herfindahl-Hirschman Index ("HHI") would increase by fewer than 100 points in each of these markets.⁴

1. The Office of the Comptroller of the Currency ("OCC") has approved Wells Fargo's applications to merge American National Bank and Torrey Pines Bank with Wells Fargo Bank, N.A.

2. The Board has received comments filed by several groups protesting Wells Fargo's applications ("Protestants"). These groups are the Certified Development Corporation of San Diego County, the Black Chamber of Commerce, the Sacramento Urban League, Inc., The Greenlining Coalition ("TGC" representing twenty-six community organizations), The Latino Issues Forum (a member of TGC), the Consumers Union, the League of United Latin American Citizens, and Public Advocates Inc.

3. State deposit data are as of September 30, 1989. Market deposit data are as of June 30, 1987.

4. Under the revised Department of Justice Merger Guidelines (49 *Federal Register* 26,823 (June 29, 1984)) any market in which the post-merger HHI is greater than 1800 is considered highly concentrated, and the Justice Department is likely to challenge a merger that increases the HHI by more than 50 points unless other factors indicate that the merger will not substantially lessen competition. The Justice Department has informed the Board that a bank merger or acquisition is not likely to be challenged (in the absence of other factors indicating

Wells Fargo also competes directly with Central Pacific in 13 banking markets in California.⁵ In ten of these banking markets, the increase in the HHI upon consummation of the proposal would not exceed the limits in the revised Department of Justice Merger Guidelines.⁶ In the Bakersfield, San Bernardino and Madera County banking markets, consummation of the proposal would increase the HHI more than 200 points in a post-merger market exceeding 1800.⁷ However, if 50 percent of the deposits held by thrift institutions were included in the calculation of market concentration, upon consummation of the proposal these three banking markets would become moderately concentrated, and the HHI in all markets would increase by fewer than 200 points.⁸

On the basis of the above facts and other facts of record, including the numerous competitors that would remain in all the markets discussed, the Board finds that consummation of the proposal would not have a significantly adverse effect on existing competition in any relevant market. The Board also has considered the effects of the proposal on probable future competition in the relevant markets in which Wells Fargo, TPG and Central Pacific do not compete.

an anticompetitive effect) unless the post-merger HHI is at least 1800 and the merger increases the HHI by 200 points. The Justice Department has stated that the higher than normal HHI thresholds for screening bank acquisitions for anticompetitive effects implicitly recognizes the competitive effects of limited-purpose lenders and other non-depository financial entities.

5. These markets are Bakersfield RMA, Fresno RMA, Merced RMA, Modesto RMA, Porterville RMA, Visalia RMA, Riverside RMA, San Bernardino RMA, Madera County, Fresno County (the portion not in an RMA), western Kern County, southern Stanislaus County, and southwestern Tulare County.

6. In the Fresno RMA, Merced RMA, Porterville RMA, Visalia RMA, Riverside RMA, Fresno County (the portion not in an RMA), western Kern County, and southwestern Tulare County the HHI would increase by less than 200 points after consummation. In the Modesto RMA and the southern Stanislaus County banking markets, the HHI would increase by over 200 points but the market would remain moderately concentrated after consummation.

7. Wells Fargo's *pro forma* market share is 23.7 percent in the Bakersfield banking market, 29.2 percent in the San Bernardino banking market, and 28.0 percent in the Madera County banking market. The HHI will increase by 276 points to 1966 for the Bakersfield banking market, 415 points to 2224 for the San Bernardino banking market, and 233 points to 2621 for the Madera County banking market.

8. The Board previously has indicated that thrift institutions have become, or have the potential to become, important competitors of commercial banks. See *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). By including 50 percent of the deposits held by thrift institutions, Wells Fargo's *pro forma* market share would be 16.8 percent in the Bakersfield banking market, 15.2 percent in the San Bernardino banking market, and 21.3 percent in the Madera County banking market. The HHI would increase by 139 points to 1111 for the Bakersfield banking market, 112 points to 1356 for the San Bernardino banking market, and 135 points to 1669 for the Madera County banking market.

In light of the market concentration and the number of probable future entrants into those markets, the Board concludes that consummation of this proposal would not have a significantly adverse effect on probable future competition in any relevant market.

The financial and managerial resources of Wells Fargo, TPG and Central Pacific are consistent with approval. No additional debt will be incurred in connection with the proposals.

In considering the convenience and needs of the communities to be served, the Board has taken into account the record of Wells Fargo's subsidiary bank, Wells Fargo Bank, N.A., San Francisco, California ("Bank"), under the Community Reinvestment Act (12 U.S.C. § 2901 *et seq.*) ("CRA"). The CRA requires the federal financial supervisory agencies to encourage financial institutions to help meet the credit needs of the local communities in which they operate consistent with the safe and sound operation of such institutions. To accomplish this end, the CRA requires the appropriate federal supervisory authority to "assess an institution's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods, consistent with the safe and sound operation of the institution," and to "take this record into account in its evaluation of bank holding company applications."⁹

Protestants allege that Bank has failed to meet the credit needs of its entire community, including low-income and minority neighborhoods.¹⁰ The Board has carefully reviewed the CRA performance record of Wells Fargo, including Protestants' comments regarding Bank's provision of loans and other services to minority communities, and Wells Fargo's response to those comments, in light of the CRA, the Board's regulations, and the jointly issued Statement of the Federal Financial Supervisory Agencies Regarding the Community Reinvestment Act ("CRA Policy Statement").¹¹ The CRA Policy Statement provides guidance regarding the types of policies and procedures that the supervisory agencies believe financial

9. 12 U.S.C. § 2903.

10. Protestants' allegations regarding Bank include the following:
 (1) discriminatory lending practices for consumer and commercial loans in minority neighborhoods;
 (2) inadequate marketing programs to meet the credit needs of minority communities;
 (3) branch closings detrimental to minority neighborhoods;
 (4) inadequate investment in low-income consumer loan portfolios and inadequate participation in Small Business Administration ("SBA") programs;
 (5) inadequate philanthropic contributions to minorities and insensitivity to the needs of minorities as reflected by inadequate participation of minorities in Bank's top management; and
 (6) the failure of Bank to award contracts to minority-owned businesses.

11. 54 *Federal Register* 13,742 (March 21, 1989).

institutions should have in place in order to fulfill their responsibilities under the CRA on an ongoing basis, and the procedures that the supervisory agencies will use during the application process to review an institution's CRA compliance and performance.

Initially, the Board notes that Bank has received a satisfactory rating from the OCC in an April 1989 examination of its CRA performance. In addition, Bank has in place the types of programs outlined in the CRA Policy Statement as essential to any effective CRA program. Bank has a Community Affairs Department staffed by four full-time employees. The Community Affairs Department monitors community and economic development loan activities and promotes outreach efforts to neighborhood and consumer groups, public officials, minority associations, and business organizations. It performs such roles as overseeing the development and implementation of various housing development programs and training branch managers in CRA-related concerns.¹² Bank's board of directors is also involved with Bank's CRA program. A CRA Committee, consisting of three directors, meets three times a year with senior executive management responsible for overseeing the Community Affairs Department. The CRA Committee reports to the Board at least annually and this committee is active in the affairs of Bank and the monitoring of CRA activity. In addition, Bank has adopted a branch closure analysis procedure, designed to ensure that CRA-related concerns will be taken into account in any decision to close a particular branch.¹³

A major aspect of Bank's CRA activities is a program entitled the Wells Fargo Community and Economic Development Loan Program ("Program"). The Program finances various CRA-related projects, such as low-income housing projects, projects that provide jobs in lower-income communities, and programs designed to help small businesses. In 1986, Wells Fargo set an annual goal of \$41 million for the Program, which Bank has exceeded every year. Bank invested approximately \$118 million in the Program in 1989, of which approximately half is attributable to low-income housing developments. In addition, Bank has joined

the California Community Reinvestment Corporation, making a \$13 million commitment over two years.

Bank is also engaged in a variety of other CRA-related activities. For example, Bank has one program that provides liberalized credit qualifications and repayment terms to qualified low-income borrowers. Bank also makes direct contributions to community organizations, including minority organizations. In the small business area, while Bank makes few SBA loans, it has a variety of conventional products providing non-guaranteed financing to non-profit and for-profit small businesses.

In its April 1989 CRA examination of Bank, the OCC found that Bank's geographic distribution of credit appeared reasonable and that Bank's lending practices did not discourage applications for types of credit listed in Bank's CRA Statement. The examination found no evidence of discriminatory lending or other illegal credit practices.¹⁴ Bank's assessment of community credit needs and its loan marketing were considered satisfactory. The types of credit offered and extended were also considered satisfactory. As noted above, Bank has developed and extended loans which meet the credit needs of low- and moderate-income borrowers, including loans originated for residential mortgages, housing rehabilitation, home improvement, small businesses, and small farms within the community. Bank also participates in governmentally insured, guaranteed and subsidized loans. Bank's participation in local community development and redevelopment programs was determined to be satisfactory.

The Board notes that Bank is also taking appropriate measures to strengthen its performance in response to suggestions from its primary regulator. For example, Bank has agreed to explore advertising and direct marketing strategies for special credit products, based on the study of local credit needs in progress at the time of its most recent examination.¹⁵ The Board will review Bank's progress under the CRA in future applications.

14. Analyses of the Home Mortgage Disclosure Act data for Bank in 22 California MSAs where Bank reported loans for 1987 and 1988 were consistent with lending patterns of aggregate lenders in those areas. In 1987, Bank made 11 percent of its mortgage loans in low- and moderate-income neighborhoods as compared to 13 percent for aggregate lenders. Fourteen percent of Bank's mortgage portfolio was originated in areas with a minority population higher than 40 percent, compared with 15 percent for lenders as a whole. Similarly, in 1988 mortgage lending by Bank in low- and moderate-income areas accounted for 10 percent of its mortgage portfolio, while mortgage lending in substantially minority areas accounted for 14 percent. For aggregate lenders in 1988, these figures were 13.5 percent and 16.5 percent, respectively.

15. Bank will initiate a promotion of its Low Income Finance Terms program, which features reduced monthly payments over longer terms, and modified employment qualifications, to include advertisements in community-based publications.

12. Bank will require completion of community contact forms by branch and Community Affairs Department staff and make outreach-related training part of the ongoing CRA training provided to branch managers.

13. The Community Affairs Department evaluates the CRA impact of branch closings and makes recommendations to appropriate Retail and Commercial Banking Divisions to ensure that a branch closing is consistent with Bank's continued effort to meet the credit needs of the community. A CRA Compliance Checklist must be completed for any branch proposed to be closed, relocated, consolidated, or downsized. The CRA Committee reviews the Community Affairs Department's evaluations on branch closings.

For the foregoing reasons, and based upon the overall CRA record of Bank, and other facts of record, the Board concludes that convenience and needs considerations, including the record of performance under the CRA of Bank, are consistent with approval of these applications.¹⁶

Based on the foregoing and other facts of record, the Board has determined that the applications under section 3 of the BHC Act should be, and hereby are, approved. The proposals 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 San Francisco, acting pursuant to delegated authority.

By order of the Board of Governors, effective February 26, 1990.

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

JENNIFER J. JOHNSON
Associate Secretary of the Board

Orders Issued Under Section 4 of the Bank Holding Company Act

Ameritrust Corporation
Cleveland, Ohio

Order Approving Acquisition of a Company Engaged in Trust, Investment Advisory and Real Estate Equity Financing and Appraisal Activities

Ameritrust Corporation, Cleveland, Ohio ("Ameritrust"), a bank holding company within the meaning of the Bank Holding Company Act (the "BHC Act"), has applied pursuant to section 4(c)(8) of the BHC Act (12 U.S.C. § 1843(c)(8)) and section 225.23(a) of the Board's Regulation Y (12 C.F.R. 225.23(a)), to acquire

Mvestment Corporation, Dallas, Texas ("Mvestment"), and thereby engage in the exercise of trust powers, investment advisory activities, real estate equity financing activities and real estate appraisals.¹

Notice of the application, affording interested persons an opportunity to submit comments, has been duly published (54 *Federal Register* 47,270 (1989)). 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.

Ameritrust, with total consolidated assets of \$10.9 billion, is the third largest commercial banking organization in Ohio and the 53rd largest bank holding company in the United States.² Ameritrust operates six subsidiary banks in Ohio and Indiana and engages through subsidiaries in a variety of nonbanking activities.

The Board has previously determined that the activities Ameritrust proposes to conduct through Mvestment are closely related to banking and permissible for bank holding companies to conduct under section 4(c)(8) of the BHC Act.³ Ameritrust has proposed to conduct these activities within the limitations established in the Board's regulations.

In order to approve this application, the Board also must find that the performance of the proposed activities 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 interest or unsound banking practices.

In evaluating the balance of public benefits associated with this proposal, the Board has considered the financial and managerial resources of Ameritrust and its bank subsidiaries, and the effect on those resources of the proposed acquisition. The Board has stated and continues to believe that capital adequacy is an important factor in the analysis of bank holding company expansion proposals.⁴ In this regard, the Board has

16. Protestants also have requested that the Board hold a public hearing or meeting to further assess the facts surrounding Bank's CRA performance, as well as conduct an audit of Bank's commercial and residential loan portfolio. Generally under the Board's rules, the Board may hold a public hearing or meeting on an application to clarify factual issues related to the application and to provide an opportunity for testimony, if appropriate. 12 U.S.C. §§ 262.3(e) and 262.25(d). In light of the fact that the parties in this case have had ample opportunity to present their arguments in writing and to respond to one another's submissions, the Board has determined that a public hearing or meeting would serve no useful purpose. Accordingly, these requests are denied. Furthermore, since the OCC completed a CRA examination of Bank in April 1989, the Board has also determined that an audit of Bank's loan portfolio would serve no useful purpose. Accordingly, the request for an audit of Bank's loan portfolio is denied.

1. Mvestment owns four non-bank subsidiaries: MTrust Corporation, Dallas, Texas (provider of trust services); MSecurities Corporation, Dallas, Texas (provider of investment advisory services pertaining to common stock portfolios); MRealty Corporation, Dallas, Texas (investment advisory services pertaining to real estate investments, equity financing activities and real estate appraisal); and MPetroleum Corporation, Dallas, Texas (investment advisory services pertaining to investments in petroleum producing facilities).

2. All banking data are as of September 30, 1989.

3. The Board's Regulation Y (12 C.F.R. Part 225) includes the four activities in which Ameritrust proposes to engage: exercising trust powers; providing portfolio advice; performing appraisals of real estate; and arranging commercial real estate equity financing. (12 C.F.R. 225.25(b)(3), (4), (13) and (14)).

4. *First Union Corporation*, 76 *Federal Reserve Bulletin* 83 (1990), *The Bank of New York Company, Inc.*, 74 *Federal Reserve Bulletin* 257 (1988); *Chemical New York Corporation*, 73 *Federal Reserve*

stated that it expects banking organizations contemplating expansion proposals to maintain strong capital levels substantially above the minimum levels specified in the Board's Capital Adequacy Guidelines ("Guidelines")⁵ without significant reliance on intangibles, in particular goodwill. The Board carefully analyzes the effect of expansion proposals on the preservation or achievement of strong capital levels and has adopted a policy that there should be no significant diminution of financial strength below these levels for the purpose of effecting major expansion proposals.⁶

Upon consummation of the proposed transaction, Ameritrust's capital ratios would remain above the minimum levels specified in the Guidelines, without significant reliance on intangible assets. In this regard, the Board notes that Ameritrust proposes to fund a significant portion of the purchase price with the issuance of new equity capital and that Ameritrust projects a further strengthening of its capital after consummation of this proposal. In light of the foregoing and, in particular, Ameritrust's proposed issuance of equity capital, the Board concludes that the financial resources of Ameritrust are consistent with approval of this proposal.

There is no evidence in the record to indicate that approval of this proposal would result in undue concentration of resources, unfair competition, conflicts of interests or other adverse effects on the public interest. Ameritrust does not currently engage in equity financing, or real estate appraisal activities, and does not provide personal trust services in Texas where MInvestment operates. The corporate trust and investment advisory services provided by Ameritrust and MInvestment represent a *de minimis* share of the total market for these services. Moreover, the market for these services is highly competitive, with numerous bank and nonbank competitors. Consummation of the proposed transaction, therefore, would not have a significant adverse effect on competition in any relevant market. Based upon the foregoing and all the facts of record, the Board has determined that the balance of the public interest factors that it is required to consider under section 4(c)(8) is favorable and consistent with approval of this application.

Bulletin 378 (1987); *Citicorp*, 72 *Federal Reserve Bulletin* 497 (1986); *National City Corporation*, 70 *Federal Reserve Bulletin* 743 (1984).

5. Capital Adequacy Guidelines, 50 *Federal Register* 16,057 (April 24, 1985).

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

Accordingly, the Board has determined that the application should be, and hereby is, approved. This determination is 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, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder.

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 Cleveland, pursuant to delegated authority.

By order of the Board of Governors, effective February 26, 1990.

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

JENNIFER J. JOHNSON
Associate Secretary of the Board

Peoples Bancorporation
Rocky Mount, North Carolina

Order Approving Acquisition of a Savings Association

Peoples Bancorporation, Rocky Mount, North Carolina ("Peoples"), has applied for the Board's approval under section 4(c)(8) of the Bank Holding Company Act ("BHC Act") (12 U.S.C. § 1843 *et seq.*), and section 225.23 of the Board's Regulation Y (12 C.F.R. 225.23) to acquire Watauga Savings & Loan Association, Inc., Boone, North Carolina ("Watauga"), a savings association, pursuant to section 225.25(b)(9) of the Board's Regulation Y (12 C.F.R. 225.25(b)(9)).

Notice of the application, affording interested persons an opportunity to submit comments, has been published (54 *Federal Register* 41,680 (1989)). 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.

Peoples, which operates three banking subsidiaries, is the ninth largest commercial banking organization in North Carolina, with deposits of approximately \$1.1 billion.¹ Watauga is the 52nd largest savings associa-

1. All deposit and market data are as of June 30, 1989.

tion in North Carolina, with total deposits of approximately \$112.8 million. Watauga is currently operating as a mutual savings association. Prior to the acquisition, Watauga proposes to convert from mutual to stock form, with Peoples purchasing all of the outstanding stock of Watauga.

Section 601 of the Financial Institutions Reform, Recovery and Enforcement Act of 1989, Pub. L. 101-73, § 601, 101 Stat. 183, 408 (as codified at 12 U.S.C. § 1843(i)) permits the Board to approve an application by a bank holding company to acquire a savings association under section 4(c)(8) of the BHC Act. Pursuant to this authority, the Board has determined that the operation of a savings association is closely related to banking and permissible for bank holding companies. 12 C.F.R. 225.23(b)(9).²

In order to approve this application, the Board also is required to determine that the performance of the proposed activities by Peoples "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). This consideration includes an evaluation of the financial and managerial resources of the applicant, including its subsidiaries, and any company to be acquired, and the effect of the proposed transaction on these resources. 12 C.F.R. 225.24.

The financial and managerial resources and future prospects of Peoples and its bank subsidiaries, and Watauga are consistent with approval. Upon consummation of the proposed transaction, Peoples' capitalization will remain above the minimum levels specified in the Board's Capital Guidelines, without significant reliance upon intangible assets. In assessing the financial factors, the Board has also considered the proposed recapitalization of Watauga. In this regard, the Board believes that bank holding companies must maintain adequate capital at savings associations that they propose to acquire. Peoples' acquisition of Watauga will result in a capital infusion of approximately \$6 million into Watauga. Upon consummation, Watauga's Tier 1 capital, exclusive of all intangible assets, will be more than three percent of the savings association's total assets. Further, Peoples has committed that Watauga will meet all present and future minimum

capital ratios adopted for savings associations by the Office of Thrift Supervision or the Federal Deposit Insurance Corporation.

Upon consummation of the proposed acquisition, Peoples would remain the ninth largest commercial banking organization in North Carolina, controlling approximately \$1.2 billion in deposits in the state, representing an approximate 1.85 percent share of deposits in depository institutions in North Carolina. Peoples and Watauga do not operate in the same banking markets. Accordingly, the Board concludes that the acquisition would not have a significantly adverse effect upon the concentration of banking organizations in North Carolina, or on existing competition in any relevant market.

There is no evidence in the record to indicate that approval of this proposal would result in conflicts of interest, unsound banking practices, or other adverse effects on the public interest. Moreover, the Board feels that any adverse effects that may result from this acquisition are outweighed by the financial and managerial strength that Peoples will provide to Watauga as a result of the acquisition. Accordingly, based upon consideration of all the relevant facts, 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 Peoples' application to acquire Watauga.

For these reasons and based on all the facts of record, and subject to the commitments made by Peoples as set forth in its application and in this Order, the Board has determined that the proposed application should be, and hereby is, approved. This determination is also subject to all of the conditions set forth in the Board's Regulation Y, including sections 225.4(d) and 225.23, and to the Board's authority to require such modifications or termination of the activities of a bank holding company or any of its subsidiaries as the Board finds necessary to assure compliance with, or to prevent evasion of, the provisions and purposes of the BHC Act and the Board's regulations and orders issued thereunder. This transaction shall be made no later than three months after the effective date of this Order, unless such Order 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 February 16, 1990.

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

JENNIFER J. JOHNSON
Associate Secretary of the Board

2. In making this determination, the Board required that savings associations acquired by bank holding companies conform their direct and indirect activities to those activities permissible for bank holding companies under section 4 of the BHC Act. See *National City Corporation*, 76 *Federal Reserve Bulletin* 77 (1990). Peoples has committed in its application to conform all of the direct and indirect activities of Watauga to the requirements of section 4(c)(8) of the BHC Act upon consummation.

Sovran Financial Corporation
Norfolk, Virginia

Order Approving Application to Underwrite and Deal in Certain Securities to a Limited Extent

Sovran Financial Corporation, Norfolk, Virginia ("Sovran"), 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 225.23 of the Board's Regulation Y (12 C.F.R. 225.23), to engage through its subsidiary, Sovran Investment Corporation, Richmond, Virginia ("Company"),¹ on a limited basis in underwriting and dealing in:

- (1) municipal revenue bonds, including certain industrial development bonds;
- (2) 1-4 family mortgage-related securities;
- (3) commercial paper, and
- (4) consumer-receivable-related securities (collectively "bank-ineligible securities").

Sovran, with total consolidated assets of \$23.4 billion, is the 27th largest banking organization in the nation.² Sovran operates 13 subsidiary banks and engages directly and through subsidiaries in a variety of permissible nonbanking activities.

Notice of the application, affording interested persons an opportunity to submit comments on the proposal, has been published (55 *Federal Register* 1097 (1990)). The time for filing comments has expired, and the Board has considered the application and all comments received in light of the public interest factors set forth in section 4(c)(8) of the BHC Act.

1. Company 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;
- (8) provide certain investment advisory services, and
- (9) combine brokerage services with non-fee ancillary investment advice to corporate and other institutional customers in a limited range of non-bank eligible securities.

See *Sovran Financial Corporation*, 74 *Federal Reserve Bulletin* 504 (1988).

2. Data are as of September 30, 1989.

The Board has previously determined that the conduct of the proposed bank-ineligible securities underwriting and dealing activity is consistent with section 20 of the Glass-Steagall Act provided the underwriting subsidiary derives no more than 10 percent of its total gross revenue from underwriting and dealing in the approved securities over any two-year period.³ Sovran has committed that Company will conduct its underwriting and dealing activities with respect to bank-ineligible securities subject to the 10 percent revenue test and the prudential limitations established by the Board in its *Citicorp/Morgan/Bankers Trust*, *Chemical*, and *Modification* Orders. The Board has also found by order that, subject to the prudential framework of limitations established to address the potential for conflicts of interest, unsound banking practices or other adverse effects, the proposed underwriting and dealing activities are so closely related to banking as to be a proper incident thereto within the meaning of section 4(c)(8) of the BHC Act.⁴

Consummation of the proposal would provide added convenience to Sovran's customers. In addition, the Board expects that the *de novo* entry of Sovran into the market for some of these services would increase the level of competition among providers of these services. Under the framework established in this and prior decisions, consummation of this proposal is not likely to result in any significant undue concentration of resources, decreased or unfair competition, conflicts of interest, unsound banking practices, or other adverse effects. Accordingly, the Board has determined that the performance of the proposed activities by Sovran can reasonably be expected to produce public benefits which would outweigh adverse effects under the proper incident to banking standard of section 4(c)(8) of the BHC Act.⁵

Based on the above, the Board has determined to approve Sovran's application subject to all of the

3. *Citicorp, J.P. Morgan & Co. Incorporated and Bankers Trust New York Corporation*, 73 *Federal Reserve Bulletin* 473 (1987) ("*Citicorp/Morgan/Bankers Trust*"), *aff'd sub nom.*, *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 839 F.2d 47 (2d Cir. 1988), *cert. denied*, 108 S.Ct 2830 (1988) ("*SIA v. Board*"); and *Chemical New York Corporation, The Chase Manhattan Corporation, Bankers Trust New York Corporation, Citicorp, Manufacturers Hanover Corporation and Security Pacific Corporation*, 73 *Federal Reserve Bulletin* 731 (1987) ("*Chemical*"); as modified by *Order Approving Modifications to Section 20 Orders*, 75 *Federal Reserve Bulletin* 751 (1989) ("*Modification Order*").

4. *Id.*

5. Company may also provide services that are necessary incidents to these approved activities. Any activity conducted as a necessary incident to the ineligible securities underwriting and dealing activity must be treated as part of the ineligible securities activity unless Company has received specific approval under section 4(c)(8) of the BHC Act to conduct the activity independently. Until such approval is obtained, any revenues from the incidental activity must be counted as ineligible revenue subject to the 10 percent gross revenue limit set forth in the *Modification Order*.

terms and conditions set forth in this Order and in the above-noted Board Orders that relate to this activity.⁶

The Board's determination is 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 a bank holding company or any of its subsidiaries as the Board finds necessary to assure compliance with, and to prevent evasion of, the provisions of the BHC Act and the Board's regulations and orders issued thereunder.

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 February 12, 1990.

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

JENNIFER J. JOHNSON
Associate Secretary of the Board

The Cedar Vale Bank Holding Company Wellington, Kansas

Order Denying Applications to Become a Bank Holding Company and to Engage in Insurance Agency Activities

The Cedar Vale Bank Holding Company, Wellington, Kansas ("Cedar Vale"), has applied for the Board's approval under section 3 of the Bank Holding Company Act (the "BHC Act") (12 U.S.C. § 1842) to become a bank holding company through the acquisition of 90.5 percent of the voting shares of Bank of Commerce & Trust Company, Wellington, Kansas ("Bank"). Cedar Vale also has applied under section 4(c)(8) of the BHC Act to acquire all of the voting shares of Tri-County Financial Corporation, Wellington, Kansas, and thereby to engage in the sale of credit-related life, accident, and health insurance, and crop insurance pursuant to section 225.25(b)(8)(vi) of the Board's Regulation Y (12 C.F.R. 225.25(b)(8)(vi)).

Notice of the applications, affording interested persons an opportunity to comment, has been published (54 *Federal Register* 38,738 (1989)). 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 and 4 of the BHC Act.

Cedar Vale is a non-operating company that formerly operated a bank.¹ Bank is the 245th largest commercial banking organization in Kansas, controlling deposits of \$25.4 million, representing less than one percent of the total deposits in commercial banking organizations in the state.² Bank is the fifth largest of 11 commercial banking organizations in the Sumner County, Kansas, banking market, controlling 10.3 percent of the total deposits in commercial banking organizations in the market.³ This proposal represents a restructuring of existing ownership interests.⁴ Consummation of this proposal would not result in any significantly adverse effect on the concentration of banking resources or competition in any relevant market.

In evaluating this application, the Board is required under section 3 of the BHC Act to consider the financial and managerial resources of Cedar Vale and Bank and the effect of the proposed acquisition on those resources and on the future prospects of both Bank and Cedar Vale. The Board previously has stated that a bank holding company should serve as a source of financial strength to its subsidiary banks and that the Board would examine closely the condition of an applicant and its subsidiaries in each case with this consideration in mind. The Board also has cautioned against the assumption of substantial debt by a bank holding company because of concern that a holding company with substantial debt would not have the financial flexibility necessary to meet unexpected problems in its subsidiary banks and could be forced to place substantial demands on the subsidiary banks to meet debt-servicing requirements.⁵

Cedar Vale proposes to finance the transaction with substantial debt. Bank's current parent is debt free, and thus the effect of the transaction would be to transfer Bank from a holding company without debt to a holding company with substantial debt obligations. Cedar Vale's controlling shareholder, who currently

1. Cedar Vale received approval in 1975 to become a bank holding company through the acquisition of Cedar Vale State Bank, Cedar Vale, Kansas. Cedar Vale was acquired by its current owner in 1984. Cedar Vale State Bank failed and was closed by the State of Kansas on January 21, 1988.

2. Banking data are as of December 31, 1987.

3. The Sumner County, Kansas banking market is approximated by Sumner County, Kansas.

4. Cedar Vale proposes to acquire Bank from Sumner County Bancshares, Wellington, Kansas. Cedar Vale and Sumner County Bancshares are controlled by a common shareholder, who serves as president and chief executive officer of each company.

5. See *St. Croix Valley Bancshares, Inc.*, 75 *Federal Reserve Bulletin* 575 (1989); *F.N.B.A. Holding Company, Inc.*, 75 *Federal Reserve Bulletin* 711 (1989).

6. In light of the decision in *SIA v. Board*, Sovran will not be subject to the market share limitation with respect to its ineligible activities that was originally imposed in the *Citicorp/Morgan/Bankers Trust and Chemical Orders*.

services Cedar Vale's debt, states that the proposed acquisition of Bank would provide Cedar Vale a source of income and enable Cedar Vale to avail itself of certain tax benefits.

Cedar Vale projects that it will be able to reduce the acquisition debt in a manner consistent with Board policy. In light of the historical performance and overall financial condition of Bank and Cedar Vale, however, Cedar Vale's earnings projections appear to be overly optimistic, even after consideration of potential tax benefits that Cedar Vale may gain as a result of the proposed acquisition of Bank. In particular, the Board's analysis of Bank's earnings performance during the past five years and Bank's overall financial condition, including Bank's current asset quality, indicates that Bank may be unable to provide income sufficient to support Cedar Vale's debt-servicing requirements. In addition, although Bank's capital is above the minimum levels set forth in the Board's Capital Adequacy Guidelines, Bank's capital ratio has declined during the past year.⁶ Finally, the continuing weak condition of Bank's loan portfolio may indicate the need to make additional provisions for loan losses. Upon careful evaluation of more conservative projections based on the historical performance and overall financial condition of Bank and Cedar Vale, it is the Board's judgment that Cedar Vale would not have sufficient financial flexibility to service its debt without unduly straining the resources of the proposed combined organization and Bank.

The Board has approved proposals involving relatively high levels of debt that otherwise met the terms of the Board's Policy Statement for Formation of Small One-Bank Holding Companies (the "Policy Statement") in order to facilitate the transfer of ownership of small banks to local owners.⁷ In this case, a common shareholder controls both the selling and acquiring companies and would remain in control of the acquiring company following consummation of the transaction. Based on these facts, the Board concludes that consummation of this proposal would not result in an actual change in ownership and control of Bank.⁸ Based on the facts of record and for the reasons stated above, the Board believes that even if the proposed transaction did qualify for treatment under the Policy Statement guidelines, Cedar Vale would not have sufficient financial resources or flexibility to service its

proposed debt. Accordingly, based upon all the facts of record in this case, the Board finds that financial considerations are not consistent with approval of this application.⁹

Managerial factors and convenience and needs considerations in this case do not lend sufficient weight to warrant approval of this application.

On the basis of all the facts of record, the Board concludes that the banking considerations involved in this proposal present adverse factors bearing upon the financial resources and future prospects of Cedar Vale and Bank. Such adverse factors are not outweighed by any pro-competitive effects, by significant benefits that would better serve the convenience and needs of the community to be served, or by other factors. Accordingly, it is the Board's judgment that approval of these applications would not be in the public interest and that the applications should be, and hereby are, denied.

By order of the Board of Governors, effective February 9, 1990.

Voting for this action: Chairman Greenspan and Governors Johnson, Seger, Angell, Kelley, and LaWare.

JENNIFER J. JOHNSON
Associate Secretary of the Board

9. Applicant contends that these applications were approved by operation of law as of January 22, 1990, and that Applicant, therefore, may consummate the proposed transactions without Board action. Applicant bases this argument on its opinion that the ninety-one day period stipulated in the BHC Act and the Board's regulations for Board action on an application began upon the acceptance of these applications for processing and thus has expired.

The terms of the BHC Act, the Board's regulations, and relevant court cases do not support Applicant's contention. The BHC Act provides that the ninety-one day period does not begin until the submission to the Board of the completed record on the application. 12 U.S.C. §§ 1842(b)(1), 1843(c). The Board's regulations provide that the record on an application is not complete until the "date of receipt by the Board of the last relevant material regarding the application that is needed for the Board's decision, if the material is received from a source outside the Federal Reserve System." 12 C.F.R. 225.14(g); see also 12 C.F.R. 225.23(h); accord *First Lincolnwood Corp. v. Board of Governors of the Federal Reserve System*, 546 F.2d 718 (7th Cir. 1976), modified, 560 F.2d 258 (7th Cir. 1977), rev'd on other grounds, 439 U.S. 234 (1978).

Applicant has submitted additional information regarding these applications on several occasions since acceptance of the application for processing, including letters dated November 10, 1989, and January 19, 1990. This additional information concerned Bank's asset quality, earnings, and capital. Additional material information was also received from the FDIC on November 15, 1989, regarding the financial condition of Bank. This information, all received from sources outside the System, was necessary to the Board's decision regarding the financial and managerial factors in this case. In light of the relevant, material nature of information received by the Board through January 19, 1990, the Board finds that the ninety-one day period in this case has not expired as of the date of this Order and Applicant is not entitled as a matter of law to consummate this proposal.

6. Capital Adequacy Guidelines for Bank Holding Companies and State Member Banks: Leverage Measure, 12 C.F.R. Part 225, Appendix B.

7. *Oxford Agency, Inc.*, 71 *Federal Reserve Bulletin* 348 (1985); Policy Statement for Formation of Small One-Bank Holding Companies, 12 C.F.R. Part 225, Appendix C.

8. *See Spur Bancshares, Inc.*, 69 *Federal Reserve Bulletin* 806 (1983).

Orders Issued Under Financial Institutions Reform, Recovery, and Enforcement Act

February 2, 1990

Lee S. Adams
Counsel
Banc One Corporation
100 East Broad Street
Columbus, Ohio 43271

Dear Mr. Adams:

Banc One Corporation, Columbus, Ohio ("Banc One"), proposes that its bank subsidiary, Bank One, Texas, N.A., Dallas, Texas, purchase the assets and assume the liabilities of Banc One Federal Savings Bank, Dallas, Texas, its savings association subsidiary, ("Banc One Savings"). Banc One has requested Board approval of this transaction pursuant to section 5(d)(3) of the Federal Deposit Insurance Act ("FDI Act") as amended by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (Pub. L. No. 101-73, § 206, 103 Stat. 183, 199 (1989)). Banc One Savings has been established to acquire certain assets and assume deposit liabilities of Bright Banc Savings Association, Dallas, Texas ("Bright").

The record in this case shows that:

- (1) The aggregate amount of the total assets of all depository institution subsidiaries of Banc One is \$26.7 billion, an amount which is not less than 200 percent of the total assets of Banc One Savings, which currently has \$1.9 billion in total assets;
- (2) Banc One and all of its bank subsidiaries currently meet all applicable capital standards and, upon consummation of the proposed transactions, will continue to meet all applicable capital standards;
- (3) The transaction is not in substance the acquisition of a Bank Insurance Fund member bank by a Savings Association Insurance Fund member;
- (4) Community, the predecessor to Banc One Savings, had tangible capital of less than 4 percent during the quarter preceding its acquisition by Banc One;
- (5) The transaction, which involves the purchase of assets and assumption of liabilities of Banc One Savings, a savings association located in Wisconsin, by bank subsidiaries of Banc One, a bank holding company whose banking subsidiaries' operations are principally conducted in Ohio, would comply with the requirements of section 3(d) of the Bank Holding Company Act if Banc One Savings were a state bank which Banc One was applying to acquire.

Based on the foregoing and all of the other facts of record, the Staff Director of the Division of Banking Supervision and Regulation and the General Counsel of the Board, acting pursuant to authority delegated by the Board of Governors, hereby approve your request to engage in the proposed transaction under section 5(d)(3) of the FDI Act. This approval is subject to Banc One obtaining the required approval of the appropriate Federal banking agency for the proposed merger under the Bank Merger Act.

Very truly yours,

William W. Wiles
Secretary of the Board

cc: Federal Reserve Bank of Cleveland

February 2, 1990

Lee S. Adams
Counsel
Banc One Corporation
100 East Broad Street
Columbus, Ohio 43271

Dear Mr. Adams:

Banc One Corporation, Columbus, Ohio ("Banc One"), proposes that its bank subsidiaries, Bank One, Appleton, N.A., Appleton, Wisconsin; Bank One, Oshkosh, N.A., Oshkosh, Wisconsin; Bank One Campbellsport, Campbellsport, Wisconsin; and Bank One, Green Bay, Green Bay, Wisconsin, purchase the assets and assume the liabilities of Banc One Savings, Fond du Lac, Wisconsin, its savings association subsidiary, ("Banc One Savings"). Banc One has requested Board approval of this transaction pursuant to section 5(d)(3) of the Federal Deposit Insurance Act ("FDI Act") as amended by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (Pub. L. No. 101-73, § 206, 103 Stat. 183, 199 (1989)). Banc One Savings has been established to acquire certain assets and assume deposit liabilities of Community Savings & Loan Association, Fond du Lac, Wisconsin ("Community").

The record in this case shows that:

- (1) The aggregate amount of the total assets of all depository institution subsidiaries of Banc One is \$26.7 billion, an amount which is not less than 200 percent of the total assets of Banc One Savings, which currently has \$144.2 million in total assets;
- (2) Banc One and all of its bank subsidiaries cur-

rently meet all applicable capital standards and, upon consummation of the proposed transactions, will continue to meet all applicable capital standards;

(3) The transaction is not in substance the acquisition of a Bank Insurance Fund member bank by a Savings Association Insurance Fund member;

(4) Community, the predecessor to Banc One Savings, had tangible capital of less than 4 percent during the quarter preceding its acquisition by Banc One;

(5) The transaction, which involves the purchase of assets and assumption of liabilities of Banc One Savings, a savings association located in Wisconsin, by bank subsidiaries of Banc One, a bank holding company whose banking subsidiaries' operations are principally conducted in Ohio, would comply with the requirements of section 3(d) of the Bank Holding Company Act if Banc One Savings were a state bank which Banc One was applying to acquire.

Based on the foregoing and all of the other facts of record, the Staff Director of the Division of Banking Supervision and Regulation and the General Counsel of the Board, acting pursuant to authority delegated by the Board of Governors, hereby approve your request to engage in the proposed transaction under section 5(d)(3) of the FDI Act. This approval is subject to Banc One obtaining the required approval of the appropriate Federal banking agency for the proposed merger under the Bank Merger Act.

Very truly yours,

William W. Wiles
Secretary of the Board

cc: Federal Reserve Bank of Cleveland

February 2, 1990

John A. Newcomer
Planning and Development Officer
Peoples State Bank
830 Pleasant Street
St. Joseph, Michigan 49085

Dear Mr. Newcomer:

Pinnacle Financial Services, Inc., St. Joseph, Michigan ("Pinnacle"), proposes that its bank subsidiary, Peoples State Bank, St. Joseph, Michigan, purchase the assets and assume the liabilities of PSB S&L, St.

Joseph, Michigan, its savings association subsidiary. Pinnacle has requested Board approval of this transaction pursuant to section 5(d)(3) of the Federal Deposit Insurance Act ("FDI Act") as amended by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (Pub. L. No. 101-73, § 206, 103 Stat. 183, 199 (1989)). PSB S&L has been established to acquire certain assets and assume deposit liabilities of Peoples Savings Association, St. Joseph, Michigan ("Peoples").

The record in this case shows that:

(1) The aggregate amount of the total assets of all depository institution subsidiaries of Pinnacle is \$230 million, an amount which is not less than 200 percent of the total assets of PSB S&L, which currently has \$75 million in total assets;

(2) Pinnacle and all of its bank subsidiaries currently meet all applicable capital standards and, upon consummation of the proposed transactions, will continue to meet all applicable capital standards;

(3) The transaction is not in substance the acquisition of a Bank Insurance Fund member bank by a Savings Association Insurance Fund member;

(4) Peoples, the predecessor to PSB S&L, had tangible capital of less than 4 percent during the quarter preceding its acquisition by Pinnacle;

(5) The transaction, which involves the purchase of assets and assumption of liabilities of PSB S&L, a savings association located in Michigan, by a bank subsidiary of Pinnacle, a bank holding company whose banking subsidiaries' operations are principally conducted in Michigan, would comply with the requirements of section 3(d) of the Bank Holding Company Act if PSB S&L were a state bank which Pinnacle was applying to acquire.

Based on the foregoing and all of the other facts of record, the Staff Director of the Division of Banking Supervision and Regulation and the General Counsel of the Board, acting pursuant to authority delegated by the Board of Governors, hereby approve your request to engage in the proposed transaction under section 5(d)(3) of the FDI Act. This approval is subject to Pinnacle obtaining the required approval of the appropriate Federal banking agency for the proposed merger under the Bank Merger Act.

Very truly yours,

William W. Wiles
Secretary of the Board

cc: Federal Reserve Bank of Chicago

APPLICATIONS APPROVED UNDER BANK HOLDING COMPANY ACT

By Federal Reserve Banks

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

Section 3

Applicant(s)	Bank(s)	Reserve Bank	Effective date
Alton Bancshares, Inc., Grandin, Missouri	Alton Bank, Alton, Missouri	St. Louis	February 13, 1990
Border Bancshares, Inc., Greenbush, Minnesota	Badger State Bank, Badger, Minnesota	Minneapolis	February 2, 1990
Center Banks Incorporated, Skaneateles, New York	Skaneateles Savings Bank, Skaneateles, New York	New York	February 16, 1990
Century South Banks, Inc., Dahlonega, Georgia	First Union Bancorp, Inc., Blairsville, Georgia	Atlanta	February 2, 1990
Century South Banks, Inc., Dahlonega, Georgia	Mountain Bank of Georgia, Hiawassee, Georgia	Atlanta	February 2, 1990
Citizens National Corporation, Naples, Florida	Citizens National Bank of Naples, Naples, Florida	Atlanta	January 29, 1990
Claremont Financial Services, Inc., St. Paul, Minnesota	Security State Bank of Claremont, Claremont, Minnesota	Minneapolis	February 1, 1990
Community National Bancorporation, Ashburn, Georgia	Community National Bank, Ashburn, Georgia	Atlanta	February 16, 1990
Emclair Financial Corp., Emlenton, Pennsylvania	Farmers National Bank of Emlenton, Emlenton, Pennsylvania	Cleveland	February 2, 1990
Farmers National Bancorp, Inc., Geneseo, Illinois	Woodhull State Bank, Woodhull, Illinois	Chicago	February 14, 1990
Farmers State Bancorporation, Inc., Hoffman, Illinois	Farmers State Bank of Hoffman, Hoffman, Illinois	St. Louis	February 1, 1990
The Farmers State Bank Corporation of Fort Morgan, Fort Morgan, Colorado	The Farmers State Bank of Fort Morgan, Fort Morgan, Colorado	Kansas City	January 26, 1990
FCFT, Inc., Princeton, West Virginia	First Community Bancshares, Inc., Princeton, West Virginia	Richmond	February 9, 1990
First Virginia Banks, Inc., Falls Church, Virginia	Flat Top Bankshares, Inc., Bluefield, West Virginia	Richmond	January 25, 1990
F.N.B. Corporation, Hermitage, Pennsylvania	New Bank, Cockeysville, Maryland	Richmond	January 25, 1990
Greeley Bancshares, Inc., Greeley, Kansas	Emclair Financial Corp., Emlenton, Pennsylvania	Cleveland	February 2, 1990
	Bank of Greeley, Greeley, Kansas	Kansas City	February 16, 1990

Section 3—Continued

Applicant(s)	Bank(s)	Reserve Bank	Effective date
High Point Bank Corporation, High Point, North Carolina	High Point Bank and Trust Company, High Point, North Carolina	Richmond	February 13, 1990
Lonoke Bancshares, Inc., Lonoke, Arkansas	First State Bank, Lonoke, Arkansas	St. Louis	February 7, 1990
Metro Financial Corporation, Atlanta, Georgia	Metro Bank, Atlanta, Georgia	Atlanta	January 26, 1990
Mid-Michigan Bancorp, Inc., Portland, Michigan	Maynard-Allen State Bank, Portland, Michigan	Chicago	February 21, 1990
Montgomery Bancorp, Inc., Bethesda, Maryland	Prince George's National Bank, Landover, Maryland	Richmond	February 5, 1990
New East Bancorp, Raleigh, North Carolina	New East Bank of Elizabeth City, Elizabeth City, North Carolina	Richmond	February 5, 1990
Omega Financial Corporation, State College, Pennsylvania	Mifflinburg Bancorp, Inc., Mifflinburg, Pennsylvania	Philadelphia	January 29, 1990
Pennyrile Bancshares, Inc., Hopkinsville, Kentucky	Pennyrile Citizens Bank and Trust Company, Hopkinsville, Kentucky	St. Louis	January 25, 1990
Planters & Merchants Bancshares, Inc., Gillett, Arkansas	Planters & Merchants Bank, Gillett, Arkansas	St. Louis	January 26, 1990
Sun State Capital Corporation, Las Vegas, Nevada	Sun State Bank, Las Vegas, Nevada	San Francisco	February 16, 1990
Synovus Financial Corp., Columbus, Georgia	NBWC Corporation, Monroe, Georgia	Atlanta	February 5, 1990
TB&C Bancshares, Inc., Columbus, Georgia			
Synovus Financial Corp., Columbus, Georgia	State Bancshares, Inc., Enterprise, Alabama	Atlanta	February 9, 1990
TB&C Bancshares, Inc., Columbus, Georgia			
Union Bancshares, Inc., Blairsville, Georgia	Citizens Bank, Murphy, North Carolina	Atlanta	January 31, 1990
Walden Holding Company, Jonesboro, Arkansas	Baker Financial Corporation, Pocahontas, Arkansas	St. Louis	February 12, 1990

Section 4

Applicant(s)	Nonbanking Activity/Company	Reserve Bank	Effective date
A.B.N. - Stichting, Amsterdam, The Netherlands Alegemene Bank Nederland N.V., Amsterdam, The Netherlands ABN/LaSalle North America, Inc., Chicago, Illinois LaSalle National Corporation, Chicago, Illinois	LaSalle National Trust, N.A., Chicago, Illinois	Chicago	February 21, 1990
The Chase Manhattan Corporation, New York, New York Citicorp, New York, New York	Chase Securities, Inc., New York, New York	New York	February 5, 1990
MNC Financial, Inc., Baltimore, Maryland MNC Financial, Inc., Baltimore, Maryland PSB Financial Corporation, Many, Louisiana Springfield Investment Company, Springfield, Minnesota	American Financial Systems, Inc., Haverford, Pennsylvania Mid-Atlantic Holdings, Inc., Fayetteville, North Carolina Newton Finance Company, Inc., Covington, Georgia H & R Block, Many, Louisiana Morgan Insurance Agency, Morgan, Minnesota Ziegenhagen Insurance Agency, Clements, Minnesota	New York	February 8, 1990
		Richmond	January 30, 1990
		Richmond	February 7, 1990
		Dallas	January 26, 1990
		Minneapolis	February 16, 1990

APPLICATIONS APPROVED UNDER BANK MERGER ACT

By Federal Reserve Banks

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

Applicant(s)	Bank(s)	Reserve Bank	Effective date
Metro Bank, Atlanta, Georgia New Bank, Cockeysville, Maryland	Metro Interim Bank, Atlanta, Georgia Clifton Trust Bank, Cockeysville, Maryland	Atlanta	January 26, 1990
		Richmond	January 25, 1990

PENDING CASES INVOLVING THE BOARD OF GOVERNORS

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

BancTEXAS Group, Inc. v. Board of Governors, No. CA 3-90-0236-R (N.D. Texas, filed February 2, 1990). Plaintiff seeks temporary restraining order and preliminary injunction enjoining the Board from enforcing a temporary order to cease and desist requiring injection of capital into plaintiff's subsidiary banks under the Board's source of strength doctrine. The district court denied the TRO request on February 6, 1990.

Woodward v. Board of Governors, No. 90-3031 (11th Cir., filed January 16, 1990); *Kaimowitz v. Board of Governors*, No. 90-3067 (11th Cir., filed January 23, 1990). Petitions for review of Board order dated December 22, 1989, approving application by First Union Corporation to acquire Florida National Banks. Petitioners object to approval on Community Reinvestment Act grounds. The court denied their motion for a stay of the Board's order, and is considering jurisdictional issues raised by the Board.

Securities Industry Association v. Board of Governors, No. 89-1730 (D.C. Cir., filed November 29, 1989). Petition for review of Board order approving application under section 4(c)(8) to engage in private placement and riskless principal activities. The case has been held in abeyance pending the outcome of *Securities Industry Association v. Board of Governors*, No. 89-1127 (D.C. Circuit).

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

Consumers Union of U.S., Inc. v. Board of Governors, No. 89-3008 (D.D.C., filed November 1, 1989). Challenge to various aspects of amendments to Regulation Z implementing the Home Equity Loan Consumer Protection Act. The Board and Consumers Union have filed cross-motions for summary judgment.

Synovus Financial Corp. v. Board of Governors, No. 89-1394 (D.C. Cir., filed June 21, 1989). Petition for review of Board order permitting relocation of a

bank holding company's national bank subsidiary from Alabama to Georgia.

MCorp v. Board of Governors, No. 89-2816 (5th Cir., filed May 2, 1989). Appeal of preliminary injunction against the Board enjoining pending and future enforcement actions against bank holding company now in bankruptcy. Awaiting decision.

Independent Insurance Agents of America v. Board of Governors, No. 89-4030 (2d Cir., filed March 9, 1989). Petition for review of Board order ruling that the non-banking restrictions of section 4 of the Bank Holding Company Act apply only to non-bank subsidiaries of bank holding companies. The Board's order was upheld on November 29, 1989. Petitions in the Second Circuit and the Supreme Court for a stay pending review have been denied.

Securities Industry Association v. Board of Governors, No. 89-1127 (D.C. Cir., filed February 16, 1989). Petition for review of Board order permitting five bank holding companies to engage to a limited extent in additional securities underwriting and dealing activities. Oral argument is scheduled for March 6, 1990.

American Land Title Assoc. v. Board of Governors, No. 88-1872 (D.C. Cir., filed December 16, 1988). Petition for review of Board order ruling that exemption G from the section 4(c)(8) prohibition on insurance activities, which grandfathers insurance agency activities by bank holding companies that conducted insurance agency activities before January 1, 1971, does not limit those grandfathered activities to the specific ones undertaken at that time. Board's order upheld on December 29, 1989.

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

White v. Board of Governors, No. CU-S-88-623-RDF (D. Nev., filed July 29, 1988). Age discrimination complaint.

Cohen v. Board of Governors, No. 88-1061 (D.N.J., filed March 7, 1988). Action seeking disclosure of documents under the Freedom of Information Act.

Lewis v. Board of Governors, Nos. 87-3455, 87-3545 (11th Cir., filed June 25, August 3, 1987). Petition for review of Board orders approving applications of non-Florida bank holding companies to expand activities of Florida trust company subsidiaries. Matter stayed pending Supreme Court review of *Continental Illinois Corp. v. Lewis*, 827 F.2d 1517 (11th Cir. 1987).

***FINAL ENFORCEMENT ORDERS ISSUED BY
BOARD OF GOVERNORS***

**Bank Dagang Negara
Jakarta, Indonesia**

The Federal Reserve Board announced on February 21, 1990, the issuance of a Cease and Desist Order against the Bank Dagang Negara, Jakarta, Indonesia, and its Los Angeles Agency.

**Ben D. Campbell
Former Chairman of the Board of Directors
Flower Mound Bank
Flower Mound, Texas**

The Federal Reserve Board announced on February 6, 1990, the issuance of an Order of Prohibition against

Ben D. Campbell, the former Chairman of the board of directors of the Flower Mound Bank, Flower Mound, Texas. Mr. Campbell, who consented to the issuance of the Order of Prohibition, is henceforth prohibited from participating, including serving as an officer, director or employee, in any manner in the conduct of the affairs of any institution supervised by a financial institution supervisory agency without the approval of the appropriate federal banking agency.

Financial and Business Statistics

NOTE. The following tables may have some discontinuities in historical data for some series beginning with the December 1989 issue: 1.12, 1.33, 1.44, 1.52, 1.57–1.60, 2.10, 2.12, 2.13, 3.10,

3.11, 3.15–3.20, 3.22–3.25, 3.27, 3.28, and 4.30. For a more detailed explanation of the changes, see the announcement on page 16 of the January 1990 BULLETIN.

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

Annual rates of change, seasonally adjusted in percent¹

Monetary and credit aggregates	1989				1989				1990
	Q1 ^r	Q2 ^r	Q3 ^r	Q4 ^r	Sept. ^r	Oct. ^r	Nov. ^r	Dec. ^r	Jan.
<i>Reserves of depository institutions²</i>									
1 Total	-4.2	-8.7	.3	5.7	9.6	8.1	-1.1	8.5	-4.4
2 Required	-4.4	-7.6	.1	5.5	8.6	6.5	.4	9.1	-6.4
3 Nonborrowed	.0	-10.2	8.3	7.8	9.3	11.0	3.1	10.3	-8.0
4 Monetary base ³	4.2	1.6	3.2	4.1	4.9	4.3	1.6	7.5	10.7
<i>Concepts of money, liquid assets, and debt⁴</i>									
5 M1	-1	-4.4	1.8	5.1	4.0	7.8	2.0	8.2	.2
6 M2	2.3	1.6	6.9	7.1	6.3	6.9	7.3	7.8	4.0
7 M3	3.9	3.3	3.9	1.9	.0	1.4	4.0	4.0	2.6
8 L	5.2	5.0	4.3	2.7	1.3	1.7	3.8	5.0	n.a.
9 Debt	8.4	7.9	7.2	8.0	7.1	8.6	8.9	5.6	n.a.
<i>Nontransaction components</i>									
10 In M2 ⁵	3.2	3.7	8.7	7.7	7.1	6.6	9.0	7.7	5.3
11 In M3 only ⁶	9.6	9.1	-6.8	-16.7	-22.9	-19.2	-8.8	-10.7	-2.8
<i>Time and savings deposits</i>									
<i>Commercial banks</i>									
12 Savings ⁷	-5.5	-11.5	.4	7.1	6.3	6.3	9.5	7.3	8.9
13 Small-denomination time ⁸	22.4	25.9	11.9	11.2	6.9	14.8	10.9	9.4	6.7
14 Large-denomination time ^{9,10}	16.5	16.3	3.0	2.6	-1.9	5.0	7.9	-2	.5
<i>Thrift institutions</i>									
15 Savings ⁷	-7.7	-14.9	-5.2	.3	2.9	-1.7	1.7	-1	.4
16 Small-denomination time	5.7	10.7	8.8	-2.5	-7	-5.8	-4.1	-1.0	-5.3
17 Large-denomination time ⁹	.7	7.5	-10.7	-28.7	-29.5	-32.8	-32.0	-20.5	-30.2
<i>Debt components⁴</i>									
18 Federal	7.7	6.9	4.6	9.6	11.0	9.8	11.1	3.6	n.a.
19 Nonfederal	8.6	8.2	8.0	7.5	5.9	8.2	8.2	6.2	n.a.

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

2. Figures incorporate adjustments for discontinuities associated with 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.

A4 Domestic Financial Statistics □ April 1990

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						
	1989		1990	1989		1990				
	Nov.	Dec.	Jan.	Dec. 20	Dec. 27	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31
SUPPLYING RESERVE FUNDS										
1 Reserve Bank credit	265,521	269,244	269,857	267,551	270,879	276,395	274,209	269,192	267,901	265,235
2 U.S. government securities ¹	217,455	224,142	222,417	222,841	224,613	228,646	226,700	222,410	220,558	217,228
3 Bought outright	216,475	223,031	221,432	222,609	221,943	225,276	224,145	222,410	220,558	217,228
4 Held under repurchase agreements	980	1,111	985	232	2,670	3,370	2,555	0	0	0
5 Federal agency obligations	6,602	6,683	6,644	6,544	6,786	7,164	6,810	6,525	6,525	6,525
6 Bought outright	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525
7 Held under repurchase agreements	77	158	119	19	261	639	285	0	0	0
8 Acceptances	0	0	0	0	0	0	0	0	0	0
9 Loans	346	289	412	189	513	523	155	219	379	851
10 Float	1,024	1,128	978	1,314	1,692	1,095	1,405	814	960	652
11 Other Federal Reserve assets	37,093	37,003	39,406	36,665	37,275	38,966	39,139	39,224	39,480	39,981
12 Gold stock ²	11,062	11,059	11,059	11,059	11,059	11,059	11,059	11,059	11,059	11,059
13 Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
14 Treasury currency outstanding	19,529	19,585	19,650	19,592	19,606	19,620	19,630	19,640	19,645	19,655
ABSORBING RESERVE FUNDS										
15 Currency in circulation	251,807	256,870	256,669	256,683	259,112	260,573	259,135	257,350	255,231	253,232
16 Treasury cash holdings ²	448	448	468	447	447	450	463	468	472	476
Deposits, other than reserve balances, with Federal Reserve Banks										
17 Treasury	5,008	4,787	6,302	4,402	4,571	6,283	5,416	4,108	5,930	9,550
18 Foreign	234	286	255	252	215	454	246	248	217	255
19 Service-related balances and adjustments	1,944	1,817	2,075	1,881	1,822	1,998	2,210	2,094	2,125	1,882
20 Other	333	397	364	337	337	1,004	164	227	209	625
21 Other Federal Reserve liabilities and capital	7,862	8,242	8,928	7,839	8,140	8,488	8,872	8,949	9,021	9,011
22 Reserve balances with Federal Reserve Banks ³	33,993	35,559	34,023	34,878	35,417	36,342	36,910	34,965	33,918	29,436
End-of-month figures				Wednesday figures						
	1989		1990	1989		1990				
	Nov.	Dec.	Jan.	Dec. 20	Dec. 27	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31
SUPPLYING RESERVE FUNDS										
23 Reserve Bank credit	267,060	276,622	265,926	270,208	283,575	277,334	274,917	271,289	269,550	265,926
24 U.S. government securities ¹	223,142	228,367	218,392	224,245	233,951	228,867	227,060	221,748	221,961	218,392
25 Bought outright	223,142	226,775	218,392	222,623	222,195	223,744	223,666	221,748	221,961	218,392
26 Held under repurchase agreements	0	1,592	0	1,622	11,756	5,123	3,394	0	0	0
27 Federal agency obligations	6,525	7,050	6,525	6,655	8,026	7,310	7,117	6,525	6,525	6,525
28 Bought outright	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525
29 Held under repurchase agreements	0	525	0	130	1,501	785	592	0	0	0
30 Acceptances	0	0	0	0	0	0	0	0	0	0
31 Loans	181	481	733	182	2,159	166	158	147	640	733
32 Float	668	1,093	216	2,100	1,514	2,034	888	3,649	768	216
33 Other Federal Reserve assets	36,544	39,631	40,061	37,028	37,926	38,956	39,694	39,222	39,656	40,061
34 Gold stock ²	11,060	11,059	11,059	11,059	11,059	11,059	11,059	11,059	11,059	11,059
35 Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
36 Treasury currency outstanding	19,564	19,615	19,655	19,592	19,606	19,620	19,630	19,640	19,645	19,655
ABSORBING RESERVE FUNDS										
37 Currency in circulation	253,960	260,443	253,123	257,700	260,291	260,601	258,319	256,749	254,251	253,123
38 Treasury cash holdings ²	445	455	479	447	447	450	467	471	475	479
Deposits, other than reserve balances, with Federal Reserve Banks										
39 Treasury	5,500	6,217	13,153	5,356	5,029	7,203	4,509	6,948	6,044	13,153
40 Foreign	307	589	251	228	269	282	216	273	188	251
41 Service-related balances and adjustments	1,638	1,618	1,882	1,637	1,626	1,998	2,210	2,094	2,125	1,882
42 Other	311	1,298	357	228	523	172	145	257	206	357
43 Other Federal Reserve liabilities and capital	8,402	8,486	8,884	7,641	8,062	8,654	8,859	8,692	8,824	8,884
44 Reserve balances with Federal Reserve Banks ³	35,639	36,709	27,029	36,141	46,511	37,170	39,399	35,022	36,658	27,029

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

Monetary Affairs, 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. Components may not add to totals because of rounding.

1.12 RESERVES AND BORROWINGS Depository Institutions¹

Millions of dollars

Reserve classification	Monthly averages ⁹									
	1987	1988	1989	1989						1990
	Dec.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
1 Reserve balances with Reserve Banks ²	37,673	37,830	35,436 ^r	33,902	32,823	33,556	33,123	33,941	35,436 ^r	34,087
2 Total vault cash ³	26,185	27,205 ^r	28,782	27,851	28,362 ^r	28,089 ^r	28,897 ^r	28,519	28,782	30,354
3 Vault ⁴	24,449	25,909	27,374	26,351	26,735	26,570	27,275	27,048	27,374	28,841
4 Surplus ⁵	1,736	1,296 ^r	1,409	1,499 ^r	1,627 ^r	1,519 ^r	1,622 ^r	1,472 ^r	1,409	1,513
5 Total reserves ⁶	62,123	63,739	62,810	60,254	59,559	60,126	60,397	60,989	62,810	62,928
6 Required reserves	61,094	62,699	61,888 ^r	59,288	58,674	59,188	59,378	60,044	61,888 ^r	61,914
7 Excess reserve balances at Reserve Banks ⁷	1,029	1,040	922 ^r	966	885	938	1,020	945	922 ^r	1,014
8 Total borrowings at Reserve Banks	777	1,716	265	694	675	693	555	349	265	440
9 Seasonal borrowings at Reserve Banks	93	130	84	497	490	452	330	134	84	47
10 Extended credit at Reserve Banks ⁸	483	1,244	20	106	41	22	21	21	20	26
Biweekly averages of daily figures for weeks ending										
	1989						1990			
	Oct. 4	Oct. 18	Nov. 1	Nov. 15	Nov. 29	Dec. 13	Dec. 27	Jan. 10 ^r	Jan. 24	Feb. 7
11 Reserve balances with Reserve Banks ²	32,643	33,581	32,778	34,468	33,394	35,399	35,131	36,627	34,424	29,787
12 Total vault cash ³	28,300 ^r	29,088 ^r	28,875	27,908 ^r	29,156	27,821	29,415	29,695	29,338	33,327
13 Vault ⁴	26,695	27,531	27,177	26,552	27,574	26,509	27,903	28,335	28,045	31,156
14 Surplus ⁵	1,605 ^r	1,557 ^r	1,698	1,357 ^r	1,582	1,312	1,513	1,360	1,294	2,171
15 Total reserves ⁶	59,338	61,112	59,955	61,020	60,968	61,908	63,033	64,961	62,468	60,943
16 Required reserves	58,343	60,186	58,827	60,139	59,958	61,149	62,015	63,844	61,627	59,733
17 Excess reserve balances at Reserve Banks ⁷	995	926	1,128	881	1,009	759	1,018	1,117	841	1,210
18 Total borrowings at Reserve Banks	898	653	345	272	441	151	351	339	300	865
19 Seasonal borrowings at Reserve Banks	453	342	280	147	115	87	89	58	41	44
20 Extended credit at Reserve Banks ⁸	25	19	23	20	23	22	19	19	27	33

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. Data are prorated monthly averages of biweekly averages.

1.13 SELECTED BORROWINGS IN IMMEDIATELY AVAILABLE FUNDS Large Member Banks¹

Averages of daily figures, in millions of dollars

Maturity and source	1988 and 1989 week ending Monday								
	Dec. 26	Jan. 2	Jan. 9	Jan. 16	Jan. 23	Jan. 30	Feb. 6	Feb. 13	Feb. 20
<i>Federal funds purchased, repurchase agreements, and other selected borrowing in immediately available funds</i>									
From commercial banks in the United States									
1 For one day or under continuing contract	70,964	67,427	75,520	70,344	69,604	66,372	71,750	71,162	69,950
2 For all other maturities	9,810	9,356	9,753	10,870	10,424	9,947	10,289	10,627	11,937
From other depository institutions, foreign banks and foreign official institutions, and U.S. government agencies									
3 For one day or under continuing contract	24,933	22,855	28,713	26,331	24,937	27,974	27,292	29,241	27,903
4 For all other maturities	8,730	7,709	6,801	7,431	6,694	6,345	6,524	6,787	7,467
<i>Repurchase agreements on U.S. government and federal agency securities in immediately available funds</i>									
Brokers and nonbank dealers in securities									
5 For one day or under continuing contract	13,043	12,610	15,134	14,513	15,955	16,041	14,289	14,754	15,077
6 For all other maturities	11,003	8,252	9,458	11,235	11,280	12,425	13,279	14,100	13,592
All other customers									
7 For one day or under continuing contract	27,986	27,418	28,613	29,334	28,826	28,775	27,966	27,901	27,792
8 For all other maturities	10,860	9,248	9,154	9,547	9,389	9,750	9,980	10,178	10,299
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	40,080	38,015	42,159	40,105	40,596	40,075	41,248	39,096	38,742
10 To all other specified customers ²	14,987	12,747	15,135	14,111	14,784	13,584	17,118	15,055	16,176

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

Federal Reserve Bank	Adjustment credit and Seasonal credit ¹			Extended credit ²						
				First 30 days of borrowing			After 30 days of borrowing ³			
	On 2/22/90	Effective date	Previous rate	On 2/22/90	Effective date	Previous rate	On 2/22/90	Effective date	Previous rate	Effective date
Boston	7	2/24/89	6½	7	2/24/89	6½	8.70	2/22/90	8.70	2/8/90
New York	↑	2/24/89	↑	↑	2/24/89	↑	↑	2/22/90	↑	2/8/90
Philadelphia		2/24/89			2/24/89			2/22/90		2/8/90
Cleveland		2/24/89			2/24/89			2/22/90		2/8/90
Richmond		2/24/89			2/24/89			2/22/90		2/8/90
Atlanta		2/24/89			2/24/89			2/22/90		2/8/90
Chicago		2/24/89			2/24/89			2/22/90		2/8/90
St. Louis		2/24/89			2/24/89			2/22/90		2/8/90
Minneapolis		2/24/89			2/24/89			2/22/90		2/8/90
Kansas City		2/24/89			2/24/89			2/22/90		2/8/90
Dallas	↓	2/27/89	↓	↓	2/27/89	↓	↓	2/22/90	↓	2/8/90
San Francisco	7	2/24/89	6½	7	2/24/89	6½	8.70	2/22/90	8.70	2/8/90

Range of rates for adjustment credit in recent years⁴

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
May 11	6½	6½	Sept. 26	11	11	Nov. 21	8½–9	8½
July 3	6½–7	7	Nov. 17	12	12	26	8½	8½
Aug. 10	7	7	Dec. 5	12–13	13	Dec. 24	8	8
Sept. 21	7–7¼	7¼	1981—May 5	13–14	14	1985—May 20	7½–8	7½
Oct. 2	7¼	7¼	8	14	14	24	7½	7½
Oct. 16	7¾	7¾	Nov. 2	13–14	13	1986—Mar. 7	7–7½	7
Nov. 1	8	8	Dec. 6	13	13	10	7	7
Nov. 3	8–8½	8½	Dec. 4	12	12	Apr. 21	6½–7	6½
1979—July 20	8½	8½	1982—July 20	11½–12	11½	July 11	6	6
Aug. 17	8½–9½	9½	23	11½	11½	Aug. 21	5½–6	5½
Sept. 20	9½	9½	Aug. 2	11	11	22	5½	5½
Sept. 19	10	10	3	11	11	1987—Sept. 4	5½–6	6
Oct. 8	10–10½	10½	16	10½	10½	11	6	6
Oct. 21	10½	10½	27	10–10½	10	1988—Aug. 9	6–6½	6½
Nov. 1	10½–11	11	30	9½	9½	11	6½	6½
Nov. 8	11	11	Nov. 12	9½–10	9½	1989—Feb. 24	6½–7	7
1980—Feb. 15	11–12	12	26	9	9	27	7	7
Feb. 19	12	12	Dec. 14	9	9	1990—Feb. 22	7	7
May 29	12–13	13	15	8½–9	8½			
May 30	12	12	17	8½	8½			
June 13	11–12	11						
June 16	11	11						

1. Adjustment credit is available on a short-term basis to help depository institutions meet temporary needs for funds that cannot be met through reasonable alternative sources. After May 19, 1986, the highest rate established for loans to depository institutions may be charged on adjustment credit loans of unusual size that result from a major operating problem at the borrower's facility.

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

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

3. For extended-credit loans outstanding more than 30 days, a flexible rate somewhat above rates on market sources of funds ordinarily will be charged, but

in no case will the rate charged be less than the basic discount rate plus 50 basis points. The flexible rate is reestablished on the first business day of each two-week reserve maintenance period. At the discretion of the Federal Reserve Bank, the time period for which the basic discount rate is applied may be shortened.

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

In 1980 and 1981, the Federal Reserve applied a surcharge to short-term adjustment credit borrowings by institutions with deposits of \$500 million or more that had borrowed in successive weeks or in more than four weeks in a calendar quarter. A 3 percent surcharge was in effect from Mar. 17, 1980 through May 7, 1980. There was no surcharge until Nov. 17, 1980, when a 2 percent surcharge was adopted; the surcharge was subsequently raised to 3 percent on Dec. 5, 1980, and to 4 percent on May 5, 1981. The surcharge was reduced to 3 percent effective Sept. 22, 1981, and to 2 percent effective Oct. 12, 1981. As of Oct. 1, 1981 the formula for applying the surcharge was changed from a calendar quarter to a moving 13-week period. The surcharge was eliminated on Nov. 17, 1981.

1.15 RESERVE REQUIREMENTS OF DEPOSITORY INSTITUTIONS¹

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
<i>Net transaction accounts</i> ^{3,4}		
\$0 million–\$40.4 million	3	12/19/89
More than \$40.4 million	12	12/19/89
<i>Nonpersonal time deposits</i> ⁵		
By original maturity		
Less than 1½ years	3	10/6/83
1½ years or more	0	10/6/83
<i>Eurocurrency liabilities</i>		
All types	3	11/13/80

1. Reserve requirements in effect on Dec. 31, 1989. Required reserves must be held in the form of deposits with Federal Reserve Banks or vault cash. Nonmember institutions may maintain reserve balances with a Federal Reserve Bank indirectly on a pass-through basis with certain approved institutions. For previous reserve requirements, see earlier editions of the *Annual Report* or the *Federal Reserve Bulletin*. Under provisions of the Monetary Control Act, depository institutions include commercial banks, mutual savings banks, savings and loan associations, credit unions, agencies and branches of foreign banks, and Edge corporations.

2. The Garn–St Germain Depository Institutions Act of 1982 (Public Law 97–320) requires that \$2 million of reservable liabilities (transaction accounts, nonpersonal time deposits, and Eurocurrency liabilities) of each depository institution be subject to a zero percent reserve requirement. The Board is to adjust the amount of reservable liabilities subject to this zero percent reserve requirement each year for the succeeding calendar year by 80 percent of the percentage increase in the total reservable liabilities of all depository institutions, measured on an annual basis as of June 30. No corresponding adjustment is to be made in the event of a decrease. On Dec. 20, 1988, the exemption was raised from \$3.2 million to \$3.4 million. In determining the reserve requirements of depository institutions, the exemption shall apply in the following order: (1) net NOW accounts (NOW accounts less allowable deductions); (2) net other transaction accounts; and (3) nonpersonal time deposits or Eurocurrency liabilities starting with those with the highest reserve ratio. With respect to NOW accounts and

other transaction accounts, the exemption applies only to such accounts that would be subject to a 3 percent reserve requirement.

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

4. The Monetary Control Act of 1980 requires that the amount of transaction accounts against which the 3 percent reserve requirement applies be modified annually by 80 percent of the percentage change in transaction accounts held by all depository institutions, determined as of June 30 each year. Effective Dec. 19, 1989 for institutions reporting quarterly and Dec. 26, 1989 for institutions reporting weekly, the amount was decreased from \$41.5 million to \$40.4 million.

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

1.17 FEDERAL RESERVE OPEN MARKET TRANSACTIONS¹

Millions of dollars

Type of transaction	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct.	Nov.	Dec.
U.S. TREASURY SECURITIES										
<i>Outright transactions (excluding matched transactions)</i>										
Treasury bills										
1 Gross purchases	18,983	8,223	14,284	0	0	0	0	219	8,794	1,883
2 Gross sales	6,051	587	12,818	571	5,517	934	0	1,633	0	0
3 Exchange	0	0	0	0	0	0	0	0	0	0
4 Redemptions	9,029	2,200	12,730	1,200	2,400	800	0	1,400	3,530	0
Others within 1 year										
5 Gross purchases	3,659	2,176	327	0	0	0	0	0	155	0
6 Gross sales	300	0	0	0	0	0	0	0	0	0
7 Maturity shift	21,504	23,854	28,848	1,828	1,749	4,200	1,832	852	3,915	1,268
8 Exchange	-20,388	-24,588	-25,783	-1,434	-1,073	-4,025	0	-2,678	-5,502	0
9 Redemptions	70	0	500	0	0	0	0	500	0	0
1 to 5 years										
10 Gross purchases	10,231	5,485	1,436	0	0	0	0	0	0	0
11 Gross sales	452	800	490	0	13	150	0	24	0	0
12 Maturity shift	-17,975	-17,720	-25,534	-1,828	-1,584	-3,321	-1,832	-758	-2,869	-1,268
13 Exchange	18,938	22,515	23,250	1,434	787	3,425	0	2,552	4,902	0
5 to 10 years										
14 Gross purchases	2,441	1,579	287	0	0	0	0	0	0	0
15 Gross sales	0	175	29	0	9	0	0	0	0	0
16 Maturity shift	-3,529	-5,946	-2,231	0	-165	-879	0	-95	-1,046	0
17 Exchange	950	1,797	1,934	0	286	400	0	126	400	0
Over 10 years										
18 Gross purchases	1,858	1,398	284	0	0	0	0	0	0	0
19 Gross sales	0	0	0	0	0	0	0	0	0	0
20 Maturity shift	0	-188	-1,086	0	0	0	0	0	0	0
21 Exchange	500	275	600	0	0	200	0	0	200	0
All maturities										
22 Gross purchases	37,170	18,863	16,617	0	0	0	0	219	8,949	1,883
23 Gross sales	6,803	1,562	13,337	571	5,539	1,084	0	1,657	0	0
24 Redemptions	9,099	2,200	13,230	1,200	2,400	800	0	1,900	3,530	0
<i>Matched transactions</i>										
25 Gross sales	950,923	1,168,484	1,323,480	128,139	123,373	146,611	116,502	111,430	105,696	103,077
26 Gross purchases	950,935	1,168,142	1,326,542	138,141	118,221	147,228	120,144	111,893	105,243	104,827
<i>Repurchase agreements²</i>										
27 Gross purchases	314,621	152,613	129,518	6,203	4,961	0	9,396	0	15,350	22,737
28 Gross sales	324,666	151,497	132,688	6,203	4,961	0	9,396	0	15,350	21,145
29 Net change in U.S. government securities	11,234	15,872	-10,055	8,232	-13,091	-1,267	3,642	-2,875	4,966	5,225
FEDERAL AGENCY OBLIGATIONS										
<i>Outright transactions</i>										
30 Gross purchases	0	0	0	0	0	0	0	0	0	0
31 Gross sales	0	0	0	0	0	0	0	0	0	0
32 Redemptions	276	587	442	0	45	0	54	30	0	0
<i>Repurchase agreements²</i>										
33 Gross purchases	80,353	57,259	39,972	1,666	1,137	0	4,011	0	1,247	2,992
34 Gross sales	81,350	56,471	41,548	1,666	1,137	0	4,011	0	1,247	2,467
35 Net change in federal agency obligations	-1,274	198	-2,018	0	-45	0	-54	-30	0	525
36 Total net change in System Open Market Account	9,961	16,070	-12,073	8,232	-13,136	-1,267	3,588	-2,905	4,966	5,750

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.

A10 Domestic Financial Statistics □ April 1990

1.18 FEDERAL RESERVE BANKS Condition and Federal Reserve Note Statements¹

Millions of dollars

Account	Wednesday					End of month		
	1990					1989		1990
	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31	Nov.	Dec.	Jan.
Consolidated condition statement								
ASSETS								
1 Gold certificate account	11,059	11,060	11,059	11,059	11,059	11,060	11,059	11,059
2 Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
3 Coin	447	455	478	505	524	465	456	524
Loans								
4 To depository institutions	166	157	146	640	733	182	481	733
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	6,525	6,525	6,525	6,525	6,525	6,525	6,525	6,525
8 Held under repurchase agreements	785	592	0	0	0	0	525	0
U.S. Treasury securities								
Bought outright								
9 Bills	101,549	101,471	99,553	99,766	96,197	100,947	104,581	96,197
10 Notes	91,381	91,381	91,381	91,381	91,381	91,381	91,381	91,381
11 Bonds	30,814	30,814	30,814	30,814	30,814	30,814	30,814	30,814
12 Total bought outright ²	223,744	223,666	221,748	221,961	218,392	223,142	226,775	218,392
13 Held under repurchase agreements	5,123	3,394	0	0	0	0	1,592	0
14 Total U.S. Treasury securities	228,867	227,060	221,748	221,961	218,392	223,142	228,367	218,392
15 Total loans and securities	236,343	234,334	228,418	229,125	225,649	229,848	235,898	225,649
16 Items in process of collection	10,830	7,225	14,272	5,892	5,848	6,103	8,903	5,848
17 Bank premises	790	791	791	791	791	790	790	791
Other assets								
18 Denominated in foreign currencies ³	31,335	31,487	31,585	31,744	31,920	29,593	31,333	31,920
19 All other ⁴	6,741	6,879	6,854	7,110	7,723	6,175	7,465	7,723
20 Total assets	306,063	300,748	301,977	294,746	292,033	292,539	304,424	292,033
LIABILITIES								
21 Federal Reserve notes	241,878	239,611	238,059	235,588	234,471	235,306	241,739	234,471
Deposits								
22 To depository institutions	38,948	41,594	37,528	38,540	29,464	37,277	38,327	29,464
23 U.S. Treasury—General account	7,203	4,509	6,948	6,044	13,153	5,500	6,217	13,153
24 Foreign—Official accounts	282	216	273	188	251	307	590	251
25 Other	172	145	257	206	357	311	1,298	357
26 Total deposits	46,606	46,463	45,007	44,978	43,228	43,395	46,430	43,228
27 Deferred credit items	8,925	5,815	10,220	5,357	5,452	5,436	7,773	5,452
28 Other liabilities and accrued dividends ⁵	3,980	3,943	3,795	3,915	3,911	3,081	3,994	3,911
29 Total liabilities	301,389	295,831	297,079	289,837	287,060	287,217	299,935	287,060
CAPITAL ACCOUNTS								
30 Capital paid in	2,243	2,249	2,249	2,250	2,249	2,229	2,243	2,249
31 Surplus	2,243	2,243	2,243	2,243	2,243	2,112	2,243	2,243
32 Other capital accounts	188	425	405	416	481	980	0	481
33 Total liabilities and capital accounts	306,063	300,748	301,977	294,746	292,033	292,539	304,423	292,033
34 MEMO: Marketable U.S. Treasury securities held in custody for foreign and international accounts	228,101	228,427	228,568	228,643	228,073	235,096	233,048	228,073
Federal Reserve note statement								
35 Federal Reserve notes outstanding issued to bank	279,177	278,757	279,256	279,680	279,920	279,629	279,665	279,920
36 LESS: Held by bank	37,298	39,146	41,197	44,092	45,449	44,321	37,926	45,449
37 Federal Reserve notes, net	241,878	239,611	238,059	235,588	234,471	235,306	241,739	234,471
Collateral held against notes net:								
38 Gold certificate account	11,059	11,060	11,059	11,059	11,059	11,060	11,059	11,059
39 Special drawing rights certificate account	8,518	8,518	8,518	8,518	8,518	8,518	8,518	8,518
40 Other eligible assets	0	0	0	0	0	0	0	0
41 U.S. Treasury and agency securities	222,301	220,033	218,481	216,010	214,894	215,728	222,162	214,894
42 Total collateral	241,878	239,611	238,059	235,588	234,471	235,306	241,739	234,471

1. Some of these data also appear in the Board's H.4.1 (503) release. For address, see inside front cover. Components may not add to totals because of rounding.
 2. Includes securities loaned—fully guaranteed by U.S. Treasury securities pledged with Federal Reserve Banks—and excludes securities sold and scheduled to be bought back under matched sale-purchase transactions.

3. Valued monthly at market exchange rates.
 4. Includes special investment account at the Federal Reserve Bank of Chicago in Treasury bills maturing within 90 days.
 5. Includes exchange-translation account reflecting the monthly revaluation at market exchange rates of foreign-exchange commitments.

1.19 FEDERAL RESERVE BANKS Maturity Distribution of Loan and Security Holding

Millions of dollars

Type and maturity groupings	Wednesday					End of month		
	1990					1989		1990
	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31	Nov. 30	Dec. 29	Jan. 31
1 Loans—Total	166	157	146	640	850	182	481	850
2 Within 15 days	158	145	146	640	848	134	469	848
3 16 days to 90 days	8	12	0	0	2	48	11	2
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	228,867	227,060	221,748	221,961	218,392	223,142	228,367	218,392
10 Within 15 days ¹	18,867	10,617	7,490	5,076	10,372	4,468	9,413	10,372
11 16 days to 90 days	47,380	53,508	53,750	54,451	47,233	51,283	55,523	47,233
12 91 days to 1 year	69,308	69,624	67,477	69,402	68,022	74,646	70,687	68,022
13 Over 1 year to 5 years	54,076	54,076	53,717	53,717	53,452	53,509	53,509	53,452
14 Over 5 years to 10 years	12,529	12,529	12,607	12,607	12,607	12,529	12,529	12,607
15 Over 10 years	26,706	26,706	26,706	26,706	26,706	26,706	26,706	26,706
16 Federal agency obligations—Total	7,310	6,525	6,525	6,525	6,525	6,525	7,050	6,525
17 Within 15 days ¹	798	84	203	156	119	316	678	119
18 16 days to 90 days	718	659	540	570	668	418	568	668
19 91 days to 1 year	1,336	1,311	1,311	1,281	1,253	1,395	1,346	1,253
20 Over 1 year to 5 years	3,198	3,231	3,231	3,277	3,238	3,159	3,198	3,238
21 Over 5 years to 10 years	1,071	1,051	1,051	1,051	1,057	1,048	1,071	1,057
22 Over 10 years	188	188	188	188	188	189	188	188

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

NOTE: Components may not add to totals due to rounding.

1.20 AGGREGATE RESERVES OF DEPOSITORY INSTITUTIONS AND MONETARY BASE¹

Billions of dollars, averages of daily figures

Item	1986 Dec.	1987 Dec.	1988 Dec.	1989 Dec.	1989						1990 Jan.	
					June	July	Aug.	Sept.	Oct.	Nov.		Dec.
Seasonally adjusted												
ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS ²												
1 Total reserves ³	58.14	58.69	60.71	59.99	58.35	58.70	58.75	59.22	59.62	59.57	59.99	59.77
2 Nonborrowed reserves	57.31	57.92	58.99	59.73	56.86	58.00	58.08	58.53	59.07	59.22	59.73	59.33
3 Nonborrowed reserves plus extended credit ⁴	57.62	58.40	60.23	59.74 ^f	57.78	58.11	58.12	58.55	59.09	59.24	59.74 ^f	59.36
4 Required reserves.....	56.77	57.66	59.67	59.07	57.44	57.73	57.87	58.29	58.60	58.62	59.07	58.76
5 Monetary base ⁵	241.63 ^f	258.27 ^f	275.54 ^f	285.08 ^f	278.94 ^f	279.97 ^f	280.76 ^f	281.91 ^f	282.92 ^f	283.31 ^f	285.08 ^f	287.62
Not seasonally adjusted												
6 Total reserves ³	59.46	60.06	62.21	61.50	58.41	58.95	58.30	58.91	59.14	59.72	61.50	61.43
7 Nonborrowed reserves	58.64	59.28	60.50	61.24	56.92	58.26	57.62	58.21	58.58	59.37	61.24	60.99
8 Nonborrowed reserves plus extended credit ⁴	58.94	59.76	61.74	61.26	57.84	58.37	57.66	58.24	58.61	59.39	61.26	61.02
9 Required reserves.....	58.09	59.03	61.17	60.58	57.51	57.99	57.41	57.97	58.12	58.77	60.58	60.42
10 Monetary base ⁵	245.25	262.08	279.71	289.45 ^f	280.19	282.10	281.09	280.70	281.37	284.13	289.45 ^f	288.72
NOT ADJUSTED FOR CHANGES IN RESERVE REQUIREMENTS ⁶												
11 Total reserves ³	59.56	62.12	63.74	62.81	59.59	60.25	59.56	60.13	60.40	60.99	62.81	62.93
12 Nonborrowed reserves	58.73	61.35	62.02	62.54	58.10	59.56	58.88	59.43	59.84	60.64	62.54	62.49
13 Nonborrowed reserves plus extended credit ⁴	59.04	61.83	63.27	62.56	59.01	59.67	58.93	59.46	59.86	60.66	62.56	62.51
14 Required reserves.....	58.19	61.09	62.70	61.89	58.68	59.29	58.67	59.19	59.38	60.04	61.89	61.91
15 Monetary base ⁵	247.71	266.16	283.18	292.71	283.28	285.39	284.23	283.78	284.49	287.35	292.71	292.31

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 isn't 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 MEASURES¹

Billions of dollars, averages of daily figures

Item ²	1986 Dec.'	1987 Dec.'	1988 Dec.'	1989 Dec.'	1989			1990 Jan.
					Oct.'	Nov.'	Dec.'	
Seasonally adjusted								
1 M1.....	724.7	750.4	787.5	794.8	788.1	789.4	794.8	794.9
2 M2.....	2,814.2	2,913.2	3,072.4	3,221.7	3,181.5	3,200.8	3,221.7	3,232.5
3 M3.....	3,494.5	3,678.7	3,918.4	4,043.3	4,016.6	4,029.8	4,043.3	4,052.2
4 L.....	4,135.5	4,338.7	4,676.1	4,866.0	4,830.4	4,845.8	4,866.0	n.a.
5 Debt.....	7,597.0	8,316.1	9,082.2	9,801.3	9,684.3	9,756.0	9,801.3	n.a.
M1 components								
6 Currency ³	180.6	196.7	211.8	221.9	220.0	220.4	221.9	224.6
7 Travelers checks ⁴	6.5	7.0	7.5	7.4	7.3	7.4	7.4	7.5
8 Demand deposits ⁵	302.1	287.0	287.0	279.7	280.0	278.8	279.7	277.3
9 Other checkable deposits ⁶	235.5	259.7	281.3	285.7	280.8	282.8	285.7	285.5
Nontransactions components								
10 In M2 ⁷	2,089.6	2,162.8	2,284.9	2,426.9	2,393.4	2,411.4	2,426.9	2,437.6
11 In M3 only ⁸	680.3	765.5	845.9	821.6	835.2	829.0	821.6	819.7
Savings deposits ⁹								
12 Commercial Banks.....	155.8	178.3	192.0	188.5	185.9	187.3	188.5	189.9
13 Thrift institutions.....	214.3	236.6	235.9	220.5	220.3	220.6	220.5	220.6
Small-denomination time deposits ¹⁰								
14 Commercial Banks.....	366.3	388.1	447.5	528.5	519.7	524.4	528.5	531.4
15 Thrift institutions.....	489.9	529.7	583.5	613.6	616.2	614.1	613.6	610.9
Money market mutual funds								
16 General purpose and broker-dealer.....	208.7	222.0	240.9	313.1	302.7	309.1	313.1	320.8
17 Institution-only.....	83.8	89.0	87.1	102.3	101.1	101.1	102.3	103.3
Large-denomination time deposits ¹¹								
18 Commercial Banks ¹²	289.8	326.9	368.2	401.4	398.8	401.4	401.4	401.5
19 Thrift institutions.....	150.0	161.9	172.9	156.8	163.8	159.5	156.8	152.8
Debt components								
20 Federal debt.....	1,805.8	1,957.4	2,113.5	2,265.8	2,238.3	2,259.0	2,265.8	n.a.
21 Nonfederal debt.....	5,791.2	6,358.6	6,968.7	7,535.5	7,445.9	7,497.1	7,535.5	n.a.
Not seasonally adjusted								
22 M1.....	740.5	766.4	804.5	812.1	785.0	791.7	812.1	802.4
23 M2.....	2,826.5	2,925.6	3,085.2	3,234.6	3,178.9	3,204.4	3,234.6	3,244.2
24 M3.....	3,508.8	3,692.7	3,932.5	4,057.4	4,016.7	4,039.6	4,057.4	4,061.2
25 L.....	4,151.5	4,355.0	4,692.9	4,883.4	4,830.3	4,854.6	4,883.4	n.a.
26 Debt.....	7,580.7	8,297.6	9,067.5	9,787.1	9,650.1	9,723.0	9,787.1	n.a.
M1 components								
27 Currency ³	183.0	199.3	214.8	225.3	218.9	221.0	225.3	222.9
28 Travelers checks ⁴	6.0	6.5	6.9	6.9	7.3	7.0	6.9	7.0
29 Demand deposits ⁵	314.0	298.6	298.9	291.6	280.7	281.6	291.6	283.0
30 Other checkable deposits ⁶	237.5	262.0	283.8	288.4	278.1	282.1	288.4	289.5
Nontransactions components								
31 M2 ⁷	2,086.0	2,159.2	2,280.8	2,422.5	2,393.9	2,412.7	2,422.5	2,441.8
32 M3 only ⁸	682.3	767.0	847.3	822.8	837.8	835.1	822.8	817.0
Money market deposit accounts								
33 Commercial Banks.....	379.8	359.0	353.2	355.0	342.7	350.3	355.0	356.4
34 Thrift institutions.....	192.9	167.5	150.6	132.9	131.8	132.8	132.9	133.0
Savings deposits ⁹								
35 Commercial Banks.....	154.4	176.9	190.6	187.2	185.9	187.1	187.2	189.0
36 Thrift institutions.....	212.7	234.9	234.2	219.0	221.3	220.5	219.0	219.0
Small-denomination time deposits ¹⁰								
37 Commercial Banks.....	366.1	387.3	446.0	526.4	519.3	523.1	526.4	530.8
38 Thrift institutions.....	489.8	529.1	582.4	612.3	616.3	614.2	612.3	613.0
Money market mutual funds								
39 General purpose and broker-dealer.....	208.0	221.5	240.5	312.8	301.3	309.8	312.8	319.6
40 Institution-only.....	84.4	89.6	87.6	102.9	98.7	102.1	102.9	106.1
Large-denomination time deposits ¹¹								
41 Commercial Banks ¹²	289.2	325.8	366.9	399.7	399.9	401.9	399.7	399.2
42 Thrift institutions.....	150.7	162.9	174.2	158.2	165.5	161.7	158.2	154.0
Debt components								
43 Federal debt.....	1,803.9	1,955.6	2,111.8	2,264.1	2,222.6	2,250.8	2,264.1	n.a.
44 Nonfederal debt.....	5,776.8	6,342.0	6,955.7	7,523.0	7,427.5	7,472.2	7,523.0	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 Monetary and Reserves Projection section, Division of Monetary Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

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

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

M2: M1 plus overnight (and continuing contract) repurchase agreements (RPs) issued by all 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 TURNOVER¹

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	1986 ²	1987 ²	1988 ²	1989					
				June	July	Aug.	Sept.	Oct.	Nov.
DEBITS TO									
Seasonally adjusted									
Demand deposits ³									
1 All insured banks	188,346.0	217,116.2	226,888.4	284,129.2	276,453.7	292,446.5	281,432.2	293,424.9	296,768.7
2 Major New York City banks	91,397.3	104,496.3	107,547.3	129,166.6	114,991.8	121,378.1	125,206.9	136,039.0	130,440.2
3 Other banks	96,948.8	112,619.8	119,341.2	154,962.7	161,461.9	171,068.3	156,225.3	155,385.9	166,328.5
4 ATS-NOW accounts ⁴	2,182.5	2,402.7	2,757.7	3,696.5	3,596.3	3,943.1	3,601.9	3,911.9	3,855.2
5 Savings deposits ⁵	403.5	526.5	583.0	640.0	580.4	650.0	672.3	665.4	610.3
DEPOSIT TURNOVER									
Demand deposits ³									
6 All insured banks	556.5	612.1	641.2	824.0	788.4	841.8	802.2	826.4	855.7
7 Major New York City banks	2,498.2	2,670.6	2,903.5	3,588.5	3,222.3	3,402.4	3,482.2	3,486.5	3,499.8
8 Other banks	321.2	357.0	376.8	501.8	512.6	548.8	496.2	492.5	537.3
9 ATS-NOW accounts ⁴	15.6	13.8	14.7	19.8	19.1	20.6	18.8	20.1	19.7
10 Savings deposits ⁵	3.0	3.1	3.1	3.6	3.2	3.6	3.7	3.6	3.3
DEBITS TO									
Not seasonally adjusted									
Demand deposits ³									
11 All insured banks	188,506.7	217,125.1	227,010.7	295,522.8	268,243.0	304,407.5	266,882.2	292,750.0	285,372.8
12 Major New York City banks	91,500.1	104,518.8	107,565.0	134,020.7	117,276.1	132,158.8	115,187.4	138,964.6	129,905.5
13 Other banks	97,006.7	112,606.2	119,445.7	161,502.1	150,966.9	172,248.7	151,694.7	153,785.5	155,467.3
14 ATS-NOW accounts ⁴	2,184.6	2,404.8	2,754.7	3,770.8	3,549.0	3,762.6	3,702.7	3,891.4	3,611.5
15 MMDA ⁶	1,609.4	1,954.2	2,430.1	3,136.0	2,686.7	3,068.7	2,554.3	2,651.5	2,569.1
16 Savings deposits ⁵	404.1	526.8	578.0	641.4	610.4	656.7	665.2	690.4	555.9
DEPOSIT TURNOVER									
Demand deposits ³									
17 All insured banks	556.7	612.3	641.7	855.6	761.3	891.5	763.1	829.6	815.6
18 Major New York City banks	2,499.1	2,674.9	2,901.4	3,795.0	3,247.5	3,911.6	3,279.7	3,594.8	3,548.5
19 Other banks	321.2	356.9	377.1	520.9	477.4	559.9	482.2	489.4	496.3
20 ATS-NOW accounts ⁴	15.6	13.8	14.7	20.3	18.9	20.0	19.5	20.3	18.5
21 MMDA ⁶	4.5	5.3	6.9	9.7	8.2	9.2	7.6	7.8	7.4
22 Savings deposits ⁵	3.0	3.1	3.1	3.6	3.4	3.6	3.7	3.8	3.0

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

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

2. Annual averages of monthly figures.

3. Represents accounts of individuals, partnerships, and corporations and

of states and political subdivisions.

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

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

6. Money market deposit accounts.

A16 Domestic Financial Statistics □ April 1990

1.23 LOANS AND SECURITIES All Commercial Banks¹

Billions of dollars; averages of Wednesday figures

Category	1989												1990
	Feb.'	Mar.'	Apr.'	May'	June'	July'	Aug.'	Sept.'	Oct.'	Nov.'	Dec.'	Jan.	
	Seasonally adjusted												
1 Total loans and securities²	2,445.1	2,460.3	2,469.2	2,482.9	2,496.0	2,512.4	2,527.4	2,538.9	2,562.6	2,577.7	2,581.2	2,585.0	
2 U.S. government securities	362.0	368.0	370.5	372.5	373.7	374.0	375.5	378.1	389.8	394.6	394.2	402.3	
3 Other securities	190.0	189.3	188.3	187.8	187.3	186.3	183.8	183.1	181.0	179.4	180.4	180.2	
4 Total loans and leases²	1,893.1	1,903.0	1,910.5	1,922.6	1,935.0	1,952.1	1,968.2	1,977.7	1,991.9	2,003.7	2,006.5	2,002.4	
5 Commercial and industrial	617.4	619.1	621.7	626.6	627.1	631.8	636.1	637.7	641.3	645.0	641.6	638.1	
6 Bankers acceptances held ³	8.2	8.4	8.3	8.3	8.2	7.9	8.1	8.4	8.8	8.1	7.6	7.4	
7 Other commercial and industrial	609.2	610.7	613.4	618.4	618.9	623.9	628.0	629.3	632.6	636.9	634.0	630.7	
8 U.S. addressees ⁴	602.8	604.2	607.0	612.8	613.2	619.8	624.3	625.4	628.4	631.8	628.6	623.0	
9 Non-U.S. addressees	6.4	6.5	6.4	5.6	5.8	4.0	3.7	3.9	4.2	5.1	5.5	7.7	
10 Real estate	684.1	689.9	698.9	705.6	713.0	720.1	727.7	735.8	742.1	748.4	755.8	759.1	
11 Individual	358.1	358.9	361.6	363.5	363.8	365.8	367.5	370.3	372.6	374.5	375.7	377.8	
12 Security	45.1	43.8	40.0	38.5	40.6	40.1	39.1	39.8	41.3	41.6	39.6	39.2	
13 Nonbank financial institutions	30.6	30.1	29.6	29.3	30.5	31.3	31.5	31.8	32.7	33.3	32.7	32.3	
14 Agricultural	30.0	29.7	29.7	29.9	30.0	30.0	29.9	29.6	29.6	29.9	30.3	30.9	
15 State and political subdivisions	43.4	43.4	43.3	43.1	42.8	42.5	42.2	41.7	41.3	40.8	40.1	38.6	
16 Foreign banks	8.0	7.4	7.3	8.0	7.9	7.9	8.1	7.5	8.5	8.0	8.6	7.9	
17 Foreign official institutions	4.7	4.7	4.7	4.5	4.2	4.0	3.8	3.8	3.6	3.3	3.3	2.9	
18 Lease financing receivables	29.8	30.0	30.0	30.2	30.2	30.7	31.0	31.3	31.7	31.6	31.4	31.7	
19 All other loans	41.9	46.1	43.7	43.3	44.9	47.9	51.2	48.3	47.2	47.2	47.4	43.9	
	Not seasonally adjusted												
20 Total loans and securities²	2,447.1	2,455.0	2,469.4	2,482.2	2,496.3	2,507.0	2,521.1	2,537.5	2,562.9	2,579.8	2,589.2	2,590.6	
21 U.S. government securities	366.1	369.5	370.4	371.6	371.3	372.1	376.1	377.2	387.1	394.7	395.4	404.0	
22 Other securities	189.9	188.8	187.5	187.1	186.5	184.7	183.8	183.3	181.9	180.7	181.4	180.7	
23 Total loans and leases²	1,891.0	1,896.7	1,911.5	1,923.5	1,938.5	1,950.2	1,961.2	1,970.7	1,993.9	2,004.5	2,012.5	2,005.9	
24 Commercial and industrial	617.9	621.1	625.9	630.6	629.6	631.9	633.4	637.0	638.7	642.3	641.6	636.6	
25 Bankers acceptances held ³	8.4	8.3	8.1	8.1	8.0	7.6	8.1	8.4	8.9	8.2	7.7	7.5	
26 Other commercial and industrial	609.5	612.8	617.9	622.5	621.6	624.3	625.3	625.3	629.8	634.0	633.8	629.1	
27 U.S. addressees ⁴	604.2	607.4	612.5	616.9	616.0	618.6	619.8	619.8	624.2	628.6	628.5	624.1	
28 Non-U.S. addressees ⁴	5.3	5.4	5.4	5.6	5.6	5.7	5.5	5.5	5.6	5.5	5.3	5.0	
29 Real estate	681.9	687.5	697.2	704.6	712.9	720.7	729.2	737.8	743.4	750.1	756.6	759.1	
30 Individual	357.3	355.8	359.0	361.2	362.1	364.3	367.7	372.1	373.7	375.9	380.2	381.4	
31 Security	44.5	44.8	42.6	39.0	43.0	40.2	38.5	38.9	40.2	40.4	38.6	37.5	
32 Nonbank financial institutions	30.2	29.4	29.5	29.2	30.8	31.4	31.3	31.4	32.4	33.6	33.7	33.0	
33 Agricultural	29.1	28.7	28.8	29.5	30.3	30.7	30.7	30.5	30.4	30.2	30.2	30.3	
34 State and political subdivisions	44.0	43.6	43.3	43.0	42.6	42.1	41.9	41.6	41.2	40.6	39.7	39.5	
35 Foreign banks	7.9	7.0	7.0	7.9	8.1	8.0	8.1	7.8	8.8	8.1	8.4	8.0	
36 Foreign official institutions	4.7	4.7	4.7	4.5	4.2	4.0	3.8	3.8	3.6	3.3	3.3	2.9	
37 Lease financing receivables	29.9	29.9	30.1	30.2	30.2	30.4	30.9	31.1	31.6	31.6	31.5	32.1	
38 All other loans	43.7	44.3	43.5	43.7	44.8	46.3	45.9	48.1	49.9	48.3	48.7	45.4	

1. Data have been revised because of benchmarking and seasonal adjustment revisions beginning January 1973. 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 BANKS¹

Monthly averages, billions of dollars

Source	1989												1990
	Feb.'	Mar.'	Apr.'	May'	June'	July'	Aug.'	Sept.'	Oct.'	Nov.'	Dec.'	Jan.	
<i>Seasonally adjusted</i>													
1 Total nondeposit funds ²	212.2	212.5	206.0	211.8	229.6	229.1	230.6	238.9	249.3	252.8	249.5	245.4	
2 Net balances due to related foreign offices ³	10.7	8.2	3.0	-.1	7.7	11.1	9.3	9.7	9.9	8.8	7.2	10.6	
3 Borrowings from other than commercial banks in United States ⁴	201.4	204.3	203.0	212.0	221.9	218.0	221.4	229.2	239.4	244.0	242.4	234.9	
4 Domestically chartered banks	161.3	165.7	163.5	169.6	179.5	175.8	178.7	185.4	192.6	194.8	195.0	187.1	
5 Foreign-related banks	40.1	38.6	39.5	42.4	42.4	42.2	42.6	43.7	46.8	49.2	47.4	47.8	
<i>Not seasonally adjusted</i>													
6 Total nondeposit funds ²	217.0	218.2	208.7	219.5	232.8	224.8	229.4	234.9	242.4	248.4	242.5	245.0	
7 Net balances due to related foreign offices ³	10.5	7.1	.9	2.5	7.8	8.1	8.9	10.7	9.6	9.8	9.7	10.2	
8 Domestically chartered banks	-17.6	-19.5	-22.8	-21.9	-18.3	-16.4	-15.5	-14.2	-14.8	-15.2	-19.0	-14.7	
9 Foreign-related banks	28.1	26.7	23.7	24.4	26.2	24.5	24.4	24.9	24.4	25.0	28.7	24.9	
10 Borrowings from other than commercial banks in United States ⁴	206.5	211.0	207.8	217.0	224.9	216.7	220.5	224.2	232.8	238.6	232.8	234.8	
11 Domestically chartered banks	165.1	170.9	167.4	174.1	180.8	174.0	178.2	181.2	187.8	193.2	187.9	185.4	
12 Federal funds and security RP borrowings ⁵	161.9	167.4	162.9	170.1	177.0	170.9	175.2	178.3	184.8	190.8	185.4	182.8	
13 Other ⁶	3.2	3.5	4.5	4.0	3.8	3.1	3.0	3.0	2.9	2.4	2.5	2.6	
14 Foreign-related banks ⁶	41.4	40.1	40.4	42.9	44.1	42.8	42.3	42.9	45.1	45.4	44.9	49.4	
MEMO													
Gross large time deposits ⁷													
15 Seasonally adjusted	441.9	447.1	452.3	457.0	460.0	463.4	462.0	460.0	461.4	463.9	464.3	462.7	
16 Not seasonally adjusted	441.7	449.9	452.3	457.4	459.4	461.1	462.6	461.5	462.6	464.4	462.7	460.4	
U.S. Treasury demand balances at commercial banks ⁸													
17 Seasonally adjusted	20.8	20.9	21.3	25.5	25.7	22.4	22.3	22.8	21.5	20.4	21.1	20.2	
18 Not seasonally adjusted	25.9	18.1	20.2	34.3	26.2	23.0	15.8	24.9	20.6	14.7	19.6	23.2	

1. Commercial banks are those in the 50 states and the District of Columbia with national or state charters plus agencies and branches of foreign banks, New York investment companies majority owned by foreign banks, and Edge Act corporations owned by domestically chartered and foreign banks.

These data also appear in the Board's G.10 (411) release. For address, see inside front cover.

2. Includes federal funds, RPs, and other borrowing from nonbanks and net balances due to related foreign offices.

3. Reflects net positions of U.S. chartered banks, Edge Act corporations, and U.S. branches and agencies of foreign banks with related foreign offices plus net positions with own IBFs.

4. Other borrowings are borrowings through any instrument, such as a promissory note or due bill, given for the purpose of borrowing money for the banking business. This includes borrowings from Federal Reserve Banks and from foreign banks, term federal funds, loan RPs, and sales of participations in pooled loans.

5. Based on daily average data reported weekly by approximately 120 large banks and quarterly or annual data reported by other banks.

6. Figures are partly daily averages and partly averages of Wednesday data.

7. Time deposits in denominations of \$100,000 or more. Estimated averages of daily data.

8. U.S. Treasury demand deposits and Treasury tax-and-loan notes at commercial banks. Averages of daily data.

A18 Domestic Financial Statistics □ April 1990

1.25 ASSETS AND LIABILITIES OF COMMERCIAL BANKING INSTITUTIONS Last-Wednesday-of-Month Series¹

Billions of dollars

Account	1989											1990
	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
ALL COMMERCIAL BANKING INSTITUTIONS²												
1 Loans and securities	2,627.1	2,623.0	2,659.8	2,660.7	2,677.1	2,692.5	2,695.7	2,728.1	2,764.7	2,770.9	2,781.3	
2 Investment securities	539.1	538.3	541.1	541.6	538.3	542.8	542.4	545.4	549.5	550.4	562.9	
3 U.S. government securities	355.5	356.6	359.1	362.2	360.3	365.3	366.4	370.8	375.8	375.7	389.8	
4 Other	183.6	181.7	182.0	179.4	178.1	177.5	176.1	174.6	173.7	174.7	173.0	
5 Trading account assets	21.8	17.8	19.2	18.2	19.8	18.7	18.3	26.6	27.6	23.4	32.0	
6 Total loans	2,066.2	2,066.8	2,099.5	2,100.9	2,119.0	2,131.0	2,135.0	2,156.1	2,187.6	2,197.1	2,186.5	
7 Interbank loans	154.9	150.7	160.5	155.0	162.4	162.9	158.0	164.2	179.9	181.9	180.2	
8 Loans excluding interbank	1,911.3	1,916.2	1,939.0	1,945.9	1,956.6	1,968.1	1,977.1	1,992.0	2,007.8	2,015.2	2,006.3	
9 Commercial and industrial	622.9	627.3	631.1	628.3	635.3	631.9	630.3	634.9	638.7	639.4	631.9	
10 Real estate	692.6	699.4	706.7	715.1	722.8	733.9	737.5	743.2	752.0	757.6	760.4	
11 Individual	358.1	361.8	363.8	366.0	366.2	371.4	375.5	376.1	378.8	384.5	383.6	
12 All other	237.7	227.7	237.4	236.6	232.3	231.0	233.7	237.8	238.2	233.8	230.5	
13 Total cash assets	211.5	215.8	248.3	214.2	211.7	212.0	219.6	213.0	234.8	259.4	223.2	
14 Reserves with Federal Reserve Banks	30.9	33.4	27.8	27.9	30.6	28.7	31.7	28.0	38.7	42.8	24.5	
15 Cash in vault	26.8	26.9	27.9	27.6	27.4	28.5	28.0	27.9	30.7	31.6	28.1	
16 Cash items in process of collection	75.9	78.8	107.6	78.7	75.2	77.4	82.6	77.5	84.1	98.8	89.8	
17 Demand balances at U.S. depository	28.8	28.5	34.9	29.6	28.8	29.7	29.0	28.8	28.9	32.5	30.6	
18 Other cash assets	49.0	48.3	50.2	50.5	49.7	47.7	48.3	50.7	52.3	53.7	50.3	
19 Other assets	194.1	200.7	206.8	198.7	201.1	199.6	203.9	203.8	201.9	208.2	214.0	
20 Total assets/total liabilities and capital	3,032.7	3,039.5	3,114.9	3,073.6	3,090.0	3,104.0	3,119.3	3,144.9	3,201.3	3,238.4	3,218.5	
21 Deposits	2,123.7	2,134.2	2,182.6	2,138.2	2,152.0	2,166.6	2,175.3	2,194.2	2,221.1	2,265.1	2,241.9	
22 Transaction deposits	583.2	594.5	628.5	580.5	579.4	583.4	588.5	588.0	602.5	643.3	613.7	
23 Savings deposits	523.2	512.0	509.7	507.4	514.0	518.9	520.7	527.6	537.6	540.3	542.7	
24 Time deposits	1,017.3	1,027.6	1,044.3	1,050.2	1,058.6	1,064.4	1,066.1	1,078.6	1,081.0	1,081.5	1,085.5	
25 Borrowings	483.6	486.7	510.6	512.7	510.2	504.6	516.5	526.5	542.2	530.6	551.7	
26 Other liabilities	223.9	217.4	218.6	218.4	223.1	226.3	221.4	222.4	235.2	238.9	222.1	
27 Residual (assets less liabilities)	201.4	201.2	203.2	204.4	204.7	206.5	206.1	201.9	202.9	203.8	202.8	
MEMO												
28 U.S. government securities (including	372.1	369.5	372.3	374.4	373.5	377.5	378.5	390.4	396.2	392.2	415.0	
29 Other securities (including trading	188.8	186.6	188.0	185.4	184.6	184.0	182.3	181.6	180.9	181.6	179.8	
DOMESTICALLY CHARTERED COMMERCIAL BANKS³												
30 Loans and securities	2,407.8	2,407.8	2,446.0	2,439.9	2,452.1	2,467.6	2,473.6	2,506.5	2,526.4	2,535.8	2,548.3	
31 Investment securities	513.1	512.8	516.1	517.3	514.2	519.4	519.0	521.6	523.0	524.2	535.1	
32 U.S. government securities	342.7	344.1	345.9	349.5	347.8	353.5	354.5	358.7	362.1	362.3	375.3	
33 Other	170.4	169.7	170.2	167.8	166.5	165.9	164.5	162.9	160.9	161.0	159.8	
34 Trading account assets	21.8	17.8	19.2	18.2	19.8	18.7	18.3	26.6	27.6	23.4	32.0	
35 Total loans	1,872.8	1,876.2	1,910.6	1,904.5	1,918.1	1,929.4	1,936.3	1,958.3	1,975.8	1,988.2	1,981.2	
36 Interbank loans	122.3	120.2	131.5	119.3	126.4	127.0	125.1	134.9	142.1	145.8	144.7	
37 Loans excluding interbank	1,750.5	1,756.0	1,779.2	1,785.1	1,791.7	1,802.5	1,811.2	1,823.5	1,833.7	1,842.4	1,836.5	
38 Commercial and industrial	506.1	511.3	515.5	511.6	515.6	512.8	510.4	514.2	515.3	515.9	512.7	
39 Real estate	669.8	676.0	683.2	691.6	698.2	708.7	712.2	717.1	724.4	729.6	731.0	
40 Individual	357.7	361.4	363.5	365.6	365.8	371.1	375.2	375.8	384.2	384.2	383.2	
41 All other	216.9	207.3	217.0	216.3	212.0	209.9	213.5	216.4	215.5	212.7	209.7	
42 Total cash assets	191.4	195.3	227.0	192.3	190.1	191.7	197.6	191.5	209.5	235.0	200.9	
43 Reserves with Federal Reserve Banks	29.5	30.7	26.7	26.6	29.6	27.0	29.5	26.3	37.9	41.7	22.7	
44 Cash in vault	26.8	26.8	27.9	27.6	27.4	28.5	28.0	27.9	30.7	31.5	28.1	
45 Cash items in process of collection	75.1	77.9	106.6	77.7	74.4	76.5	81.3	76.3	82.2	97.4	88.3	
46 Demand balances at U.S. depository	26.6	26.8	32.9	27.5	27.0	28.0	27.3	26.9	27.0	30.7	28.7	
47 Other cash assets	33.4	33.1	33.0	32.9	31.7	31.7	31.6	34.2	31.7	33.6	33.0	
48 Other assets	130.6	134.6	133.6	131.6	128.4	127.5	131.5	126.3	132.2	136.0	138.7	
49 Total assets/liabilities and capital	2,729.9	2,737.7	2,806.6	2,763.9	2,770.6	2,786.7	2,802.8	2,824.3	2,868.2	2,906.7	2,887.9	
50 Deposits	2,047.4	2,056.2	2,103.0	2,058.8	2,071.3	2,086.9	2,094.5	2,112.4	2,139.2	2,182.4	2,159.9	
51 Transaction deposits	574.1	584.8	618.7	571.2	570.2	574.7	578.8	578.4	592.7	633.2	603.4	
52 Savings deposits	520.7	509.4	507.1	504.8	511.3	516.2	517.9	525.0	534.8	537.5	539.9	
53 Time deposits	952.6	961.9	977.2	982.9	989.9	995.9	997.7	1,009.0	1,011.6	1,011.7	1,016.6	
54 Borrowings	362.8	368.2	383.0	387.3	380.2	375.5	390.8	393.2	404.4	398.3	404.5	
55 Other liabilities	121.7	115.6	120.9	116.9	117.8	121.3	114.9	120.4	125.2	125.8	124.2	
56 Residual (assets less liabilities)	197.9	197.7	199.7	200.8	201.2	203.0	202.6	198.4	199.4	200.3	199.2	
MEMO												
57 Real estate loans, revolving	42.5	43.4	44.3	45.3	45.7	46.4	47.1	47.9	48.5	49.1	50.3	
58 Real estate loans, other	627.3	632.6	638.9	646.2	652.5	662.3	665.0	669.2	676.0	680.5	680.6	

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 BANKS¹

Millions of dollars, Wednesday figures

Account	1989				1990					Adjustment bank 1989 ²
	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31	
1 Cash and balances due from depository institutions	112,989	114,977	123,403	138,913	141,952	119,669	144,053	112,801	110,336	1,024
2 Total loans, leases, and securities, net	1,257,325	1,258,300	1,258,888	1,251,465	1,275,712	1,268,788	1,280,208	1,272,574	1,283,823	17,888
3 U.S. Treasury and government agency	164,934	165,260	161,214	157,022	163,514	166,819	168,891	170,776	173,916	2,407
4 Trading account	22,782	22,685	19,700	16,554	20,969	23,342	25,605	24,812	25,102	1
5 Investment account	142,152	142,576	141,514	140,469	142,545	143,477	143,286	145,964	148,814	2,406
6 Mortgage-backed securities ³	71,306	71,601	71,681	71,196	72,119	71,800	72,905	75,745	76,674	470
All other maturing in										
7 One year or less	19,930	20,406	19,949	19,846	20,370	20,957	20,815	21,161	21,860	591
8 Over one through five years	34,961	34,724	34,346	34,008	33,986	34,508	34,016	34,381	34,396	1,014
9 Over five years	15,955	15,845	15,537	15,419	16,070	16,212	15,551	14,675	15,884	331
10 Other securities	66,311	66,355	66,206	66,258	67,485	67,070	67,140	67,226	67,006	1,234
11 Trading account	1,087	1,078	1,253	1,276	1,244	1,056	960	887	802	2
12 Investment account	65,224	65,277	64,954	64,981	66,241	66,014	66,180	66,338	66,205	1,232
13 States and political subdivisions, by maturity	38,036	37,790	37,406	37,332	37,672	37,459	37,357	37,296	37,120	797
14 One year or less	5,017	4,963	4,919	4,876	4,778	4,644	4,614	4,643	4,676	124
15 Over one year	33,018	32,827	32,487	32,456	32,894	32,814	32,743	32,653	32,444	673
16 Other bonds, corporate stocks, and securities	27,188	27,486	27,548	27,649	28,568	28,555	28,823	29,043	29,085	434
17 Other trading account assets	6,265	6,001	5,866	5,570	5,576	6,000	5,471	6,011	6,060	0
18 Federal funds sold ⁴	71,480	70,744	71,999	69,587	72,872	66,654	71,534	65,054	71,328	766
19 To commercial banks	48,399	49,069	51,964	50,681	55,314	48,007	52,004	45,791	50,288	745
20 To nonbank brokers and dealers in securities	15,248	14,638	13,459	13,484	12,650	12,595	13,274	13,961	13,679	21
21 To others	7,834	7,037	6,576	5,422	4,907	6,052	6,255	5,302	7,361	0
22 Other loans and leases, gross	991,529	993,296	996,866	995,794	1,009,602	1,005,167	1,010,300	1,007,098	1,008,772	13,916
23 Other loans, gross	965,642	967,382	970,873	969,626	983,139	978,476	983,518	980,076	981,752	13,864
24 Commercial and industrial	317,993	318,357	320,067	318,772	322,195	321,033	319,760	319,102	319,956	3,580
25 Bankers acceptances and commercial paper	1,495	1,410	1,404	1,404	1,425	1,387	1,451	1,325	1,425	17
26 All other	316,497	316,947	318,663	317,368	320,770	319,646	318,309	317,777	318,531	3,563
27 U.S. addressees	314,744	315,172	316,936	315,562	318,978	317,896	316,626	316,176	316,957	3,562
28 Non-U.S. addressees	1,753	1,774	1,727	1,806	1,793	1,749	1,682	1,601	1,574	0
29 Real estate loans	352,158	353,161	353,408	352,577	357,615	357,986	358,292	358,666	358,597	6,248
30 Revolving, home equity	26,908	27,035	27,222	27,272	27,773	27,864	27,921	28,081	28,210	301
31 All other	325,249	326,127	326,186	325,305	329,842	330,122	330,372	330,584	330,387	5,947
32 To individuals for personal expenditures	175,493	176,620	177,161	177,992	181,082	180,735	180,362	180,426	180,291	3,219
33 To depository and financial institutions	49,119	48,480	47,948	47,570	50,448	49,918	53,596	52,485	52,183	43
34 Commercial banks in the United States	21,490	21,140	20,633	20,812	22,611	23,233	25,787	26,782	26,353	12
35 Banks in foreign countries	4,615	4,368	4,876	4,430	5,201	4,136	5,193	4,136	4,093	0
36 Nonbank depository and other financial institutions	23,014	22,972	22,439	22,329	22,636	22,548	22,616	21,566	21,737	32
37 For purchasing and carrying securities	15,286	16,852	17,110	16,260	14,650	14,767	16,453	16,251	16,041	97
38 To finance agricultural production	5,355	5,398	5,379	5,450	5,675	5,617	5,575	5,548	5,515	86
39 To states and political subdivisions	25,210	24,996	24,919	24,856	25,040	24,916	24,834	24,816	24,756	355
40 To foreign governments and official institutions	1,340	1,364	1,452	1,415	1,319	1,201	1,207	1,143	1,181	0
41 All other	23,688	22,153	23,428	24,933	25,116	22,305	23,438	21,638	23,231	236
42 Lease financing receivables	25,887	25,913	25,993	26,168	26,463	26,691	26,783	27,022	27,020	52
43 LESS: Unearned income	4,813	4,817	4,784	4,762	4,938	4,928	4,924	4,924	4,848	193
44 Loan and lease reserve ⁵	38,381	38,539	38,480	38,004	38,400	37,994	38,205	38,668	38,412	242
45 Other loans and leases, net	948,336	949,940	953,602	953,027	966,264	962,246	967,172	963,506	965,512	13,481
46 All other assets	135,658	136,780	136,526	135,727	139,695	135,674	134,365	133,542	138,785	935
47 Total assets	1,505,973	1,510,058	1,518,817	1,526,105	1,557,359	1,524,131	1,558,626	1,518,918	1,532,945	19,848
48 Demand deposits	227,177	228,102	247,136	247,985	271,702	235,259	260,654	219,475	232,213	3,273
49 Individuals, partnerships, and corporations	182,551	185,306	191,286	197,147	214,963	188,220	204,517	173,861	185,059	2,885
50 States and political subdivisions	5,998	5,944	7,450	7,245	8,112	6,170	6,770	6,560	7,160	69
51 U.S. government	2,675	1,446	5,104	1,853	2,730	3,554	4,564	4,127	2,246	29
52 Depository institutions in the United States	20,475	20,197	22,542	23,729	26,478	20,996	27,496	20,012	21,208	137
53 Banks in foreign countries	6,304	5,982	8,196	6,844	8,088	6,119	6,833	6,362	6,021	0
54 Foreign governments and official institutions	606	878	628	681	746	606	676	720	780	0
55 Certified and officers' checks	8,567	8,349	11,929	10,485	10,585	9,595	9,857	7,833	9,739	152
56 Transaction balances other than demand deposits	79,918	78,322	79,232	79,264	86,524	83,724	83,015	78,982	80,236	1,998
57 Nontransaction balances	706,637	706,401	702,865	704,033	722,592	723,942	723,028	719,576	719,887	14,842
58 Individuals, partnerships, and corporations	668,841	668,522	665,733	666,395	684,705	684,646	683,968	680,428	680,987	13,867
59 States and political subdivisions	29,273	29,298	28,424	28,932	29,399	30,257	30,100	30,339	30,074	1,036
60 U.S. government	898	900	886	886	913	944	933	831	850	4
61 Depository institutions in the United States	7,061	7,128	7,289	7,241	7,002	7,523	7,429	7,380	7,392	-65
62 Foreign governments, official institutions, and banks	563	554	533	579	573	572	598	597	584	0
63 Liabilities for borrowed money	306,167	306,043	299,242	302,906	291,188	290,147	301,150	306,965	306,882	-1,246
64 Borrowings from Federal Reserve Banks	0	25	0	1,943	0	0	0	475	590	0
65 Treasury tax-and-loan notes	7,786	7,360	17,626	15,064	2,084	5,978	12,350	24,045	25,565	11
66 All other liabilities for borrowed money ⁶	298,381	298,658	281,616	285,899	289,104	284,170	288,799	282,445	280,727	-1,257
67 Other liabilities and subordinated notes and debentures	87,003	92,012	91,001	92,732	86,772	90,901	91,949	95,455	93,749	409
68 Total liabilities	1,406,901	1,410,880	1,419,475	1,426,920	1,458,778	1,423,975	1,459,796	1,420,453	1,432,968	19,276
69 Residual (total assets minus total liabilities) ⁷	99,072	99,178	99,342	99,185	98,581	100,157	98,830	98,464	99,977	572
MEMO										
70 Total loans and leases (gross) and investments adjusted ⁸	1,230,630	1,231,448	1,229,554	1,222,738	1,241,125	1,240,470	1,245,545	1,243,592	1,250,442	17,567
71 Total loans and leases (gross) adjusted ⁸	993,121	993,831	996,268	993,888	1,004,549	1,000,581	1,004,043	999,579	1,003,459	13,926
72 Time deposits in amounts of \$100,000 or more	217,753	217,113	215,307	214,664	218,564	218,338	217,514	217,171	216,028	4,396
73 U.S. Treasury securities maturing in one year or less	18,496	19,039	17,882	17,257	18,753	19,652	19,243	20,510	21,792	462
74 Loans sold outright to affiliates—total ⁹	536	536	524	532	537	541	544	542	540	0
75 Commercial and industrial	233	232	229	235	239	242	239	253	242	0
76 Other	304	304	295	297	298	299	305	290	298	0
77 Nontransaction savings deposits (including MMDAs)	268,157	268,617	266,828	268,435	275,728	276,506	275,917	272,733	273,730	4,068

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. These amounts represent accumulated adjustments originally made to offset the cumulative effects of bank mergers during the calendar year. The adjustment data for 1989 should be added to the reported data for 1989 to establish comparability with data reported for 1990.

3. Includes U.S. government-issued or guaranteed certificates of participation on pools of residential mortgages.

4. Includes securities purchased under agreements to resell.

5. Includes allocated transfer risk reserve.

6. 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.

7. This is not a measure of equity capital for use in capital-adequacy analysis or for other analytic uses.

8. Exclusive of loans and federal funds transactions with domestic commercial banks.

9. 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 CITY¹

Millions of dollars, Wednesday figures

Account	1989				1990				
	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31
1 Cash balances due from depository institutions	22,921	21,572	28,238	36,663	27,408	25,306	28,816	24,988	21,895
2 Total loans, leases, and securities, net ²	209,462	214,997	210,684	207,786	211,295	207,205	213,833	212,264	215,737
<i>Securities</i>									
3 U.S. Treasury and government agency ³	0	0	0	0	0	0	0	0	0
4 Trading account ⁴	3,416 ^r	3,420 ^r	3,379 ^r	3,452 ^r	16,076	16,172	16,809	18,641	19,307
5 Investment account	16,689 ^r	16,591 ^r	16,517 ^r	16,396 ^r	16,076	16,172	16,809	18,641	19,307
6 Mortgage-backed securities ⁴	8,588	8,464	8,402	8,242	8,242	8,235	9,000	10,807	11,138
All other maturing in									
7 One year or less	2,792	2,813	2,816	2,774	2,264	2,367	2,241	2,168	2,256
8 Over one through five years	3,416 ^r	3,420 ^r	3,379 ^r	3,452 ^r	3,536	3,536	3,524	3,620	3,658
9 Over five years	1,893 ^r	1,894 ^r	1,920 ^r	1,926 ^r	2,034	2,034	2,044	2,046	2,254
10 Other securities ³	0	0	0	0	0	0	0	0	0
11 Trading account ⁴	14,325 ^r	14,352 ^r	14,257 ^r	14,282 ^r	14,525	14,576	14,625	14,849	14,847
12 Investment account	7,893	7,867	7,837	7,833	7,829	7,816	7,789	7,807	7,749
13 States and political subdivisions, by maturity	1,052	1,055	1,053	1,047	1,065	1,057	1,044	1,072	1,076
14 One year or less	6,841	6,812	6,783	6,786	6,763	6,759	6,745	6,734	6,673
15 Over one year	6,432 ^r	6,485 ^r	6,421 ^r	6,449 ^r	6,696	6,760	6,835	7,042	7,098
16 Other bonds, corporate stocks, and securities	0	0	0	0	0	0	0	0	0
17 Other trading account assets ⁵	0	0	0	0	0	0	0	0	0
<i>Loans and leases</i>									
18 Federal funds sold ⁵	17,344	20,548	17,304	16,289	17,988	15,702	17,962	16,456	18,516
19 To commercial banks	8,310	12,041	10,169	10,381	11,957	8,731	10,819	10,452	10,403
20 To nonbank brokers and dealers in securities	4,922	5,098	4,154	3,339	3,332	3,425	3,574	3,081	3,539
21 To others	4,113	3,409	2,981	2,569	2,699	3,546	3,569	2,923	4,574
22 Other loans and leases, gross	181,205	183,655	182,749	180,812	182,400	179,833	183,517	181,408	182,285
23 Other loans, gross	175,510	177,917	177,023	175,068	176,691	174,135	177,890	175,721	176,611
24 Commercial and industrial	59,781	60,455	60,379	58,571	57,966	58,008	57,792	57,854	58,519
25 Bankers acceptances and commercial paper	122	116	134	125	166	101	91	85	93
26 All other	59,659	60,339	60,245	58,445	57,800	57,907	57,702	57,769	58,426
27 U.S. addressees	59,056	59,724	59,635	57,838	57,233	57,339	57,054	57,195	57,854
28 Non-U.S. addressees	603	616	609	607	566	567	648	574	572
29 Real estate loans	61,332	61,653	61,303	60,850	61,398	61,661	61,625	61,489	61,750
30 Revolving, home equity	3,840	3,852	3,864	3,841	3,941	3,949	3,955	3,964	3,969
31 All other	57,492	57,711	57,439	57,009	57,458	57,712	57,671	57,525	57,782
32 To individuals for personal expenditures	19,975	19,969	19,967	20,046	20,096	20,096	20,081	20,117	20,121
33 To depository and financial institutions	18,596	18,479	18,066	18,098	20,511	19,024	21,044	19,603	19,296
34 Commercial banks in the United States	7,166	7,259	6,797	7,446	9,055	8,597	9,444	9,258	8,887
35 Banks in foreign countries	3,200	3,006	3,536	3,026	3,987	2,888	3,867	2,970	2,847
36 Nonbank depository and other financial institutions	8,230	8,214	7,733	7,625	7,469	7,539	7,732	7,375	7,662
37 For purchasing and carrying securities	5,425	6,841	6,298	6,150	5,208	5,260	6,551	6,658	5,988
38 To finance agricultural production	103	111	113	113	107	117	111	100	105
39 To states and political subdivisions	5,515	5,350	5,340	5,349	5,387	5,326	5,317	5,312	5,316
40 To foreign governments and official institutions	316	346	405	384	296	228	246	214	326
41 All other	4,465	4,803	5,154	5,509	5,723	4,414	5,061	4,374	5,189
42 Lease financing receivables	5,695	5,739	5,726	5,744	5,709	5,698	5,688	5,687	5,674
43 Less: Unearned income	1,801	1,807	1,808	1,801	1,820	1,818	1,819	1,824	1,820
44 Loan and lease reserve	18,301	18,343	18,336	18,192	17,873	17,261	17,261	17,266	17,397
45 All other loans and leases, net ⁶	161,103	163,506	162,606	160,819	162,707	160,734	164,437	162,318	163,068
46 Other assets ⁷	61,547	61,204	59,750	61,849	63,902	62,252	64,560	61,211	63,950
47 Total assets	293,930	297,773	298,672	306,298	304,605	294,763	307,210	298,464	301,583
<i>Deposits</i>									
48 Demand deposits	48,644	50,476	59,194	55,232	60,264	53,284	58,254	49,609	51,287
49 Individuals, partnerships, and corporations	34,518	36,648	39,192	38,291	43,850	37,261	40,746	34,652	35,897
50 States and political subdivisions	584	547	953	810	1,040	916	834	689	773
51 U.S. government	448	168	1,004	270	295	661	611	784	278
52 Depository institutions in the United States	4,451	4,458	5,424	5,432	4,617	5,332	6,341	5,115	5,324
53 Banks in foreign countries	5,037	4,799	6,708	5,547	6,690	4,844	5,423	5,044	4,664
54 Foreign governments and official institutions	479	740	392	541	578	470	510	557	659
55 Certified and officers' checks	3,127	3,114	5,521	4,340	3,194	3,800	3,790	2,768	3,692
56 Transaction balances other than demand deposits (ATS, NOW, Super NOW, telephone transfers)	8,560	8,505	8,675	8,701	9,403	9,146	9,073	8,659	8,760
57 Nontransaction balances	116,075	115,658	116,117	115,660	117,550	116,804	117,392	116,209	116,676
58 Individuals, partnerships, and corporations	106,650	106,374	107,067	106,870	109,041	108,307	108,884	107,697	108,165
59 States and political subdivisions	7,117	7,040	6,819	6,691	6,447	6,504	6,523	6,527	6,540
60 U.S. government	30	29	27	26	25	26	26	27	28
61 Depository institutions in the United States	2,041	1,980	1,976	1,833	1,795	1,736	1,727	1,726	1,723
62 Foreign governments, official institutions, and banks	238	234	228	240	241	231	233	232	220
63 Liabilities for borrowed money	68,108	67,054	61,462	71,691	65,457	61,668	68,106	64,150	67,277
64 Borrowings from Federal Reserve Banks	0	0	0	1,680	0	0	0	0	0
65 Treasury tax-and-loan notes	1,594	1,541	4,664	3,831	322	1,091	2,799	6,541	6,721
66 All other liabilities for borrowed money ⁸	66,515	65,514	56,798	66,180	65,135	60,577	65,307	57,609	60,556
67 Other liabilities and subordinated notes and debentures	28,037	31,589	28,929	30,930	27,880	29,828	30,482	35,893	33,717
68 Total liabilities	269,425	273,282	274,377	282,214	280,554	270,731	283,308	274,519	277,717
69 Residual (total assets minus total liabilities) ⁹	24,505	24,491	24,295	24,084	24,051	24,032	23,901	23,945	23,866
MEMO									
70 Total loans and leases (gross) and investments adjusted ^{2,10}	214,087	215,846	213,862	209,952	209,977	208,956	212,650	211,644	215,665
71 Total loans and leases (gross) adjusted ¹⁰	183,073	184,904	183,087	179,274	179,377	178,207	181,216	178,154	181,511
72 Time deposits in amounts of \$100,000 or more	41,740	41,535	41,798	41,103	41,336	40,855	41,683	41,147	41,281
73 U.S. Treasury securities maturing in one year or less	3,066	3,084	3,118	3,240	2,615	2,744	2,835	2,950	3,391

1. These data also appear in the Board's H.4.2 (504) release. For address, see inside front cover.

2. Excludes trading account securities.

3. Not available due to confidentiality.

4. Includes U.S. government-issued or guaranteed certificates of participation

in pools of residential mortgages.

5. Includes securities purchased under agreements to resell.

6. Includes allocated transfer risk reserve.

7. Includes trading account securities.

8. Includes federal funds purchased and securities sold under agreements to repurchase.

9. Not a measure of equity capital for use in capital adequacy analysis or for other analytic uses.

10. Exclusive of loans and federal funds transactions with domestic commercial banks.

1.30 LARGE WEEKLY REPORTING U.S. BRANCHES AND AGENCIES OF FOREIGN BANKS¹ Assets and Liabilities

Millions of dollars, Wednesday figures

Account	1989				1990				
	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31
1 Cash and due from depository institutions . . .	12,161	12,958	13,008	13,410	12,719	13,077	12,920	13,708	12,637
2 Total loans and securities	142,824	143,457 ²	143,263	144,882 ²	143,274	142,536	140,223	141,533	143,025
3 U.S. Treasury and government agency securities	8,922	9,054	8,380	8,266	8,429	9,013	9,280	9,538	9,828
4 Other securities	6,637	6,672	6,810	6,925	7,038	6,893	6,741	6,770	6,747
5 Federal funds sold ³	4,984	6,182	4,857	6,956	6,153	6,403	4,678	7,639	6,993
6 To commercial banks in the United States . . .	3,233	4,293	3,532	5,745	4,626	4,942	3,165	5,989	5,643
7 To others	1,751	1,889	1,325	1,211	1,527	1,461	1,513	1,650	1,350
8 Other loans, gross	122,281	121,549 ²	123,216	122,735 ²	121,654	120,227	119,524	117,586	119,457
9 Commercial and industrial	74,495 ²	73,960 ²	75,246 ²	75,132 ²	74,243	72,964	73,060	72,006	72,210
10 Bankers acceptances and commercial paper	2,050	2,062	2,065	2,054	1,811	1,755	1,886	2,058	1,983
11 All other	72,445 ²	71,898 ²	73,181 ²	73,078 ²	72,432	71,209	71,174	69,948	70,227
12 U.S. addressees	70,785 ²	70,268 ²	71,515 ²	71,390 ²	70,822	69,751	69,701	68,388	68,732
13 Non-U.S. addressees	1,660 ²	1,630 ²	1,666 ²	1,688 ²	1,610	1,458	1,473	1,560	1,495
14 Loans secured by real estate ³	18,254 ²	18,234 ²	18,272 ²	18,581 ²	18,950	19,138	19,450	19,433	19,488
15 To financial institutions	24,869	24,441	24,826	24,910 ²	24,832	24,762	23,447	22,695	23,902
16 Commercial banks in the United States . . .	18,487	18,082	18,348	18,388	17,900	17,817	16,900	16,628	17,943
17 Banks in foreign countries	1,803	1,779	1,636	1,415	1,833	1,867	1,421	1,231	1,144
18 Nonbank financial institutions	4,579	4,580	4,842	5,107 ²	5,099	5,078	5,126	4,836	4,815
19 To foreign governments and official institutions	431	434	402	388	382	263	254	246	254
20 For purchasing and carrying securities . . .	2,026	2,206	2,141	1,956	1,510	1,436	1,702	1,559	1,585
21 All other ⁴	2,206 ²	2,274 ²	2,329 ²	1,768 ²	1,737	1,664	1,611	1,647	2,018
22 Other assets (claims on nonrelated parties) . .	37,903	38,117	38,122	37,250	37,674	37,111	35,294	35,407	36,363
23 Net due from related institutions	13,961	12,517	13,350	12,124	15,131	16,059	16,458	14,558	15,184
24 Total assets	206,852	207,047	207,742	207,665	208,798	208,785	204,898	205,206	207,410
25 Deposits or credit balances due to other than directly related institutions	49,684	50,906	50,992	50,180	50,156	49,780	50,664	50,089	50,151
26 Transaction accounts and credit balances . .	3,735	4,292	4,241	4,047	4,085	3,917	4,210	4,531	4,574
27 Individuals, partnerships, and corporations	2,509	2,514	2,612	2,632	2,656	2,542	2,725	2,572	3,096
28 Other	1,226	1,778	1,629	1,415	1,429	1,375	1,485	1,959	1,478
29 Nontransaction accounts	45,949	46,614	46,751	46,133	46,071	45,863	46,454	45,558	45,577
30 Individuals, partnerships, and corporations	38,311	38,334	38,961	38,816	38,881	38,392	38,272	38,352	38,761
31 Other	7,638	8,280	7,790	7,317	7,190	7,471	8,182	7,206	6,816
32 Borrowings from other than directly related institutions	92,244	88,366	92,845	86,771	92,991	94,130	93,780	95,181	96,982
33 Federal funds purchased ⁵	39,896	35,839	41,464	34,624	42,000	41,983	41,876	42,456	44,025
34 From commercial banks in the United States	21,010	18,551	23,606	16,521	19,993	20,900	19,264	18,687	20,677
35 From others	18,886	17,288	17,858	18,103	22,007	21,083	22,612	23,769	23,348
36 Other liabilities for borrowed money	52,348	52,527	51,381	52,147	50,991	52,147	51,904	52,725	52,957
37 To commercial banks in the United States	33,718	33,508	32,250	33,674	32,549	32,566	33,265	33,537	33,864
38 To others	18,630	19,019	19,131	18,473	18,442	19,581	18,639	19,188	19,093
39 Other liabilities to nonrelated parties	37,386	38,052	37,582	37,169	37,341	36,900	34,957	35,253	36,724
40 Net due to related institutions	27,537	29,722	26,323	33,545	28,310	27,975	25,496	24,684	23,552
41 Total liabilities	206,852	207,047	207,742	207,665	208,798	208,785	204,898	205,206	207,410
MEMO									
42 Total loans (gross) and securities adjusted ⁷ . .	121,104	121,082 ²	121,383	120,749 ²	120,748	119,777	120,158	118,916	119,439
43 Total loans (gross) adjusted	105,545	105,356 ²	106,193	105,558 ²	105,281	103,871	104,137	102,608	102,864

1. Effective Jan. 4, 1989, the reporting panel includes a new group of large U.S. branches and agencies of foreign banks. Earlier data included 65 U.S. branches and agencies of foreign banks that included those branches and agencies with assets of \$750 million or more on June 30, 1980, plus those branches and agencies that had reached the \$750 million asset level on Dec. 31, 1984. These data also appear in the Board's H.4.2 (504) release. For address, see inside front cover.

2. Includes securities purchased under agreements to resell.

3. Effective Jan. 4, 1989, loans secured by real estate are being reported as a

separate component of Other loans, gross. Formerly, these loans were included in "All other", line 21.

4. Includes credit balances, demand deposits, and other checkable deposits.

5. Includes savings deposits, money market deposit accounts, and time deposits.

6. Includes securities sold under agreements to repurchase.

7. Exclusive of loans to and federal funds sold to commercial banks in the United States.

1.31 GROSS DEMAND DEPOSITS Individuals, Partnerships, and Corporations¹

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

Type of holder	Commercial banks									
	1985 ² Dec.	1986 Dec.	1987 Dec.	1988 Dec.	1988		1989			
					Sept.	Dec.	Mar.	June	Sept.	Dec.
1 All holders—Individuals, partnerships, and corporations	321.0	363.6	343.5	354.7	337.8	354.7	330.4	329.3	337.3	↑
2 Financial business	32.3	41.4	36.3	38.6	34.8	38.6	36.3	33.0	33.7	n.a. ↓
3 Nonfinancial business	178.5	202.0	191.9	201.2	190.3	201.2	182.2	185.9	190.4	
4 Consumer	85.5	91.1	90.0	88.3	87.8	88.3	87.4	86.6	87.9	
5 Foreign	3.5	3.3	3.4	3.7	3.2	3.7	3.7	2.9	2.9	
6 Other	21.2	25.8	21.9	22.8	21.7	22.8	20.7	21.0	22.4	
	Weekly reporting banks									
	1985 ² Dec.	1986 Dec.	1987 Dec.	1988 Dec.	1988		1989			
					Sept.	Dec.	Mar.	June	Sept.	Dec.
7 All holders—Individuals, partnerships, and corporations	168.6	195.1	183.8	198.3	185.3	198.3	181.9	182.2	186.6	196.7
8 Financial business	25.9	32.5	28.6	30.5	27.2	30.5	27.2	25.4	26.3	27.6
9 Nonfinancial business	94.5	106.4	100.0	108.7	101.5	108.7	98.6	99.8	101.6	108.8
10 Consumer	33.2	37.5	39.1	42.6	41.8	42.6	41.1	42.4	43.0	44.1
11 Foreign	3.1	3.3	3.3	3.6	3.1	3.6	3.3	2.9	2.8	3.0
12 Other	12.0	15.4	12.7	12.9	11.7	12.9	11.7	11.7	12.9	13.2

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.

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

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

1.32 COMMERCIAL PAPER AND BANKERS DOLLAR ACCEPTANCES OUTSTANDING

Millions of dollars, end of period

Instrument	1985 Dec.	1986 Dec.	1987 Dec.	1988 Dec.	1989 Dec.	1989					
						July	Aug.	Sept.	Oct.	Nov. ^r	Dec.
Commercial paper (seasonally adjusted unless noted otherwise)											
1 All issuers	298,779	329,991	357,129	455,017	525,266	506,095	516,476	507,090	508,043 ^r	517,574	525,266
Financial companies ¹											
Dealer-placed paper ²											
2 Total	78,443	101,072	101,958	159,947	186,362	179,354	182,083 ^r	177,080 ^r	175,722 ^r	182,459	186,362
3 Bank-related (not seasonally adjusted) ³	1,602	2,265	1,428	1,248	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Directly placed paper ⁴											
4 Total	135,320	151,820	173,939	192,442	209,551	205,847	208,915	206,521	210,855	210,560	209,551
5 Bank-related (not seasonally adjusted) ³	44,778	40,860	43,173	43,155	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6 Nonfinancial companies ⁵	85,016	77,099	81,232	102,628	129,353	121,217	125,478	123,489	121,466	124,555	129,353
Bankers dollar acceptances (not seasonally adjusted) ⁶											
7 Total	68,413	64,974	70,565	66,631	62,972	65,588	65,764	63,814	63,660	63,802	62,972
Holder											
8 Accepting banks	11,197	13,423	10,943	9,086	9,433	9,410	9,935	9,526	10,811 ^r	9,923	9,433
9 Own bills	9,471	11,707	9,464	8,022	8,510	8,334	8,874	8,779	9,108	8,548	8,510
10 Bills bought	1,726	1,716	1,479	1,064	924	1,076	1,061	747	1,703	1,375	924
Federal Reserve Banks											
11 Own account	0	0	0	0	0	0	0	0	0	0	0
12 Foreign correspondents	937	1,317	965	1,493	1,066	1,026	1,014	1,016	1,016	1,034	1,066
13 Others	56,279	50,234	58,658	56,052	52,473	55,152	54,815 ^r	53,370	51,833	52,846	52,473
Basis											
14 Imports into United States	15,147	14,670	16,483	14,984	15,651	15,338	16,140	16,101	16,157	15,691	15,651
15 Exports from United States	13,204	12,960	15,227	14,410	13,683	15,270	14,895	14,304	14,275	14,385	13,683
16 All other	40,062	37,344	38,855	37,237	33,638	34,980	34,729	33,409	33,228	33,726	33,638

1. Institutions engaged primarily in activities such as, but not limited to, commercial savings, and mortgage banking; sales, personal, and mortgage financing; factoring, finance leasing, and other business lending; insurance underwriting; and other investment activities.

2. Includes all financial company paper sold by dealers in the open market.

3. Beginning January 1989, bank-related series have been discontinued.

4. As reported by financial companies that place their paper directly with investors.

5. Includes public utilities and firms engaged primarily in such activities as communications, construction, manufacturing, mining, wholesale and retail trade, transportation, and services.

6. Beginning January 1988, the number of respondents in the bankers acceptance survey were reduced from 155 to 111 institutions—those with \$100 million or more in total acceptances. The 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

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

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

1.35 INTEREST RATES Money and Capital Markets

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

Instrument	1987	1988	1989	1989				1989, week ending				
				Sept.	Oct.	Nov.	Dec.	Dec. 1	Dec. 8	Dec. 15	Dec. 22	Dec. 29
MONEY MARKET RATES												
1 Federal funds ^{1,2}	6.66	7.57	9.21	9.02	8.84	8.55	8.45	8.51	8.52	8.47	8.52	8.38
2 Discount window borrowing ^{1,2,3}	5.66	6.20	6.93	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Commercial paper ⁴												
3 1-month	6.74	7.58	9.11	8.87	8.66	8.47	8.61	8.42	8.53	8.61	8.67	8.66
4 3-month	6.82	7.66	8.99	8.70	8.53	8.35	8.29	8.25	8.24	8.31	8.33	8.31
5 6-month	6.85	7.68	8.80	8.50	8.24	8.00	7.93	7.90	7.86	7.94	7.94	7.99
Finance paper, directly placed ^{4,5}												
6 1-month	6.61	7.44	8.99	8.76	8.54	8.33	8.40	8.21	8.40	8.45	8.43	8.28
7 3-month	6.54	7.38	8.72	8.35	8.29	8.07	8.01	7.97	8.00	8.01	8.01	8.00
8 6-month	6.37	7.14	8.16	7.56	7.50	7.45	7.33	7.34	7.33	7.31	7.34	7.36
Bankers' acceptances ^{3,6}												
9 3-month	6.75	7.56	8.87	8.59	8.42	8.21	8.15	8.12	8.10	8.19	8.15	8.16
10 6-month	6.78	7.60	8.67	8.37	8.08	7.86	7.78	7.77	7.73	7.81	7.77	7.84
Certificates of deposit, secondary market ⁷												
11 1-month	6.75	7.59	9.11	8.83	8.62	8.44	8.65	8.43	8.55	8.67	8.72	8.72
12 3-month	6.87	7.73	9.09	8.78	8.60	8.39	8.32	8.27	8.26	8.35	8.37	8.33
13 6-month	7.01	7.91	9.08	8.75	8.45	8.21	8.12	8.09	8.04	8.16	8.15	8.16
14 Eurodollar deposits, 3-month ⁸	7.07	7.85	9.16	8.85	8.67	8.42	8.39	8.25	8.34	8.40	8.48	8.39
U.S. Treasury bills ⁹												
Secondary market ⁹												
15 3-month	5.78	6.67	8.11	7.75	7.64	7.69	7.63	7.63	7.61	7.65	7.60	7.68
16 6-month	6.03	6.91	8.03	7.74	7.62	7.49	7.42	7.43	7.35	7.40	7.42	7.56
17 1-year	6.33	7.13	7.92	7.65	7.45	7.25	7.21	7.21	7.22	7.22	7.15	7.27
Auction average ¹⁰												
18 3-month	5.82	6.68	8.12	7.72	7.63	7.65	7.64	7.63	7.55	7.60	7.62	7.77
19 6-month	6.05	6.92	8.04	7.74	7.61	7.46	7.45	7.45	7.30	7.41	7.43	7.64
20 1-year	6.33	7.17	7.91	7.61	7.35	7.17	7.14	n.a.	n.a.	n.a.	7.14	n.a.
CAPITAL MARKET RATES												
U.S. Treasury notes and bonds ¹¹												
Constant maturities ¹²												
21 1-year	6.77	7.65	8.53	8.22	7.99	7.77	7.72	7.73	7.73	7.73	7.66	7.80
22 2-year	7.42	8.10	8.57	8.28	7.98	7.80	7.78	7.76	7.77	7.78	7.71	7.89
23 3-year	7.68	8.26	8.55	8.26	8.02	7.80	7.77	7.76	7.77	7.74	7.72	7.90
24 5-year	7.94	8.47	8.50	8.17	7.97	7.81	7.75	7.77	7.74	7.72	7.69	7.88
25 7-year	8.23	8.71	8.52	8.23	8.03	7.86	7.85	7.83	7.83	7.83	7.81	7.99
26 10-year	8.39	8.85	8.49	8.19	8.01	7.87	7.84	7.85	7.84	7.82	7.78	7.93
27 20-year	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28 30-year	8.59	8.96	8.45	8.15	8.00	7.90	7.90	7.91	7.90	7.88	7.85	7.98
29 Composite ¹³	8.64	8.98	8.58	8.31	8.15	8.03	8.02	8.03	8.02	8.00	7.97	8.12
Over 10 years (long-term)												
State and local notes and bonds												
Moody's series ¹⁴												
30 Aaa	7.14	7.36	7.00	6.97	6.93	6.77	6.72	6.67	6.61	6.73	6.76	6.76
31 Baa	8.17	7.83	7.40	7.26	7.33	7.16	7.03	7.00	6.83	7.10	7.10	7.10
32 Bond Buyer series ¹⁵	7.63	7.68	7.23	7.26	7.22	7.14	6.98	7.04	7.00	6.99	6.96	6.97
Corporate bonds												
Seasoned issues ¹⁶												
33 All industries	9.91	10.18	9.66	9.41	9.34	9.32	9.30	9.31	9.30	9.29	9.28	9.32
34 Aaa	9.38	9.71	9.26	9.01	8.92	8.89	8.86	8.88	8.86	8.85	8.85	8.88
35 Aa	9.68	9.94	9.46	9.23	9.19	9.14	9.11	9.14	9.11	9.12	9.08	9.14
36 A	9.99	10.24	9.74	9.51	9.44	9.42	9.39	9.40	9.40	9.38	9.36	9.41
37 Baa	10.58	10.83	10.18	9.91	9.81	9.81	9.82	9.83	9.81	9.81	9.82	9.85
38 A-rated, recently offered utility bonds ¹⁷	9.96	10.20	9.79	9.55	9.39	9.28	9.36	9.26	9.29	9.33	9.40	9.54
MEMO: Dividend/price ratio ¹⁸												
39 Preferred stocks	8.37	9.23	9.05	8.82	8.85	8.73	8.75	8.67	8.69	8.68	8.75	8.75
40 Common stocks	3.08	3.64	3.45	3.29	3.29	3.39	3.33	3.37	3.33	3.29	3.39	3.31

1. Weekly, monthly and annual figures are averages of all calendar days, where the rate for a weekend or holiday is taken to be the rate prevailing on the preceding business day. The daily rate is the average of the rates on a given day weighted by the volume of transactions at these rates.

2. Weekly figures are averages for statement week ending Wednesday.

3. Rate for the Federal Reserve Bank of New York.

4. Unweighted average of offering rates quoted by at least five dealers (in the case of commercial paper), or finance companies (in the case of finance paper). Before November 1979, maturities for data shown are 30-59 days, 90-119 days, and 120-179 days for commercial paper; and 30-59 days, 90-119 days, and 150-179 days for finance paper.

5. Yields are quoted on a bank-discount basis, rather than in an investment yield basis (which would give a higher figure).

6. Dealer closing offered rates for top-rated banks. Most representative rate (which may be, but need not be, the average of the rates quoted by the dealers).

7. Unweighted average of offered rates quoted by at least five dealers early in the day.

8. Calendar week average. For indication purposes only.

9. Unweighted average of closing bid rates quoted by at least five dealers.

10. Rates are recorded in the week in which bills are issued. Beginning with the Treasury bill auction held on Apr. 18, 1983, bidders were required to state the percentage yield (on a bank discount basis) that they would accept to two decimal

places. Thus, average issuing rates in bill auctions will be reported using two rather than three decimal places.

11. Yields are based on closing bid prices quoted by at least five dealers.

12. Yields adjusted to constant maturities by the U.S. Treasury. That is, yields are read from a yield curve at fixed maturities. Based on only recently issued, actively traded securities.

13. Averages (to maturity or call) for all outstanding bonds neither due nor callable in less than 10 years, including one very low yielding "flower" bond.

14. General obligations based on Thursday figures; Moody's Investors Service.

15. General obligations only, with 20 years to maturity, issued by 20 state and local governmental units of mixed quality. Based on figures for Thursday.

16. Daily figures from Moody's Investors Service. Based on yields to maturity on selected long-term bonds.

17. Compilation of the Federal Reserve. This series is an estimate of the yield on recently-offered, A-rated utility bonds with a 30-year maturity and 5 years of call protection. Weekly data are based on Friday quotations.

18. Standard and Poor's corporate series. Preferred stock ratio based on a sample of ten issues: four public utilities, four industrials, one financial, and one transportation. Common stock ratios on the 500 stocks in the price index.

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

1.36 STOCK MARKET Selected Statistics

Indicator	1987	1988	1989	1989								1990
				May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Prices and trading (averages of daily figures)												
<i>Common stock prices</i>												
1 New York Stock Exchange (Dec. 31, 1965 = 50)	161.78	149.97	180.13	175.30	180.76	185.15	192.93	193.02	192.49	188.50	192.67	187.96
2 Industrial	195.31	180.83	228.04	211.81	216.75	221.74	231.32	230.86	229.40	224.38	230.12	225.79
3 Transportation	140.52	134.09	174.90	169.05	173.47	179.32	197.53	202.02	190.36	174.26	177.25	173.67
4 Utility	74.29	72.22	94.33	84.21	87.95	90.40	92.90	93.44	94.67	94.95	99.73	95.69
5 Finance	146.48	127.41	162.01	146.82	154.08	157.78	164.86	165.51	166.55	160.89	155.63	150.11
6 Standard & Poor's Corporation (1941-43 = 10) ¹	287.00	265.88	323.05	313.93	323.73	331.92	346.61	347.33	347.40	340.22	348.57	339.97
7 American Stock Exchange (Aug. 31, 1973 = 50) ²	316.78	295.08	356.67	349.50	362.73	368.52	379.28	382.75	383.63	371.92	373.87	367.40
<i>Volume of trading (thousands of shares)</i>												
8 New York Stock Exchange	188,922	161,386	165,568	171,495	180,680	162,501	171,683	151,752	182,394	144,389	160,671	172,420
9 American Stock Exchange	13,832	9,955	13,124	11,699	13,519	11,702	14,538	12,631	13,853 ³	12,001 ³	13,298 ³	14,831
Customer financing (end-of-period balances, in millions of dollars)												
10 Margin credit at broker-dealers ³	31,990	32,740	34,320	33,140	34,730	34,360	33,940	35,020	35,110	34,630	34,320	32,640
<i>Free credit balances at brokers⁴</i>												
11 Margin-account ²	4,750	5,660	7,040	5,250	6,900	5,420	5,580	5,680	6,000	5,815	7,040	6,755
12 Cash-account	15,640	16,595	18,505	15,965	19,080	16,345	16,015	15,310	16,340	16,345	18,505	17,370
Margin requirements (percent of market value and effective date)⁶												
	Mar. 11, 1968		June 8, 1968		May 6, 1970		Dec. 6, 1971		Nov. 24, 1972		Jan. 3, 1974	
13 Margin stocks	70		80		65		55		65		50	
14 Convertible bonds	50		60		50		50		50		50	
15 Short sales	70		80		65		55		65		50	

1. Effective July 1976, includes a new financial group, banks and insurance companies. With this change the index includes 400 industrial stocks (formerly 425), 20 transportation (formerly 15 rail), 40 public utility (formerly 60), and 40 financial.

2. Beginning July 5, 1983, the American Stock Exchange rebased its index effectively cutting previous readings in half.

3. Beginning July 1983, under the revised Regulation T, margin credit at broker-dealers includes credit extended against stocks, convertible bonds, stocks acquired through exercise of subscription rights, corporate bonds, and government securities. Separate reporting of data for margin stocks, convertible bonds, and subscription issues was discontinued in April 1984.

4. Free credit balances are in accounts with no unfulfilled commitments to the brokers and are subject to withdrawal by customers on demand.

5. New series beginning June 1984.

6. These regulations, adopted by the Board of Governors pursuant to the Securities Exchange Act of 1934, limit the amount of credit to purchase and

carry "margin securities" (as defined in the regulations) when such credit is collateralized by securities. Margin requirements on securities other than options are the difference between the market value (100 percent) and the maximum loan value of collateral as prescribed by the Board. Regulation T was adopted effective Oct. 15, 1934; Regulation U, effective May 1, 1936; Regulation G, effective Mar. 11, 1968; and Regulation X, effective Nov. 1, 1971.

On Jan. 1, 1977, the Board of Governors for the first time established in Regulation T the initial margin required for writing options on securities, setting it at 30 percent of the current market-value of the stock underlying the option. On Sept. 30, 1985, the Board changed the required initial margin, allowing it to be the same as the option maintenance margin required by the appropriate exchange or self-regulatory organization; such maintenance margin rules must be approved by the Securities and Exchange Commission. Effective Jan. 31, 1986, the SEC approved new maintenance margin rules, permitting margins to be the price of the option plus 15 percent of the market value of the stock underlying the option.

1.37 SELECTED FINANCIAL INSTITUTIONS Selected Assets and Liabilities

Millions of dollars, end of period

Account	1987	1988	1989									Nov.
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	
SAIF-insured institutions												
1 Assets	1,250,855	1,350,500	1,339,115	1,340,502	1,345,347	1,346,564	1,338,576	1,331,940^f	1,318,118^f	1,301,059^f	1,288,722^f	1,279,067
2 Mortgages	721,593	764,513	767,603	769,398	773,386	774,358	772,720	771,716 ^f	770,117 ^f	764,699 ^f	757,718 ^f	753,993
3 Mortgage-backed securities	201,828	214,587	213,090	215,203	216,129	216,256	211,325	204,364 ^f	195,308 ^f	188,436 ^f	181,627 ^f	176,541
4 Contra-assets to mortgage assets ¹	42,344	37,950	37,013	37,842	37,791	37,504	37,540	37,172 ^f	36,763 ^f	36,292 ^f	34,925 ^f	33,990
5 Commercial loans	23,163	33,889	32,955	32,866	32,812	33,009	33,073	33,198 ^f	33,026 ^f	32,925 ^f	32,562 ^f	32,334
6 Consumer loans	57,902	61,922	61,981	61,402	61,710	61,869	60,769	61,098 ^f	60,978 ^f	60,423 ^f	59,793 ^f	59,496
7 Contra-assets to non-mortgage loans ²	3,467	3,056	2,923	3,074	2,899	2,918	3,192	3,203 ^f	3,167 ^f	3,120 ^f	3,106 ^f	3,202
8 Cash and investment securities	169,717	186,986	177,178	177,094	175,841	174,333	175,222	175,135 ^f	171,565 ^f	169,582 ^f	172,612 ^f	172,333
9 Other ³	122,462	129,610	126,243	125,455	126,065	127,161	126,200	126,803 ^f	127,055 ^f	124,415 ^f	122,440 ^f	121,561
10 Liabilities and net worth	1,250,855	1,350,500	1,339,115	1,340,502	1,345,347	1,346,564	1,338,576	1,331,940^f	1,318,118^f	1,301,059^f	1,288,722^f	1,279,067
11 Savings capital	932,616	971,700	957,358	956,663	954,495	955,566	960,073	963,158	960,344	958,911 ^f	948,512 ^f	946,668
12 Borrowed money	249,917	299,400	305,675	312,988	318,671	318,367	312,093	301,572 ^f	289,634 ^f	281,474	275,977 ^f	268,462
13 FHLBB	116,363	134,168	140,089	146,007	148,000	146,520	144,217	141,875	138,331	133,633	130,514	127,671
14 Other	133,554	165,232	165,586	166,981	170,671	171,847	167,876	159,697 ^f	151,303 ^f	147,841	145,463 ^f	140,791
15 Other	21,941	24,216	31,749	29,593	31,629	33,585	29,892	31,881 ^f	33,807	29,899 ^f	30,960 ^f	31,991
16 Net worth	46,382	55,185	58,962	57,113	56,068	54,596	52,741	50,907 ^f	49,930 ^f	46,685 ^f	48,345 ^f	47,177
SAIF-insured federal savings banks												
17 Assets	284,270	425,983	432,675	443,167	455,143	469,939	495,739	507,020	504,187	501,128	502,589	
18 Mortgages	161,926	227,869	238,415	241,076	249,940	257,187	276,613	285,072	285,503	283,188	283,674	
19 Mortgage-backed securities	45,826	64,957	65,896	68,086	69,964	73,963	73,943	74,341	72,082	72,438	72,318	
20 Contra-assets to mortgage assets ¹	9,100	13,140	12,685	12,896	13,049	13,227	13,662	13,972	13,859	13,821	13,492	
21 Commercial loans	6,504	16,731	16,320	16,313	16,497	16,934	18,014	18,279	18,169	18,195	18,301	
22 Consumer loans	17,696	24,222	25,977	26,096	26,768	27,957	28,157	28,996	28,985	28,766	28,326	
23 Contra-assets to non-mortgage loans ²	678	889	857	977	863	888	976	980	987	1,029	1,051	
24 Finance leases plus interest	591	880	946	1,011	1,047	1,072	1,083	1,088	1,075	1,092	1,087	
25 Cash and investment securities	35,347	61,029	57,986	60,272	61,278	62,002	65,778	66,068	65,109	64,232	65,277	
26 Other	24,069	35,428	34,664	34,964	37,333	38,021	39,644	40,340	40,534	40,680	40,756	
27 Liabilities and net worth	284,270	425,983	432,675	443,167	455,143	469,939	495,739	507,020	504,187	501,128	502,589	
28 Savings capital	203,196	298,197	301,770	307,580	315,725	324,369	342,145	352,547	352,099	353,461	355,903	
29 Borrowed money	60,716	99,286	102,902	107,179	110,004	114,854	121,895	121,195	117,970	115,628	114,232	
30 FHLBB	29,617	46,265	48,951	51,532	53,519	55,463	58,505	59,781	59,189	57,941	57,793	
31 Other	31,099	53,021	53,951	55,647	56,485	59,391	63,390	61,414	58,781	57,687	56,439	
32 Other	5,324	8,075	8,884	8,649	9,306	10,174	9,825	10,697	11,443	9,904	10,298	
33 Net worth	15,034	20,235	22,700	23,090	23,404	23,926	25,677	26,266	26,369	26,134	26,126	

↑
n.a.
↓

1.37—Continued

Account	1987	1988	1989										
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	
Credit unions⁴													
34 Total assets/liabilities and capital.....	↑	174,593	176,270	178,175	177,417	178,812	180,664	179,029	180,035	181,812	181,527	182,856	
35 Federal		114,566	115,543	117,555	115,416	116,705	117,632	117,475	117,463	118,746	118,887	119,682	
36 State		60,027	60,727	60,620	62,001	62,107	63,032	61,554	62,572	63,066	62,640	63,174	
37 Loans outstanding.....	n.a.	113,191	113,880	114,572	115,249	116,947	119,101	119,720	120,577	122,522	122,997	122,899	
38 Federal		73,766	73,917	74,395	75,003	76,052	77,729	78,472	78,946	80,548	80,570	80,601	
39 State		39,425	39,963	40,177	40,246	40,895	41,372	41,248	41,631	41,874	42,427	42,298	
40 Savings	↓	159,010	161,073	164,322	161,388	162,134	164,415	162,405	162,754	164,050	164,695	165,533	
41 Federal		104,431	105,262	107,368	105,208	105,787	106,984	106,266	106,038	106,633	107,588	108,319	
42 State		54,579	55,811	56,954	56,180	56,347	57,431	56,139	56,716	57,417	57,107	57,214	
Life insurance companies													
43 Assets		1,044,459	1,157,140	1,186,208	1,199,125	1,209,242	1,221,332	1,232,195	1,247,341	1,257,045	1,266,773	1,276,181	↑
Securities													n.a.
44 Government		84,426	84,051	84,190	84,485	82,873	83,847	84,564	84,438	83,225	82,867	83,727	
45 United States		57,078	58,564	58,509	58,417	57,127	57,790	57,817	57,698	56,978	56,684	57,726	
46 State and local		10,681	9,136	8,817	8,860	8,911	8,953	9,036	9,061	9,002	9,037	9,019	
47 Foreign		16,667	16,351	16,864	17,208	16,835	17,104	17,711	17,679	17,245	17,146	16,982	
48 Business		n.a.	n.a.	678,541	687,777	697,703	706,960	714,398	726,599	735,441	742,537	748,075	
49 Bonds		472,684	556,043	571,365	579,232	587,889	595,500	601,786	606,686	614,585	621,856	628,695	
50 Stocks		n.a.	n.a.	107,176	108,545	109,814	111,460	112,612	119,913	120,856	120,681	119,380	
51 Mortgages		203,545	232,863	233,556	234,632	235,312	236,651	237,444	237,865	238,944	240,189	242,391	
52 Real estate		34,172	37,371	37,603	37,842	37,976	38,598	38,190	38,622	38,822	38,942	39,343	
53 Policy loans		53,626	54,236	54,738	54,921	55,201	55,525	55,746	55,812	56,077	56,403	56,727	
54 Other assets		89,586	93,358	97,580	99,468	100,173	99,751	101,853	104,005	104,536	105,835	105,918	↓

1. Contra-assets are credit-balance accounts that must be subtracted from the corresponding gross asset categories to yield net asset levels. Contra-assets to mortgage loans, contracts, and pass-through securities include loans in process, unearned discounts and deferred loan fees, valuation allowances for mortgages "held for sale," and specific reserves and other valuation allowances.

2. Contra-assets are credit-balance accounts that must be subtracted from the corresponding gross asset categories to yield net asset levels. Contra-assets to nonmortgage loans include loans in process, unearned discounts and deferred loan fees, and specific reserves and valuation allowances.

3. Holding of stock in Federal Home Loan Bank and Finance leases plus interest are included in "Other" (line 9).

4. Data include all federally insured credit unions, both federal and state chartered, serving natural persons.

5. Direct and guaranteed obligations. Excludes federal agency issues not guaranteed, which are shown in the table under "Business" securities.

6. Issues of foreign governments and their subdivisions and bonds of the International Bank for Reconstruction and Development.

NOTE. *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."

As of June 1989 Savings bank data are no longer available.

1.38 FEDERAL FISCAL AND FINANCING OPERATIONS

Millions of dollars

Type of account or operation	Fiscal year 1987	Fiscal year 1988 ^r	Fiscal year 1989	Calendar year					
				1989					1990
				Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<i>U.S. budget¹</i>									
1 Receipts, total	854,143	908,166	990,789	76,161	99,233	68,426	71,213	89,130	99,542
2 On-budget	640,741	666,675	727,123	57,156	75,711	50,122	51,989	69,052	74,247
3 Off-budget	213,402	241,491	263,666	19,004	23,522	18,304	19,223	20,077	25,295
4 Outlays, total	1,003,804	1,063,318	1,142,777	98,310	105,299	94,515	100,172	103,770	89,622
5 On-budget	809,972	860,626	931,556	79,218	86,548	75,096	80,794	91,249	71,082
6 Off-budget	193,832	202,691	211,221	19,092	18,750	19,419	19,378	12,522	18,540
7 Surplus, or deficit (-), total	-149,661	-155,151	-151,988	-22,150	-6,066	-26,089	-28,959	-14,641	9,920
8 On-budget	-169,231	-193,951	-204,433	-22,062	-10,837	-24,974	-28,804	-22,196	3,165
9 Off-budget	19,570	38,800	52,445	-88	4,771	-1,115	-155	7,556	6,755
Source of financing (total)									
10 Borrowing from the public	151,717	166,139	140,156	35,854	6,618	36,690	19,790	6,821	15,841
11 Operating cash (decrease, or increase (-))	-5,052	-7,963	3,425	-3,235	-15,589	-2,513	21,772	-5,221	-18,116
12 Other ²	2,996	-3,025	8,407	-10,469	14,977	-8,088	-12,603	13,040	-7,644
MEMO									
13 Treasury operating balance (level, end of period)	36,436	44,398	40,973	25,384	40,973	43,486	21,715	26,935	45,051
14 Federal Reserve Banks	9,120	13,024	13,452	6,652	13,452	13,124	5,501	6,217	13,153
15 Tax and loan accounts	27,316	31,375	27,521	18,732	27,521	30,362	16,214	20,718	31,899

1. In accordance with the Balanced Budget and Emergency Deficit Control Act of 1985, all former off-budget entries are now presented on-budget. The Federal Financing Bank (FFB) activities are now shown as separate accounts under the agencies that use the FFB to finance their programs. The act has also moved two social security trust funds (Federal old-age survivors insurance and Federal disability insurance trust funds) off-budget.

2. Includes SDRs; reserve position on the U.S. quota in the IMF; loans to

international monetary fund; other cash and monetary assets; accrued interest payable to the public; allocations of special drawing rights; deposit funds; miscellaneous liability (including checks outstanding) and asset accounts; seigniorage; increment on gold; net gain/loss for U.S. currency valuation adjustment; net gain/loss for IMF valuation adjustment; and profit on the sale of gold.

SOURCE: *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government and the Budget of the U.S. Government.*

1.39 U.S. BUDGET RECEIPTS AND OUTLAYS¹

Millions of dollars

Source or type	Fiscal year 1988	Fiscal year 1989	Calendar year						
			1988		1989			1990	
			H1	H2	H1	H2	Nov.	Dec.	Jan.
RECEIPTS									
1 All sources	908,166	990,789	475,724	449,394	527,574	470,354	71,213	89,130	99,542
2 Individual income taxes, net	401,181	445,690	207,659	200,300	233,572	218,661	34,448	37,385	56,044
3 Withheld	341,435	361,386	169,300	179,600	174,230	193,296	34,439	35,443	34,172
4 Presidential Election Campaign Fund	33	32	28	4	28	3	0	0	0
5 Nonwithheld	132,199	154,839	101,614	29,880	121,563	33,303	1,459	2,717	22,389
6 Refunds	72,487	70,567	63,283	9,186	62,251	7,943	1,450	775	517
Corporation income taxes									
7 Gross receipts	109,683	117,015	58,002	56,409	61,585	52,269	3,381	19,731	4,277
8 Refunds	15,487	13,723	8,706	7,250	7,259	6,842	996	853	1,159
9 Social insurance taxes and contributions, net	334,335	359,416	181,058	157,603	200,127	162,574	26,791	25,805	32,863
10 Employment taxes and contributions ²	305,093	332,859	164,412	144,983	184,569	152,407	24,303	25,266	31,767
11 Self-employment taxes and contributions ³	17,691	18,405	14,839	3,032	16,371	1,947	140	0	1,213
12 Unemployment insurance	24,584	22,011	14,363	10,359	13,279	7,909	2,088	161	742
13 Other net receipts ⁴	4,659	4,547	2,284	2,262	2,277	2,260	401	377	354
14 Excise taxes	35,540	34,386	16,440	19,299	16,814	16,844	2,939	2,763	2,624
15 Customs deposits	15,411	16,334	7,522	8,107	7,918	8,667	1,421	1,293	1,440
16 Estate and gift taxes	7,594	8,745	3,863	4,054	4,583	4,451	693	850	805
17 Miscellaneous receipts ⁵	19,909	22,927	9,950	10,873	10,235	13,728	2,535	2,156	2,648
OUTLAYS									
18 All types	1,063,318	1,142,777	512,856	552,801	565,524	586,496	100,172	103,770	89,622
19 National defense	290,361	303,551	143,080	150,496	148,098	149,613	25,234	28,570	21,978
20 International affairs	10,471	9,596	7,150	2,636	6,605	5,981	495	1,306	1,248
21 General science, space, and technology	10,841	12,891	5,361	5,852	6,238	7,091	1,155	1,202	1,058
22 Energy	2,297	3,745	555	1,966	2,221	564	-170	160	-460
23 Natural resources and environment	14,625	16,084	6,776	9,144	7,022	9,209	2,064	1,319	1,133
24 Agriculture	17,210	16,948	7,872	6,911	9,619	4,132	1,967	1,097	1,113
25 Commerce and housing credit	18,828	27,810 ⁶	5,951	19,836	4,129	22,200	2,030	1,107	-2,286
26 Transportation	27,272	27,623	12,700	14,922	13,035	14,982	2,584	2,515	2,409
27 Community and regional development	5,294	5,755	2,765	2,690	1,833	4,879	1,100	841	848
28 Education, training, employment, and social services	31,938	35,697	15,451	16,152	18,083	18,663	3,194	3,151	3,496
29 Health	44,490	48,391	22,643	23,360	24,078	25,339	4,136	4,435	4,663
30 Social security and medicare	297,828	317,506	135,322	149,017	162,195	162,322	27,337	27,166	28,228
31 Income security	129,332	136,765	65,555	64,978	70,937	67,950	11,456	13,217	12,010
32 Veterans benefits and services	29,406	30,066	13,241	15,797	14,891	14,864	2,627	3,664	1,086
33 Administration of justice	8,436	9,396	4,379	4,351	4,801	4,963	771	968	811
34 General government	9,518	8,940	4,337	5,137	3,858	4,753	1,437	745	972
35 General-purpose fiscal assistance	1,816	n.a.	448	0	0	n.a.	n.a.	n.a.	n.a.
36 Net interest ⁷	151,748	169,314	76,098	78,317	86,009	87,927	15,526	14,579	14,281
37 Undistributed offsetting receipts ⁷	-36,967	-37,212	-17,766	-18,771	-18,131	-18,935	-2,771	-2,271	-2,967

1. Functional details do not add to total outlays for calendar year data because revisions to monthly totals have not been distributed among functions. Fiscal year total for outlays does not correspond to calendar year data because revisions from the Budget have not been fully distributed across months.
 2. Old-age, disability, and hospital insurance, and railroad retirement accounts.
 3. Old-age, disability, and hospital insurance.
 4. Federal employee retirement contributions and civil service retirement and disability fund.

5. Deposits of earnings by Federal Reserve Banks and other miscellaneous receipts.
 6. Net interest function includes interest received by trust funds.
 7. Consists of rents and royalties on the outer continental shelf and U.S. government contributions for employee retirement.
 SOURCES: U.S. Department of the Treasury, *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government*, and the U.S. Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 1990*.

1.40 FEDERAL DEBT SUBJECT TO STATUTORY LIMITATION

Billions of dollars

Item	1987	1988				1989				
	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31	
1 Federal debt outstanding	2,435.2	2,493.2	2,555.1	2,614.6	2,707.3	2,763.6	2,824.0	2,881.1	2,975.5	
2 Public debt securities	2,431.7	2,487.6	2,547.7	2,602.2	2,684.4	2,740.9	2,799.9	2,857.4	2,953.0	
3 Held by public	1,954.1	1,996.7	2,013.4	2,051.7	2,095.2	2,133.4	2,142.1	2,180.7	n.a.	
4 Held by agencies	477.6	490.8	534.2	550.4	589.2	607.5	657.8	676.7	n.a.	
5 Agency securities	3.5	5.6	7.4	12.4	22.9	22.7	24.0	23.7	n.a.	
6 Held by public	2.7	5.1	7.0	12.2	22.6	22.3	23.6	23.5	n.a.	
7 Held by agencies .....	.8	.6	.5	.2	.3	.4	.5	.1	n.a.
8 Debt subject to statutory limit	2,417.4	2,472.6	2,532.2	2,586.9	2,669.1	2,725.6	2,784.6	2,829.8	2,921.7	
9 Public debt securities	2,416.3	2,472.1	2,532.1	2,586.7	2,668.9	2,725.5	2,784.3	2,829.5	2,921.4	
10 Other debt ¹	1.1	.5	.1	.1	.2	.2	.2	.3	.3	
11 MEMO: Statutory debt limit	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,800.0	2,870.0	3,122.7	

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

SOURCES. *Treasury Bulletin* and *Monthly Statement of the Public Debt of the United States*.

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

Billions of dollars, end of period

Type and holder	1986	1987	1988	1989	1989			
					Q1	Q2	Q3	Q4
1 Total gross public debt	2,214.8	2,431.7	2,684.4	2,953.0	2,740.9	2,799.9	2,857.4	2,953.0
<i>By type</i>								
2 Interest-bearing debt	2,212.0	2,428.9	2,663.1	2,931.8	2,738.3	2,797.4	2,836.3	2,931.8
3 Marketable	1,619.0	1,724.7	1,821.3	1,943.4	1,871.7	1,877.3	1,892.8	1,945.4
4 Bills	426.7	389.5	414.0	430.6	417.0	397.1	406.6	430.6
5 Notes	927.5	1,037.9	1,083.6	1,151.5	1,121.4	1,137.2	1,133.2	1,151.5
6 Bonds	249.8	282.5	308.9	348.2	318.4	328.0	338.0	348.2
7 Nonmarketable ¹	593.1	704.2	841.8	986.4	866.6	920.1	943.5	986.4
8 State and local government series	110.5	139.3	151.5	163.3	154.4	156.0	158.6	163.3
9 Foreign issues ²	4.7	4.0	6.6	6.8	6.7	6.2	6.8	6.8
10 Government	4.7	4.0	6.6	6.8	6.7	6.2	6.8	6.8
11 Public .....	.0	.0	.0	.0	.0	.0	.0	.0
12 Savings bonds and notes	90.6	99.2	107.6	115.7	110.4	112.3	114.0	115.7
13 Government account series ³	386.9	461.3	575.6	695.6	594.7	645.2	663.7	695.6
14 Non-interest-bearing debt	2.8	2.8	21.3	21.2	2.6	2.5	21.1	21.2
<i>By holder⁴</i>								
15 U.S. government agencies and trust funds	403.1	477.6	589.2	↑	607.5	657.8	676.7	↑
16 Federal Reserve Banks	211.3	222.6	238.4	↑	228.6	231.8	220.6	↑
17 Private investors	1,602.0	1,745.2	1,852.8	↑	1,900.2	1,905.4	1,954.6	↑
18 Commercial banks	203.5	201.5	193.8	↑	200.9	206.7	n.a.	↑
19 Money market funds	28.0	14.6	18.8	↑	13.0	11.6	12.4	↑
20 Insurance companies	105.6	104.9	111.2	↑	112.5	n.a.	n.a.	↑
21 Other companies	68.8	84.6	86.5	n.a.	89.2	90.7	n.a.	n.a.
22 State and local Treasuries	262.8	284.6	313.6	↑	320.4	322.1	n.a.	↑
Individuals								
23 Savings bonds	92.3	101.1	109.6	↑	112.2	114.0	115.7	↑
24 Other securities	70.4	70.2	77.0	↑	82.9	89.1	n.a.	↑
25 Foreign and international	263.4	299.7	362.1	↑	375.6	367.9	393.5	↑
26 Other miscellaneous investors ⁵	506.6	584.0	587.2	↑	593.5	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 and the *Treasury Bulletin*.

1.42 U.S. GOVERNMENT SECURITIES DEALERS Transactions¹

Par value; averages of daily figures, in millions of dollars

Item	1987	1988	1989 ²	1989		1990	1989	1990					
				Nov. ³	Dec. ³	Jan.	Dec. 27 ³	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31	
Immediate delivery²													
1 U.S. Treasury securities	110,050	101,623	112,715	115,662	84,153	118,584	72,702	72,473	102,219	128,457	123,690	133,945	
<i>By maturity</i>													
2 Bills	37,924	29,387	30,733	32,611	26,756	32,817	24,356	23,913	26,939	41,663	30,796	35,767	
3 Other within 1 year	3,271	3,426	3,182	2,811	2,559	3,438	2,193	3,764	3,382	3,283	2,568	4,216	
4 1-5 years	27,918	27,777	33,662	38,423	25,884	32,925	22,219	20,322	27,628	34,180	36,446	37,091	
5 5-10 years	24,014	24,939	28,679	26,189	18,240	31,345	14,336	15,805	29,015	32,612	33,252	34,744	
6 Over 10 years	16,923	16,093	16,458	15,628	10,714	18,059	9,597	8,669	15,255	16,718	20,628	22,126	
<i>By type of customer</i>													
7 U.S. government securities dealers	2,936	2,761	3,287	3,498	2,545	3,141	2,952	1,998	2,765	3,138	3,149	3,890	
8 U.S. government securities brokers	61,539	59,844	66,417	66,532	45,753	71,886	38,310	39,910	60,945	77,400	76,535	81,668	
9 All others ³	45,575	39,019	43,011	45,632	35,854	43,557	31,439	30,565	38,509	47,918	44,006	48,387	
10 Federal agency securities	18,084	15,903	18,623	20,012	17,939	19,950	13,428	12,136	22,046	24,078	18,123	18,496	
11 Certificates of deposit	4,112	3,369	2,798	2,184	1,597	2,283	1,052	1,487	2,083	2,667	2,476	2,142	
12 Bankers acceptances	2,965	2,316	2,222	1,998	1,635	1,843	1,226	1,854	1,960	2,079	1,744	1,550	
13 Commercial paper	17,135	22,927	31,805	31,188	32,267	37,311	31,735	37,538	36,227	40,660	35,886	35,765	
<i>Futures contracts⁴</i>													
14 Treasury bills	3,233	2,627	2,525	1,898	2,523	2,684	1,788	1,014	1,940	4,274	2,784	2,464	
15 Treasury coupons	8,963	9,695	9,603	9,313	5,836	12,345	6,769	6,353	9,451	11,507	12,746	16,908	
16 Federal agency securities	5	1	8	7	3	14	2	0	7	32	24	4	
<i>Forward transactions⁵</i>													
17 U.S. Treasury securities	2,029	2,095	2,126	2,009	1,821	1,786	1,672	817	2,207	1,022	2,770	1,358	
18 Federal agency securities	9,290	8,008	9,484	10,894	9,520	11,594	5,710	7,432	15,040	13,816	10,104	8,710	

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 Financing¹

Averages of daily figures, in millions of dollars

Item	1987 ^r	1988 ^r	1989 ^r	1989		1990	1990				
				Nov. ^r	Dec. ^r	Jan.	Jan. 3	Jan. 10	Jan. 17	Jan. 24	Jan. 31
Positions											
Net immediate ²											
1 U.S. Treasury securities	-6,216	-22,765	-5,948	17,139	25,224	18,282	20,189	18,684	21,044	16,817	17,217
2 Bills	4,317	2,238	7,831	22,515	26,823	24,925	22,282	24,690	25,198	25,767	25,234
3 Other within 1 year	1,557	-2,236	-1,528	-1,276	-1,171	-836	-2,031	-877	-321	-476	-1,007
4 1-5 years	649	-3,020	2,334	10,532	12,398	13,976	15,108	14,012	13,704	12,142	15,787
5 5-10 years	-6,564	-9,663	-8,133	-8,992	-7,230	-10,477	-8,682	-10,256	-8,744	-11,182	-11,953
6 Over 10 years	-6,174	-10,084	-6,452	-5,640	-5,596	-9,305	-6,488	-8,884	-8,794	-9,435	-10,845
7 Federal agency securities	31,911	28,230	31,914	35,453	35,928	35,551	32,315	35,441	39,301	37,300	33,184
8 Certificates of deposit	8,188	7,300	6,674	7,003	6,884	5,972	5,896	5,874	5,985	6,063	5,993
9 Bankers acceptances	3,660	2,486	2,089	1,925	1,736	1,703	1,533	1,542	1,925	1,781	1,692
10 Commercial paper	7,496	6,152	8,243	7,650	8,152	7,663	7,599	7,067	7,509	7,611	8,286
Futures positions											
11 Treasury bills	-3,373	-2,210	-4,599	-9,455	-10,135	-9,896	-6,730	-6,365	-9,387	-12,771	-12,323
12 Treasury coupons	5,988	6,224	-2,919	-11,364	-11,022	-6,388	-7,693	-7,244	-7,631	-6,405	-4,241
13 Federal agency securities	-95	0	14	25	30	27	47	46	-7	23	31
Forward positions											
14 U.S. Treasury securities	-1,211	346	-546	-109	-145	-2,094	-2,405	-1,226	-1,688	-3,273	-2,194
15 Federal agency securities	-18,817	-16,348	-16,878	-17,372	-16,522	-13,814	-10,672	-14,569	-18,644	-15,322	-10,056
Financing³											
Reverse repurchase agreements ⁴											
16 Overnight and continuing	126,709	136,327	157,955	153,134	143,024	150,660	141,007	143,920	150,622	154,459	159,429
17 Term	148,288	177,477	225,126	242,219	219,169	216,646	195,588	214,139	209,934	223,620	231,526
Repurchase agreements ⁵											
18 Overnight and continuing	170,763	172,695	219,083	227,653	233,258	240,341	231,227	233,091	242,684	247,370	243,687
19 Term	121,270	137,056	179,555	218,441	179,487	179,484	151,466	174,758	176,502	189,192	194,294

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	1986	1987	1988	1989	1989				
					Aug.	Sept.	Oct.	Nov.	Dec.
1 Federal and federally sponsored agencies	307,361	341,386	381,498	411,805	411,979	408,591	409,113	412,234	411,805
2 Federal agencies	36,958	37,981	35,668	35,664	36,453	36,584	36,378	35,855	35,664
3 Defense Department ¹	33	13	8	7	7	7	7	7	7
4 Export-Import Bank ²	14,211	11,978	11,035	10,985	11,014	10,990	10,990	10,990	10,985
5 Federal Housing Administration ³	138	183	150	328	255	295	301	308	328
6 Government National Mortgage Association participation certificates ⁴	2,165	1,615	0	0	0	0	0	0	0
7 Postal Service ⁵	3,104	6,103	6,142	6,445	6,445	6,445	6,445	6,445	6,445
8 Tennessee Valley Authority ⁶	17,222	18,089	18,335	17,899	18,732	18,847	18,635	18,105	17,899
9 United States Railway Association ⁷	85	0	0	0	0	0	0	0	0
10 Federally sponsored agencies ⁷	270,553	303,405	345,830	376,141	375,526	372,007	372,735	376,379	376,141
11 Federal Home Loan Banks	88,752	115,725	135,834	136,087	149,269	143,578	140,854	138,229	136,087
12 Federal Home Loan Mortgage Corporation	13,589	17,645	22,797	26,882	27,165	26,738	25,097	27,018	26,882
13 Federal National Mortgage Association	93,563	97,057	105,459	116,064	110,155	111,507	111,776	115,774	116,064
14 Farm Credit Banks ⁸	62,478	55,275	53,127	54,864	53,511	54,029	54,029	54,131	54,864
15 Student Loan Marketing Association ⁹	12,171	16,503	22,073	28,705	27,079	27,126	27,440	27,688	28,705
16 Financing Corporation ¹⁰	0	1,200	5,850	8,170	7,500	8,170	8,170	8,170	8,170
17 Farm Credit Financial Assistance Corporation ¹¹	0	0	690	847	847	847	847	847	847
18 Resolution Funding Corporation ¹²	0	0	0	4,522	0	0	4,522	4,522	4,522
MEMO									
19 Federal Financing Bank debt¹³	157,510	152,417	142,850	134,873	137,690	136,092	135,841	135,213	134,873
<i>Lending to federal and federally sponsored agencies</i>									
20 Export-Import Bank ³	14,205	11,972	11,027	10,979	11,008	10,984	10,984	10,984	10,979
21 Postal Service ⁵	2,854	5,853	5,892	6,195	6,195	6,195	6,195	6,195	6,195
22 Student Loan Marketing Association	4,970	4,940	4,910	4,880	4,910	4,910	4,880	4,880	4,880
23 Tennessee Valley Authority	15,797	16,709	16,955	16,519	17,352	17,467	17,255	16,725	16,519
24 United States Railway Association ⁷	85	0	0	0	0	0	0	0	0
<i>Other Lending¹⁴</i>									
25 Farmers Home Administration	65,374	59,674	58,496	53,311	54,611	53,311	53,311	53,311	53,311
26 Rural Electrification Administration	21,680	21,191	19,246	19,265	19,270	19,275	19,233	19,249	19,265
27 Other	32,545	32,078	26,324	23,724	24,344	23,950	23,983	23,869	23,724

1. Consists of mortgages assumed by the Defense Department between 1957 and 1963 under family housing and homeowners assistance programs.

2. Includes participation certificates reclassified as debt beginning Oct. 1, 1976.

3. Off-budget Aug. 17, 1974, through Sept. 30, 1976; on-budget thereafter.

4. Consists of debentures issued in payment of Federal Housing Administration insurance claims. Once issued, these securities may be sold privately on the securities market.

5. Certificates of participation issued before fiscal 1969 by the Government National Mortgage Association acting as trustee for the Farmers Home Administration; Department of Health, Education, and Welfare; Department of Housing and Urban Development; Small Business Administration; and the Veterans Administration.

6. Off-budget.

7. Includes outstanding noncontingent liabilities; notes, bonds, and debentures. Some data are estimated.

8. Excludes borrowing by the Farm Credit Financial Assistance Corporation, shown in line 17.

9. Before late 1981, the Association obtained financing through the Federal Financing Bank (FFB). Borrowing excludes that obtained from the FFB, which is

shown on line 21.

10. The Financing Corporation, established in August 1987 to recapitalize the Federal Savings and Loan Insurance Corporation, undertook its first borrowing in October 1987.

11. The Farm Credit Financial Assistance Corporation (established in January 1988 to provide assistance to the Farm Credit System) undertook its first borrowing in July 1988.

12. The Resolution Funding Corporation, established by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989, undertook its first borrowing in October 1989.

13. Includes FFB purchases of agency assets and guaranteed loans; the latter contain loans guaranteed by numerous agencies with the guarantees of any particular agency being generally small. The Farmers Home Administration item consists exclusively of agency assets, while the Rural Electrification Administration entry contains both agency assets and guaranteed loans.

14. The FFB, which began operations in 1974, is authorized to purchase or sell obligations issued, sold, or guaranteed by other federal agencies. Since FFB incurs debt solely for the purpose of lending to other agencies, its debt is not included in the main portion of the table in order to avoid double counting.

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1.45 NEW SECURITY ISSUES Tax-Exempt State and Local Governments

Millions of dollars

Type of issue or issuer, or use	1987	1988	1989	1989							1990
				June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
1 All issues, new and refunding¹	102,407	114,522	113,646^f	13,775	8,735	9,824	10,818	9,075	9,564	13,636	5,876
<i>Type of issue</i>											
2 General obligation	30,589	30,312	35,774 ^f	4,960	3,789	2,199	3,500	3,273	3,328	2,158	2,231
3 Revenue	71,818	84,210	77,873 ^f	8,815	4,946	7,625	7,318	5,802	6,237	11,478	3,645
<i>Type of issuer</i>											
4 State	10,102	8,830	11,899 ^f	1,989	970	694	764	1,330	930	911	709
5 Special district and statutory authority ²	65,460	74,409	71,022 ^f	8,033	4,868	7,027	7,567	4,770	5,473	9,391	3,975
6 Municipalities, counties, and townships	26,845	31,193	30,805 ^f	3,753	2,897	2,103	2,487	2,975	3,161	3,334	1,192
7 Issues for new capital, total	56,789	79,665	84,062^f	10,078	6,816	6,612	7,470	7,266	7,777	10,195	5,578
<i>Use of proceeds</i>											
8 Education	9,524	15,021	15,133 ^f	2,678	998	1,302	1,639	1,006	1,058	1,495	1,173
9 Transportation	3,677	6,825	6,870 ^f	576	500	556	976	280	675	645	84
10 Utilities and conservation	7,912	8,496	11,427 ^f	1,058	551	813	622	718	1,137	2,219	796
11 Social welfare	11,106	19,027	16,703 ^f	1,509	1,632	1,553	1,242	1,803	1,441	2,518	667
12 Industrial aid	7,474	5,624	5,036 ^f	329	440	447	381	345	444	1,119	305
13 Other purposes	18,020	24,672	28,894 ^f	3,928	2,695	1,941	2,610	3,114	3,022	2,199	2,553

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	1987	1988	1989	1989							
				May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 All issues¹	392,339^f	409,925^f	231,206	21,571^f	24,750^f	18,030^f	14,930^f	14,629^f	24,644^f	20,522^f	20,945
2 Bonds²	325,838^f	352,124^f	199,930	19,762^f	21,922^f	12,976^f	12,895^f	12,356^f	20,964^f	16,282^f	17,000
<i>Type of offering</i>											
3 Public, domestic	209,455 ^f	201,246 ^f	177,438	17,856 ^f	19,014 ^f	11,556 ^f	12,079 ^f	11,156 ^f	19,856 ^f	14,208 ^f	15,500
4 Private placement, domestic	92,070	127,700	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5 Sold abroad	24,308	23,178	22,492	1,906	2,908	1,420	816	1,200	1,108	2,074 ^f	1,500
<i>Industry group</i>											
6 Manufacturing	61,266 ^f	70,595 ^f	42,049	7,815 ^f	3,502 ^f	2,850 ^f	2,670 ^f	2,247 ^f	3,646 ^f	3,435 ^f	3,992
7 Commercial and miscellaneous	49,773 ^f	62,070 ^f	15,945	2,162	1,649	1,331	1,090	1,393	1,830	1,253 ^f	347
8 Transportation	11,974	10,076 ^f	3,586	150	480	0	423	30 ^f	906 ^f	312 ^f	1,083
9 Public utility	23,004	19,318	13,619	385	2,936	1,346 ^f	705	1,059 ^f	1,738	977 ^f	1,090
10 Communication	7,340	5,951	3,859	122	4	300	358	308	632	812	577
11 Real estate and financial	172,474 ^f	184,114 ^f	120,875	9,128	13,352 ^f	7,149 ^f	7,649 ^f	7,320 ^f	12,213 ^f	9,493 ^f	9,911
12 Stocks²	66,508	57,802	32,225	1,809	2,828	5,054	2,035	2,273	3,680	4,240	3,945
<i>Type</i>											
13 Preferred	10,123	6,544	6,194	306	335	920	1,013	519	570	160	626
14 Common	43,225	35,911	26,030	1,503	2,493	4,134	1,023	1,754	3,110	4,080	3,319
15 Private placement ³	13,157	15,346	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Industry group</i>											
16 Manufacturing	13,880	7,608	5,081	299	630	593	393	193	190	378	279
17 Commercial and miscellaneous	12,888	8,449	4,428	115	512	438	343	155	728	498	1,045
18 Transportation	2,439	1,535	532	39	0	0	0	0	50	0	0
19 Public utility	4,322	1,898	2,297	192	125	25	137	709	465	211	244
20 Communication	1,458	515	471	280	25	29	20	0	0	0	0
21 Real estate and financial	31,521	37,798	19,250	884	1,536	3,969	1,020	1,195	2,214	3,153	2,377

1. Figures which represent gross proceeds of issues maturing in more than one year, are principal amount or number of units multiplied by offering price. Excludes secondary offerings, employee stock plans, investment companies other than closed-end, intracorporate transactions, equities sold abroad, and Yankee bonds. Stock data include ownership securities issued by limited partnerships.
2. Monthly data include only public offerings.

3. Data are not available on a monthly basis. Before 1987, annual totals include underwritten issues only.
SOURCES. IDD Information Services, Inc., the Board of Governors of the Federal Reserve System, and before 1989, the U.S. Securities and Exchange Commission.

1.47 OPEN-END INVESTMENT COMPANIES Net Sales and Asset Position

Millions of dollars

Item	1988	1989	1989							
			May	June	July	Aug.	Sept.	Oct.	Nov. ¹	Dec.
INVESTMENT COMPANIES¹										
1 Sales of own shares ²	271,237	306,445	24,661	25,817	25,330	26,800	23,911	23,872	24,673	30,982
2 Redemptions of own shares ³	267,451	272,165	22,483	22,562	20,053	22,262	21,499	21,702	19,573	24,967
3 Net sales	3,786	34,280	2,178	3,255	5,277	4,538	2,412	2,170	5,100	6,015
4 Assets ⁴	472,297	553,875	509,781	515,814	535,910	539,553	539,814	534,922	549,892	553,875
5 Cash position ⁵	45,090	44,792	49,177	48,428	47,888	47,209	47,163	46,146	47,875	44,792
6 Other	427,207	509,083	460,604	467,386	488,022	492,344	492,651	488,776	502,017	509,083

1. Data on sales and redemptions exclude money market mutual funds but include limited maturity municipal bond funds. Data on asset positions exclude both money market mutual funds and limited maturity municipal bond funds.

2. Includes reinvestment of investment income dividends. Excludes reinvestment of capital gains distributions and share issue of conversions from one fund to another in the same group.

3. Excludes share redemption resulting from conversions from one fund to another in the same group.

4. Market value at end of period, less current liabilities.

5. Also includes all U.S. government securities and other short-term debt securities.

NOTE: Investment Company Institute data based on reports of members, which comprise substantially all open-end investment companies registered with the Securities and Exchange Commission. Data reflect newly formed companies after their initial offering of securities.

SOURCE: Survey of Current Business (Department of Commerce).

1.48 CORPORATE PROFITS AND THEIR DISTRIBUTION

Billions of dollars; quarterly data are at seasonally adjusted annual rates.

Account	1987	1988	1989	1988				1989			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1 Corporate profits with inventory valuation and capital consumption adjustment	298.7	328.6	298.2	318.1	325.3	330.9	340.2	316.3	307.8	295.2	n.a.
2 Profits before tax	266.7	306.8	287.3	288.8	305.3	314.4	318.8	318.0	296.0	275.0	n.a.
3 Profits tax liability	124.7	137.9	129.0	129.0	138.4	141.2	143.2	144.4	134.9	122.6	n.a.
4 Profits after tax	142.0	168.9	158.2	159.9	166.9	173.2	175.6	173.6	161.1	152.4	n.a.
5 Dividends	98.7	110.4	122.1	105.7	108.6	112.2	115.2	118.5	120.9	123.3	125.6
6 Undistributed profits	43.3	58.5	36.2	54.2	58.3	61.1	60.4	55.1	40.2	29.1	n.a.
7 Inventory valuation	-18.9	-25.0	n.a.	-20.7	-28.8	-30.4	-20.1	-38.3	-21.0	n.a.	n.a.
8 Capital consumption adjustment	50.9	46.8	29.4	49.9	48.9	46.9	41.5	36.6	32.3	26.5	22.4

Source: Survey of Current Business (Department of Commerce).

1.50 TOTAL NONFARM BUSINESS EXPENDITURES on New Plant and Equipment ▲

Billions of dollars; quarterly data are at seasonally adjusted annual rates.

Industry	1988	1989	1990 ¹	1988			1989				1990
				Q2	Q3	Q4	Q1	Q2	Q3	Q4 ¹	
1 Total nonfarm business	430.17	475.18	505.49	427.54	435.61	442.11	459.47	470.86	484.93	485.45	503.46
Manufacturing	77.75	83.05	83.22	77.38	79.15	80.56	81.26	82.97	85.66	82.30	86.84
2 Durable goods industries	86.79	100.11	106.94	85.24	89.62	92.76	93.96	98.57	102.00	105.90	106.92
3 Nondurable goods industries											
Nonmanufacturing	12.57	12.50	12.01	13.15	12.53	12.38	12.15	12.70	12.59	12.58	12.23
4 Mining											
Transportation	7.21	8.12	7.78	6.99	6.84	7.45	8.02	7.37	8.16	8.93	7.91
5 Railroad	7.00	9.50	10.60	6.91	8.09	7.69	7.04	9.49	12.48	8.99	10.12
6 Air	7.15	7.62	8.03	7.05	7.08	6.89	8.07	7.40	7.89	7.13	8.58
7 Other											
Public utilities	31.75	33.96	34.32	31.31	32.07	33.69	33.69	35.34	33.73	33.07	35.47
8 Electric	14.63	16.10	15.82	14.49	14.61	15.04	17.12	16.67	15.84	14.79	16.42
9 Gas and other	185.32	204.22	226.78	185.21	185.61	185.65	198.15	200.36	206.59	211.76	218.97
10 Commercial and other											

▲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).

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1.51 DOMESTIC FINANCE COMPANIES Assets and Liabilities¹

Billions of dollars, end of period

Account	1985	1986	1987	1988				1989		
				Q1	Q2	Q3	Q4	Q1	Q2	Q3
ASSETS										
Accounts receivable, gross ²										
1 Consumer.....	111.9	134.7	141.1	141.5	144.4	146.3	146.2	140.2	144.9	147.2
2 Business.....	157.5	173.4	207.4	219.7	224.0	223.3	236.5	243.1	250.5	248.8
3 Real estate.....	28.0	32.6	39.5	41.4	42.5	43.1	43.5	45.4	47.4	48.9
4 Total.....	297.4	340.6	388.1	402.6	410.9	412.7	426.2	428.7	442.8	444.9
<i>Less:</i>										
5 Reserves for unearned income.....	39.2	41.5	45.3	46.8	46.3	48.4	50.0	50.9	52.1	53.7
6 Reserves for losses.....	4.9	5.8	6.8	6.8	6.8	7.1	7.3	7.4	7.5	7.8
7 Accounts receivable, net.....	253.3	293.3	336.0	348.9	357.8	357.3	368.9	370.4	383.2	383.5
8 All other.....	45.3	58.6	58.3	60.1	70.5	68.7	72.4	75.1	81.5	83.1
9 Total assets.....	298.6	351.9	394.2	409.1	428.3	426.0	441.3	445.5	464.6	466.6
LIABILITIES										
10 Bank loans.....	18.0	18.6	16.4	14.9	13.3	11.9	15.4	11.6	12.2	12.3
11 Commercial paper.....	99.2	117.8	128.4	125.2	131.6	129.4	142.0	147.9	149.2	147.4
<i>Debt</i>										
12 Other short-term.....	12.7	17.5	28.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13 Long-term.....	94.4	117.5	137.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14 Due to parent.....	n.a.	n.a.	n.a.	49.0	51.4	51.5	50.6	56.8	59.7	60.4
15 Not elsewhere classified.....	n.a.	n.a.	n.a.	132.4	139.8	139.3	137.9	134.5	141.3	146.1
16 All other liabilities.....	41.5	44.1	52.8	56.1	58.7	59.9	59.8	58.1	63.5	60.4
17 Capital, surplus, and undivided profits.....	32.8	36.4	31.5	31.5	33.5	34.9	35.6	36.6	38.7	40.0
18 Total liabilities and capital.....	298.6	351.9	394.2	409.1	428.3	426.0	441.3	445.5	464.6	466.6

1. Components may not add to totals because of rounding.

2. Excludes pools of securitized assets.

1.52 DOMESTIC FINANCE COMPANIES Business Credit Outstanding and Net Change¹

Millions of dollars, seasonally adjusted

Type	1987	1988	1989	1989						
				July	Aug.	Sept.	Oct.	Nov.	Dec.	
1 Total.....	205,810	234,529	257,762	251,126	253,822	258,851	259,083	257,930	257,762	
<i>Retail financing of installment sales</i>										
2 Automotive.....	35,782	36,548	38,534	39,183	39,355	39,258	38,952	38,187	38,534	
3 Equipment.....	25,170	28,298	29,781	28,128	29,039	29,639	29,594	29,568	29,781	
4 Pools of securitized assets ²	n.a.	n.a.	698	769	793	755	715	739	698	
<i>Wholesale</i>										
5 Automotive.....	30,507	33,300	34,357	33,233	33,566	37,243	35,210	33,537	34,357	
6 Equipment.....	5,600	5,983	6,945	6,244	6,497	6,602	6,843	6,933	6,945	
7 All other.....	8,342	9,341	9,949	10,001	9,990	9,957	9,927	9,895	9,949	
8 Pools of securitized assets ²	n.a.	n.a.	0	0	0	0	0	0	0	
<i>Leasing</i>										
9 Automotive.....	21,952	24,673	26,856	26,701	26,739	26,865	27,442	27,547	26,856	
10 Equipment.....	43,335	57,455	67,506	64,086	64,186	65,170	66,787	67,677	67,506	
11 Pools of securitized assets ²	n.a.	n.a.	1,247	887	990	948	1,199	1,093	1,247	
12 Loans on commercial accounts receivable and factored commercial accounts receivable.....	18,078	17,796	18,442	19,989	20,098	19,611	19,487	18,892	18,442	
13 All other business credit.....	17,043	21,134	23,447	21,904	22,571	22,804	22,926	23,861	23,447	
Net change (during period)										
14 Total.....	33,750	22,662	21,789	1,803	2,697	5,029	232	-1,153	-168	
<i>Retail financing of installment sales</i>										
15 Automotive.....	9,767	766	1,988	141	172	-97	-305	-765	347	
16 Equipment.....	2,058	1,384	1,483	354	911	600	-45	-25	213	
17 Pools of securitized assets ²	n.a.	n.a.	-26	-38	24	-38	-40	24	-41	
<i>Wholesale</i>										
18 Automotive.....	7,497	2,793	1,057	-788	332	3,677	-2,033	-1,673	820	
19 Equipment.....	252	226	962	79	253	104	242	90	11	
20 All other.....	1,309	999	609	139	-11	-32	-30	-32	54	
21 Pools of securitized assets ²	n.a.	n.a.	0	0	0	0	0	0	0	
<i>Leasing</i>										
22 Automotive.....	2,125	2,721	2,184	187	38	126	577	105	-691	
23 Equipment.....	5,156	9,962	8,646	716	99	984	1,618	890	-171	
24 Pools of securitized assets ²	n.a.	n.a.	526	91	103	-42	251	-106	154	
25 Loans on commercial accounts receivable and factored commercial accounts receivable.....	2,100	-282	646	687	109	-487	-124	-595	-450	
26 All other business credit.....	3,486	4,091	3,719	235	667	234	122	934	-414	

1. These data also appear in the Board's G.20 (422) release. For address, see inside front cover.

2. Data on pools of securitized assets are not seasonally adjusted.

1.53 MORTGAGE MARKETS

Millions of dollars; exceptions noted.

Item	1987	1988	1989	1989						1990
				July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Terms and yields in primary and secondary markets										
PRIMARY MARKETS										
<i>Conventional mortgages on new homes</i>										
<i>Terms¹</i>										
1 Purchase price (thousands of dollars).....	137.0	150.0	159.6	174.5	160.8	160.6	153.1	152.8	162.7	148.5
2 Amount of loan (thousands of dollars).....	100.5	110.5	117.0	125.3	119.4	118.6	111.3	110.4	119.9	107.3
3 Loan/price ratio (percent).....	75.2	75.5	74.5	73.8	75.6	75.3	73.2	73.0	74.4	73.4
4 Maturity (years).....	27.8	28.0	28.1	28.6	28.3	28.4	27.3	27.1	27.9	27.1
5 Fees and charges (percent of loan amount) ²	2.26	2.19	2.06	2.42	2.31	2.14	1.95	1.81	2.18	1.85
6 Contract rate (percent per year).....	8.94	8.81	9.76	10.06	9.83	9.87	9.77	9.78	9.70	9.59
<i>Yield (percent per year)</i>										
7 OTS series ³	9.31	9.18	10.11	10.48	10.22	10.24	10.11	10.09	10.07	9.91
8 HUD series ⁴	10.17	10.30	10.22	9.70	10.05	10.04	9.79	9.72	9.75	10.00
SECONDARY MARKETS										
<i>Yield (percent per year)</i>										
9 FHA mortgages (HUD series) ⁵	10.16	10.49	n.a.	9.61	9.95	9.94	9.73	9.69	9.72 ⁷	10.01
10 GNMA securities ⁶	9.43	9.83	n.a.	9.55	9.48	9.47	9.21	9.07	n.a.	n.a.
Activity in secondary markets										
FEDERAL NATIONAL MORTGAGE ASSOCIATION										
<i>Mortgage holdings (end of period)</i>										
11 Total.....	95,030	101,329	104,974	104,421	105,896	107,052	108,180	109,076	110,721	111,329
12 FHA/VA-insured.....	21,660	19,762	19,640	19,630	19,589	19,608	19,843	19,953	20,283	20,471
13 Conventional.....	73,370	81,567	85,335	84,791	86,307	87,444	88,337	89,123	90,438	90,858
<i>Mortgage transactions (during period)</i>										
14 Purchases.....	20,531	23,110	22,518	2,091	2,724	2,223	2,267	2,376	2,982	2,214
<i>Mortgage commitments⁷</i>										
15 Contracted (during period).....	25,415	23,435	27,409	2,513	2,842	2,328	2,963	2,536	2,495	1,787
16 Outstanding (end of period).....	4,886	2,148	6,037	5,648	5,755	5,865	6,548	6,645	6,037	5,619
FEDERAL HOME LOAN MORTGAGE CORPORATION										
<i>Mortgage holdings (end of period)⁸</i>										
17 Total.....	12,802	15,105	n.a.	20,533	21,024	20,650	21,342	n.a.	n.a.	n.a.
18 FHA/VA.....	686	620	n.a.	585	589	540	588	n.a.	n.a.	n.a.
19 Conventional.....	12,116	14,485	n.a.	19,948	20,435	20,110	20,755	n.a.	n.a.	n.a.
<i>Mortgage transactions (during period)</i>										
20 Purchases.....	76,845	44,077	n.a.	5,720	7,283	7,889	7,884	n.a.	n.a.	n.a.
21 Sales.....	75,082	39,780	73,446	5,180	6,650	8,050	7,058	7,058	8,526	6,845
<i>Mortgage commitments⁹</i>										
22 Contracted (during period).....	71,467	66,026	n.a.	6,608	5,705	7,708	7,555	n.a.	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 permissible 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 OUTSTANDING¹

Millions of dollars, end of period

Type of holder, and type of property	1987	1988	1989	1988				
				Q4	Q1	Q2	Q3	Q4 ^P
1 All holders	2,977,293	3,268,285	3,521,337	3,268,285	3,328,824	3,391,259	3,454,053 ^F	3,521,337
2 1- to 4-family	1,959,607	2,189,475	2,383,983	2,189,475	2,230,006	2,281,317	2,331,366 ^F	2,383,983
3 Multifamily	273,954	290,355	305,746	290,355	296,139	297,860	302,121	305,746
4 Commercial	654,863	701,652	745,102	701,652	716,695	725,341	733,988	745,102
5 Farm	88,869	86,803	86,506	86,803	85,984	86,741	86,578	86,506
6 Selected financial institutions	1,704,560	1,874,967	1,968,786	1,874,967	1,905,052	1,932,154	1,950,634	1,968,786
7 Commercial banks ²	591,369	669,160	757,904	669,160	688,662	715,049	737,979 ^F	757,904
8 1- to 4-family	276,270	314,283	359,182	314,283	324,681	338,872	349,739	359,182
9 Multifamily	33,330	34,131	37,049	34,131	34,172	34,954	36,075	37,049
10 Commercial	267,340	305,242	344,349	305,242	313,941	324,878	335,296	344,349
11 Farm	14,429	15,504	17,324	15,504	15,868	16,345	16,869	17,324
12 Savings institutions ³	860,467	929,647	920,974	929,647	936,091	933,694	927,982 ^F	920,974
13 1- to 4-family	602,408	678,263	675,842	678,263	682,658	684,828	680,572	675,842
14 Multifamily	106,359	111,302	108,421	111,302	112,507	110,009	109,353	108,421
15 Commercial	150,943	139,416	136,070	139,416	140,255	138,201	137,406	136,070
16 Farm	757	666	641	666	671	656	651	641
17 Life insurance companies	212,375	232,639	239,202	232,639	234,910	236,160	235,767 ^F	239,202
18 1- to 4-family	13,226	15,284	13,525	15,284	12,690	12,610	13,045	13,525
19 Multifamily	22,524	23,562	26,506	23,562	24,636	25,103	25,913	26,506
20 Commercial	166,722	184,124	189,642	184,124	188,073	188,756	187,208	189,642
21 Farm	9,903	9,669	9,529	9,669	9,511	9,556	9,601	9,529
22 Finance companies ⁴	40,349	43,521	50,707	43,521	45,389	47,251	48,906 ^F	50,707
23 Federal and related agencies	192,721	200,570	212,150	200,570	199,847	201,909	206,673 ^F	212,150
24 Government National Mortgage Association	444	26	24	26	26	24	23 ^F	24
25 1- to 4-family	25	26	24	26	26	24	23	24
26 Multifamily	419	0	0	0	0	0	0	0
27 Farmers Home Administration ⁵	43,051	42,018	41,985	42,018	41,780	40,711	41,117 ^F	41,985
28 1- to 4-family	18,169	18,347	19,083	18,347	18,347	18,391	18,405	19,083
29 Multifamily	8,044	8,513	9,120	8,513	8,615	8,778	8,916	9,120
30 Commercial	6,603	5,343	4,423	5,343	5,101	3,885	4,366	4,423
31 Farm	10,235	9,815	9,359	9,815	9,717	9,657	9,430	9,359
32 Federal Housing and Veterans Administration	5,574	5,973	6,202	5,973	6,075	6,424	6,023 ^F	6,202
33 1- to 4-family	2,557	2,672	3,007	2,672	2,550	2,827	2,900 ^F	3,007
34 Multifamily	3,017	3,301	3,194	3,301	3,525	3,597	3,123 ^F	3,194
35 Federal National Mortgage Association	96,649	103,013	110,884	103,013	101,991	103,309	107,052 ^F	110,884
36 1- to 4-family	89,666	95,833	102,819	95,833	94,727	95,714	99,168	102,819
37 Multifamily	6,983	7,180	8,064	7,180	7,264	7,595	7,884	8,064
38 Federal Land Banks	34,131	32,115	30,792	32,115	31,261	31,467	30,943 ^F	30,792
39 1- to 4-family	2,008	1,890	1,888	1,890	1,839	1,851	1,821	1,888
40 Farm	32,123	30,225	28,904	30,225	29,422	29,616	29,122	28,904
41 Federal Home Loan Mortgage Corporation	12,872	17,425	22,265	17,425	18,714	19,974	21,515 ^F	22,265
42 1- to 4-family	11,430	15,077	19,174	15,077	16,192	17,305	18,493	19,174
43 Multifamily	1,442	2,348	3,091	2,348	2,522	2,669	3,022	3,091
44 Mortgage pools or trusts ⁶	718,297	810,887	931,090	810,887	839,684	861,827	898,388 ^F	931,090
45 Government National Mortgage Association	317,555	340,527	374,434	340,527	348,622	353,154	361,291 ^F	374,434
46 1- to 4-family	309,806	331,257	362,711	331,257	337,563	341,951	349,830	362,711
47 Multifamily	7,749	9,270	11,723	9,270	11,059	11,203	11,461	11,723
48 Federal Home Loan Mortgage Corporation	212,634	226,406	266,260	226,406	234,695	242,789	256,896 ^F	266,260
49 1- to 4-family	205,977	219,988	259,332	219,988	228,389	236,404	250,123	259,332
50 Multifamily	6,657	6,418	6,928	6,418	6,306	6,385	6,773	6,928
51 Federal National Mortgage Association	139,960	178,250	216,466	178,250	188,071	196,501	208,894 ^F	216,466
52 1- to 4-family	137,988	172,331	207,677	172,331	181,352	188,774	200,302	207,677
53 Multifamily	1,972	5,919	8,789	5,919	6,719	7,727	8,592	8,789
54 Farmers Home Administration ⁵	245	104	79	104	96	85	78 ^F	79
55 1- to 4-family	121	26	23	26	24	23	22	23
56 Multifamily	0	0	0	0	0	0	0	0
57 Commercial	63	38	22	38	34	26	22	22
58 Farm	61	40	34	40	38	36	34	34
59 Individuals and others ⁷	361,715	381,861	409,310	381,861	384,241	395,369	398,358 ^F	409,310
60 1- to 4-family	201,704	215,077	235,138	215,077	215,379	225,059	226,788 ^F	235,138
61 Multifamily	75,458	78,411	82,862	78,411	78,814	79,840	81,009	82,862
62 Commercial	63,192	67,489	70,596	67,489	69,291	69,595	69,690	70,596
63 Farm	21,361	20,884	20,714	20,884	20,757	20,875	20,871	20,714

1. Based on data from various institutional and governmental sources, with some quarters estimated in part by the Federal Reserve. Multifamily debt refers to loans on structures of five or more units.

2. Includes loans held by nondeposit trust companies but not bank trust departments.

3. Includes savings banks and savings and loan associations. Beginning 1987-1, data reported by FSLIC-insured institutions include loans in process and other contra assets (credit balance accounts that must be subtracted from the corresponding gross asset categories to yield net asset levels).

4. Assumed to be entirely 1- to 4-family loans.

5. 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. Includes private pools which are not shown as a separate line item.

7. Other holders include mortgage companies, real estate investment trusts, state and local credit agencies, state and local retirement funds, noninsured pension funds, credit unions, and other U.S. agencies.

1.55 CONSUMER INSTALLMENT CREDIT¹ Total Outstanding, and Net Change, seasonally adjusted

Millions of dollars

Holder, and type of credit	1988	1989	1989								
			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ²	Dec.
Amounts outstanding (end of period)											
1 Total	659,507	717,074	693,911	698,132	700,849	700,344	703,001	704,371	707,562	712,160	717,074
<i>By major holder</i>											
2 Commercial banks	318,925	334,936	320,458	323,363	324,438	323,621	326,135	327,327	330,746	332,675	334,936
3 Finance companies ³	145,180	140,484	144,378	145,523	146,055	145,488	144,386	144,188	141,273	141,396	140,484
4 Credit unions	86,118	89,886	89,330	89,890	90,073	89,852	90,016	89,892	89,856	89,677	89,886
5 Retailers ³	43,499	42,744	41,301	41,323	41,649	41,798	41,989	42,221	42,319	42,554	42,744
6 Savings institutions	62,099	57,693	61,919	61,311	59,920	60,092	59,229	59,883	58,890	58,264	57,693
7 Gasoline companies	3,687	3,835	3,787	3,897	4,017	3,936	3,976	3,886	3,804	3,828	3,835
8 Pools of securitized assets ⁴	n.a.	47,495	32,737	32,826	34,696	35,557	37,270	36,974	40,675	43,766	47,495
<i>By major type of credit</i>											
9 Automobile	281,174	289,459	289,654	290,741	290,192	288,526	288,533	287,754	288,747	289,200	289,459
10 Commercial banks	123,259	127,285	123,878	125,118	125,592	124,881	126,597	126,759	128,238	128,654	127,285
11 Credit unions	41,326	42,865	42,510	42,687	42,684	42,624	42,747	42,733	42,761	42,720	42,865
12 Finance companies	97,204	83,572	90,268	90,976	91,184	90,213	89,439	88,317	84,814	84,707	83,572
13 Savings institutions	19,385	17,332	18,866	18,566	18,032	17,972	17,603	17,990	17,692	17,504	17,332
14 Pools of securitized assets ⁴	n.a.	18,404	14,132	13,395	12,700	12,835	12,147	11,955	15,243	15,615	18,404
15 Revolving	174,792	203,301	184,500	186,502	189,622	191,028	194,398	195,302	196,379	199,240	203,301
16 Commercial banks	117,572	122,404	114,130	115,407	115,561	115,967	117,012	117,868	118,801	119,254	122,404
17 Retailers	38,692	37,804	36,497	36,504	36,814	36,963	37,134	37,355	37,435	37,639	37,804
18 Gasoline companies	3,687	3,835	3,787	3,897	4,017	3,936	3,976	3,886	3,804	3,828	3,835
19 Savings institutions	10,151	10,775	10,918	11,008	10,951	11,176	11,206	11,183	10,998	10,881	10,775
20 Credit unions	4,691	5,406	5,035	5,109	5,162	5,192	5,244	5,279	5,319	5,351	5,406
21 Pools of securitized assets ⁴	n.a.	23,077	14,134	14,578	17,117	17,795	19,827	19,731	20,021	22,286	23,077
22 Mobile home	25,744	22,602	23,993	23,952	23,685	23,630	22,938	22,991	22,947	22,567	22,602
23 Commercial banks	8,974	9,001	8,836	8,878	8,847	8,830	8,808	8,788	8,724	8,941	9,001
24 Finance companies	7,186	4,846	5,659	5,684	5,674	5,624	5,100	5,087	5,272	4,783	4,846
25 Savings institutions	9,583	8,756	9,498	9,390	9,163	9,176	9,030	9,116	8,951	8,843	8,756
26 Other	177,798	201,711	195,763	196,936	197,349	197,161	197,132	198,324	199,490	201,154	201,711
27 Commercial banks	69,120	76,246	73,614	73,960	74,438	74,348	73,944	73,718	73,912	74,983	76,246
28 Finance companies	40,790	52,066	48,451	48,863	49,197	49,650	49,847	50,784	51,187	51,906	52,066
29 Credit unions	40,102	41,615	41,785	42,094	42,228	42,036	42,025	41,880	41,776	41,606	41,615
30 Retailers	4,807	4,940	4,804	4,819	4,834	4,835	4,855	4,866	4,884	4,914	4,940
31 Savings institutions	22,981	20,830	22,638	22,347	21,773	21,769	21,593	21,593	21,249	21,036	20,830
32 Pools of securitized assets ⁴	n.a.	6,014	4,471	4,853	4,879	4,927	5,296	5,288	5,411	5,865	6,014
Net change (during period)											
33 Total	51,786	57,567	2,749	4,221	2,717	-505	2,657	1,371	3,191	4,598	4,913
<i>By major holder</i>											
34 Commercial banks	36,015	16,011	2,216	2,904	1,076	-817	2,514	1,192	3,418	1,930	2,261
35 Finance companies ³	4,899	-4,696	1,309	1,145	532	-567	-1,102	-198	-2,915	124	-913
36 Credit unions	6,031	3,768	815	560	184	-222	164	-124	-36	-179	209
37 Retailers ³	2,523	-754	2	21	326	149	192	231	98	235	190
38 Savings institutions	2,248	-4,406	-815	-609	-1,390	172	-863	654	-993	-626	-571
39 Gasoline companies	69	148	104	110	120	-81	39	-89	-82	23	7
40 Pools of securitized assets ⁴	n.a.	18,668	-882	89	1,870	861	1,713	-296	3,701	3,091	3,729
<i>By major type of credit</i>											
41 Automobile	15,198	8,285	804	1,087	-549	-1,667	7	-779	993	453	259
42 Commercial banks	14,058	4,026	816	1,239	474	-711	1,716	162	1,479	416	-1,369
43 Credit unions	975	1,539	300	177	-3	-60	123	-14	28	-40	145
44 Finance companies	-991	-13,632	701	708	208	-970	-775	-1,122	-3,503	-107	-1,135
45 Savings institutions	1,157	-2,053	-366	-300	-533	-61	-369	387	-298	-188	-172
46 Pools of securitized assets ⁴	n.a.	3,362	-647	-737	-695	135	-688	-192	3,288	372	2,789
47 Revolving	20,908	28,509	1,670	2,002	3,120	1,406	3,370	904	1,076	2,861	4,062
48 Commercial banks	18,453	4,832	1,576	1,277	154	405	1,045	856	933	453	3,150
49 Retailers	2,303	-888	8	7	310	149	171	221	80	205	165
50 Gasoline companies	69	148	104	110	120	-81	39	-89	-82	23	7
51 Savings institutions	-216	624	58	30	-57	225	30	-22	-185	-117	-107
52 Credit unions	300	715	88	74	53	30	52	35	40	32	55
53 Pools of securitized assets ⁴	n.a.	12,588	-165	444	2,539	678	2,032	-96	290	2,265	791
54 Mobile home	-643	-3,142	-174	-41	-267	-56	-692	53	-44	-380	35
55 Commercial banks	-246	27	-7	42	-31	-18	-22	-20	-64	218	59
56 Finance companies	-576	-2,340	-28	25	-10	-50	-524	-13	185	-489	63
57 Savings institutions	177	-827	-140	-108	-227	12	-146	86	-165	-109	-87
58 Other	16,323	23,913	449	1,173	413	-189	-29	1,192	1,166	1,664	557
59 Commercial banks	3,750	7,126	-169	346	478	-494	-226	194	1,071	843	420
60 Finance companies	6,466	11,276	635	412	334	453	197	937	403	719	159
61 Credit unions	4,758	1,513	428	309	133	-191	-11	-145	-104	-170	10
62 Retailers	221	133	-7	15	16	0	21	11	18	30	25
63 Savings institutions	1,131	-2,151	-368	-291	-574	-5	-379	203	-344	-212	-206
64 Pools of securitized assets ⁴	n.a.	2,718	-70	382	26	48	369	-8	123	454	149

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

1.56 TERMS OF CONSUMER INSTALLMENT CREDIT¹

Percent unless noted otherwise

Item	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct.	Nov.	Dec.
INTEREST RATES										
Commercial banks ²										
1 48-month new car ³	10.45	10.85	12.07	n.a.	n.a.	12.13	n.a.	n.a.	11.94	n.a.
2 24-month personal	14.22	14.68	15.44	n.a.	n.a.	15.45	n.a.	n.a.	15.42	n.a.
3 120-month mobile home ³	13.38	13.54	14.11	n.a.	n.a.	14.13	n.a.	n.a.	13.97	n.a.
4 Credit card	17.92	17.78	18.02	n.a.	n.a.	18.07	n.a.	n.a.	18.07	n.a.
Auto finance companies										
5 New car	10.73	12.60	12.62	11.96	11.94	12.22	12.42	13.04	13.27	13.27
6 Used car	14.60	15.11	16.18	16.45	16.37	16.31	16.22	16.17	16.09	16.10
OTHER TERMS⁴										
Maturity (months)										
7 New car	53.5	56.2	54.2	53.0	52.9	52.9	53.1	54.4	55.1	55.1
8 Used car	45.2	46.7	46.6	46.5	46.4	46.2	46.2	45.8	45.6	45.5
Loan-to-value ratio										
9 New car	93	94	91	91	91	90	88	88	89	89
10 Used car	98	98	97	97	97	96	96	96	96	96
Amount financed (dollars)										
11 New car	11,203	11,663	12,001	12,065	12,108	11,949	11,841	11,965	12,279	12,301
12 Used car	7,420	7,824	7,954	7,921	7,988	7,874	7,856	7,904	8,063	8,096

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; quarterly data are at seasonally adjusted annual rates.

Transaction category, sector	1984	1985	1986	1987	1988	1988				1989		
						Q1	Q2	Q3	Q4	Q1	Q2	Q3
Nonfinancial sectors												
1 Total net borrowing by domestic nonfinancial sectors.....	750.7	846.3	831.1	693.2	767.0	728.2	827.2	754.4	758.3	792.2	658.9	688.1
<i>By sector and instrument</i>												
2 U.S. government	198.8	223.6	215.0	144.9	157.5	211.6	113.7	162.5	142.1	199.9	70.9	149.0
3 Treasury securities	199.0	223.7	214.7	143.4	140.0	212.0	106.0	141.6	100.5	201.1	65.8	149.1
4 Agency issues and mortgages	-2	-1	4	1.5	17.4	-5	7.7	20.9	41.6	-1.2	5.1	-2
5 Private domestic nonfinancial sectors	551.9	622.7	616.1	548.3	609.6	516.6	713.4	592.0	616.3	592.3	588.0	539.1
6 Debt capital instruments	320.0	451.4	460.3	458.5	462.6	386.5	561.0	463.9	438.9	427.8	394.1	412.6
7 Tax-exempt obligations	51.0	135.4	22.7	34.1	34.0	29.1	37.9	34.8	34.3	29.3	20.6	32.6
8 Corporate bonds	46.1	73.8	121.3	99.9	120.9	118.8	143.9	115.9	104.9	111.6	138.5	113.6
9 Mortgages	222.8	242.2	316.3	324.5	307.7	238.7	379.2	313.2	299.7	286.9	234.9	266.4
10 Home mortgages	136.7	156.8	218.7	234.9	229.1	170.7	300.7	231.0	214.0	205.2	186.1	191.9
11 Multifamily residential	25.2	29.8	33.5	24.4	18.9	24.2	14.7	19.5	17.3	27.2	8.1	21.3
12 Commercial	62.2	62.2	73.6	71.6	61.7	48.5	65.4	65.4	67.7	58.8	38.7	53.2
13 Farm	-1.2	-6.6	-9.5	-6.4	-2.1	-4.7	-1.6	-2.6	7	-4.4	2.1	0
14 Other debt instruments	231.9	171.3	155.8	89.7	147.0	130.1	152.4	128.1	177.3	164.5	193.9	126.5
15 Consumer credit	81.6	82.5	58.0	32.9	51.1	43.7	51.9	35.5	73.1	34.8	46.0	30.9
16 Bank loans n.e.c.	66.3	38.6	66.7	10.8	38.4	20.8	58.8	7.3	66.6	23.1	29.9	21.6
17 Open market paper	21.7	14.6	-9.3	2.3	11.6	2.4	6.8	17.1	20.0	44.1	44.9	20.4
18 Other	62.2	35.6	40.5	43.8	45.9	63.2	34.8	68.1	17.6	62.5	73.1	53.6
19 By borrowing sector	551.9	622.7	616.1	548.3	609.6	516.6	713.4	592.0	616.3	592.3	588.0	539.1
20 State and local governments	28.1	90.9	36.2	33.6	29.8	23.4	37.0	28.1	30.6	29.7	27.7	29.5
21 Households	231.5	284.6	289.2	271.9	287.9	230.2	346.7	291.6	283.3	263.1	227.1	254.8
22 Nonfinancial business	292.3	247.2	290.7	242.8	291.8	263.0	329.7	272.3	302.4	299.4	333.3	254.9
23 Farm	-4	-14.5	-16.3	-10.6	-7.5	-12.7	-3.3	-2.2	-11.8	-2.2	3	2.8
24 Nonfarm noncorporate	123.2	129.3	103.2	107.9	91.9	85.2	83.6	100.5	98.2	91.1	70.0	81.7
25 Corporate	169.6	132.4	203.7	145.5	207.5	190.5	249.4	174.0	216.0	210.6	263.0	170.4
26 Foreign net borrowing in United States	8.4	1.2	9.7	4.9	6.9	4.8	5.4	4.1	13.3	-1.1	-3.9	28.7
27 Bonds	3.8	3.8	3.1	7.4	6.9	14.2	2.6	5.9	5.1	3.2	11.1	9.1
28 Bank loans n.e.c.	-6.6	-2.8	-1.0	-3.6	-1.8	1.7	-3.3	0	-5.7	4.9	1.7	0
29 Open market paper	6.2	6.2	11.5	2.1	9.6	7	6.5	10.3	21.0	12.1	-8.1	20.4
30 U.S. government loans	5.0	-6.0	-3.9	-1.0	-7.8	-11.8	-4	-12.1	-7.1	-21.4	-8.6	-9
31 Total domestic plus foreign	759.1	847.5	840.9	698.1	773.9	733.0	832.6	758.5	771.7	791.1	655.0	716.8
Financial sectors												
32 Total net borrowing by financial sectors	150.7	201.3	318.9	315.0	264.2	242.5	263.9	232.1	318.3	394.4	123.4	152.5
<i>By instrument</i>												
33 U.S. government related	74.9	101.5	187.9	185.8	137.5	128.8	104.3	144.4	172.5	216.1	105.8	137.4
34 Sponsored credit agency securities	30.4	20.6	15.2	30.2	44.9	59.5	11.1	46.5	62.3	84.9	12.5	10.0
35 Mortgage pool securities	44.4	79.9	173.1	156.4	92.6	69.3	93.1	97.8	110.1	131.2	93.3	127.4
36 Loans from U.S. government	0	1.1	-4	-8	0	0	0	0	0	0	0	0
37 Private financial sectors	75.9	99.7	131.0	129.2	126.7	113.7	159.6	87.7	145.8	178.3	17.6	15.1
38 Corporate bonds	34.3	50.9	82.9	78.9	51.7	60.0	71.1	32.5	43.0	52.7	31.4	26.4
39 Mortgages	4	1	1	4	3	-1	1	-1	1.2	3	0	0
40 Bank loans n.e.c.	1.4	2.6	4.0	-3.3	1.4	5.9	5.7	-5.6	-3	3.0	3	4.1
41 Open market paper	24.0	32.0	24.2	28.8	53.6	38.5	70.5	35.1	70.4	53.2	2.8	28.2
42 Loans from Federal Home Loan Banks	15.7	14.2	19.8	24.4	19.7	9.4	12.3	25.8	31.4	69.1	-16.9	-43.7
<i>By sector</i>												
43 Total	150.7	201.3	318.9	315.0	264.2	242.5	263.9	232.1	318.3	394.4	123.4	152.5
44 Sponsored credit agencies	30.4	21.7	14.9	29.5	44.9	59.5	11.1	46.5	62.3	84.9	12.5	10.0
45 Mortgage pools	44.4	79.9	173.1	156.4	92.6	69.3	93.1	97.8	110.1	131.2	93.3	127.4
46 Private financial sectors	75.9	99.7	131.0	129.2	126.7	113.7	159.6	87.7	145.8	178.3	17.6	15.1
47 Commercial banks	7.3	-4.9	-3.6	7.1	-3.9	-16.7	-1.6	-9	3.7	-13.4	-9	7.5
48 Bank affiliates	16.1	16.6	15.2	14.3	5.2	-8.8	22.4	6.1	8	6.4	6.5	6.7
49 Savings and loan associations	17.2	17.3	20.9	19.6	19.9	10.0	19.1	24.1	26.3	71.3	-16.2	-43.9
50 Mutual savings banks	1.2	1.5	4.2	8.1	1.9	2.3	1.1	5	3.8	-2.8	-1.1	-2.9
51 Finance companies	24.0	57.2	54.5	40.3	67.0	78.4	85.4	40.7	63.6	78.4	32.8	43.2
52 REITs	8	5	1.0	8	4.1	5.4	1.7	-5.9	15.0	-9	-2.2	-1.4
53 SCO Issuers	9.3	11.5	39.0	39.1	32.5	43.0	31.5	23.1	32.5	39.3	-1.4	5.9

1.57—Continued

Transaction category, sector	1984	1985	1986	1987	1988	1988				1989		
						Q1	Q2	Q3	Q4	Q1	Q2	Q3
All sectors												
54 Total net borrowing	909.8	1,048.8	1,159.8	1,013.2	1,038.1	975.5	1,096.5	990.6	1,089.9	1,185.4	778.4	869.3
55 U.S. government securities	273.8	324.2	403.4	331.5	294.9	340.4	218.0	306.8	314.6	416.0	176.7	286.4
56 State and local obligations	51.0	135.4	22.7	34.1	34.0	29.1	37.9	34.8	34.3	29.3	20.6	32.6
57 Corporate and foreign bonds	84.3	128.4	207.3	186.3	179.5	193.0	217.6	154.3	153.0	167.5	181.1	149.2
58 Mortgages	223.1	242.2	316.4	324.9	308.0	238.6	379.3	313.1	300.8	287.2	234.9	266.4
59 Consumer credit	81.6	82.5	58.0	32.9	51.1	43.7	51.9	35.5	73.1	34.8	46.0	30.9
60 Bank loans n.e.c.	61.1	38.3	69.7	3.8	38.0	28.3	61.2	1.7	60.7	31.1	31.9	25.8
61 Open market paper	51.9	52.8	26.4	33.2	74.9	41.6	83.9	62.5	111.5	109.4	39.6	69.0
62 Other loans	82.9	45.0	56.1	66.5	57.8	60.8	46.8	81.8	42.0	110.2	47.5	9.1
63 MEMO: U.S. government, cash balance.....	6.3	14.4	.0	-7.9	10.4	47.6	1.2	10.6	-17.9	-22.5	43.7	-7.5
Totals net of changes in U.S. government cash balances												
64 Net borrowing by domestic nonfinancial	744.4	831.9	831.2	701.1	756.6	680.6	825.9	743.8	776.3	814.7	615.2	695.6
65 Net borrowing by U.S. government	192.5	209.3	215.0	152.8	147.1	164.0	112.5	151.8	160.0	222.4	27.2	156.4
External corporate equity funds raised in United States												
66 Total net share issues	-36.0	20.1	90.5	14.3	-117.9	-101.0	-133.7	-73.5	-163.5	-163.5	-48.7	-64.7
67 Mutual funds	29.3	84.4	159.0	71.6	-7	-9.5	-6.6	1.5	11.9	3.6	24.0	50.0
68 All other	-65.3	-64.3	-68.5	-57.3	-117.2	-91.5	-127.0	-75.0	-175.4	-167.1	-72.7	-114.6
69 Nonfinancial corporations	-74.5	-81.5	-80.8	-76.5	-130.5	-95.0	-140.0	-92.0	-195.0	-180.0	-105.0	-145.0
70 Financial corporations	8.2	13.5	11.1	21.4	12.4	2.4	19.0	14.6	13.5	9.4	17.1	17.1
71 Foreign shares purchased in United States .....	.9	3.7	1.2	-2.1	.9	1.1	-6.0	2.4	6.1	3.6	15.2	13.3

1.58 DIRECT AND INDIRECT SOURCES OF FUNDS TO CREDIT MARKETS

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

Transaction category, or sector	1984	1985	1986	1987	1988	1988				1989		
						Q1	Q2	Q3	Q4	Q1	Q2	Q3
1 Total funds advanced in credit markets to domestic nonfinancial sectors	750.7	846.3	831.1	693.2	767.0	728.2	827.2	754.4	758.3	792.2	658.9	688.1
<i>By public agencies and foreign</i>												
2 Total net advances	157.6	202.0	314.0	262.8	237.6	278.6	185.5	196.9	289.3	348.7	26.7	267.4
3 U.S. government securities	38.9	45.9	69.4	70.1	85.0	153.2	43.3	24.1	119.6	97.6	-102.4	117.1
4 Residential mortgages	56.5	94.6	170.1	153.2	104.0	88.9	107.9	98.1	121.2	133.3	106.6	149.0
5 FHLB advances to thrifts	15.7	14.2	19.8	24.4	19.7	9.4	12.3	25.8	31.4	69.1	-16.9	-43.7
6 Other loans and securities	46.6	47.3	54.7	15.1	28.8	27.1	22.1	49.0	17.1	48.7	39.4	45.0
<i>Total advanced, by sector</i>												
7 U.S. government	17.1	17.8	9.7	-7.9	-4.9	-7.0	-7.6	4.3	-9.3	2.8	3.1	5.2
8 Sponsored credit agencies	74.3	103.5	187.2	183.4	129.6	114.3	105.7	130.1	168.5	221.4	15.6	165.6
9 Monetary authorities	8.4	18.4	19.4	24.7	10.5	2.7	5.0	15.5	18.9	5.2	-3.9	-30.7
10 Foreign	57.9	62.3	97.8	62.7	102.3	168.6	82.5	47.0	111.2	119.3	11.9	127.2
<i>Agency and foreign borrowing not in line 1</i>												
11 Sponsored credit agencies and mortgage pools	74.9	101.5	187.9	185.8	137.5	128.8	104.3	144.4	172.5	216.1	105.8	137.4
12 Foreign	8.4	1.2	9.7	4.9	6.9	4.8	5.4	4.1	13.3	-1.1	-3.9	28.7
<i>Private domestic funds advanced</i>												
13 Total net advances	676.3	747.0	714.8	621.1	673.8	583.2	751.3	705.9	654.8	658.4	734.1	586.8
14 U.S. government securities	234.9	278.2	333.9	261.4	209.9	187.2	174.7	282.8	195.0	318.4	279.1	169.3
15 State and local obligations	51.0	135.4	22.7	34.1	34.0	29.1	37.9	34.8	34.3	29.3	20.6	32.6
16 Corporate and foreign bonds	35.1	40.8	84.2	87.5	104.4	126.5	126.2	91.7	73.0	89.4	132.3	103.4
17 Residential mortgages	105.3	91.8	82.0	106.1	144.0	106.0	207.5	152.3	110.1	99.2	87.5	64.2
18 Other mortgages and loans	265.6	214.8	211.8	156.5	201.2	143.8	217.2	170.1	273.7	191.3	197.7	173.6
19 LESS: Federal Home Loan Bank advances	15.7	14.2	19.8	24.4	19.7	9.4	12.3	25.8	31.4	69.1	-16.9	-43.7
<i>Private financial intermediation</i>												
20 Credit market funds advanced by private financial institutions	585.8	579.9	744.0	560.8	558.2	617.4	553.7	427.5	634.1	568.6	544.3	342.2
21 Commercial banking	169.2	186.0	197.5	136.8	155.3	87.9	194.5	118.4	220.5	120.6	158.6	132.9
22 Savings institutions	154.7	87.9	107.6	136.8	120.5	96.0	134.9	157.0	94.2	62.2	-73.1	-154.2
23 Insurance and pension funds	121.8	154.4	174.6	210.9	194.9	257.4	182.7	150.5	189.1	228.3	182.5	156.0
24 Other finance	140.1	151.6	264.2	76.3	87.4	176.1	41.6	1.7	130.3	157.6	276.2	207.4
25 Sources of funds	585.8	579.9	744.0	560.8	558.2	617.4	553.7	427.5	634.1	568.6	544.3	342.2
26 Private domestic deposits and RPs	322.6	214.3	262.6	144.1	219.2	305.5	102.0	191.9	277.4	166.5	213.4	282.7
27 Credit market borrowing	75.9	99.7	131.0	129.2	126.7	113.7	159.6	87.7	145.8	178.3	17.6	15.1
28 Other sources	187.3	265.9	350.4	287.5	212.3	198.2	292.1	147.9	210.9	223.8	313.3	44.3
29 Foreign funds	8.8	19.7	12.9	43.7	9.3	-60.6	94.5	-42.1	45.5	-28.4	-16.0	10.6
30 Treasury balances	4.0	10.3	1.7	-5.8	7.3	44.2	-16.3	5.6	-4.1	-21.6	26.6	-6.4
31 Insurance and pension reserves	124.0	131.9	149.3	176.1	186.8	190.1	184.0	109.8	263.3	133.0	151.5	88.7
32 Other, net	50.5	104.1	186.5	73.6	8.8	24.4	29.9	74.5	-93.8	140.8	151.2	-48.6
<i>Private domestic nonfinancial investors</i>												
33 Direct lending in credit markets	166.4	266.8	101.8	189.6	242.3	79.5	357.2	366.2	166.5	268.1	207.5	259.7
34 U.S. government securities	111.4	157.8	60.9	100.0	149.3	119.6	103.2	225.7	148.7	211.1	123.2	137.4
35 State and local obligations	27.1	37.7	-21.7	45.6	33.9	19.7	37.2	56.4	22.3	35.7	-11.4	22.6
36 Corporate and foreign bonds	-4.1	4.2	39.3	24.1	2.6	-39.6	61.4	-5.8	-5.7	-15.4	32.8	21.2
37 Open market paper	7.8	47.5	5.4	6.6	37.2	-14.5	98.6	77.4	-12.6	67.1	19.5	43.4
38 Other	24.2	19.6	17.9	13.3	19.3	-5.8	56.8	12.5	13.9	-30.3	43.4	35.1
39 Deposits and currency	326.1	224.6	283.0	160.2	221.8	313.5	110.0	215.7	248.2	211.2	231.1	273.2
40 Currency	8.6	12.4	14.4	19.0	14.7	10.7	13.8	29.3	5.1	19.3	12.6	11.4
41 Checkable deposits	30.2	41.9	95.0	-3.0	12.3	3.6	-30.5	-21.4	97.3	-54.5	-83.0	35.4
42 Small time and savings accounts	150.7	138.5	120.6	76.0	122.2	199.5	130.5	72.7	86.0	26.4	117.4	119.1
43 Money market fund shares	49.0	8.9	38.3	27.2	22.8	57.6	-21.0	-3.5	58.1	51.1	111.8	124.3
44 Large time deposits	82.9	7.4	-11.4	26.7	40.8	16.9	-3.5	137.0	12.7	111.9	39.8	-15.4
45 Security RPs	9.8	17.7	20.2	17.2	21.2	27.9	26.5	7.0	23.3	31.6	27.5	19.4
46 Deposits in foreign countries	-5.1	-2.1	5.9	-2.8	-12.1	-2.7	-5.9	-5.5	-34.4	25.5	5.1	-20.9
47 Total of credit market instruments, deposits, and currency	492.5	491.4	384.8	349.8	464.2	393.0	467.2	581.9	414.7	479.4	438.6	532.9
48 Public holdings as percent of total	20.8	23.8	37.3	37.6	30.7	38.0	22.3	26.0	37.5	44.1	4.1	37.3
49 Private financial intermediation (in percent)	86.6	77.6	104.1	90.3	82.8	105.9	73.7	60.6	96.8	86.4	74.1	58.3
50 Total foreign funds	66.7	82.0	110.7	106.4	111.7	108.1	177.0	4.9	156.7	90.9	-4.1	137.8
<i>MEMO: Corporate equities not included above</i>												
51 Total net issues	-36.0	20.1	90.5	14.3	-117.9	-101.0	-133.7	-73.5	-163.5	-163.5	-48.7	-64.7
52 Mutual fund shares	29.3	84.4	159.0	71.6	-7	-9.5	-6.6	1.5	11.9	3.6	24.0	50.0
53 Other equities	-65.3	-64.3	-68.5	-57.3	-117.2	-91.5	-127.0	-75.0	-175.4	-167.1	-72.7	-114.6
54 Acquisitions by financial institutions	15.8	45.6	53.7	21.4	5.4	-34.4	2	25.5	30.1	-6.5	-6.5	3.8
55 Other net purchases	-51.8	-25.5	36.8	-7.1	-123.3	-66.5	-133.9	-99.1	-193.6	-157.0	-42.2	-68.4

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.

A44 Domestic Financial Statistics □ April 1990

1.59 SUMMARY OF CREDIT MARKET DEBT OUTSTANDING

Billions of dollars; period-end levels.

Transaction category, sector	1984	1985	1986	1987	1988				1989		
					Q1	Q2	Q3	Q4	Q1	Q2	Q3
Nonfinancial sectors											
1 Total credit market debt owed by domestic nonfinancial sectors	5,951.8	6,795.1	7,631.2	8,335.0	8,477.0	8,686.9	8,875.4	9,105.6	9,258.7	9,428.4	9,604.5
<i>By sector and instrument</i>											
2 U.S. government	1,376.8	1,600.4	1,815.4	1,960.3	2,003.2	2,022.3	2,063.9	2,117.8	2,155.7	2,165.7	2,204.3
3 Treasury securities	1,373.4	1,597.1	1,811.7	1,955.2	1,998.1	2,015.3	2,051.7	2,095.2	2,133.4	2,142.1	2,180.7
4 Agency issues and mortgages	3.4	3.3	3.6	5.2	5.0	7.0	12.2	22.6	22.3	23.6	23.5
5 Private domestic nonfinancial sectors	4,575.1	5,194.7	5,815.8	6,374.7	6,473.8	6,664.7	6,811.5	6,987.8	7,103.0	7,262.7	7,400.2
6 Debt capital instruments	3,038.0	3,485.5	3,957.5	4,428.0	4,511.0	4,652.6	4,782.0	4,902.1	4,979.2	5,078.3	5,187.8
7 Tax-exempt obligations	520.0	655.5	679.1	713.2	718.1	727.2	746.1	759.8	764.7	769.3	780.3
8 Corporate bonds	469.2	542.9	664.2	764.1	793.8	829.8	858.8	885.0	912.9	947.5	975.9
9 Mortgages	2,048.8	2,287.1	2,614.2	2,950.7	2,999.1	3,095.7	3,177.2	3,257.3	3,301.6	3,361.6	3,431.6
10 Home mortgages	1,336.2	1,490.2	1,720.8	1,943.1	1,978.0	2,055.3	2,118.0	2,174.2	2,214.8	2,263.4	2,316.7
11 Multifamily residential	183.6	213.0	246.2	270.0	273.0	276.6	281.0	286.8	292.6	294.4	299.3
12 Commercial	416.5	478.1	551.4	648.7	660.2	676.0	691.1	709.6	708.2	717.0	728.9
13 Farm	112.4	105.9	95.8	88.9	88.0	87.8	87.0	86.8	86.0	86.7	86.6
14 Other debt instruments	1,537.1	1,709.3	1,858.4	1,946.7	1,962.8	2,012.0	2,029.4	2,085.7	2,123.8	2,184.3	2,212.4
15 Consumer credit	519.3	601.8	659.8	692.7	688.9	705.8	721.2	743.7	745.0	761.0	775.3
16 Bank loans n.e.c.	553.1	592.7	656.1	664.3	668.3	687.2	687.7	702.6	717.6	729.8	734.5
17 Open market paper	58.5	72.2	62.9	73.8	73.5	77.8	80.3	85.4	96.1	110.1	113.1
18 Other	406.2	442.6	479.6	516.0	532.1	541.2	540.2	554.0	565.1	583.5	589.5
19 By borrowing sector	4,575.1	5,194.7	5,815.8	6,374.7	6,473.8	6,664.7	6,811.5	6,987.8	7,103.0	7,262.7	7,400.2
20 State and local governments	383.0	473.9	510.1	543.7	547.1	556.0	565.7	573.5	578.5	584.8	595.1
21 Households	2,018.2	2,295.5	2,591.8	2,864.5	2,900.7	2,990.2	3,068.3	3,152.0	3,205.6	3,265.5	3,336.1
22 Nonfinancial business	2,173.9	2,425.4	2,714.0	2,966.5	3,026.0	3,118.5	3,177.5	3,262.4	3,319.0	3,412.3	3,469.0
23 Farm	187.9	173.4	156.6	145.5	141.3	143.9	143.6	137.6	135.9	139.5	140.7
24 Nonfarm noncorporate	769.0	898.3	1,001.6	1,109.4	1,131.7	1,151.9	1,172.6	1,205.3	1,229.1	1,245.9	1,261.6
25 Corporate	1,216.9	1,353.6	1,555.8	1,711.6	1,753.0	1,822.7	1,861.3	1,919.5	1,954.0	2,027.0	2,066.6
26 Foreign credit market debt held in											
27 United States	233.6	234.7	236.4	242.9	244.6	245.9	246.1	249.6	249.9	249.0	255.3
28 Bonds	68.0	71.8	74.9	82.3	86.1	86.0	87.4	89.2	90.5	92.2	94.5
29 Bank loans n.e.c.	30.8	27.9	26.9	23.3	22.8	22.4	22.7	21.5	21.6	22.7	22.9
30 Open market paper	27.7	33.9	37.4	41.2	42.5	44.0	46.3	50.9	54.9	52.7	57.5
31 U.S. government loans	107.1	101.1	97.1	96.1	93.1	93.5	89.8	88.1	83.0	81.4	80.4
31 Total domestic plus foreign	6,185.4	7,029.9	7,867.6	8,578.0	8,721.6	8,932.8	9,121.5	9,355.3	9,508.7	9,677.4	9,859.7
Financial sectors											
32 Total credit market debt owed by financial sectors	1,010.2	1,213.2	1,563.6	1,885.5	1,926.0	2,000.5	2,058.2	2,149.7	2,258.7	2,298.9	2,336.7
<i>By instrument</i>											
33 U.S. government related	531.2	632.7	844.2	1,026.5	1,050.6	1,076.9	1,116.3	1,164.0	1,209.0	1,235.8	1,273.8
34 Sponsored credit agency securities	237.2	257.8	273.0	303.2	313.5	317.9	328.5	348.1	364.3	369.0	370.4
35 Mortgage pool securities	289.0	368.9	565.4	718.3	732.1	754.0	782.8	810.9	839.7	861.8	898.4
36 Loans from U.S. government	5.0	6.1	5.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
37 Private financial sectors	479.0	580.5	719.5	859.0	875.4	923.6	941.9	985.7	1,049.7	1,063.1	1,062.9
38 Corporate bonds	153.0	204.5	287.4	366.3	380.5	397.9	406.4	418.0	458.2	465.8	472.8
39 Mortgages	2.5	2.7	2.7	3.1	3.1	3.1	3.1	3.4	3.5	3.5	3.5
40 Bank loans n.e.c.	29.5	32.1	36.1	32.8	31.7	34.3	32.9	34.2	32.2	33.8	34.7
41 Open market paper	219.5	252.4	284.6	323.8	330.6	353.4	358.0	377.4	392.0	398.3	400.9
42 Loans from Federal Home Loan Banks	74.6	88.8	108.6	133.1	129.5	134.8	141.6	152.8	163.8	161.9	151.1
43 Total, by sector	1,010.2	1,213.2	1,563.6	1,885.5	1,926.0	2,000.5	2,058.2	2,149.7	2,258.7	2,298.9	2,336.7
44 Sponsored credit agencies	242.2	263.9	278.7	308.2	318.5	322.9	333.5	353.1	369.3	374.0	375.4
45 Mortgage pools	289.0	368.9	565.4	718.3	732.1	754.0	782.8	810.9	839.7	861.8	898.4
46 Private financial sectors	479.0	580.5	719.5	859.0	875.4	923.6	941.9	985.7	1,049.7	1,063.1	1,062.9
47 Commercial banks	84.1	79.2	75.6	82.7	76.4	77.2	76.6	78.8	73.3	74.5	75.8
48 Bank affiliates	89.5	106.2	116.8	131.1	131.0	136.3	136.3	136.2	140.0	141.2	141.5
49 Savings and loan associations	81.6	98.9	119.8	139.4	135.3	141.9	148.1	159.3	170.1	167.9	156.8
50 Mutual savings banks	2.9	4.4	8.6	16.7	17.1	17.6	18.1	18.6	17.8	17.7	17.6
51 Finance companies	203.0	261.2	328.1	378.8	393.0	419.8	427.7	445.8	463.8	478.0	486.3
52 REITs	4.3	5.6	6.5	7.3	8.7	9.1	7.6	11.4	11.1	10.6	10.3
53 SCO issuers	13.5	25.0	64.0	103.1	113.9	121.8	127.5	135.7	173.5	173.1	174.6
All sectors											
54 Total credit market debt	7,195.7	8,243.1	9,431.2	10,463.4	10,647.5	10,933.4	11,179.7	11,504.9	11,767.4	11,976.3	12,196.4
55 U.S. government securities	1,902.8	2,227.0	2,653.8	2,981.8	3,048.8	3,094.2	3,175.2	3,276.7	3,359.7	3,396.5	3,473.1
56 State and local obligations	520.0	655.5	679.1	713.2	718.1	727.2	746.1	759.8	764.7	769.3	780.3
57 Corporate and foreign bonds	690.1	819.2	1,026.4	1,212.7	1,260.4	1,313.7	1,352.5	1,392.2	1,461.6	1,505.5	1,543.2
58 Mortgages	2,051.4	2,289.8	2,617.0	2,953.8	3,002.2	3,098.8	3,180.3	3,260.7	3,305.1	3,365.0	3,435.1
59 Consumer credit	519.3	601.8	659.8	692.7	688.9	705.8	721.2	743.7	745.0	761.0	775.3
60 Bank loans n.e.c.	613.4	652.7	719.1	720.3	722.7	744.0	743.3	758.3	771.4	786.2	792.0
61 Open market paper	305.7	358.5	384.9	438.8	446.7	475.3	484.6	513.6	543.1	561.1	571.4
62 Other loans	592.9	638.6	691.1	750.2	759.7	774.5	776.6	799.8	816.8	831.7	826.0

1.60 SUMMARY OF CREDIT MARKET CLAIMS, BY HOLDER

Billions of dollars, except as noted; period-end levels.

Transaction category, or sector	1984	1985	1986	1987	1988				1989		
					Q1	Q2	Q3	Q4	Q1	Q2	Q3
1 Total funds advanced in credit markets to domestic nonfinancial sectors	5,951.8	6,795.1	7,631.2	8,335.0	8,477.0	8,686.9	8,875.4	9,105.6	9,258.7	9,428.4	9,604.5
<i>By public agencies and foreign</i>											
2 Total held	1,257.7	1,460.5	1,794.7	2,044.9	2,099.4	2,151.3	2,191.8	2,266.4	2,332.1	2,345.1	2,414.3
3 U.S. government securities	377.9	423.8	493.2	563.3	595.7	610.1	613.3	648.3	666.2	644.6	670.7
4 Residential mortgages	423.5	518.2	712.3	862.0	880.6	906.1	934.9	966.0	995.3	1,020.5	1,062.6
5 FHLB advances to thrifts	74.6	88.8	108.6	133.1	129.5	134.8	141.6	152.8	163.8	161.9	151.1
6 Other loans and securities	381.6	429.7	480.5	486.6	493.6	500.3	502.1	499.3	506.9	518.1	529.8
7 Total held, by type of lender	1,257.7	1,460.5	1,794.7	2,044.9	2,099.4	2,151.3	2,191.8	2,266.4	2,332.1	2,345.1	2,414.3
8 U.S. government	228.2	246.7	253.3	238.0	237.1	235.8	226.3	216.9	213.9	215.2	216.9
9 Sponsored credit agencies and mortgage pools	556.3	659.8	869.8	1,048.9	1,068.0	1,095.6	1,132.9	1,178.6	1,223.5	1,228.9	1,275.3
10 Monetary authority	167.6	186.0	205.5	230.1	224.9	229.7	230.8	240.6	235.4	238.4	227.6
11 Foreign	305.6	367.9	466.1	527.9	569.5	590.2	601.9	630.3	659.3	662.6	694.5
<i>Agency and foreign debt not in line 1</i>											
12 Sponsored credit agencies and mortgage pools	531.2	632.7	844.2	1,026.5	1,050.6	1,076.9	1,116.3	1,164.0	1,209.0	1,235.8	1,273.8
13 Foreign	233.6	234.7	236.4	242.9	244.6	245.9	246.1	249.6	249.9	249.0	255.3
<i>Private domestic holdings</i>											
14 Total private holdings	5,458.9	6,202.1	6,917.1	7,559.5	7,672.7	7,858.4	8,045.9	8,252.8	8,385.5	8,568.1	8,719.2
15 U.S. government securities	1,524.9	1,803.2	2,160.6	2,418.5	2,453.1	2,484.1	2,561.9	2,628.4	2,693.5	2,751.9	2,802.3
16 State and local obligations	520.0	655.5	679.1	713.2	718.1	727.2	746.1	759.8	767.4	769.3	780.3
17 Corporate and foreign bonds	476.8	517.6	601.3	689.6	722.2	752.9	775.7	794.0	817.6	849.3	875.1
18 Residential mortgages	1,096.5	1,185.1	1,254.7	1,351.1	1,370.4	1,425.9	1,464.1	1,494.9	1,512.2	1,537.3	1,553.5
19 Other mortgages and loans	1,915.3	2,129.7	2,330.0	2,520.1	2,538.5	2,603.3	2,639.6	2,728.4	2,761.3	2,822.2	2,859.1
20 LESS: Federal Home Loan Bank advances	74.6	88.8	108.6	133.1	129.5	134.8	141.6	152.8	163.8	161.9	151.1
<i>Private financial intermediation</i>											
21 Credit market claims held by private financial institutions	4,699.6	5,283.1	6,025.7	6,604.6	6,732.0	6,891.0	7,003.5	7,168.1	7,298.7	7,458.7	7,543.1
22 Commercial banking	1,791.9	1,978.9	2,176.3	2,313.1	2,327.1	2,382.6	2,421.6	2,468.4	2,490.9	2,538.2	2,580.2
23 Savings institutions	1,100.7	1,191.2	1,297.9	1,445.5	1,453.6	1,495.9	1,538.8	1,571.3	1,566.7	1,557.3	1,522.8
24 Insurance and pension funds	1,215.3	1,369.7	1,544.3	1,755.2	1,810.6	1,859.0	1,899.1	1,950.2	1,996.7	2,046.5	2,083.7
25 Other finance	591.7	743.4	1,007.1	1,090.7	1,140.7	1,153.5	1,144.0	1,178.1	1,244.4	1,316.7	1,356.5
26 Sources of funds	4,699.6	5,283.1	6,025.7	6,604.6	6,732.0	6,891.0	7,003.5	7,168.1	7,298.7	7,458.7	7,543.1
27 Private domestic deposits and RPs	2,715.6	2,930.0	3,188.4	3,324.8	3,404.2	3,432.6	3,474.2	3,554.2	3,587.8	3,644.5	3,710.6
28 Credit market debt	479.0	580.5	719.5	859.0	875.4	923.6	941.9	985.7	1,049.7	1,063.1	1,062.9
29 Other sources	1,504.9	1,772.7	2,117.9	2,420.8	2,452.4	2,534.8	2,587.4	2,628.1	2,661.1	2,751.0	2,769.6
30 Foreign funds	-14.1	5.6	18.6	62.2	45.9	62.3	51.9	71.6	61.9	51.0	53.7
31 Treasury balances	15.5	25.8	27.5	21.6	23.5	32.6	34.2	29.0	13.5	34.4	32.4
32 Insurance and pension reserves	1,160.8	1,289.4	1,427.9	1,597.2	1,647.9	1,693.8	1,729.2	1,771.2	1,802.6	1,833.7	1,853.9
33 Other, net	342.6	451.8	643.9	739.6	735.2	746.1	772.1	756.4	783.0	831.9	829.6
<i>Private domestic nonfinancial investors</i>											
34 Credit market claims	1,238.4	1,499.5	1,610.8	1,813.9	1,816.1	1,891.0	1,984.4	2,070.5	2,136.6	2,172.6	2,239.0
35 U.S. government securities	659.5	814.7	899.1	992.0	1,005.2	1,022.1	1,086.1	1,143.5	1,175.0	1,196.3	1,239.6
36 Tax-exempt obligations	194.2	231.9	211.2	256.8	257.6	270.1	289.0	303.7	307.2	308.2	312.4
37 Corporate and foreign bonds	33.1	38.0	77.8	102.2	97.7	105.7	107.1	100.8	137.0	136.4	150.0
38 Open market paper	83.5	131.0	136.4	160.7	151.9	179.9	188.7	201.0	213.0	221.7	221.4
39 Other	268.0	283.8	286.2	302.3	303.7	313.3	313.6	321.5	304.3	309.9	315.5
40 Deposits and currency	2,895.8	3,120.4	3,399.2	3,553.9	3,628.0	3,662.4	3,704.4	3,785.9	3,822.8	3,887.9	3,945.9
41 Currency	159.6	171.9	186.3	205.4	204.0	209.9	213.4	220.1	220.7	226.4	225.0
42 Checkable deposits	380.6	422.5	517.4	514.0	495.4	510.3	496.1	525.4	492.8	496.4	497.3
43 Small time and savings accounts	1,693.4	1,831.9	1,948.3	2,017.1	2,084.9	2,110.9	2,131.1	2,150.4	2,164.7	2,186.7	2,219.0
44 Money market fund shares	218.5	227.3	265.6	292.8	318.4	306.1	303.6	315.6	340.3	359.9	389.2
45 Large time deposits	332.5	339.9	328.5	355.2	353.7	349.1	384.7	396.0	415.9	423.1	421.2
46 Security RPs	90.6	108.3	128.5	145.7	151.9	156.2	158.6	166.9	174.1	178.4	183.9
47 Deposits in foreign countries	20.6	18.5	24.5	23.7	19.9	19.9	16.8	11.6	14.3	17.0	10.3
48 Total of credit market instruments, deposits, and currency	4,134.2	4,619.9	5,010.0	5,367.8	5,444.2	5,553.5	5,688.8	5,856.4	5,959.4	6,060.4	6,184.9
49 Public holdings as percent of total	20.3	20.8	22.8	23.8	24.1	24.1	24.0	24.2	24.5	24.2	24.5
50 Private financial intermediation (in percent)	86.1	85.2	87.1	87.4	87.7	87.7	87.0	86.9	87.0	87.1	86.5
51 Total foreign funds	291.5	373.5	484.7	590.2	615.3	652.5	653.8	701.9	721.2	713.6	748.1
MEMO: Corporate equities not included above											
52 Total market value	2,157.9	2,823.9	3,360.6	3,325.0	3,504.0	3,622.7	3,577.6	3,620.3	3,731.6	4,072.3	4,296.0
53 Mutual fund shares	136.7	240.2	413.5	460.1	479.2	486.8	478.1	478.3	486.3	514.8	538.5
54 Other equities	2,021.2	2,583.7	2,947.1	2,864.9	3,024.8	3,136.0	3,099.5	3,142.0	3,245.3	3,557.5	3,757.5
55 Holdings by financial institutions	615.6	800.0	972.1	1,013.8	1,112.6	1,170.0	1,167.1	1,200.4	1,277.7	1,395.7	1,523.6
56 Other holdings	1,542.3	2,023.9	2,388.4	2,311.2	2,391.3	2,452.8	2,410.5	2,419.9	2,453.9	2,676.6	2,772.4

NOTES BY LINE NUMBER.

- Line 1 of table 1.59.
- Sum of lines 3-6 or 7-10.
- Includes farm and commercial mortgages.
- Credit market debt of federally sponsored agencies, and net issues of federally related mortgage pool securities.
- Line 1 less line 2 plus line 12 and 13. Also line 21 less line 28 plus line 34. Also sum of lines 29 and 48 less lines 41 and 47.
- Includes farm and commercial mortgages.
- Line 40 less lines 41 and 47.
- Excludes equity issues and investment company shares. Includes line 20.
- Foreign deposits at commercial banks plus bank borrowings from foreign affiliates, less claims on foreign affiliates and deposits by banking in foreign banks.
- Demand deposits and note balances at commercial banks.

- Excludes net investment of these reserves in corporate equities.
 - Mainly retained earnings and net miscellaneous liabilities.
 - Line 14 less line 21 plus line 28.
 - Lines 15-19 less amounts acquired by private finance plus amounts borrowed by private finance. Line 39 includes mortgages.
 - Mainly an offset to line 10.
 - Lines 34 plus 40, or line 14 less line 29 plus 41 and 47.
 - Line 2/line 1 and 13.
 - Line 21/line 14.
 - Sum of lines 11 and 30.
 - 52-54. Includes issues by financial institutions.
- NOTE. Full statements for sectors and transaction types in flows and in amounts outstanding may be obtained from Flow of Funds Section, Stop 95, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

2.10 NONFINANCIAL BUSINESS ACTIVITY Selected Measures¹

1977 = 100; monthly and quarterly data are seasonally adjusted. Exceptions noted.

Measure	1987	1988	1989	1989								1990
				May	June	July	Aug.	Sept.	Oct.	Nov. ^f	Dec. ^f	Jan.
1 Industrial production	129.8	137.2	n.a.	141.6	142.0	141.9	142.5	142.3	141.8	142.2	142.5	140.9
<i>Market groupings</i>												
2 Products, total	138.3	145.9	n.a.	151.7	152.5	151.8	152.5	152.4	151.5	152.3	153.5	151.3
3 Final, total	136.8	144.3	n.a.	150.4	151.2	150.2	151.1	150.8	149.4	150.2	151.5	148.8
4 Consumer goods	127.7	133.9	n.a.	139.2	139.9	138.7	139.3	139.0	140.2 ^f	140.5	141.4	138.2
5 Equipment	148.8	158.2	n.a.	165.4	166.1	165.5	166.8	166.5	161.7 ^f	163.2	164.9	162.9
6 Intermediate	143.3	151.5	n.a.	156.3	157.0	157.5	157.5	157.8	158.6 ^f	159.5	160.3	159.9
7 Materials	118.3	125.3	n.a.	127.9	127.7	128.3	128.8	128.6	128.7 ^f	128.4	127.6	126.6
<i>Industry groupings</i>												
8 Manufacturing	134.6	142.8	n.a.	148.1	148.7	148.5	149.2	148.8	148.0	148.5	148.6	147.2
Capacity utilization (percent) ²												
9 Manufacturing	81.1	83.5	83.9 ^f	84.3	84.4	84.0	84.2	83.7	83.1	83.1	82.9	81.9
10 Industrial materials industries	80.5	83.7	83.7	83.8	83.6	83.7	83.9	83.6	83.5	83.2	82.5	81.7
11 Construction contracts (1982 = 100) ³	163.8	160.8	160.8 ^f	159.0	157.0	163.0	160.0	175.0	165.0	158.0	160.0	154.0
12 Nonagricultural employment, total ⁴	123.9	128.0	131.6	131.3	131.7	131.9	132.0	132.3	132.4	132.7	132.8	133.2
13 Goods-producing, total	101.5	103.7	105.3	105.5	105.4	105.4	105.5	105.2	105.2	105.2	104.9	104.9
14 Manufacturing, total	96.7	98.6	99.6	99.9	99.8	99.8	99.8	99.4	99.2	99.1	99.0	98.4
15 Manufacturing, production-worker	91.9	93.9	94.8	95.0	94.8	94.8	94.8	94.2	94.1	93.9	93.8	93.0
16 Service-producing	133.3	138.2	142.7	142.2	142.7	143.0	143.1	143.6	143.8	144.2	144.5	145.0
17 Personal income, total	235.0	252.8	275.5	273.5	274.8	276.4	277.3	277.9	280.3	282.9	284.2	n.a.
18 Wages and salary disbursements	226.3	244.4	264.8	262.0	263.8	266.1	266.7	268.5	271.4	271.6	273.3	n.a.
19 Manufacturing	183.8	196.5	207.3	205.8	207.0	207.5	208.8	208.8	211.1	208.9	209.8	n.a.
20 Disposable personal income ⁵	232.4	252.1	274.0	271.7	273.8	275.4	276.1	276.5	278.7	281.6	282.7	n.a.
21 Retail sales ⁶	210.8	225.2 ^f	237.5	237.4	237.3	239.1	241.3	242.0	238.9	240.5	239.9	243.8
<i>Prices⁷</i>												
22 Consumer (1982-84 = 100)	113.6	118.3	124.0	123.8	124.1	124.4	124.6	125.0	125.6	125.9	126.1	127.4
23 Producer finished goods (1982 = 100) ...	105.4	108.0	113.5	114.2	114.3	114.1	113.4	113.6 ^f	114.8	114.8	115.3	117.5

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	1987	1988	1989	1989							1990
				June	July	Aug.	Sept.	Oct.	Nov.	Dec. ¹	Jan.
HOUSEHOLD SURVEY DATA											
1 Noninstitutional population¹	185,010	186,837	188,601	188,518	188,672	188,808	188,948	189,096	189,238	189,381	189,506
2 Labor force (including Armed Forces) ¹	122,122	123,893	126,077	126,300	126,202	126,280	126,245	126,373	126,709	126,762	126,610
3 Civilian labor force	119,865	121,669	123,869	124,111	124,013	124,070	124,023	124,148	124,488	124,546	124,397
<i>Employment</i>											
4 Nonagricultural industries ²	109,232	111,800	114,142	114,404	114,219	114,275	114,200	114,388	114,676	114,691	114,728
5 Agriculture	3,208	3,169	3,199	3,138	3,217	3,275	3,219	3,197	3,160	3,197	3,134
<i>Unemployment</i>											
6 Number	7,425	6,701	6,528	6,569	6,577	6,520	6,604	6,563	6,652	6,658	6,535
7 Rate (percent of civilian labor force)	6.2	5.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
8 Not in labor force	62,888	62,944	62,524	62,218	62,470	62,528	62,703	62,723	62,529	62,619	62,896
ESTABLISHMENT SURVEY DATA											
9 Nonagricultural payroll employment³	102,200	105,584	108,573	108,607	108,767	108,887	109,096	109,171	109,452¹	109,548	109,823
10 Manufacturing	19,024	19,403	19,611	19,650	19,649	19,644	19,559	19,537	19,517 ¹	19,489	19,377
11 Mining	717	721	722	715	706	729	730	731	737	739	740
12 Contract construction	4,967	5,125	5,302	5,283	5,314	5,321	5,325	5,335	5,355 ¹	5,305	5,409
13 Transportation and public utilities	5,372	5,548	5,703	5,716	5,736	5,618	5,709	5,729	5,753 ¹	5,832	5,859
14 Trade	24,327	25,139	25,807	25,781	25,823	25,877	25,896	25,957	26,044 ¹	26,022	26,163
15 Finance	6,547	6,676	6,814	6,808	6,815	6,836	6,852	6,851	6,871 ¹	6,882	6,892
16 Service	24,236	25,600	26,889	26,931	26,973	27,058	27,159	27,188	27,345 ¹	27,416	27,522
17 Government	17,010	17,372	17,726	17,723	17,751	17,804	17,866	17,843	17,830 ¹	17,863	17,861

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 UTILIZATION¹

Seasonally adjusted

Series	1989				1989				1989					
	Q1	Q2	Q3	Q4'	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4'		
	Output (1977 = 100)				Capacity (percent of 1977 output)				Utilization rate (percent)					
1 Total industry	140.7	141.8	142.2	142.2	167.5	168.7	169.9	171.1	84.0	84.1	83.7	83.1		
2 Mining	101.8	102.0	102.7	103.8	125.1	124.7	124.3	123.8	81.3	81.8	82.6	83.8		
3 Utilities	116.0	115.7	113.9	117.9	141.0	141.4	141.7	142.0	82.3	81.8	80.4	83.0		
4 Manufacturing	147.0	148.3	148.8	148.4	174.3	175.7	177.2	178.7	84.4	84.4	84.0	83.0		
5 Primary processing	127.8	127.6	128.8	128.7	146.5	147.8	149.1	150.4	87.3	86.4	86.4	85.6		
6 Advanced processing	158.6	160.8	160.9	160.3	191.0	192.6	194.2	195.8	83.0	83.5	82.9	81.9		
7 Materials	127.6	127.9	128.6	128.2	151.7	152.6	153.5	154.4	84.1	83.9	83.8	83.0		
8 Durable goods	138.6	139.0	140.4	138.5	170.1	171.3	172.5	173.7	81.5	81.1	81.4	79.7		
9 Metal materials	98.4	96.0	97.8	93.1	110.2	110.6	111.0	111.4	83.8	81.4	82.3	78.1		
10 Nondurable goods	136.3	137.1	137.9	138.0	152.7	154.2	155.8	157.4	89.3	88.9	88.5	87.7		
11 Textile, paper, and chemical	139.2	139.8	141.1	140.6	153.5	155.3	157.0	158.8	90.7	90.0	89.8	88.5		
12 Paper	148.4	146.1	149.8	151.6	154.0	155.8	157.6	159.4	96.4	93.8	95.1	95.1		
13 Chemical	145.4	145.7	146.5	145.9	161.4	163.7	165.9	168.2	90.1	89.0	88.3	86.7		
14 Energy materials	100.7	100.7	99.8	101.7	118.4	118.3	118.1	118.0	85.0	85.1	84.5	86.2		
	Previous cycle		Latest cycle		1989		1989						1990	
	High	Low	High	Low	Jan.	May	June	July	Aug.	Sept.	Oct.'	Nov.'	Dec.'	Jan.
	Capacity utilization rate (percent)													
15 Total industry	88.6	72.1	86.9	69.5	84.3	84.0	84.0	83.7	83.9	83.6	83.1	83.1	83.1	81.9
16 Mining	92.8	87.8	95.2	76.9	82.2	81.8	81.5	82.1	82.4	83.4	84.2	84.4	82.8	84.7
17 Utilities	95.6	82.9	88.5	78.0	80.9	81.8	80.8	80.5	80.0	80.8	81.4	81.3	86.4	77.1
18 Manufacturing	87.7	69.9	86.5	68.0	84.7	84.3	84.4	84.0	84.2	83.7	83.1	83.1	82.9	81.9
19 Primary processing	91.9	68.3	89.1	65.0	88.4	86.2	86.2	86.7	86.6	85.8	86.2	85.6	84.9	84.9
20 Advanced processing	86.0	71.1	85.1	69.5	83.1	83.4	83.5	82.9	83.2	82.6	81.6	81.9	82.1	80.7
21 Materials	92.0	70.5	89.1	68.5	84.6	83.8	83.6	83.7	83.9	83.6	83.5	83.2	82.5	81.7
22 Durable goods	91.8	64.4	89.8	60.9	82.1	81.0	81.1	81.3	81.7	81.2	80.3	79.9	78.9	78.2
23 Metal materials	99.2	67.1	93.6	45.7	86.1	79.8	80.6	82.3	82.7	81.9	81.5	77.7	74.9	77.3
24 Nondurable goods	91.1	66.7	88.1	70.7	90.1	88.7	88.7	89.2	88.8	87.5	88.3	87.7	87.1	86.7
25 Textile, paper, and chemical	92.8	64.8	89.4	68.8	91.5	89.6	89.8	90.6	90.1	88.8	89.4	88.5	87.8	87.1
26 Paper	98.4	70.6	97.3	79.9	98.1	93.2	93.7	95.0	95.1	95.1	96.4	94.7	94.2
27 Chemical	92.5	64.4	87.9	63.5	90.7	88.4	88.5	89.5	88.6	86.7	87.4	86.9	85.9
28 Energy materials	94.6	86.9	94.0	82.3	84.9	85.5	83.8	83.9	84.3	85.4	86.1	86.3	86.2	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 Value¹

Monthly data are seasonally adjusted

Groups	1977 proportion	1989 avg.	1989												1990
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^r	Nov.	Dec. ^r	Jan. ^r
Index (1977 = 100)															
MAJOR MARKET															
1 Total index	100.00	....	140.8	140.5	140.7	141.7	141.6	142.0	141.9	142.5	142.3	141.8	142.2	142.5	140.9
2 Products	57.72	....	150.1	150.0	150.5	151.6	151.7	152.5	151.8	152.5	152.4	151.5	152.3	153.5	151.3
3 Final products	44.77	....	148.2	148.6	148.9	150.2	150.4	151.2	150.2	151.1	150.8	149.4	150.2	151.5	148.8
4 Consumer goods	25.52	....	138.5	138.7	138.4	139.5	139.2	139.9	138.7	139.3	139.0	140.2	140.5	141.4	138.2
5 Equipment	19.25	....	161.1	161.6	162.8	164.3	165.4	166.1	165.5	166.8	166.5	161.7	163.2	164.9	162.9
6 Intermediate products	12.94	....	156.6	155.1	156.1	156.5	156.3	157.0	157.5	157.5	157.8	158.6	159.5	160.3	159.9
7 Materials	42.28	....	128.1	127.4	127.3	128.2	127.9	127.9	128.3	128.8	128.6	128.7	128.4	127.6	126.6
<i>Consumer goods</i>															
8 Durable consumer goods	6.89	....	131.5	131.6	130.1	132.2	131.2	130.8	127.3	128.7	127.9	127.9	127.4	128.5	119.7
9 Automotive products	2.98	....	132.5	131.6	128.9	131.7	128.6	125.6	120.2	122.3	120.6	119.2	120.3	123.6	99.5
10 Autos and trucks	1.79	....	135.6	133.1	128.3	131.7	127.4	123.3	114.6	119.3	117.1	113.1	114.7	118.3	78.5
11 Autos, consumer	1.16	....	99.6	96.0	95.0	98.8	96.0	91.4	81.2	86.4	92.7	91.5	84.3	84.2	56.1
12 Trucks, consumer	0.63	....	202.3	201.9	190.0	192.8	185.5	182.5	176.7	180.5	162.4	153.3	171.2	181.7	120.2
13 Auto parts and allied goods	1.19	....	127.9	129.4	129.8	131.7	130.4	129.1	128.7	126.7	125.9	128.3	128.8	131.4	131.1
14 Home goods	3.91	....	130.7	131.6	131.1	132.6	133.3	134.8	132.7	133.5	133.4	134.4	132.8	132.2	135.0
15 Appliances, A/C and TV	1.24	....	151.0	153.9	151.6	151.7	151.3	155.6	148.1	152.1	151.9	151.7	145.0	142.0	149.8
16 Appliances and TV	1.19	....	149.5	153.0	152.3	152.5	151.4	155.0	147.0	149.4	148.3	147.3	142.3	137.9	....
17 Carpeting and furniture	0.96	....	141.1	141.3	140.7	142.8	144.3	143.1	141.3	139.8	139.9	141.9	142.9	144.2	....
18 Miscellaneous home goods	1.71	....	110.1	110.1	110.9	113.0	114.1	115.0	116.8	116.6	116.5	117.8	118.2	118.4	....
19 Nondurable consumer goods	18.63	....	141.1	141.4	141.4	142.2	142.1	143.3	142.8	143.2	143.1	144.7	145.3	146.1	145.1
20 Consumer staples	15.29	....	149.4	149.7	149.9	150.7	150.7	151.9	151.4	152.0	151.8	153.8	154.8	156.0	154.7
21 Consumer foods and tobacco	7.80	....	144.8	144.3	143.3	144.7	144.7	145.7	144.2	145.6	145.9	147.9	149.1	149.3	....
22 Nonfood staples	7.49	....	154.2	155.4	156.9	156.9	156.9	158.4	158.9	158.7	157.9	160.0	160.7	162.9	160.2
23 Consumer chemical products	2.75	....	187.6	187.8	188.9	187.3	189.1	191.0	193.1	192.5	187.9	192.0	190.7	191.5	....
24 Consumer paper products	1.88	....	174.2	177.0	180.4	180.9	180.9	183.6	183.0	184.7	186.6	188.3	192.3	193.1	....
25 Consumer energy	2.86	....	109.1	110.1	110.7	112.0	110.1	110.7	110.4	109.2	110.3	110.8	111.1	115.7	107.5
26 Consumer fuel	1.44	....	96.7	95.0	95.6	97.3	93.6	95.6	97.0	96.0	95.7	96.1	95.7	94.8	....
27 Residential utilities	1.42	....	121.7	125.4	126.1	127.0	127.0	126.1	124.0	122.7	125.1	125.8	126.8	....	....
<i>Equipment</i>															
28 Business and defense equipment	18.01	....	167.1	167.9	168.9	170.3	171.5	172.0	171.3	172.5	172.1	167.1	168.6	170.6	168.3
29 Business equipment	14.34	....	163.8	165.0	166.3	167.8	169.1	169.6	168.5	169.9	169.6	164.8	166.6	168.8	165.9
30 Construction, mining, and farm	2.08	....	74.3	75.6	76.9	77.6	76.3	74.8	73.0	72.1	74.7	75.2	75.4	76.4	77.5
31 Manufacturing	3.27	....	136.3	137.8	138.6	139.7	140.9	142.8	143.8	143.5	143.1	142.0	141.8	141.6	142.1
32 Power	1.27	....	92.8	92.7	93.0	93.6	93.3	92.5	92.8	94.2	93.8	94.8	95.1	94.7	95.0
33 Commercial	5.22	....	252.4	254.3	257.6	260.1	263.2	264.5	263.8	265.6	265.1	259.3	262.4	263.4	261.3
34 Transit	2.49	....	125.7	125.2	123.9	124.8	125.3	124.8	120.1	124.4	122.2	107.7	111.2	121.5	107.4
35 Defense and space equipment	3.67	....	180.0	179.3	178.7	179.9	180.7	181.1	182.0	182.7	182.1	176.0	176.6	177.7	177.7
<i>Intermediate products</i>															
36 Construction supplies	5.95	....	142.3	139.5	139.3	140.2	140.2	141.2	142.2	141.5	140.9	142.6	143.9	143.7	144.0
37 Business supplies	6.99	....	168.8	168.4	170.4	170.4	170.0	170.4	170.6	171.2	172.3	172.3	172.8	174.4	....
38 General business supplies	5.67	....	175.9	175.4	177.4	177.9	177.3	177.9	177.8	178.8	180.1	179.9	181.0	181.6	....
39 Commercial energy products	1.31	....	138.2	138.3	140.3	138.0	138.2	138.4	139.6	138.1	138.5	139.5	137.5	143.2	....
<i>Materials</i>															
40 Durable goods materials	20.50	....	139.4	138.6	137.9	139.0	138.7	139.4	139.9	140.9	140.4	139.2	138.9	137.5	136.6
41 Durable consumer parts	4.92	....	111.7	112.1	110.7	110.8	111.8	111.6	109.9	111.0	110.7	108.9	108.4	105.7	100.4
42 Equipment parts	5.94	....	175.2	175.2	175.3	176.9	177.1	177.5	179.1	180.0	179.6	177.6	179.1	179.0	179.0
43 Durable materials n.e.c.	9.64	....	131.5	129.7	128.8	130.0	128.9	130.0	131.0	131.6	131.4	131.1	129.6	128.1	128.9
44 Basic metal materials	4.64	....	100.8	98.4	95.9	98.0	94.4	95.5	97.7	98.4	97.4	96.4	92.7	90.2	93.1
45 Nondurable goods materials	10.09	....	137.1	135.9	136.0	137.1	136.8	137.3	138.5	138.3	136.7	138.4	138.0	137.5	137.4
46 Textile, paper, and chemical materials	7.53	....	139.9	138.6	139.0	140.3	139.1	140.0	141.8	141.5	140.0	141.4	140.5	139.9	139.5
47 Textile materials	1.52	....	112.1	110.7	111.8	114.6	116.4	117.2	116.4	117.0	115.6	115.1	113.3	113.6	....
48 Pulp and paper materials	1.55	....	150.4	147.5	147.3	146.7	145.2	146.5	149.1	149.9	150.5	153.1	151.0	150.7	....
49 Chemical materials	4.46	....	145.7	145.0	145.4	146.8	144.7	145.5	147.9	147.0	144.6	146.3	146.2	145.2	....
50 Miscellaneous nondurable materials	2.57	....	129.1	128.0	127.2	127.8	129.9	129.4	129.0	128.9	127.3	129.8	....	....	....
51 Energy materials	11.69	....	100.5	100.5	101.0	101.7	101.1	99.1	99.1	99.5	100.9	101.7	101.9	101.7	100.0
52 Primary energy	7.57	....	105.2	104.4	103.7	104.1	104.6	103.0	103.2	104.2	105.6	107.0	107.0	104.9	....
53 Converted fuel materials	4.12	....	92.0	93.3	96.1	97.4	94.7	92.0	91.6	91.0	92.2	91.9	92.5	95.7	....

A50 Domestic Nonfinancial Statistics □ April 1990

2.13 INDUSTRIAL PRODUCTION Indexes and Gross Value¹—Continued

Groups	SIC code	1977 proportion	1989 avg.	1989												1990
				Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^a	Nov.	Dec. ^b	Jan. ^c
Index (1977 = 100)																
MAJOR INDUSTRY																
1 Mining and utilities		15.79	.....	107.2	106.8	107.5	107.9	107.2	106.3	106.6	106.5	107.7	108.6	108.7	110.1	106.5
2 Mining		9.83	.....	103.0	100.9	101.5	102.4	102.0	101.5	102.1	102.4	103.5	104.4	104.5	102.4	104.6
3 Utilities		5.96	.....	114.0	116.5	117.5	117.1	115.6	114.3	114.0	113.3	114.5	115.6	115.5	122.8	109.6
4 Manufacturing		84.21	.....	147.2	146.8	147.0	148.0	148.1	148.7	148.5	149.2	148.8	148.0	148.5	148.6	147.2
5 Nondurable		35.11	.....	148.5	148.1	148.6	149.6	149.5	150.5	150.8	151.1	151.1	152.4	152.7	152.4	152.7
6 Durable		49.10	.....	146.2	145.9	145.8	146.9	147.1	147.4	146.8	147.8	147.2	144.9	145.5	145.9	143.3
<i>Mining</i>																
7 Metal	10	.50	.....	106.9	98.6	98.1	96.8	94.0	101.2	106.2	103.7	104.3	104.0	104.4	.....	.....
8 Coal	11.12	1.60	.....	144.7	134.7	137.7	145.5	137.1	129.2	130.2	135.4	144.2	144.4	144.4	138.3	153.3
9 Oil and gas extraction	13	7.07	.....	88.9	89.5	89.6	89.1	90.5	90.6	90.8	90.3	90.0	90.9	91.2	89.7	.....
10 Stone and earth minerals	14	.66	.....	150.8	142.5	143.5	144.5	146.6	150.2	152.1	151.5	148.8	151.8	151.1	153.6	.....
<i>Nondurable manufactures</i>																
11 Foods	20	7.96	.....	146.6	146.3	145.4	146.6	147.2	147.9	147.3	148.3	148.8	150.3	151.6	151.7	.....
12 Tobacco products	21	.62	.....	105.0	104.7	101.5	109.2	105.9	104.2	97.1	99.9	97.3	99.2	.....	.....	.....
13 Textile mill products	22	2.29	.....	120.2	119.4	119.7	122.5	123.6	123.8	123.5	123.2	123.2	123.5	121.5	122.3	.....
14 Apparel products	23	2.79	.....	110.2	110.2	109.9	111.3	111.5	111.9	111.4	111.1	111.2	110.0	109.3	108.2	.....
15 Paper and products	26	3.15	.....	153.8	151.7	151.7	150.7	150.1	150.2	152.4	152.8	153.4	155.5	153.5	154.1	.....
16 Printing and publishing	27	4.54	.....	193.0	194.6	198.5	200.1	199.0	200.5	199.9	200.6	203.1	204.8	206.8	207.7	209.0
17 Chemicals and products	28	8.05	.....	159.0	154.5	159.2	159.3	158.2	159.9	162.2	161.5	159.3	161.3	162.1	161.6	.....
18 Petroleum products	29	2.40	.....	98.0	96.3	97.0	97.3	96.9	97.9	98.3	97.7	98.4	98.1	98.2	95.5	99.0
19 Rubber and plastic products	30	2.80	.....	175.9	175.0	176.4	178.0	180.5	182.3	182.3	183.6	184.2	186.0	185.2	184.1	.....
20 Leather and products	31	.53	.....	62.9	62.9	61.2	61.4	60.3	60.5	60.8	60.2	60.4	60.0	57.5	55.6	.....
<i>Durable manufactures</i>																
21 Lumber and products	24	2.30	.....	139.9	132.8	133.4	135.1	135.5	137.2	136.9	136.5	135.7	137.4	138.9	139.0	.....
22 Furniture and fixtures	25	1.27	.....	166.3	164.8	165.8	168.0	170.2	170.8	169.0	168.0	167.6	167.5	167.9	168.5	.....
23 Clay, glass, and stone products	32	2.72	.....	126.6	125.4	125.5	124.7	123.9	123.9	122.9	123.9	123.4	123.6	124.3	123.6	.....
24 Primary metals	33	5.33	.....	93.2	91.1	88.4	90.1	87.2	87.3	89.2	90.3	89.2	89.0	85.1	83.0	84.8
25 Iron and steel	331.2	3.49	.....	82.2	79.1	75.9	77.0	73.2	72.9	75.4	75.9	75.4	76.4	72.0	70.2	.....
26 Fabricated metal products	34	6.46	.....	124.5	124.5	123.8	123.1	124.8	125.2	125.4	125.5	124.4	124.1	125.4	124.7	123.4
27 Nonelectrical machinery	35	9.54	.....	178.7	180.8	183.0	184.7	186.5	187.5	186.7	187.8	188.2	184.1	187.5	188.2	186.6
28 Electrical machinery	36	7.15	.....	180.9	181.7	181.6	182.2	181.6	181.9	181.4	183.7	182.7	182.2	181.3	180.9	181.9
29 Transportation equipment	37	9.13	.....	136.7	136.4	134.8	136.4	135.5	134.2	131.3	133.2	131.9	123.9	125.1	128.6	115.1
30 Motor vehicles and parts	371	5.25	.....	124.9	123.4	120.4	122.0	119.7	116.4	110.4	114.2	112.7	110.1	110.4	110.7	87.0
31 Aerospace and miscellaneous transportation equipment	372-6.9	3.87	.....	152.7	154.0	154.4	155.9	157.1	158.4	159.6	159.0	142.7	145.2	152.9	153.3	
32 Instruments	38	2.66	.....	161.0	161.3	161.8	163.0	164.3	165.7	166.0	164.1	163.1	162.5	161.9	160.8	161.6
33 Miscellaneous manufactures	39	1.46	117.5	111.8	107.6	110.0	114.5	114.7	117.1	119.6	118.5	119.2	122.9	125.5	127.3	.....
<i>Utilities</i>																
34 Electric		4.17	.....	131.0	135.3	137.0	137.1	135.8	134.6	134.9	134.2	135.5	136.8	136.6	145.0	129.6
Gross value (billions of 1982 dollars, annual rates)																
MAJOR MARKET																
35 Products, total		517.5	.....	1,885.1	1,879.2	1,878.0	1,893.9	1,885.5	1,886.2	1,868.0	1,875.4	1,874.8	1,875.0	1,883.8	1,895.8	1,849.8
36 Final		405.7	.....	1,447.5	1,449.6	1,442.8	1,460.4	1,449.6	1,450.2	1,430.0	1,438.1	1,436.5	1,432.7	1,439.4	1,451.2	1,406.9
37 Consumer goods		272.7	.....	935.6	934.3	928.0	939.4	928.5	929.3	915.5	919.9	917.7	926.2	930.6	939.4	908.5
38 Equipment		133.0	.....	511.9	515.2	514.8	521.1	521.1	520.9	514.5	518.2	518.8	506.5	508.8	511.8	498.4
39 Intermediate		111.9	.....	437.7	429.6	435.3	433.5	435.9	436.0	438.0	437.3	438.3	442.3	444.4	444.6	443.0

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	1987	1988	1989	1989											
				Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ¹	Nov. ¹	Dec.		
Private residential real estate activity (thousands of units)															
NEW UNITS															
1 Permits authorized	1,535	1,456	1,332	1,230	1,334	1,347	1,308	1,281	1,328	1,319	1,356	1,342	1,376		
2 1-family	1,024	994	934	870	954	905	874	906	927	946	961	979	970		
3 2-or-more-family	511	462	398	360	380	442	434	375	401	373	395	363	406		
4 Started	1,621	1,488	1,374	1,405 ²	1,341 ²	1,308	1,414 ²	1,424 ²	1,325 ²	1,263 ²	1,423	1,347	1,254		
5 1-family	1,146	1,081	1,002	979 ²	1,028 ²	977	971 ²	1,029 ²	987 ²	969 ²	1,023	1,010	911		
6 2-or-more-family	474	407	373	426 ²	313 ²	331	443 ²	395 ²	338 ²	294 ²	400	337	343		
7 Under construction, end of period ¹	987	919	855	942	924	911	914	918	902	893	894	883	887		
8 1-family	591	570	537	586	579	572	572	576	565	566	565	559	567		
9 2-or-more-family	397	350	317	356	345	339	342	342	337	327	329	324	320		
10 Completed	1,669	1,530	1,421	1,459	1,552	1,442	1,355	1,372	1,439	1,368	1,317	1,479	1,290		
11 1-family	1,123	1,085	1,025	1,050	1,115	1,041	964	965	1,040	960	987	1,075	916		
12 2-or-more-family	546	445	397	409	437	401	391	407	399	408	330	404	374		
13 Mobile homes shipped	233	218	198	209 ²	202 ²	205	200 ²	179 ²	194	186 ²	190	189	189		
Merchant builder activity in 1-family units															
14 Number sold	672	675	649	555	607	653	647	738	723	640 ²	637	696	629		
15 Number for sale, end of period ¹	365	366	362	377	377	380	377	369	364	364 ²	364	363	362		
Price (thousands of dollars) ²															
Median															
16 Units sold	104.7	113.3	120.8	123.0	116.7	119.0	122.8	116.0	122.9	120.0 ²	123.0	125.0	130.1		
Average															
17 Units sold	127.9	139.0	148.8	149.0	144.7	145.1	153.6	140.3	158.6	151.1 ²	147.5	152.1	159.8		
EXISTING UNITS (1-family)															
18 Number sold	3,530	3,594	3,438	3,400	3,400	3,210	3,360	3,330	3,480	3,520	3,490	3,560	3,560		
Price of units sold (thousands of dollars) ²															
19 Median	85.6	89.2	93.0	92.0	92.9	92.6	93.4	96.7	94.8	94.3	92.4	93.1	92.5		
20 Average	106.2	112.5	118.0	116.1	118.0	118.0	118.8	122.1	120.8	118.4	117.2	118.3	117.0		
Value of new construction ³ (millions of dollars)															
CONSTRUCTION															
21 Total put in place	397,721	409,663	414,677	416,779	411,891	416,540	412,523	410,269	416,279	416,176	414,590	417,294	414,588		
22 Private	320,108	328,738	330,661	338,065	332,537	330,591	329,035	328,785	331,884	329,564	329,782	328,762	323,525		
23 Residential	194,656	198,101	163,865	202,083	200,735	196,984	194,229	195,165	194,393	192,765	193,124	192,279	190,974		
24 Nonresidential, total	125,452	130,637	166,796	135,982	131,802	133,607	134,806	133,620	137,491	136,799	136,658	136,483	132,551		
Buildings															
25 Industrial	13,707	14,931	16,771	15,698	16,245	15,945	16,302	16,424	17,526	17,927	17,746	17,812	17,498		
26 Commercial	55,448	58,104	57,549	60,653	55,581	56,796	57,434	56,640	57,680	57,132	58,238	57,688	55,128		
27 Other	15,464	17,278	17,402	17,634	16,645	17,343	17,179	16,768	18,455	17,962	17,277	17,761	16,622		
28 Public utilities and other	40,833	40,324	75,074	41,997	43,331	43,523	43,891	43,788	43,830	43,778	43,397	43,222	43,303		
29 Public	77,612	80,922	44,223	78,714	80,420	85,130	81,914	81,484	84,395	86,612	84,807	88,532	91,062		
30 Military	4,327	3,579	3,669	3,740	2,054	3,870	4,324	3,194	3,779	4,916	3,342	3,955	3,959		
31 Highway	25,343	28,524	27,597	26,091	27,772	27,432	27,321	26,128	27,367	27,581	26,062	28,894	31,565		
32 Conservation and development	5,162	4,474	4,755	4,210	3,068	6,053	4,699	4,567	4,708	4,906	5,860	4,414	5,581		
33 Other	42,780	44,345	25,995	44,673	47,526	47,775	45,570	47,595	48,541	49,209	49,543	51,269	49,957		

1. Not at annual rates.

2. Not seasonally adjusted.

3. Value of new construction data in recent periods may not be strictly comparable with data in previous periods because of changes by the Bureau of the Census in its estimating techniques. For a description of these changes see *Construction Reports (C-30-76-5)*, issued by the Bureau in July 1976.

NOTE. Census Bureau estimates for all series except (1) mobile homes, which are private, domestic shipments as reported by the Manufactured Housing Institute and seasonally adjusted by the Census Bureau, and (2) sales and prices of existing units, which are published by the National Association of Realtors. All back and current figures are available from the originating agency. Permit authorizations are those reported to the Census Bureau from 16,000 jurisdictions beginning with 1978.

2.15 CONSUMER AND PRODUCER PRICES

Percentage changes based on seasonally adjusted data, except as noted

Item	Change from 12 months earlier		Change from 3 months earlier (at annual rate)								Change from 1 month earlier	
	1989 Jan.	1990 Jan.	1989								1990	
			Mar.'	June'	Sept.'	Dec.'	Sept.'	Oct.'	Nov.'	Dec.'	Jan.	Jan.
CONSUMER PRICES² (1982-84=100)												
1 All items	4.7	5.2	6.1	5.3	2.3	4.9	.2	.5	.3	.4	1.1	127.4
2 Food	5.6	6.7	7.8	5.6	3.6	5.5	.3	.4	.5	.5	2.0	130.4
3 Energy items	1.8	9.7	9.7	22.7	-12.6	3.9	-6	1.0	-3	.3	5.1	97.6
4 All items less food and energy	4.6	4.4	5.5	3.8	3.5	4.7	.3	.5	.4	.3	.6	132.0
5 Commodities	4.2	2.6	3.8	2.4	1.3	3.4	.5	.4	.2	.2	.4	121.0
6 Services	5.0	5.3	5.9	4.6	4.5	5.7	.2	.5	.4	.4	.7	138.4
PRODUCER PRICES (1982=100)												
7 Finished goods	4.5	5.8	9.0	5.8	.4	5.0	.7	.5	.1	.6	1.8	117.5
8 Consumer foods	5.6	5.9	11.2	-2.3	.7	12.0	-3	1.4	.9	.6	2.1	123.6
9 Consumer energy	2.7	19.7	33.0	34.3	-15.3	-4.8	6.6	.2	-3.2	1.9	13.6	72.8
10 Other consumer goods	4.6	4.1	5.4	6.0	2.3	4.6	.3	.3	.2	.6	.0	126.9
11 Capital equipment	3.7	3.4	4.6	4.5	4.4	1.7	.7	-2	.4	.2	.2	121.1
12 Intermediate materials ³	6.0	2.7	7.9	2.9	-7	.4	.4	.2	-1	.0	1.2	113.4
13 Excluding energy	7.0	.3	5.5	.3	-7	-1.3	.1	.1	.0	-4	.1	119.9
Crude materials												
14 Foods	15.7	1.0	14.8	-16.9	-2.2	18.4	-6	-6	2.3	2.5	1.0	113.6
15 Energy .....	.6	15.7	48.3	23.6	-7.0	13.2	3.5	.7	.3	2.2	5.0	82.4
16 Other	8.6	-5.8	9.7	-7.7	.6	-16.3	.4	-1	-2.2	-2.1	.2	132.1

1. Not seasonally adjusted.

2. Figures for consumer prices are those for all urban consumers and reflect a rental equivalence measure of homeownership after 1982.

3. Excludes intermediate materials for food manufacturing and manufactured animal feeds.

Source: Bureau of Labor Statistics.

2.16 GROSS NATIONAL PRODUCT AND INCOME

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

Account	1987	1988	1989	1988		1989		
				Q4	Q1	Q2	Q3	Q4
GROSS NATIONAL PRODUCT								
1 Total	4,524.3	4,880.6	5,233.2	5,017.3	5,113.1	5,201.7	5,281.0	5,337.0
<i>By source</i>								
2 Personal consumption expenditures	3,010.8	3,235.1	3,470.3	3,324.0	3,381.4	3,444.1	3,508.1	3,547.5
3 Durable goods	421.0	455.2	473.6	467.4	466.4	471.0	486.1	471.0
4 Nondurable goods	998.1	1,052.3	1,122.6	1,078.4	1,098.3	1,121.5	1,131.4	1,139.1
5 Services	1,591.7	1,727.6	1,874.1	1,778.2	1,816.7	1,851.7	1,890.6	1,937.5
6 Gross private domestic investment	699.9	750.3	777.1	752.8	769.6	775.0	779.1	784.8
7 Fixed investment	670.6	719.6	747.7	734.1	742.0	747.6	751.7	749.6
8 Nonresidential	444.3	487.2	512.5	495.8	503.1	512.5	519.6	514.8
9 Structures	133.8	140.3	145.1	142.5	144.7	142.4	146.2	147.1
10 Producers' durable equipment	310.5	346.8	367.4	353.3	358.5	370.1	373.4	367.7
11 Residential structures	226.4	232.4	235.2	238.4	238.8	235.1	232.1	234.8
12 Change in business inventories	29.3	30.6	29.4	18.7	27.7	27.4	27.4	35.2
13 Nonfarm	30.5	34.2	25.2	40.8	19.1	23.6	19.8	38.3
14 Net exports of goods and services	-112.6	-73.7	-50.9	-70.8	-54.0	-50.6	-45.1	-53.8
15 Exports	448.6	547.7	624.4	579.7	605.6	626.1	628.5	637.3
16 Imports	561.2	621.3	675.2	650.5	659.6	676.6	673.6	691.1
17 Government purchases of goods and services	926.1	968.9	1,036.7	1,011.4	1,016.0	1,033.2	1,038.9	1,058.6
18 Federal	381.6	381.3	404.1	406.4	399.0	406.0	402.7	408.8
19 State and local	544.5	587.6	632.5	604.9	617.0	627.2	636.2	649.8
<i>By major type of product</i>								
20 Final sales, total	4,495.0	4,850.0	5,203.8	4,998.7	5,085.4	5,174.3	5,253.6	5,301.8
21 Goods	1,785.2	1,931.9	2,073.6	1,987.4	2,030.9	2,079.1	2,096.3	2,087.9
22 Durable	777.6	863.6	911.6	888.5	894.7	905.2	930.1	916.5
23 Nondurable	1,007.6	1,068.3	1,161.9	1,098.9	1,136.2	1,173.9	1,166.2	1,171.3
24 Services	2,304.5	2,499.2	2,700.7	2,570.0	2,620.8	2,667.5	2,728.1	2,786.2
25 Structures	434.6	449.5	459.0	459.9	461.3	455.1	456.6	462.9
26 Change in business inventories	29.3	30.6	29.4	18.7	27.7	27.4	27.4	35.2
27 Durable goods	22.0	25.0	14.6	32.0	22.0	6.0	5.2	25.0
28 Nondurable goods	7.2	5.6	14.9	-13.3	5.7	21.4	22.2	10.2
MEMO								
29 Total GNP in 1982 dollars	3,853.7	4,024.4	4,142.6	4,069.4	4,106.8	4,132.5	4,162.9	4,168.1
NATIONAL INCOME								
30 Total	3,665.4	3,972.6	4,265.0	4,097.4	4,185.2	4,249.6	4,287.3	n.a.
31 Compensation of employees	2,690.0	2,907.6	3,145.4	2,997.2	3,061.7	3,118.2	3,171.9	3,230.1
32 Wages and salaries	2,249.4	2,429.0	2,632.0	2,505.1	2,560.7	2,608.8	2,654.7	2,704.0
33 Government and government enterprises	419.2	446.5	476.9	456.3	466.9	473.5	480.2	487.1
34 Other	1,830.1	1,982.5	2,155.1	2,048.9	2,093.8	2,135.3	2,174.5	2,216.9
35 Supplement to wages and salaries	440.7	478.6	513.4	492.0	501.0	509.4	517.2	526.1
36 Employer contributions for social insurance	227.8	249.7	265.1	255.6	259.7	263.4	266.6	270.7
37 Other labor income	212.8	228.9	248.3	236.5	241.3	246.0	250.7	255.3
38 Proprietors' income ¹	311.6	327.8	352.2	328.3	359.3	355.5	343.3	350.9
39 Business and professional ¹	270.0	288.0	305.9	296.3	300.3	304.2	307.2	312.0
40 Farm ¹	41.6	39.8	46.3	32.0	59.0	51.3	36.1	38.8
41 Rental income of persons ²	13.4	15.7	8.0	16.1	11.8	9.8	5.4	5.1
42 Corporate profits ¹	298.7	328.6	298.2	340.2	316.3	307.8	295.2	n.a.
43 Profits before tax ³	266.7	306.8	287.3	318.8	318.0	296.0	275.0	n.a.
44 Inventory valuation adjustment	-18.9	-25.0	-18.5	-20.1	-38.3	-20.5 ^r	-6.3	-8.9
45 Capital consumption adjustment	50.9	46.8	29.4	41.5	36.6	32.3	26.5	22.4
46 Net interest	351.7	392.9	461.1	415.7	436.1	458.4	471.5	478.4

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

3. For after-tax profits, dividends, and the like, see table 1.48.
SOURCE: Survey of Current Business (Department of Commerce).

2.17 PERSONAL INCOME AND SAVING

Billions of current dollars; quarterly data are at seasonally adjusted annual rates. Exceptions noted.

Account	1987	1988	1989	1988	1989			
				Q4	Q1	Q2	Q3	Q4
PERSONAL INCOME AND SAVING								
1 Total personal income	3,777.6	4,064.5	4,428.7	4,185.2	4,317.8	4,400.3	4,455.9	4,540.9
2 Wage and salary disbursements	2,249.4	2,429.0	2,632.0	2,505.1	2,560.7	2,608.8	2,654.7	2,704.0
3 Commodity-producing industries	649.9	696.3	738.3	714.7	726.6	733.7	742.6	750.4
4 Manufacturing	490.3	524.0	553.0	538.1	546.3	549.9	555.7	559.9
5 Distributive industries	531.9	571.9	615.1	587.5	598.8	610.8	619.4	631.2
6 Service industries	648.3	714.4	801.7	746.7	768.4	790.8	812.4	835.3
7 Government and government enterprises	419.2	446.5	476.9	456.3	466.9	473.5	480.2	487.1
8 Other labor income	212.8	228.9	248.3	236.5	241.3	246.0	250.7	255.3
9 Proprietors' income ¹	311.6	327.8	352.2	328.3	359.3	355.5	343.3	350.9
10 Business and professional	270.0	288.0	305.9	296.3	300.3	304.2	307.2	312.0
11 Farm ¹	41.6	39.8	46.3	32.0	59.0	51.3	36.1	38.8
12 Rental income of persons ²	13.4	15.7	8.0	16.1	11.8	9.8	5.4	5.1
13 Dividends	92.0	102.2	112.4	106.4	109.4	111.4	113.2	115.7
14 Personal interest income	523.2	571.1	657.8	598.6	629.0	655.1	667.8	679.5
15 Transfer payments	548.2	584.7	632.1	593.8	616.4	626.8	636.4	649.0
16 Old-age survivors, disability, and health insurance benefits	282.9	300.5	325.2	304.0	316.9	322.9	327.9	333.0
17 LESS: Personal contributions for social insurance	172.9	194.9	214.2	199.6	210.0	213.0	215.4	218.5
18 EQUALS: Personal income	3,777.6	4,064.5	4,428.7	4,185.2	4,317.8	4,400.3	4,455.9	4,540.9
19 LESS: Personal tax and nontax payments	571.7	586.6	648.7	597.8	628.3	652.6	649.1	665.0
20 EQUALS: Disposable personal income	3,205.9	3,477.8	3,780.0	3,587.4	3,689.5	3,747.7	3,806.8	3,875.9
21 LESS: Personal outlays	3,104.1	3,333.1	3,573.7	3,424.0	3,483.8	3,547.0	3,611.7	3,652.2
22 EQUALS: Personal saving	101.8	144.7	206.3	163.4	205.7	200.7	195.1	223.7
MEMO								
Per capita (1982 dollars)								
23 Gross national product	15,793.9	16,332.8	16,650.3	16,455.3	16,566.4	16,629.8	16,711.8	16,685.7
24 Personal consumption expenditures	10,302.0	10,545.5	10,725.5	10,625.6	10,653.5	10,678.9	10,799.3	10,765.8
25 Disposable personal income	10,970.0	11,337.0	11,681.0	11,466.0	11,625.0	11,622.0	11,717.0	11,761.0
26 Saving rate (percent)	3.2	4.2	5.5	4.6	5.6	5.4	5.1	5.8
GROSS SAVING								
27 Gross saving	553.8	642.4	700.7	647.4	693.5	695.8	709.9	n.a.
28 Gross private saving	663.8	738.6	805.6	769.3	792.1	793.7	809.7	n.a.
29 Personal saving	101.8	144.7	206.3	163.4	205.7	200.7	195.1	223.7
30 Undistributed corporate profits ¹	75.3	80.3	47.1	81.7	53.4	52.0	49.3	n.a.
31 Corporate inventory valuation adjustment	-18.9	-25.0	-18.5	-20.1	-38.3	-20.5 ^r	-6.3	-8.9
<i>Capital consumption allowances</i>								
32 Corporate	303.1	321.7	344.8	329.7	335.2	339.7	349.9	354.5
33 Noncorporate	183.6	191.9	207.4	194.4	197.8	201.3	215.3	215.1
34 Government surplus, or deficit (-), national income and product accounts	-110.1	-96.1	-104.9	-121.9	-98.7	-97.9	-99.8	n.a.
35 Federal	-161.4	-145.8	-149.9	-167.6	-147.5	-145.4	-144.7	n.a.
36 State and local	51.3	49.7	45.0	45.7	48.8	47.5	44.9	n.a.
37 Gross investment	549.0	632.8	677.4	630.8	669.3	677.5	684.3	678.3
38 Gross private domestic	699.9	750.3	777.1	752.8	769.6	775.0	779.1	784.8
39 Net foreign	-150.9	-117.5	-99.8	-122.0	-100.3	-97.5	-94.8	-106.5
40 Statistical discrepancy	-4.7	-9.6	-23.4	-16.6	-24.1	-18.3	-25.5	-25.5

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	1986	1987	1988	1988		1989		
				Q3	Q4	Q1	Q2	Q3 ²
1 Balance on current account	-133,249	-143,700	-126,548	-32,340	-28,677	-30,390	-32,084	-22,687
2 Not seasonally adjusted				-36,926	-28,191	-25,994	-31,888	-27,718
3 Merchandise trade balance ²	-145,058	-159,500	-127,215	-30,339	-32,019	-28,378	-27,554	-27,751
4 Merchandise exports	223,367	250,266	319,251	80,604	83,729	87,919	91,423	91,569
5 Merchandise imports	-368,425	-409,766	-446,466	-110,943	-115,748	-116,297	-118,977	-119,320
6 Military transactions, net	-4,577	-2,856	-4,606	-1,006	-1,604	-1,498	-1,518	-968
7 Investment income, net	60,629	71,151	61,974	12,806	21,329	15,527	13,400	21,096
8 Other service transactions, net	10,517	10,585	17,702	4,971	5,475	5,428	5,977	7,077
9 Remittances, pensions, and other transfers	-4,049	-4,063	-4,279	-1,088	-1,090	-1,186	-1,011	-1,099
10 U.S. government grants (excluding military)	-11,730	-10,149	-10,377	-2,288	-3,928	-2,340	-1,857	-2,557
11 Change in U.S. government assets, other than official reserve assets, net (increase, -)	-2,024	997	2,999	1,961	3,413	1,049	-309	644
12 Change in U.S. official reserve assets (increase, -)	312	9,149	-3,566	-7,380	2,271	-4,000	-12,095	-5,996
13 Gold	0	0	0	0	0	0	0	0
14 Special drawing rights (SDRs)	-246	-509	474	-35	173	-188	68	-211
15 Reserve position in International Monetary Fund	1,501	2,070	1,025	202	307	316	-159	337
16 Foreign currencies	-942	7,588	-5,064	-7,547	1,791	-4,128	-12,004	-6,122
17 Change in U.S. private assets abroad (increase, -)	-97,953	-86,363	-81,544	-32,467	-38,332	-28,367	12,781	-41,804
18 Bank-reported claims ³	-59,975	-42,119	-54,481	-26,229	-30,916	-22,132	-27,238	-20,702
19 Nonbank-reported claims	-7,396	5,201	-1,684	255	4,569	1,835	-2,954	
20 U.S. purchase of foreign securities, net	-4,271	-5,251	-7,846	-1,592	-3,047	-2,568	-5,737	-10,138
21 U.S. direct investments abroad, net	-26,311	-44,194	-17,533	-4,901	-8,938	-5,502	-5,766	-10,964
22 Change in foreign official assets in United States (increase, +)	35,594	45,193	38,882	-2,234	10,589	7,477	-5,201	11,246
23 U.S. Treasury securities	34,364	43,238	41,683	-3,769	11,897	4,634	-9,738	12,068
24 Other U.S. government obligations	-1,214	1,564	1,309	572	697	721	-97	190
25 Other U.S. government liabilities ⁴	2,141	-2,520	-1,284	-232	-232	-304	417	-547
26 Other U.S. liabilities reported by U.S. banks ³	1,187	3,918	-331	1,703	-1,036	1,974	3,620	-1,117
27 Other foreign official assets ⁵	-884	-1,007	-2,495	-508	-737	452	597	652
28 Change in foreign private assets in United States (increase, +)	186,011	172,847	180,417	48,413	70,170	52,529	3,412	61,236
29 U.S. bank-reported liabilities ³	79,783	89,026	68,832	23,291	32,223	13,261	-21,422	25,688
30 U.S. nonbank-reported liabilities	-2,641	2,450	6,558	2,350	2,702	2,852	-361	
31 Foreign private purchases of U.S. Treasury securities, net	3,809	-7,643	20,144	3,422	5,336	8,590	2,252	13,034
32 Foreign purchases of other U.S. securities, net	70,969	42,120	26,448	7,454	6,871	8,665	9,676	11,082
33 Foreign direct investments in United States, net	34,091	46,894	58,435	11,896	23,038	19,161	13,267	11,432
34 Allocation of SDRs	0	0	0	0	0	0	0	0
35 Discrepancy	11,308	1,878	-10,641	24,047	-19,434	1,702	33,496	-2,639
36 Owing to seasonal adjustments				-4,556	4,431	4,127	-2,311	-5,115
37 Statistical discrepancy in recorded data before seasonal adjustment	11,308	1,878	-10,641	28,603	-23,865	-2,425	35,807	2,476
MEMO								
Changes in official assets								
38 U.S. official reserve assets (increase, -)	312	9,149	-3,566	-7,380	2,271	-4,000	-12,095	-5,996
39 Foreign official assets in United States (increase, +) excluding line 25	33,453	47,713	40,166	-2,002	10,821	7,781	-5,618	11,793
40 Change in Organization of Petroleum Exporting Countries official assets in United States (part of line 22 above)	-9,327	-9,956	-3,109	-459	672	7,143	433	3,776
41 Transfers under military grant programs (excluded from lines 4, 6, and 10 above)	96	53	92	7	40	12	13	15

1. Seasonal factors are not calculated for lines 6, 10, 12-16, 18-20, 22-34, and 38-41.

2. Data are on an international accounts (IA) basis. Differs from the Census basis data, shown in table 3.11, for reasons of coverage and timing. Military exports are excluded from merchandise data and are included in line 6.

3. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.

4. Primarily associated with military sales contracts and other transactions arranged with or through foreign official agencies.

5. Consists of investments in U.S. corporate stocks and in debt securities of private corporations and state and local governments.

NOTE: Data are from Bureau of Economic Analysis, *Survey of Current Business* (Department of Commerce).

3.11 U.S. FOREIGN TRADE¹

Millions of dollars; monthly data are seasonally adjusted.

Item	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct.	Nov. ^f	Dec. ^p
1 EXPORTS of domestic and foreign merchandise excluding grant-aid shipments, f.a.s. value.....	254,073	322,426	364,610	31,286	30,468	30,562	30,680	31,034	30,374	31,109
GENERAL IMPORTS including merchandise for immediate consumption plus entries into bonded warehouses										
2 Customs value.....	406,241	440,952	473,309	39,293	38,709	40,662	39,194	41,283	40,666	38,278
Trade balance										
3 Customs value.....	-152,169	-118,526	-108,699	-8,007	-8,241	-10,101	-8,513	-10,249	-10,292	-7,169

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 transac-

tions; military payments are excluded and shown separately as indicated above. As of Jan. 1, 1987 census data are released 45 days after the end of the month; the previous month is revised to reflect late documents. Total exports and the trade balance reflect adjustments for undocumented exports to Canada.

SOURCE: FT900 "Summary of U.S. Export and Import Merchandise Trade" (Department of Commerce, Bureau of the Census).

3.12 U.S. RESERVE ASSETS

Millions of dollars, end of period

Type	1986 ^c	1987 ^c	1988 ^c	1989						1990
				July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^p
1 Total	48,511	45,798	47,802	63,462	62,364	68,418	70,560	70,560	74,609	75,506
2 Gold stock, including Exchange Stabilization Fund ¹	11,064	11,078	11,057	11,066	11,066	11,065	11,062	11,060	11,059	11,059
3 Special drawing rights ^{2,3}	8,395	10,283	9,637	9,340	9,240	9,487	9,473	9,751	9,951	10,041
4 Reserve position in International Monetary Fund ^c	11,730	11,349	9,745	9,055	8,644	8,786	8,722	9,047	9,048	9,173
5 Foreign currencies ⁴	17,322	13,088	17,363	34,001	33,413	39,080	41,552	42,702	44,551	45,233

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 BANKS¹

Millions of dollars, end of period

Assets	1986	1987	1988	1989						1990
				July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^p
1 Deposits	287	244	347	371	265	325	252	307	589	251
Assets held in custody										
2 U.S. Treasury securities ²	155,835	195,126	232,547	233,170	238,007	235,597	230,804	231,059	224,911	225,618
3 Earmarked gold ³	14,048	13,919	13,636	13,530	13,516	13,506	13,460	13,458	13,456	13,458

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 Data¹

Millions of dollars, end of period

Asset account	1986	1987	1988	1989						
				June	July	Aug.	Sept.	Oct.	Nov. ¹	Dec.
All foreign countries										
1 Total, all currencies	456,628	518,618	505,595	523,674	534,425^f	522,489	520,845	533,641	548,039	545,266
2 Claims on United States	114,563	138,034	169,111	177,445	179,839 ^f	177,299	182,440	184,505	195,878	198,732
3 Parent bank	83,492	105,845	129,856	132,380	133,359 ^f	134,479	142,339	145,034	154,790	156,989
4 Other banks in United States	13,685	16,416	14,918	14,218	15,744	15,225	14,164	14,248	15,301	17,042
5 Nonbanks	17,386	15,773	24,337	30,847	30,736	27,595	25,937	25,223	25,787	24,701
6 Claims on foreigners	312,955	342,520	299,728	303,720	310,426	299,265	289,996	300,814	303,356	300,789
7 Other branches of parent bank	96,281	122,155	107,179	115,913	117,438	108,893	104,683	110,684	111,053	113,810
8 Banks	105,237	108,859	96,932	94,902	95,621	92,465	90,510	93,357	95,098	90,703
9 Public borrowers	23,706	21,832	17,163	16,709	16,948	16,656	16,215	16,721	16,148	16,456
10 Nonbank foreigners	87,731	89,674	78,454	76,196	80,419	81,251	78,588	80,052	81,057	79,820
11 Other assets	29,110	38,064	36,756	42,509	44,160 ^f	45,925	48,409	48,322	48,805	45,745
12 Total payable in U.S. dollars	317,487	350,107	357,573	367,562	372,076^f	369,287	359,924	369,898	380,247	382,314
13 Claims on United States	110,620	132,023	163,456	169,520	171,265 ^f	170,497	174,628	176,228	188,070	191,081
14 Parent bank	82,082	103,251	126,929	127,352	128,287 ^f	130,168	137,481	139,224	149,873	152,191
15 Other banks in United States	12,830	14,657	14,167	13,207	14,734	14,688	13,217	13,597	14,543	16,386
16 Nonbanks	15,708	14,115	22,360	28,961	28,244	25,641	23,930	23,407	23,654	22,504
17 Claims on foreigners	195,063	202,428	177,685	180,013	181,441	177,911	164,641	171,691	168,677	169,780
18 Other branches of parent bank	72,197	88,284	80,736	88,874	90,077	83,036	77,588	83,945	79,585	82,949
19 Banks	66,421	63,707	54,884	50,627	49,913	50,885	46,786	47,349	48,966	48,396
20 Public borrowers	16,708	14,730	12,131	11,815	11,616	11,774	11,646	11,579	11,446	10,961
21 Nonbank foreigners	39,737	35,707	29,934	28,697	29,835	32,216	28,171	28,818	28,680	27,474
22 Other assets	11,804	15,656	16,432	18,029	19,370 ^f	20,879	20,835	21,979	23,500	21,453
United Kingdom										
23 Total, all currencies	140,917	158,695	156,835	153,968	161,882	158,860	157,673	164,155	164,916	161,947
24 Claims on United States	24,599	32,518	40,089	38,014	42,147	41,914	40,085	42,424	44,661	39,212
25 Parent bank	19,085	27,350	34,243	33,763	37,713	38,031	36,046	38,938	40,848	35,847
26 Other banks in United States	1,612	1,259	1,123	1,125	1,121	1,112	1,265	1,200	1,199	1,058
27 Nonbanks	3,902	3,909	4,723	3,126	3,313	2,771	2,774	2,286	2,614	2,307
28 Claims on foreigners	109,508	115,700	106,388	103,773	106,586	102,231	102,097	106,430	105,349	107,657
29 Other branches of parent bank	33,422	39,903	35,625	34,948	35,440	32,392	32,611	35,252	35,064	37,728
30 Banks	39,468	36,735	36,765	37,357	36,519	36,073	37,146	38,048	36,317	36,159
31 Public borrowers	4,990	4,752	4,019	3,599	3,788	3,586	3,265	3,346	3,181	3,293
32 Nonbank foreigners	31,628	34,310	29,979	27,869	30,839	30,180	29,075	29,784	30,787	30,477
33 Other assets	6,810	10,477	10,358	12,181	13,149	14,715	15,491	15,301	14,906	15,078
34 Total payable in U.S. dollars	95,028	100,574	103,503	99,028	103,512	104,036	99,238	106,869	106,086	103,427
35 Claims on United States	23,193	30,439	38,012	34,990	38,506	39,135	37,108	39,715	41,504	36,404
36 Parent bank	18,526	26,304	33,252	32,059	36,041	36,375	34,537	37,404	39,304	34,329
37 Other banks in United States	1,475	1,044	964	844	821	1,007	1,017	951	861	843
38 Nonbanks	3,192	3,091	3,796	2,087	1,644	1,753	1,554	1,360	1,339	1,232
39 Claims on foreigners	68,138	64,560	60,472	58,746	59,137	57,706	55,340	59,389	56,872	59,062
40 Other branches of parent bank	26,361	28,635	28,474	26,541	27,955	25,368	25,542	28,084	26,961	29,872
41 Banks	23,251	19,188	18,494	18,745	17,080	18,298	17,612	18,275	16,884	16,579
42 Public borrowers	3,677	3,313	2,840	2,606	2,702	2,679	2,521	2,553	2,404	2,371
43 Nonbank foreigners	14,849	13,424	10,664	10,854	11,400	11,361	9,665	10,477	10,623	10,240
44 Other assets	3,697	5,575	5,019	5,292	5,869	7,195	6,790	7,765	7,710	7,961
Bahamas and Caymans										
45 Total, all currencies	142,592	160,321	170,639	171,780	173,014^f	165,401	164,684	164,836	172,762	175,949
46 Claims on United States	78,048	85,318	105,320	109,800	108,055 ^f	106,693	111,043	109,910	118,037	124,148
47 Parent bank	54,575	60,048	73,409	70,735	67,641 ^f	69,404	76,426	75,900	82,605	87,825
48 Other banks in United States	11,156	14,277	13,145	12,116	13,712	13,294	12,141	12,059	13,185	15,071
49 Nonbanks	12,317	10,993	18,766	26,949	26,702	23,995	22,476	21,951	22,247	21,252
50 Claims on foreigners	60,005	70,162	58,393	54,537	57,135	50,808	45,962	47,214	46,391	44,168
51 Other branches of parent bank	17,296	21,277	17,954	22,324	24,462	16,802	14,688	16,961	14,414	11,309
52 Banks	27,476	33,751	28,268	21,202	21,591	20,688	20,162	19,579	21,641	22,611
53 Public borrowers	7,051	7,428	5,830	5,540	5,405	5,407	5,435	5,289	5,340	5,217
54 Nonbank foreigners	8,182	7,706	6,341	5,471	5,677	7,911	5,677	5,385	4,996	5,031
55 Other assets	4,539	4,841	6,926	7,443	7,824 ^f	7,900	7,679	7,712	8,334	7,633
56 Total payable in U.S. dollars	136,813	151,434	163,518	165,676	167,484^f	160,821	160,274	159,643	167,182	170,723

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	1986	1987	1988	1989						
				June	July	Aug.	Sept.	Oct.	Nov. ¹	Dec.
All foreign countries										
57 Total, all currencies	456,628	518,618	505,595	523,674	534,425^f	522,489	520,845	533,641	548,039	545,266
58 Negotiable CDs	31,629	30,929	28,511	28,116	28,882	29,524	26,679	26,776	26,555	23,500
59 To United States	152,465	161,390	185,577	179,902	177,769 ^f	177,542	183,203	183,576	190,149	197,182
60 Parent bank	83,394	87,606	114,720	113,395	110,326	110,917	121,003	123,229	128,799	138,130
61 Other banks in United States	15,646	20,355	14,737	12,951	13,353 ^f	13,269	13,015	11,476	10,811	11,462
62 Nonbanks	53,425	53,429	56,120	53,556	54,090	53,356	49,185	48,871	50,539	47,590
63 To foreigners	253,775	304,803	270,923	289,559	301,583 ^f	288,566	283,435	294,486	302,346	296,850
64 Other branches of parent bank	95,146	124,601	111,267	118,950	119,765 ^f	113,752	104,853	114,180	115,484	119,591
65 Banks	77,809	87,274	72,842	74,209	80,069	75,589	77,618	75,758	81,200	76,452
66 Official institutions	17,835	19,564	15,183	17,559	18,846	17,391	17,349	19,361	18,938	16,750
67 Nonbank foreigners	62,985	73,364	71,631	78,841	82,903	81,634	83,615	85,187	86,724	84,057
68 Other liabilities	18,759	21,496	20,584	26,097	26,191 ^f	26,857	27,528	28,803	28,989	27,734
69 Total payable in U.S. dollars	336,406	361,438	367,483	378,331	382,104^f	379,771	371,301	384,495	392,948	396,182
70 Negotiable CDs	28,466	26,768	24,045	24,129	24,914	25,483	22,927	22,260	22,539	19,619
71 To United States	144,483	148,442	173,190	167,261	163,834 ^f	166,041	170,512	171,458	179,927	187,229
72 Parent bank	79,305	81,783	107,150	105,074	100,726	103,396	112,255	115,314	122,910	132,281
73 Other banks in United States	14,609	18,951	13,468	11,537	11,875 ^f	11,964	11,837	10,273	9,512	10,277
74 Nonbanks	50,569	47,708	52,572	50,650	51,233	50,681	46,420	45,871	47,505	44,671
75 To foreigners	156,806	177,711	160,766	175,349	181,166 ^f	175,270	165,321	177,703	177,459	176,460
76 Other branches of parent bank	71,181	90,469	84,021	90,850	91,907 ^f	87,123	77,987	85,781	82,912	87,636
77 Banks	33,850	35,065	28,493	29,682	31,215	31,939	30,232	31,986	33,370	30,537
78 Official institutions	12,371	12,409	8,224	9,852	11,176	10,680	10,195	11,445	11,713	9,873
79 Nonbank foreigners	39,404	39,768	40,028	44,965	46,868	45,528	46,907	48,491	49,464	48,414
80 Other liabilities	6,651	8,517	9,482	11,592	12,190 ^f	12,977	12,541	13,074	13,023	12,874
United Kingdom										
81 Total, all currencies	140,917	158,695	156,835	153,968	161,882	158,860	157,673	164,155	164,916	161,947
82 Negotiable CDs	27,781	26,988	24,528	24,396	25,342	25,905	23,122	23,152	22,837	20,056
83 To United States	24,637	23,470	36,784	30,013	29,954	31,551	31,076	34,181	33,101	36,036
84 Parent bank	14,469	13,223	27,849	22,037	19,885	21,841	24,013	25,061	25,430	29,726
85 Other banks in United States	2,649	1,536	2,037	1,648	1,852	1,767	1,687	2,002	1,096	1,256
86 Nonbanks	7,539	8,711	6,898	6,328	8,217	7,943	5,376	7,118	6,575	5,054
87 To foreigners	79,498	98,689	86,026	88,381	94,335	88,661	91,101	93,700	96,509	92,307
88 Other branches of parent bank	25,036	33,078	26,812	24,974	26,556	24,326	24,769	26,936	26,656	27,397
89 Banks	30,877	34,290	30,609	31,066	33,047	30,790	31,330	30,688	33,016	29,780
90 Official institutions	6,836	11,015	7,873	8,650	9,586	8,878	10,132	9,724	8,551	8,551
91 Nonbank foreigners	16,749	20,306	20,732	23,691	25,146	24,677	26,124	25,944	27,113	26,579
92 Other liabilities	8,981	9,548	9,497	11,178	12,251	12,743	12,374	13,122	12,469	13,548
93 Total payable in U.S. dollars	99,707	102,550	105,907	101,742	105,700	106,915	102,361	110,358	109,116	108,178
94 Negotiable CDs	26,169	24,926	22,063	22,324	23,132	23,679	21,156	20,433	20,715	18,143
95 To United States	22,075	17,752	32,588	25,401	24,618	27,232	26,592	30,433	30,130	33,056
96 Parent bank	14,021	12,026	26,404	19,556	16,909	19,580	21,588	23,247	24,578	28,812
97 Other banks in United States	2,325	1,308	1,752	1,393	1,477	1,502	1,511	1,835	863	1,065
98 Nonbanks	5,729	4,418	4,432	4,452	6,232	6,150	3,493	5,351	4,689	3,179
99 To foreigners	48,138	55,919	47,083	48,491	52,179	49,913	48,557	52,902	52,135	50,517
100 Other branches of parent bank	17,951	22,334	18,561	16,467	18,388	17,060	16,673	18,926	16,845	18,384
101 Banks	15,203	15,580	13,407	13,545	14,173	13,578	12,331	13,177	13,587	12,244
102 Official institutions	4,934	7,530	4,348	5,579	6,131	5,825	5,332	6,605	6,755	5,454
103 Nonbank foreigners	10,050	10,475	10,767	12,900	13,487	13,450	14,021	14,194	14,948	14,435
104 Other liabilities	3,325	3,953	4,173	5,526	5,771	6,091	6,056	6,590	6,136	6,462
Bahamas and Caymans										
105 Total, all currencies	142,592	160,321	170,639	171,780	173,014^f	165,401	164,684	164,836	172,762	175,949
106 Negotiable CDs	847	885	953	696	717	691	669	669	671	678
107 To United States	106,081	113,950	122,332	117,781	116,324 ^f	113,179	117,611	114,701	121,021	124,802
108 Parent bank	49,481	53,239	62,894	61,642	61,263	58,765	64,859	66,292	70,107	74,906
109 Other banks in United States	11,715	17,224	11,494	10,034	10,227 ^f	10,076	10,026	8,088	8,438	8,641
110 Nonbanks	44,885	43,487	47,944	46,105	44,834	44,338	42,726	40,321	42,476	41,255
111 To foreigners	34,400	43,815	45,161	50,433	53,042 ^f	48,712	43,818	46,906	47,521	47,382
112 Other branches of parent bank	12,631	19,185	23,686	27,763	29,279 ^f	25,770	20,678	23,086	23,352	23,414
113 Banks	8,617	10,769	8,336	8,318	8,308	8,613	8,802	8,985	9,137	8,823
114 Official institutions	2,719	1,504	1,074	1,102	1,223	1,081	928	1,003	1,131	1,097
115 Nonbank foreigners	10,433	12,357	12,065	13,250	14,232	13,248	13,410	13,832	13,901	14,048
116 Other liabilities	1,264	1,671	2,193	2,870	2,931 ^f	2,819	2,586	2,560	3,549	3,087
117 Total payable in U.S. dollars	138,774	152,927	162,950	165,593	167,213^f	160,800	160,133	160,028	167,835	171,193

3.15 SELECTED U.S. LIABILITIES TO FOREIGN OFFICIAL INSTITUTIONS

Millions of dollars, end of period

Item	1987	1988	1989						
			June	July	Aug.	Sept.	Oct. ^f	Nov. ^f	Dec. ^p
1 Total ¹	259,556	299,782	302,299	307,516	317,591	314,782	315,501	314,899	307,463
<i>By type</i>									
2 Liabilities reported by banks in the United States ²	31,838	31,519	37,490	39,216	38,171	36,393	42,561	39,013	35,647
3 U.S. Treasury bills and certificates ³	88,829	103,722	87,190	87,734	88,325	86,350	81,465	82,474	77,062
U.S. Treasury bonds and notes									
4 Marketable	122,432	149,056	160,462	163,281	173,238	174,037	173,017	174,703	176,006
5 Nonmarketable ⁴	300	523	545	549	553	557	561	564	568
6 U.S. securities other than U.S. Treasury securities ⁵	16,157	14,962	16,612	16,736	17,304	17,445	17,897	18,145	18,180
<i>By area</i>									
7 Western Europe ¹	124,620	125,097	122,670	126,533	134,232	133,694	134,336	137,708	134,134
8 Canada	4,961	9,584	9,604	9,424	9,560	8,989	8,609	9,051	9,474
9 Latin America and Caribbean	8,328	10,099	5,925	7,166	7,986	9,511	10,014	9,908	8,898
10 Asia	116,098	145,608	155,454	155,786	157,197	154,315	154,110	149,708	146,983
11 Africa	1,402	1,369	1,271	949	810	867	910	1,019	982
12 Other countries ⁶	4,147	7,501	6,830	7,113	7,257	6,849	6,962	6,941	6,422

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 Currencies¹

Millions of dollars, end of period

Item	1985	1986	1987	1988	1989		
				Dec.	Mar.	June	Sept.
1 Banks' own liabilities	15,368	29,702	55,438	74,980	76,545	69,067	72,560
2 Banks' own claims	16,294	26,180	51,271	68,983	72,904	62,758	70,715
3 Deposits	8,437	14,129	18,861	25,100	25,938	23,845	23,983
4 Other claims	7,857	12,052	32,410	43,884	46,966	38,913	46,731
5 Claims of banks' domestic customers ²	580	2,507	551	364	376	723	2,558

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 States¹
Payable in U.S. dollars

Millions of dollars, end of period

Holder and type of liability	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct. ⁷	Nov. ⁷	Dec. ⁸
1 All foreigners	618,874	685,339	731,886	673,402	665,330	679,994	694,304	704,598	726,793	731,886
2 Banks' own liabilities.....	470,070	514,532	574,849	511,877	503,147	516,883	530,517	543,946	563,701	574,849
3 Demand deposits.....	22,383	21,863	21,710	21,223	21,363	19,718	21,550	21,069	21,312	21,710
4 Time deposits ²	148,374	152,164	170,186	153,783	149,753	155,494	157,273	162,372	165,319	170,186
5 Other ³	51,677	51,366	65,228	60,916	64,303	63,732	56,157	64,979	65,802	65,228
6 Own foreign offices ⁴	247,635	289,138	317,724	275,955	267,728	277,939	295,536	295,526	311,267	317,724
7 Banks' custody liabilities ⁵	148,804	170,807	157,037	161,524	162,184	163,111	163,787	160,652	163,093	157,037
8 U.S. Treasury bills and certificates ⁶	101,743	115,056	90,578	98,893	99,365	99,683	99,209	95,278	96,356	90,578
9 Other negotiable and readily transferable instruments ⁷	16,776	16,426	17,199	17,077	16,893	17,260	17,091	16,741	16,819	17,199
10 Other.....	30,285	39,325	49,260	45,555	45,925	46,168	47,487	48,633	49,918	49,260
11 Nonmonetary international and regional organizations⁸	4,464	3,224	4,772	3,817	4,240	4,418	4,945	5,769	5,841	4,772
12 Banks' own liabilities.....	2,702	2,527	3,156	2,895	2,716	3,402	3,347	3,733	4,523	3,156
13 Demand deposits.....	124	71	96	32	41	66	89	53	62	96
14 Time deposits ²	1,538	1,183	927	1,454	918	1,079	1,702	1,043	1,012	927
15 Other ³	1,040	1,272	2,132	1,409	1,756	2,257	1,555	2,638	3,449	2,132
16 Banks' custody liabilities ⁵	1,761	698	1,616	922	1,524	1,016	1,598	2,036	1,318	1,616
17 U.S. Treasury bills and certificates ⁶	265	57	197	181	345	107	84	568	321	197
18 Other negotiable and readily transferable instruments ⁷	1,497	641	1,417	731	1,179	909	1,479	1,454	996	1,417
19 Other.....	0	0	2	10	0	1	35	14	0	2
20 Official institutions⁹	120,667	135,241	112,709	124,680	126,951	126,496	122,743	124,026	121,486	112,709
21 Banks' own liabilities.....	28,703	27,109	30,298	32,167	34,132	33,238	31,615	37,524	34,082	30,298
22 Demand deposits.....	1,757	1,917	2,175	1,801	1,959	1,625	2,026	2,057	1,838	2,175
23 Time deposits ²	12,843	9,767	10,465	10,033	10,072	8,837	8,994	12,078	11,182	10,465
24 Other ³	14,103	15,425	17,658	20,332	22,101	22,776	20,595	23,389	21,063	17,658
25 Banks' custody liabilities ⁵	91,965	108,132	82,411	92,513	92,818	93,258	91,127	86,502	87,404	82,411
26 U.S. Treasury bills and certificates ⁶	88,829	103,722	77,062	87,190	87,734	88,325	86,350	81,465	82,474	77,062
27 Other negotiable and readily transferable instruments ⁷	2,990	4,130	4,988	5,080	4,821	4,735	4,588	4,734	4,805	4,988
28 Other.....	146	280	361	244	263	198	189	303	125	361
29 Banks¹⁰	414,280	459,523	513,868	452,396	443,172	457,463	476,027	482,104	505,672	513,868
30 Banks' own liabilities.....	371,665	409,501	453,343	396,662	387,306	400,975	415,761	420,918	443,340	453,343
31 Unaffiliated foreign banks.....	124,030	120,362	135,618	120,707	119,578	123,036	120,225	125,392	132,073	135,618
32 Demand deposits.....	10,898	9,948	10,347	9,677	10,145	9,101	10,695	9,884	10,742	10,347
33 Time deposits ²	79,717	80,189	92,184	77,874	75,166	80,603	80,789	83,913	87,354	92,184
34 Other ³	33,415	30,226	33,087	33,156	34,267	33,333	28,741	31,594	33,978	33,087
35 Own foreign offices ⁴	247,635	289,138	317,724	275,955	267,728	277,939	295,536	295,526	311,267	317,724
36 Banks' custody liabilities ⁵	42,615	50,022	60,525	55,734	55,865	56,488	60,265	61,186	62,332	60,525
37 U.S. Treasury bills and certificates ⁶	9,134	7,602	9,278	7,759	7,674	7,838	9,032	9,251	9,499	9,278
38 Other negotiable and readily transferable instruments ⁷	5,392	5,725	4,715	5,314	5,326	5,284	5,095	4,770	4,446	4,715
39 Other.....	28,089	36,694	46,531	42,662	42,866	43,365	46,138	47,165	48,388	46,531
40 Other foreigners	79,463	87,351	100,538	92,509	90,968	91,617	90,590	92,699	93,794	100,538
41 Banks' own liabilities.....	67,000	75,396	88,052	80,153	78,992	79,268	79,793	81,771	81,756	88,052
42 Demand deposits.....	9,604	9,928	9,091	9,714	9,218	8,926	8,739	9,075	8,671	9,091
43 Time deposits ²	54,277	61,025	66,610	64,422	63,596	64,975	65,787	65,338	65,772	66,610
44 Other ³	3,119	4,443	12,351	6,018	6,179	5,367	5,267	7,357	7,312	12,351
45 Banks' custody liabilities ⁵	12,463	11,956	12,486	12,355	11,976	12,349	10,796	10,928	12,038	12,486
46 U.S. Treasury bills and certificates ⁶	3,515	3,675	4,041	3,763	3,612	3,413	3,743	3,993	4,062	4,041
47 Other negotiable and readily transferable instruments ⁷	6,898	5,929	6,079	5,952	5,566	6,332	5,929	5,783	6,572	6,079
48 Other.....	2,050	2,351	2,366	2,639	2,797	2,604	1,125	1,152	1,405	2,366
49 MEMO: Negotiable time certificates of deposit in custody for foreigners	7,314	6,425	5,061	5,337	5,261	5,199	5,237	5,160	4,815	5,061

1. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.

2. Excludes negotiable time certificates of deposit, which are included in "Other negotiable and readily transferable instruments."

3. Includes borrowing under repurchase agreements.

4. U.S. banks: includes amounts due to own foreign branches and foreign subsidiaries consolidated in "Consolidated Report of Condition" filed with bank regulatory agencies. Agencies, branches, and majority-owned subsidiaries of foreign banks: principally amounts due to head office or parent foreign bank, and foreign branches, agencies, or wholly owned subsidiaries of head office or parent foreign bank.

5. Financial claims on residents of the United States, other than long-term securities, held by or through reporting banks.

6. Includes nonmarketable certificates of indebtedness and Treasury bills issued to official institutions of foreign countries.

7. Principally bankers acceptances, commercial paper, and negotiable time certificates of deposit.

8. Principally the International Bank for Reconstruction and Development, and the Inter-American and Asian Development Banks. Data exclude "holdings of dollars" of the International Monetary Fund.

9. Foreign central banks, foreign central governments, and the Bank for International Settlements.

10. Excludes central banks, which are included in "Official institutions."

3.17—Continued

Area and country	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct.	Nov. ^f	Dec. ^g
1 Total	618,874	685,339	731,886	673,402	665,330	679,994	694,304	704,598 ^f	726,793	731,886
2 Foreign countries	614,411	682,115	727,115	669,585	661,091	675,576	689,359	698,829 ^f	720,953	727,115
3 Europe	234,641	231,912	236,518	222,164	222,146	226,366	222,040	232,513 ^f	241,658	236,518
4 Austria	920	1,155	1,223	1,508	1,417	1,404	1,345	1,193	1,467	1,223
5 Belgium-Luxembourg	9,347	10,022	10,147	8,631	8,949	9,286	10,158	10,841	10,322	10,147
6 Denmark	760	2,200	1,409	1,179	1,348	1,956	1,265	1,442 ^f	1,912	1,409
7 Finland	377	285	639	451	436	460	519	464	577	639
8 France	29,835	24,777	26,686	23,868	22,290	24,864	23,031	23,882 ^f	25,923	26,686
9 Germany	7,022	6,772	7,305	9,363	8,875	7,651	8,345	8,700	9,088	7,305
10 Greece	689	672	1,012	889	862	828	797	845 ^f	1,024	1,012
11 Italy	12,073	14,599	16,138	13,965	12,892	14,597	14,542	14,220	14,649	16,138
12 Netherlands	5,014	5,316	6,565	4,875	5,029	5,106	4,989	5,426 ^f	7,204	6,565
13 Norway	1,362	1,559	2,399	1,485	1,522	1,453	1,698	1,342	1,952	2,399
14 Portugal	801	903	2,405	1,100	1,419	1,945	2,206	2,292 ^f	2,248	2,405
15 Spain	2,621	5,494	4,341	5,090	5,910	5,390	5,277	4,986	4,888	4,341
16 Sweden	1,379	1,284	1,987	1,478	1,248	2,002	1,680	1,663	1,920	1,987
17 Switzerland	33,766	34,199	34,278	28,811	28,581	28,931	29,001	29,554 ^f	31,497	34,278
18 Turkey	703	1,012	1,815	737	1,053	1,022	1,085	1,199	1,370	1,815
19 United Kingdom	116,852	111,811	101,746	103,173	105,310	104,055	102,210	106,285 ^f	108,483	101,746
20 Yugoslavia	710	529	1,490	558	604	691	774	858	1,016	1,490
21 Other Western Europe ¹	9,798	8,598	13,468	14,342	13,667	13,824	12,312	16,389 ^f	15,163	13,468
22 U.S.S.R.	32	138	350	164	175	201	244	338	268	350
23 Other Eastern Europe ²	582	591	1,115	499	559	699	562	595 ^f	686	1,115
24 Canada	30,095	21,062	18,754	17,514	17,472	16,958	17,960	16,670	18,182	18,754
25 Latin America and Caribbean	220,372	271,146	308,483	271,445	266,403	275,557	284,996	286,588 ^f	296,595	308,483
26 Argentina	5,006	7,804	7,184	6,320	7,397	8,047	8,446	8,069 ^f	7,693	7,184
27 Bahamas	74,767	86,863	100,093	82,312	84,526	90,317	90,622	93,171 ^f	96,294	100,093
28 Bermuda	2,344	2,621	2,972	2,321	2,269	2,209	2,124	2,458	2,549	2,972
29 Brazil	4,005	5,314	6,059	5,004	5,396	5,539	5,892	6,080 ^f	6,228	6,059
30 British West Indies	81,494	113,840	136,484	121,385	113,243	115,870	122,677	120,932 ^f	128,324	136,484
31 Chile	2,210	2,936	3,172	2,690	2,683	2,739	2,765	3,014 ^f	3,061	3,172
32 Colombia	4,204	4,374	4,513	4,127	4,235	4,365	4,199	4,887	4,681	4,513
33 Cuba	12	10	10	10	9	10	14	10	15	10
34 Ecuador	1,082	1,379	1,370	1,351	1,411	1,376	1,363	1,342	1,324	1,370
35 Guatemala	1,082	1,195	1,290	1,251	1,297	1,279	1,293	1,276	1,289	1,290
36 Jamaica	160	269	276	294	227	231	233	206	189	276
37 Mexico	14,480	15,185	14,800	14,270	13,705	13,769	14,981	14,642 ^f	13,847	14,800
38 Netherlands Antilles	4,975	6,420	6,263	6,316	6,434	6,071	6,062	5,939 ^f	6,249	6,263
39 Panama	7,414	4,353	4,193	4,278	4,357	4,400	4,424	4,393	4,359	4,193
40 Peru	1,275	1,671	1,945	1,761	1,770	1,778	1,828	1,902 ^f	1,921	1,945
41 Uruguay	1,582	1,898	2,261	2,429	2,152	2,121	2,340	2,214	2,315	2,261
42 Venezuela	9,048	9,147	9,405	9,423	9,500	9,398	9,520	9,552 ^f	9,799	9,405
43 Other	5,234	5,868	6,191	5,903	5,790	6,039	6,213	6,503 ^f	6,459	6,191
44 Asia	121,288	147,838	155,076	148,449	144,106	145,917	153,564	150,975 ^f	150,964	155,076
45 China										
46 Mainland	1,162	1,895	1,870	1,432	1,522	1,700	1,804	1,985	1,635	1,870
47 Taiwan	21,503	26,058	19,472	27,025	27,128	25,427	24,119	22,403 ^f	21,231	19,472
48 Hong Kong	10,180	12,248	12,119	12,134	11,346	12,268	12,292	12,127 ^f	12,028	12,119
49 India	582	699	774	812	871	940	875	836	984	774
50 Indonesia	1,404	1,180	1,276	1,232	1,096	1,042	1,144	1,300	1,276	1,276
51 Israel	1,292	1,461	1,229	1,088	1,058	953	1,041	2,221	1,081	1,229
52 Japan	54,322	74,015	80,837	71,198	68,700	71,028	78,824	73,573 ^f	75,215	80,837
53 Korea	1,637	2,541	3,022	3,047	3,556	2,907	3,037	3,099	3,339	3,022
54 Philippines	1,085	1,163	1,608	984	936	1,083	1,055	1,158 ^f	1,242	1,608
55 Thailand	1,345	1,236	2,071	1,274	1,254	1,776	1,430	1,686	1,887	2,071
56 Middle-East oil-exporting countries ³	13,988	12,083	13,324	13,612	12,368	12,524	13,021	13,450	13,574	13,324
Other	12,788	13,260	17,475	14,612	14,271	14,270	15,024	17,293	17,448	17,475
57 Africa	3,945	3,991	3,783	3,904	3,618	3,265	3,536	3,486	3,747	3,783
58 Egypt	1,151	911	679	748	738	549	574	577	633	679
59 Morocco	194	68	75	67	66	72	96	71	75	75
60 South Africa	202	437	202	188	231	201	246	220	291	202
61 Zaire	67	85	86	98	92	87	81	71	60	86
62 Oil-exporting countries ⁴	1,014	1,017	1,122	1,100	942	897	1,036	1,047 ^f	1,118	1,122
63 Other	1,316	1,474	1,618	1,702	1,548	1,459	1,502	1,501	1,569	1,618
64 Other countries	4,070	6,165	4,501	6,108	7,346	7,513	7,262	8,597	9,807	4,501
65 Australia	3,327	5,293	3,833	5,192	6,620	6,721	6,518	8,046	9,115	3,833
66 All other	744	872	668	916	726	792	744	552 ^f	692	668
67 Nonmonetary international and regional organizations	4,464	3,224	4,772	3,817	4,240	4,418	4,945	5,769 ^f	5,841	4,772
68 International ⁵	2,830	2,503	3,825	3,030	2,881	3,084	3,390	4,450 ^f	4,704	3,825
69 Latin American regional	1,272	589	684	613	961	690	1,201	919	586	684
70 Other regional ⁶	362	133	263	175	397	644	353	400	551	263

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 States¹

Payable in U.S. Dollars

Millions of dollars, end of period

Area and country	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct.	Nov. ^f	Dec. ^g
1 Total	459,877	491,165	534,186	491,103	481,051	488,861	499,388	514,686 ^e	534,375	534,186
2 Foreign countries	456,472	489,094	530,554	487,626	477,264	485,737	496,466	512,009 ^e	531,638	530,554
3 Europe	102,348	116,928	118,930	112,201	106,459	107,359	111,180	113,398 ^e	111,992	118,930
4 Austria	793	483	505	809	854	549	480	575 ^e	559	505
5 Belgium-Luxembourg	9,397	8,515	6,388	7,781	7,558	7,510	7,404	7,497 ^e	6,606	6,388
6 Denmark	717	483	582	774	562	768	557	513	609	582
7 Finland	1,010	1,065	1,026	1,175	1,395	1,401	1,233	1,707	1,129	1,026
8 France	13,548	13,243	16,146	15,575	16,008	16,415	16,249	16,391	16,055	16,146
9 Germany	2,039	2,329	2,850	3,695	3,461	3,316	3,463	3,371	2,657	2,850
10 Greece	462	433	788	632	602	624	634	650	700	788
11 Italy	7,460	7,936	6,661	6,813	5,994	5,494	6,043	5,577	5,718	6,661
12 Netherlands	2,619	2,541	1,902	2,032	1,957	1,454	1,994	1,886 ^e	2,259	1,902
13 Norway	934	455	611	667	796	665	644	647	635	611
14 Portugal	477	261	375	328	283	264	252	258	275	375
15 Spain	1,853	1,823	1,868	2,190	2,092	1,738	1,684	1,733	1,840	1,868
16 Sweden	2,254	1,977	1,840	1,946	2,003	2,046	2,286	2,087	2,555	1,840
17 Switzerland	2,718	3,895	6,137	5,485	4,123	4,479	5,018	4,522	4,940	6,137
18 Turkey	1,680	1,233	1,049	886	891	960	1,028	1,021	1,044	1,049
19 United Kingdom	50,823	65,706	65,401	56,844	53,464	54,809	57,187	59,838 ^e	59,919	65,401
20 Yugoslavia	1,700	1,390	1,329	1,359	1,406	1,346	1,338	1,373	1,281	1,329
21 Other Western Europe ²	619	1,152	1,302	1,161	974	1,312	1,312	1,504	1,245	1,302
22 U.S.S.R.	389	1,255	1,234	1,212	1,227	1,456	1,574	1,453	1,080	1,234
23 Other Eastern Europe ³	852	754	937	838	810	819	799	794	883	937
24 Canada	25,368	18,889	16,181	16,236	14,493	15,073	14,763	13,800	16,177	16,181
25 Latin America and Caribbean	214,789	214,264	230,212	219,855	217,371	216,073	219,948	220,182 ^e	231,958	230,212
26 Argentina	11,996	11,826	9,444	10,840	10,705	10,730	10,460	10,444 ^e	10,274	9,444
27 Bahamas	64,587	66,954	78,108	66,611	70,488	68,113	70,906	71,420 ^e	78,568	78,108
28 Bermuda	471	483	1,315	391	463	522	1,104	804	842	1,315
29 Brazil	25,897	25,735	23,891	25,675	25,824	25,597	24,999	25,075	24,418	23,891
30 British West Indies	50,042	55,888	67,991	65,359	59,670	61,493	63,543	63,023 ^e	68,530	67,991
31 Chile	6,308	5,217	4,353	4,863	4,793	4,803	4,707	4,601	4,474	4,353
32 Colombia	2,740	2,944	2,707	2,583	2,525	2,504	2,477	2,800	2,784	2,707
33 Cuba	1	1	1	1	9	1	1	1	1	1
34 Ecuador	2,286	2,075	1,698	1,895	1,933	1,918	1,905	1,864	1,858	1,698
35 Guatemala ⁴	144	198	197	201	189	203	196	188	190	197
36 Jamaica	188	212	297	286	270	272	282	270	260	297
37 Mexico	29,532	24,637	23,520	23,703	23,369	23,169	22,813	22,751	23,292	23,520
38 Netherlands Antilles	980	1,306	1,835	1,719	1,159	1,022	1,103	1,120 ^e	1,018	1,835
39 Panama	4,744	2,521	1,739	2,423	2,320	2,030	1,834	1,832 ^e	1,792	1,739
40 Peru	1,329	1,013	770	874	867	870	823	851	836	770
41 Uruguay	963	910	928	896	854	866	899	903	915	928
42 Venezuela	10,843	10,733	9,688	10,569	10,269	10,024	10,064	10,269	10,119	9,688
43 Other Latin America and Caribbean	1,738	1,612	1,729	1,503	1,665	1,936	1,833	1,965 ^e	1,787	1,729
44 Asia	106,096	130,881	156,987	130,590	130,369	137,687	140,704	153,737 ^e	158,752	156,987
45 China	968	762	635	920	644	575	615	594	610	635
46 Taiwan	4,592	4,184	2,734	4,058	3,949	3,356	3,331	2,831	2,677	2,734
47 Hong Kong	8,218	10,143	11,119	8,557	8,153	8,800	10,358	10,047 ^e	10,442	11,119
48 India	510	560	621	537	477	547	638	617	637	621
49 Indonesia	580	674	651	671	645	614	615	685	655	651
50 Israel	1,363	1,136	812	1,021	964	911	859	1,185	758	812
51 Japan	68,658	90,149	110,876	91,103	91,806	96,118	97,699	110,425 ^e	114,498	110,876
52 Korea	5,148	5,213	5,322	5,608	5,774	6,007	5,686	5,713	5,838	5,322
53 Philippines	2,071	1,876	1,344	1,763	1,607	1,543	1,617	1,549	1,478	1,344
54 Thailand	496	848	1,153	1,056	1,060	1,117	1,203	1,058	1,076	1,153
55 Middle East oil-exporting countries ⁵	4,858	6,213	10,150	6,550	5,550	8,879	8,581	8,365 ^e	8,675	10,150
56 Other Asia	8,635	9,122	11,559	8,745	9,741	9,221	9,502	10,669	11,408	11,559
57 Africa	4,742	5,718	5,929	6,075	6,066	6,032	6,028	5,763	6,009	5,929
58 Egypt	521	507	502	534	577	494	501	475	471	502
59 Morocco	542	511	559	531	518	535	524	538	547	559
60 South Africa	1,507	1,681	1,628	1,746	1,702	1,713	1,709	1,679	1,686	1,628
61 Zaire	15	17	16	17	17	16	20	15	16	16
62 Oil-exporting countries ⁶	1,003	1,523	1,689	1,503	1,587	1,608	1,629	1,546	1,641	1,689
63 Other	1,153	1,479	1,535	1,744	1,664	1,666	1,645	1,510	1,648	1,535
64 Other countries	3,129	2,413	2,315	2,670	2,505	3,512	3,843	5,129	6,750	2,315
65 Australia	2,100	1,520	1,785	1,307	1,518	2,499	3,078	4,301	6,174	1,785
66 All other	1,029	894	530	1,363	987	1,013	765	828	576	530
67 Nonmonetary international and regional organizations ⁷	3,404	2,071	3,631	3,477	3,787	3,124	2,922	2,677 ^e	2,737	3,631

1. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.

2. Includes the Bank for International Settlements. Beginning April 1978, also includes Eastern European countries not listed in line 23.

3. Beginning April 1978 comprises Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania.

4. Included in "Other Latin America and Caribbean" through March 1978.

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

6. Comprises Algeria, Gabon, Libya, and Nigeria.

7. Excludes the Bank for International Settlements, which is included in "Other Western Europe."

3.19 BANKS' OWN AND DOMESTIC CUSTOMERS' CLAIMS ON FOREIGNERS Reported by Banks in the United States¹
Payable in U.S. Dollars
Millions of dollars, end of period

Type of claim	1987	1988	1989	1989						
				June	July	Aug.	Sept.	Oct. ^r	Nov. ^r	Dec. ^p
1 Total	497,635	538,689	.....	540,634	.....	.....	551,543	.....	.....	.....
2 Banks' own claims on foreigners	459,877	491,165	534,186	491,103	481,051	488,861	499,388	514,686	534,375	534,186
3 Foreign public borrowers	64,605	62,658	60,484	63,164	62,832	62,765	62,051	63,425	62,259	60,484
4 Own foreign offices ²	224,727	257,436	295,567	258,548	248,987	252,281	265,786	276,547	296,754	295,567
5 Unaffiliated foreign banks	127,609	129,425	134,725	128,295	128,919	132,478	131,124	131,249	133,909	134,725
6 Deposits	60,687	65,898	77,826	68,177	68,888	72,576	72,654	72,048	75,595	77,826
7 Other	66,922	63,527	56,899	60,119	60,031	59,903	58,470	59,200	58,314	56,899
8 All other foreigners	42,936	41,646	43,410	41,095	40,313	41,336	40,428	43,464	41,452	43,410
9 Claims of banks' domestic customers ³	37,758	47,524	.....	49,531	.....	.....	52,154	.....	.....	.....
10 Deposits	3,692	8,289	.....	11,153	.....	.....	11,259	.....	.....	.....
11 Negotiable and readily transferable instruments ⁴	26,696	25,700	.....	22,017	.....	.....	24,286	.....	.....	.....
12 Outstanding collections and other claims	7,370	13,535	.....	16,362	.....	.....	16,609	.....	.....	.....
13 MEMO: Customer liability on acceptances	23,107	19,596	.....	16,810	.....	.....	12,828	.....	.....	.....
Dollar deposits in banks abroad, reported by nonbanking business enterprises in the United States ⁵	40,909	45,568	n.a.	46,740	48,485	49,575	46,486 ^r	44,665	46,220	n.a.

1. Data for banks' own claims are given on a monthly basis, but the data for claims of banks' own domestic customers are available on a quarterly basis only. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.
2. U.S. banks: includes amounts due from own foreign branches and foreign subsidiaries consolidated in "Consolidated Report of Condition" filed with bank regulatory agencies. Agencies, branches, and majority-owned subsidiaries of foreign banks: principally amounts due from head office or parent foreign bank, and foreign branches, agencies, or wholly owned subsidiaries of head office or

parent foreign bank.
3. Assets owned by customers of the reporting bank located in the United States that represent claims on foreigners held by reporting banks for the account of their domestic customers.
4. Principally negotiable time certificates of deposit and bankers acceptances.
5. Includes demand and time deposits and negotiable and nonnegotiable certificates of deposit denominated in U.S. dollars issued by banks abroad. For description of changes in data reported by nonbanks, see July 1979 Bulletin, p. 550.

3.20 BANKS' OWN CLAIMS ON UNAFFILIATED FOREIGNERS Reported by Banks in the United States¹
Payable in U.S. Dollars
Millions of dollars, end of period

Maturity; by borrower and area	1985	1986	1987	1988		1989	
				Dec.	Mar.	June	Sept. ^r
1 Total	227,903	232,295	235,130	233,184	231,686	231,374	236,330
<i>By borrower</i>							
2 Maturity of 1 year or less ²	160,824	160,555	163,997	172,634	168,608	167,307	169,100
3 Foreign public borrowers	26,302	24,842	25,889	26,562	24,479	23,759	24,200
4 All other foreigners ³	134,522	135,714	138,108	146,071	144,129	143,548	144,900
5 Maturity over 1 year ²	67,078	71,740	71,133	60,550	63,078	64,067	67,230
6 Foreign public borrowers	34,512	39,103	38,625	35,291	37,935	38,108	41,839
7 All other foreigners	32,567	32,637	32,507	25,259	25,142	25,959	25,391
<i>By area</i>							
8 Maturity of 1 year or less ²							
9 Europe	56,585	61,784	59,027	55,909	57,741	58,340	52,437
10 Canada	6,401	5,895	5,680	6,282	5,119	5,693	6,206
11 Latin America and Caribbean	63,328	56,271	56,535	57,991	53,268	50,605	52,010
12 Asia	27,966	29,457	35,919	46,224	45,727	45,303	51,195
13 Africa	3,753	2,882	2,833	3,337	3,610	3,601	3,516
14 All other ³	2,791	4,267	4,003	2,891	3,143	3,765	3,735
15 Maturity of over 1 year ²							
16 Europe	7,634	6,737	6,696	4,666	4,508	4,664	8,856
17 Canada	1,805	1,925	2,661	1,922	2,309	2,592	2,459
18 Latin America and Caribbean	50,674	56,719	53,817	47,547	49,790	50,107	48,627
19 Asia	4,502	4,043	3,830	3,613	3,699	3,823	4,232
20 Africa	1,538	1,539	1,747	2,301	2,292	2,408	2,472
21 All other ³	926	777	2,381	501	480	472	584

1. Reporting banks include all kinds of depository institutions besides commercial banks, as well as some brokers and dealers.

2. Remaining time to maturity.
3. Includes nonmonetary international and regional organizations.

3.21 CLAIMS ON FOREIGN COUNTRIES Held by U.S. Offices and Foreign Branches of U.S.-Chartered Banks^{1,2}

Billions of dollars, end of period

Area or country	1985	1986	1987		1988				1989		
			Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
1 Total	389.1	386.5	387.9	382.4	370.9'	351.9'	354.0'	346.3'	345.3'	339.2	344.6
2 G-10 countries and Switzerland	147.0	156.6	154.8	159.7	156.3'	150.7'	148.7'	152.7'	145.1'	144.7	145.7
3 Belgium-Luxembourg	9.4	8.4	8.1	10.0	9.1	9.2	9.5	9.0	8.6	7.8	6.9
4 France	12.3	13.6	13.6	13.7	11.8	10.9	10.3	10.5	11.2	10.8	11.1
5 Germany	10.5	11.6	10.5	12.6	11.8	10.6	9.2	10.3	10.2	10.6	10.4
6 Italy	9.7	9.0	6.8	7.5	7.4	6.3	5.6	6.8	5.2	6.1	6.8
7 Netherlands	3.8	4.6	4.8	4.1	3.3	3.2	2.9	2.7	2.8	2.8	2.4
8 Sweden	2.8	2.4	2.6	2.1	2.1	1.9	1.9	1.8	2.3	1.8	2.0
9 Switzerland	4.4	5.8	5.4	5.6	5.1	5.6	5.2	5.4	5.1	5.4	6.1
10 United Kingdom	63.3	70.9	72.0	68.8	71.7	70.4	67.6	66.2	65.3	64.2	63.3
11 Canada	6.8	5.2	4.6	5.5	4.7	5.3	4.9	5.0	4.0	5.1	5.9
12 Japan	24.1	25.1	26.4	29.8	29.2'	27.3'	31.6'	34.9'	30.4'	30.1	30.8
13 Other developed countries	30.3	26.1	26.3	26.4	26.4	24.0	23.0	21.0	21.0	21.1	20.9
14 Austria	1.6	1.7	1.8	1.9	1.6	1.6	1.6	1.5	1.4	1.7	1.5
15 Denmark	2.4	1.7	1.6	1.7	1.4	1.1	1.2	1.1	1.1	1.4	1.1
16 Finland	1.6	1.4	1.4	1.2	1.0	1.2	1.3	1.1	1.0	1.0	1.1
17 Greece	2.6	2.3	1.9	2.0	2.3	2.1	2.1	1.8	2.1	2.3	2.3
18 Norway	2.9	2.4	2.0	2.2	1.9	1.9	2.0	1.8	1.6	1.8	1.4
19 Portugal	1.3	.9	.9	.6	.5	.4	.4	.4	.4	.6	.4
20 Spain	3.8	5.8	7.4	8.0	8.9	7.2	6.3	6.2	6.6	6.2	6.9
21 Turkey	2.0	2.0	1.9	2.0	2.0	1.8	1.6	1.5	1.3	1.1	1.1
22 Other Western Europe	2.0	1.5	1.6	1.6	1.9	1.7	1.9	1.3	1.1	1.1	1.0
23 South Africa	3.2	3.0	2.9	2.9	2.8	2.8	2.7	2.4	2.2	2.1	2.1
24 Australia	5.0	3.4	2.9	2.4	2.0	2.2	1.8	1.8	2.4	1.9	2.1
25 OPEC countries³	21.5	19.4	19.2	17.4	17.6	17.0	17.9	16.6	16.2	16.0	16.2
26 Ecuador	2.1	2.2	2.1	1.9	1.9	1.8	1.8	1.7	1.6	1.5	1.5
27 Venezuela	9.0	8.7	8.3	8.1	8.1	8.0	7.9	7.9	7.9	7.5	7.3
28 Indonesia	3.0	2.5	2.0	1.9	1.8	1.8	1.8	1.7	1.7	1.9	2.0
29 Middle East countries	5.4	4.3	5.0	3.6	3.9	3.5	4.6	3.4	3.3	3.4	3.5
30 African countries	2.0	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.7	1.6	1.9
31 Non-OPEC developing countries	105.0	99.6	98.0	97.8	94.4	91.8	87.2	85.3	85.4	83.1	80.8
<i>Latin America</i>											
32 Argentina	8.9	9.5	9.4	9.5	9.6	9.5	9.3	9.0	8.4	7.9	7.6
33 Brazil	25.5	25.3	25.1	24.7	23.8	23.7	22.4	22.4	22.7	22.0	20.8
34 Chile	7.0	7.1	7.1	6.9	6.6	6.4	6.3	5.6	5.7	5.1	4.9
35 Colombia	2.6	2.1	2.0	2.0	2.0	2.2	2.1	2.1	1.9	1.7	1.6
36 Mexico	24.3	24.0	24.7	23.5	22.4	21.1	20.4	18.8	18.0	17.5	17.0
37 Peru	1.8	1.4	1.2	1.1	1.1	.9	.8	.8	.7	.6	.6
38 Other Latin America	3.5	3.1	2.8	2.8	2.8	2.6	2.5	2.6	2.7	2.6	2.9
<i>Asia</i>											
39 China											
40 Mainland .....	.5	.4	.3	.3	.4	.4	.2	.3	.5	.3	.3
41 Taiwan	4.5	4.9	6.0	8.2	6.1	4.9	3.2	3.7	4.9	5.2	5.0
42 India	1.2	1.2	1.9	1.9	2.1	2.3	2.0	2.1	2.6	2.4	2.7
43 Israel	1.6	1.5	1.3	1.0	1.0	1.0	1.0	1.2	.9	.8	.7
44 Korea (South)	9.3	6.7	5.0	5.0	5.7	5.9	6.0	6.1	6.1	6.6	6.5
45 Malaysia	2.4	2.1	1.6	1.5	1.5	1.5	1.7	1.6	1.7	1.6	1.7
46 Philippines	5.7	5.4	5.4	5.2	5.1	4.9	4.7	4.5	4.4	4.4	4.0
47 Thailand	1.4	.9	.7	.7	1.0	1.1	1.2	1.1	1.0	1.0	1.3
48 Other Asia	1.0	.7	.7	.7	.7	.8	.8	.9	.8	.8	1.0
<i>Africa</i>											
49 Egypt	1.0	.7	.6	.6	.5	.6	.5	.4	.5	.6	.5
50 Morocco .....	.9	.9	.9	.9	.9	.9	.8	.9	.9	.9	.8
51 Zaire .....	.1	.1	.1	.0	.1	.1	.0	.0	.0	.0	.0
52 Other Africa ⁴	1.9	1.6	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0
53 Eastern Europe	4.4	3.5	3.6	3.2	3.1	3.3	3.1	3.6	3.5	3.4	3.5
54 U.S.S.R. ....	.1	.1	.4	.3	.3	.4	.4	.7	.7	.6	.8
55 Yugoslavia	2.4	2.0	1.9	1.8	1.9	1.9	1.8	1.8	1.7	1.7	1.7
56 Other	1.9	1.4	1.2	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1
57 Offshore banking centers	64.0	61.5	63.7	54.5	51.5	43.0	47.3	44.2	48.5	43.1	48.7
58 Bahamas	21.5	22.4	25.7	17.3	15.9	8.9	12.9	11.0	15.8	11.0	11.2
59 Bermuda .....	.7	.6	.6	.6	.8	1.0	.9	.9	1.1	.7	1.3
60 Cayman Islands and other British West Indies	12.2	12.3	11.9	13.5	11.6	10.3	11.9	12.9	12.0	10.8	15.1
61 Netherlands Antilles	2.2	1.8	1.2	1.2	1.3	1.2	1.2	1.0	.9	.9	1.0
62 Panama ⁵	6.0	4.0	3.7	3.7	3.2	3.0	2.6	2.5	2.2	1.9	1.5
63 Lebanon .....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
64 Hong Kong	11.5	11.1	12.3	11.2	11.3	11.6	10.5	9.6	9.6	10.4	10.7
65 Singapore	9.8	9.2	8.1	7.0	7.4	6.9	7.0	6.1	6.8	7.3	7.8
66 Others ⁶ .....	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66 Miscellaneous and unallocated⁷	16.9	19.8	22.3	23.2	21.5	22.2	26.7	22.6	25.1	27.4	28.4

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 States¹

Millions of dollars, end of period

Type, and area or country	1985	1986	1987	1988			1989		
				June	Sept.	Dec.	Mar.	June	Sept.
1 Total	27,825	25,587	28,302	30,154	32,405	33,624	37,440	36,967	34,855
2 Payable in dollars	24,296	21,749	22,785	24,852	27,176	28,037	31,649	31,894	30,042
3 Payable in foreign currencies	3,529	3,838	5,517	5,302	5,229	5,586	5,790	5,073	4,813
<i>By type</i>									
4 Financial liabilities	13,600	12,133	12,424	13,934	15,079	15,118	17,532	16,920	16,028
5 Payable in dollars	11,257	9,609	8,643	10,274	11,485	11,250	13,452	13,060	12,224
6 Payable in foreign currencies	2,343	2,524	3,781	3,660	3,594	3,868	4,080	3,860	3,804
7 Commercial liabilities	14,225	13,454	15,878	16,220	17,325	18,506	19,908	20,047	18,827
8 Trade payables	6,685	6,450	7,305	6,768	6,480	6,454	7,009	6,339	6,415
9 Advance receipts and other liabilities	7,540	7,004	8,573	9,452	10,845	12,052	12,899	13,708	12,412
10 Payable in dollars	13,039	12,140	14,142	14,578	15,691	16,788	18,197	18,834	17,818
11 Payable in foreign currencies	1,186	1,314	1,737	1,642	1,635	1,718	1,711	1,213	1,009
<i>By area or country</i>									
<i>Financial liabilities</i>									
12 Europe	7,700	7,917	8,320	9,071	10,497	9,912	12,511	11,217	10,135
13 Belgium-Luxembourg	349	270	213	282	339	289	320	357	308
14 France	857	661	382	371	372	267	249	274	262
15 Germany	376	368	551	544	690	749	741	838	807
16 Netherlands	861	542	866	862	996	879	933	834	853
17 Switzerland	610	646	558	638	687	1,163	954	936	839
18 United Kingdom	4,305	5,140	5,557	6,201	7,243	6,418	9,121	7,799	6,859
19 Canada	839	399	360	412	431	650	616	544	599
20 Latin America and Caribbean	3,184	1,944	1,189	1,448	1,057	1,239	677	1,216	1,315
21 Bahamas	1,123	614	318	250	238	184	189	165	186
22 Bermuda	4	4	0	0	0	0	0	0	0
23 Brazil	29	32	25	0	0	0	0	0	0
24 British West Indies	1,843	1,146	778	1,154	812	645	471	621	698
25 Mexico	15	22	13	26	2	1	15	17	4
26 Venezuela	3	0	0	0	0	0	0	0	0
27 Asia	1,815	1,805	2,451	2,928	3,088	3,313	3,722	3,842	3,878
28 Japan	1,198	1,398	2,042	2,331	2,435	2,563	2,950	3,082	3,130
29 Middle East oil-exporting countries ²	82	8	8	11	4	3	1	12	2
30 Africa	12	1	4	2	3	1	5	3	4
31 Oil-exporting countries ³	0	1	1	1	1	0	3	2	2
32 All other ⁴	50	67	100	74	3	2	2	97	97
<i>Commercial liabilities</i>									
33 Europe	4,074	4,446	5,516	5,755	6,688	7,348	7,944	7,865	7,985
34 Belgium-Luxembourg	62	101	132	147	206	170	134	117	138
35 France	453	352	426	408	438	459	579	549	767
36 Germany	607	715	909	791	1,185	1,699	1,372	1,190	1,196
37 Netherlands	364	424	423	508	647	591	670	689	549
38 Switzerland	379	385	559	482	486	417	458	458	416
39 United Kingdom	976	1,341	1,599	1,804	2,110	2,063	2,585	2,709	2,729
40 Canada	1,449	1,405	1,301	1,167	1,109	1,218	1,163	1,132	1,191
41 Latin America and Caribbean	1,088	924	864	1,035	997	1,118	1,267	1,669	1,092
42 Bahamas	12	32	18	61	19	49	35	34	27
43 Bermuda	77	156	168	272	222	286	426	388	305
44 Brazil	58	61	46	54	58	95	103	541	113
45 British West Indies	44	49	19	28	30	34	31	42	30
46 Mexico	430	217	189	233	177	179	198	182	191
47 Venezuela	212	216	162	140	204	177	179	185	140
48 Asia	6,046	5,080	6,565	6,286	6,638	6,916	7,329	6,970	6,838
49 Japan	1,799	2,042	2,578	2,659	2,763	3,091	3,059	2,712	2,639
50 Middle East oil-exporting countries ^{2,5}	2,829	1,679	1,964	1,320	1,298	1,386	1,526	1,431	1,406
51 Africa	587	619	574	626	477	578	706	768	643
52 Oil-exporting countries ³	238	197	135	115	106	202	272	253	246
53 All other ⁴	982	980	1,057	1,351	1,415	1,328	1,499	1,643	1,078

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 States¹

Millions of dollars, end of period

Type, and area or country	1985	1986	1987	1988			1989		
				June	Sept.	Dec.	Mar.	June	Sept.
1 Total	28,876	36,265	30,964	37,924	38,465	33,574	31,667	33,833	32,110 ^f
2 Payable in dollars	26,574	33,867	28,502	35,828	35,967	31,252	29,371	31,727	29,873 ^f
3 Payable in foreign currencies	2,302	2,399	2,462	2,097	2,498	2,323	2,296	2,106	2,237 ^f
<i>By type</i>									
4 Financial claims	18,891	26,273	20,363	26,537	27,341	21,638	19,743	21,774	19,403 ^f
5 Deposits	15,526	19,916	14,903	19,750	19,383	15,906	14,838	17,043	13,007 ^f
6 Payable in dollars	14,911	19,331	13,775	18,964	18,370	14,820	13,942	16,131	12,093 ^f
7 Payable in foreign currencies	615	585	1,128	786	1,013	1,086	896	911	914
8 Other financial claims	3,364	6,357	5,460	6,787	7,958	5,732	4,905	4,731	6,396 ^f
9 Payable in dollars	2,330	5,005	4,646	5,892	7,016	5,001	4,012	4,016	5,556 ^f
10 Payable in foreign currencies	1,035	1,352	814	895	942	731	893	716	840
11 Commercial claims	9,986	9,992	10,600	11,387	11,123	11,937	11,924	12,059	12,707 ^f
12 Trade receivables	8,696	8,783	9,535	10,347	10,124	10,858	10,660	10,857	11,343 ^f
13 Advance payments and other claims	1,290	1,209	1,065	1,040	1,000	1,079	1,265	1,202	1,364 ^f
14 Payable in dollars	9,333	9,530	10,081	10,971	10,581	11,432	11,417	11,581	12,225 ^f
15 Payable in foreign currencies	652	462	519	415	543	505	507	479	483 ^f
<i>By area or country</i>									
Financial claims									
16 Europe	6,929	10,744	9,531	11,580	10,719	10,051	9,208	8,629	7,764 ^f
17 Belgium-Luxembourg	10	41	7	16	49	10	11	155	166
18 France	184	138	332	181	278	224	230	191	209
19 Germany	223	116	102	168	123	138	180	218	147
20 Netherlands	161	151	350	335	356	344	383	290	292
21 Switzerland	74	185	65	105	84	215	203	70	123
22 United Kingdom	6,007	9,855	8,467	10,498	9,503	8,768	7,890	7,390	6,567 ^f
23 Canada	3,260	4,808	2,844	2,917	3,612	2,339	2,210	2,606	2,428 ^f
24 Latin America and Caribbean	7,846	9,291	7,012	10,952	11,862	8,142	7,233	9,340	8,309
25 Bahamas	2,698	2,628	1,994	4,176	4,069	1,857	2,172	1,880	1,707 ^f
26 Bermuda	6	6	7	87	188	19	25	125	33 ^f
27 Brazil	78	86	63	46	44	47	49	78	70
28 British West Indies	4,571	6,078	4,433	6,142	7,098	5,733	4,566	6,848	6,111 ^f
29 Mexico	180	174	172	146	133	151	117	114	105
30 Venezuela	48	21	19	27	27	21	25	31	36
31 Asia	731	1,317	879	971	1,027	830	951	1,082	801 ^f
32 Japan	475	999	605	647	737	561	627	630	440
33 Middle East oil-exporting countries ²	4	7	8	5	5	5	8	8	7
34 Africa	103	85	65	60	95	106	89	80	75
35 Oil-exporting countries ³	29	28	7	9	9	10	8	8	8
36 All other ⁴	21	28	33	58	26	170	52	37	27
Commercial claims									
37 Europe	3,533	3,725	4,180	4,713	4,313	5,016	4,930	4,934	5,168 ^f
38 Belgium-Luxembourg	175	133	178	158	172	177	201	201	208
39 France	426	431	650	687	544	673	760	775	817 ^f
40 Germany	346	444	562	774	615	612	646	642	668 ^f
41 Netherlands	284	164	133	172	146	208	158	194	175 ^f
42 Switzerland	284	217	185	262	183	322	249	220	217
43 United Kingdom	898	999	1,073	1,107	1,191	1,306	1,283	1,355	1,466 ^f
44 Canada	1,023	934	936	939	979	975	1,114	1,181	1,221 ^f
45 Latin America and Caribbean	1,753	1,857	1,930	2,067	2,104	2,229	2,103	2,083	2,112 ^f
46 Bahamas	13	28	19	13	12	36	34	14	10
47 Bermuda	93	193	170	174	161	229	234	236	270
48 Brazil	206	234	226	232	234	298	277	313	231 ^f
49 British West Indies	6	39	26	25	22	21	23	29	32
50 Mexico	510	412	368	411	463	457	477	428	499 ^f
51 Venezuela	157	237	283	304	266	226	211	228	187
52 Asia	2,982	2,755	2,915	2,992	3,028	2,954	3,097	3,115	3,443 ^f
53 Japan	1,016	881	1,158	1,169	967	934	1,038	990	1,176 ^f
54 Middle East oil-exporting countries ²	638	563	450	446	437	441	421	423	398 ^f
55 Africa	437	500	401	425	425	435	386	401	387 ^f
56 Oil-exporting countries ³	130	139	144	136	137	122	95	111	79
57 All other ⁴	257	222	238	251	274	328	294	345	377

1. For a description of the changes in the International Statistics tables, see July 1979 *Bulletin*, p. 550.

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

3. Comprises Algeria, Gabon, Libya, and Nigeria.

4. Includes nonmonetary international and regional organizations.

3.24 FOREIGN TRANSACTIONS IN SECURITIES

Millions of dollars

Transactions, and area or country	1988	1989	1989							
			Jan. - Dec.	June	July	Aug.	Sept.	Oct.	Nov. ^f	Dec. ^g
U.S. corporate securities										
STOCKS										
1 Foreign purchases	181,185	213,778	213,778	24,316	17,122	22,112	19,595	22,350	13,829	16,211
2 Foreign sales	183,185	203,386	203,386	20,646	15,087	20,942	17,047	20,988	14,947	16,868
3 Net purchases, or sales (-)	-2,000	10,392	10,392	3,670	2,035	1,171	2,548	1,363	-1,118	-657
4 Foreign countries	-1,825	10,636	10,636	3,688	2,052	1,154	2,599	1,340	-1,116	-609
5 Europe	-3,350	1,049	1,049	418	779	-98	1,461	-107	-1,655	520
6 France	-281	-700	-700	-15	75	-251	-5	-265	-296	-255
7 Germany	218	-865	-865	-155	-79	-238	-65	-117	-119	-41
8 Netherlands	-535	168	168	131	12	-63	37	226	-34	-9
9 Switzerland	-2,243	-3,470	-3,470	-114	-23	-333	64	-244	-509	-442
10 United Kingdom	-954	4,528	4,528	329	546	773	894	-34	-718	1,193
11 Canada	1,087	-864	-864	168	8	14	-265	-140	-137	-459
12 Latin America and Caribbean	1,238	3,101	3,101	166	109	250	602	149	-24	-478
13 Middle East ¹	-2,474	3,530	3,530	1,679	456	554	110	112	303	69
14 Other Asia	1,365	3,414	3,414	1,201	729	423	631	1,138	342	-124
15 Japan	1,922	3,348	3,348	1,215	626	424	611	975	310	-53
16 Africa	188	131	131	16	2	22	24	-6	19	9
17 Other countries	121	274	274	40	-30	-11	38	193	37	-147
18 Nonmonetary international and regional organizations	-176	-245	-245	-18	-17	17	-52	23	-1	-48
BONDS²										
19 Foreign purchases	86,381	120,346	120,346	10,855	10,045	10,944	8,603	10,930	11,133	13,587
20 Foreign sales	58,417	86,254	86,254	9,185	7,552	9,361	6,857	6,772	6,656	9,300
21 Net purchases, or sales (-)	27,964	34,093	34,093	1,670	2,494	1,583	1,746	4,158	4,476	4,287
22 Foreign countries	28,506	33,748	33,748	1,542	2,516	1,607	1,740	4,106	4,464	4,235
23 Europe	17,239	19,791	19,791	2,132	1,976	-138	1,400	1,986	2,712	1,328
24 France	143	372	372	6	121	-35	78	-41	-14	6
25 Germany	1,344	-239	-239	-162	-53	-121	-33	113	-117	-33
26 Netherlands	1,514	850	850	395	-22	96	28	30	143	41
27 Switzerland	505	-165	-165	-110	81	-201	-27	74	54	-277
28 United Kingdom	13,084	18,405	18,405	1,881	1,937	-9	1,311	1,711	2,328	1,852
29 Canada	711	1,112	1,112	-188	79	76	155	175	-86	204
30 Latin America and Caribbean	1,931	3,682	3,682	271	300	63	233	247	539	492
31 Middle East ¹	-178	-171	-171	-619	19	44	20	140	-57	242
32 Other Asia	8,900	9,060	9,060	-59	35	1,574	-108	1,553	1,343	1,954
33 Japan	7,686	6,331	6,331	-209	-44	1,167	-179	1,263	1,045	1,728
34 Africa	-8	56	56	1	3	5	-3	0	8	27
35 Other countries	-89	218	218	4	103	-17	42	4	4	-11
36 Nonmonetary international and regional organizations	-542	345	345	128	-22	-24	6	53	12	52
Foreign securities										
37 Stocks, net purchases, or sales (-) ³	-1,959	-13,683	-13,683	-2,100	-808	-1,706	-648	-1,341 ^f	-921	-2,008
38 Foreign purchases	75,356	103,054	103,054	9,124	7,640	9,489	8,473	10,309	9,417	9,637
39 Foreign sales ³	77,315	116,737	116,737	11,225	8,448	11,195	9,121	11,650 ^f	10,338	11,645
40 Bonds, net purchases, or sales (-)	-7,434	-5,462	-5,462	-1,506	-1,406	1,005	-1,845	-615	514	-18
41 Foreign purchases	218,521	234,183	234,183	21,061	20,222	24,106	18,325	21,266	20,492	18,668
42 Foreign sales	225,955	239,645	239,645	22,567	21,628	23,101	20,170	21,881	19,977	18,686
43 Net purchases, or sales (-), of stocks and bonds	-9,393	-19,145	-19,145	-3,607	-2,214	-701	-2,493	-1,956 ^f	-407	-2,026
44 Foreign countries	-9,873	-19,120	-19,120	-3,407	-2,366	-887	-1,926	-1,618 ^f	-484	-2,034
45 Europe	-7,864	-18,409	-18,409	-3,945	-2,534	-860	-2,099	-2,487	-181	-563
46 Canada	-3,747	-4,066	-4,066	-705	-697	-250	-201	924	-325	-967
47 Latin America and Caribbean	1,384	435	435	27	-75	314	-61	187 ^f	-102	-269
48 Asia	979	3,014	3,014	1,262	921	327	412	-232	3	-458
49 Africa	-54	93	93	3	12	-4	-3	12	13	56
50 Other countries	-571	-187	-187	-49	8	-414	26	-21	108	168
51 Nonmonetary international and regional organizations	480	-25	-25	-200	152	186	-568	-338	77	8

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

ties sold abroad by U.S. corporations organized to finance direct investments abroad.
 3. As a result of the merger of a U.S. and U.K. company in July 1989, the former stockholders of the U.S. company received \$5,453 million in shares of the new combined U.K. company. This transaction is not reflected in the data above.

3.25 MARKETABLE U.S. TREASURY BONDS AND NOTES Foreign Transactions

Millions of dollars

Country or area	1988	1989	1989							
			Jan. - Dec.	June	July	Aug.	Sept.	Oct.	Nov.	Dec. ^P
Transactions, net purchases or sales (-) during period ¹										
1 Estimated total ²	48,832	54,691	54,691	-5,202	-1,317	21,979	4,616	-2,050 ⁴	8,196	1,149
2 Foreign countries ²	48,170	52,714	52,714	-5,322	-761	22,409	5,698	-3,304 ⁴	8,312	-362
3 Europe ²	14,319	36,035	36,035	-1,305	4,357	15,191	2,494	-2,137 ⁴	4,260	2,434
4 Belgium-Luxembourg.....	923	1,053	1,053	13	82	413	216	90	210	-85
5 Germany ²	-5,268	7,922	7,922	-1,106	2,622	2,503	510	137	1,666	1,735
6 Netherlands.....	-356	-1,137	-1,137	-674	100	1,304	302	-1,200	54	-386
7 Sweden.....	-323	889	889	647	110	241	-50	140	-232	29
8 Switzerland ²	-1,074	1,097	1,097	378	-361	-748	374	-187	-780	-355
9 United Kingdom.....	9,640	20,217	20,217	-133	1,024	9,863	339	-919 ⁴	3,799	1,277
10 Other Western Europe.....	10,786	5,982	5,982	-423	786	1,614	802	-199	-481	209
11 Eastern Europe.....	-10	14	14	-6	-5	0	0	0	26	10
12 Canada.....	3,761	621	621	-478	-533	1,028	-373	150	375	164
13 Latin America and Caribbean.....	713	494	494	643	839	-280	23	-1,439	1,372	-886
14 Venezuela.....	-109	311	311	1	71	120	29	72	163	-36
15 Other Latin America and Caribbean.....	1,130	-292	-292	-14	104	217	-506	34	576	-610
16 Netherlands Antilles.....	-308	475	475	656	665	-617	500	-1,545	634	-240
17 Asia.....	27,603	14,008	14,008	-5,581	-4,941	7,121	2,857	-131 ⁴	1,646	-2,669
18 Japan.....	21,750	2,393	2,393	-7,780	-5,360	3,009	2,402	1,330	1,085	-1,036
19 Africa.....	-13	116	116	66	-5	-48	0	13	9	39
20 All other.....	1,786	1,439	1,439	1,332	-478	-602	697	240	650	555
21 Nonmonetary international and regional organizations.....	661	1,978	1,978	120	-557	-431	-1,082	1,254	-116	1,511
22 International.....	1,106	1,473	1,473	-253	-546	-576	-719	1,158	-143	1,335
23 Latin America regional.....	-31	231	231	191	3	75	-228	160	0	0
Memo										
24 Foreign countries ²	48,170	52,714	52,714	-5,322	-761	22,409	5,698	-3,304 ⁴	8,312	-362
25 Official institutions.....	26,624	26,949	26,949	449	2,819	9,957	799	-1,020 ⁴	1,686	1,303
26 Other foreign ²	21,546	25,764	25,764	-5,772	-3,580	12,452	4,900	-2,284 ⁴	6,627	-1,665
Oil-exporting countries										
27 Middle East ³	1,963	8,146	8,146	667	435	3,681	695	-2,183	-26	-640
28 Africa ⁴	1	-1	-1	0	0	0	0	0	-1	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 Feb. 28, 1990		Country	Rate on Feb. 28, 1990		Country	Rate on Feb. 28, 1990	
	Percent	Month effective		Percent	Month effective		Percent	Month effective
Austria	6.0	June 1989	France ¹	10.0	Dec. 1989	Norway	8.0	June 1983
Belgium	10.25	Oct. 1989	Germany, Fed. Rep. of ...	6.0	Oct. 1989	Switzerland	6.0	Oct. 1989
Brazil	49.0	Mar. 1981	Italy	13.5	Mar. 1989	United Kingdom ²	8.0	.....
Canada	13.25	Feb. 1990	Japan	4.25	Dec. 1989	Venezuela	8.0	Oct. 1985
Denmark	10.5	Oct. 1989	Netherlands	7.0	Oct. 1989			

1. As of the end of February 1981, the rate is that at which the Bank of France discounts Treasury bills for 7 to 10 days.

2. Minimum lending rate suspended as of Aug. 20, 1981.

NOTE. Rates shown are mainly those at which the central bank either discounts

or makes advances against eligible commercial paper and/or government commercial banks or brokers. For countries with more than one rate applicable to such discounts or advances, the rate shown is the one at which it is understood the central bank transacts the largest proportion of its credit operations.

3.27 FOREIGN SHORT-TERM INTEREST RATES

Percent per year, averages of daily figures

Country, or type	1987	1988	1989	1989					1990	
				Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1 Eurodollars	7.07	7.85	9.16	8.71	8.85	8.67	8.42	8.39	8.22	8.24
2 United Kingdom	9.65	10.28	13.87	13.86	13.99	15.03	15.07	15.07	15.13	15.07
3 Canada	8.38	9.63	12.20	12.30	12.32	12.29	12.35	12.34	12.24	12.96
4 Germany	3.97	4.28	7.04	6.99	7.37	8.08	8.22	8.06	8.22	8.27
5 Switzerland	3.67	2.94	6.83	7.01	7.42	7.63	7.68	8.14	9.35	9.31
6 Netherlands	5.24	4.72	7.28	7.15	7.53	8.08	8.40	8.47	8.82	8.93
7 France	8.14	7.80	9.27	8.95	9.20	9.89	10.41	10.71	11.19	10.93
8 Italy	11.15	11.04	12.44	12.52	12.40	12.63	12.67	12.83	12.88	13.22
9 Belgium	7.01	6.69	8.65	8.44	8.66	9.51	9.81	10.03	10.48	10.54
10 Japan	3.87	3.96	4.73	4.80	4.88	5.25	5.71	5.80	6.02	6.22

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 RATES¹

Currency units per dollar

Country/currency	1987	1988	1989	1989				1990	
				Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1 Australia/dollar ²	70.137	78.409	79.186	77.271	77.421	78.295	78.586	78.111	75.932
2 Austria/schilling	12.649	12.357	12.236	13.733	13.140	12.860	12.241	11.904	11.803
3 Belgium/franc	37.358	36.785	39.409	40.841	39.197	38.403	36.544	35.451	34.998
4 Canada/dollar	1.3259	1.2306	1.1842	1.1828	1.1749	1.1697	1.1613	1.1720	1.1965
5 China, P.R./yuan	3.7314	3.7314	3.7673	3.7314	3.7314	3.7314	4.1825	4.7339	4.7339
6 Denmark/krone	6.8478	6.7412	7.3210	7.5872	7.2781	7.1138	6.7610	6.5620	6.4729
7 Finland/markka	4.4037	4.1933	4.2963	4.4219	4.2817	4.2619	4.1231	4.0080	3.9642
8 France/franc	6.0122	5.9595	6.3802	6.5855	6.3339	6.2225	5.9391	5.7568	5.6897
9 Germany/deutsche mark	1.7981	1.7570	1.8808	1.9502	1.8662	1.8300	1.7378	1.6914	1.6758
10 Greece/drachma	135.47	142.00	162.60	169.03	165.88	164.97	160.32	157.68	158.04
11 Hong Kong/dollar	7.7986	7.8072	7.8008	7.8078	7.8081	7.8140	7.8102	7.8116	7.8103
12 India/rupee	12.943	13.900	16.213	16.745	16.819	16.925	16.932	16.963	16.990
13 Ireland/punt ²	148.79	152.49	141.80	136.71	142.50	144.73	151.65	156.31	158.28
14 Italy/lira	1,297.03	1,302.39	1,372.28	1,404.18	1,369.24	1,343.83	1,291.93	1,261.87	1,243.68
15 Japan/yen	144.60	128.17	138.07	145.07	142.21	143.53	143.69	144.98	145.69
16 Malaysia/ringgit	2.5186	2.6190	2.7079	2.6980	2.6945	2.7028	2.7032	2.7041	2.7137
17 Netherlands/guilder	2.0264	1.9778	2.1219	2.1992	2.1072	2.0652	1.9619	1.9073	1.8892
18 New Zealand/dollar ²	59.328	65.560	59.354	59.144	55.937	56.301	59.458	60.220	59.156
19 Norway/krone	6.7409	6.5243	6.9131	7.1264	6.9502	6.9010	6.7021	6.5462	6.4760
20 Portugal/escudo	141.20	144.27	157.53	163.36	159.08	157.65	152.34	149.17	147.71
21 Singapore/dollar	2.1059	2.0133	1.9511	1.9769	1.9622	1.9588	1.9183	1.8873	1.8641
22 South Africa/rand	2.0385	2.2773	2.6215	2.7882	2.6403	2.6295	2.5679	2.5532	2.5449
23 South Korea/won	825.94	734.52	674.29	672.73	673.86	674.94	677.66	686.18	692.47
24 Spain/peseta	123.54	116.53	118.44	122.14	118.77	116.58	112.24	109.71	108.27
25 Sri Lanka/rupee	29.472	31.820	35.947	39.572	40.018	40.017	40.018	40.018	40.018
26 Sweden/krona	6.3469	6.1370	6.4559	6.6103	6.4580	6.4306	6.2920	6.1776	6.1250
27 Switzerland/franc	1.4918	1.4643	1.6369	1.6865	1.6302	1.6189	1.5686	1.5175	1.4879
28 Taiwan/dollar	31.753	28.636	26.407	25.737	25.739	26.029	26.139	26.081	26.118
29 Thailand/baht	25.775	25.312	25.725	26.012	25.868	25.877	25.778	25.745	25.733
30 United Kingdom/pound ²	163.98	178.13	163.82	157.15	158.74	157.26	159.65	165.12	169.61
MEMO									
31 United States/dollar ³	96.94	92.72	98.60	101.87	98.92	97.99	94.88	93.00	92.25

1. Averages of certified noon buying rates in New York for cable transfers. Data in this table also appear in the Board's G.5 (405) release. For address, see inside front cover.

2. Value in U.S. cents.

3. Index of weighted-average exchange value of U.S. dollar against the

currencies of 10 industrial countries. The weight for each of the 10 countries is the 1972-76 average world trade of that country divided by the average world trade of all 10 countries combined. Series revised as of August 1978 (see *Federal Reserve Bulletin*, vol. 64, August 1978, p. 700).

Guide to Tabular Presentation, Statistical Releases, and Special Tables

GUIDE TO TABULAR PRESENTATION

Symbols and Abbreviations

c	Corrected	0	Calculated to be zero
e	Estimated	n.a.	Not available
p	Preliminary	n.e.c.	Not elsewhere classified
r	Revised (Notation appears on column heading when about half of the figures in that column are changed.)	IPCs	Individuals, partnerships, and corporations
*	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)	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.

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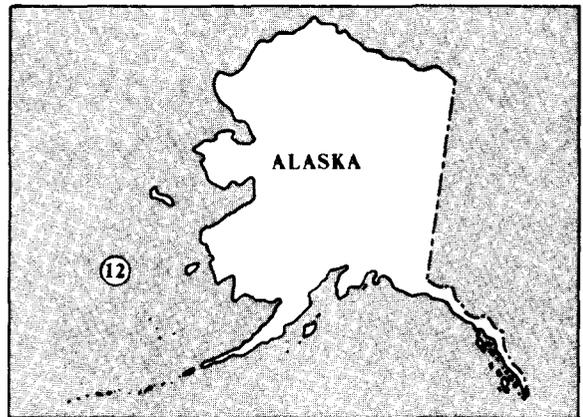
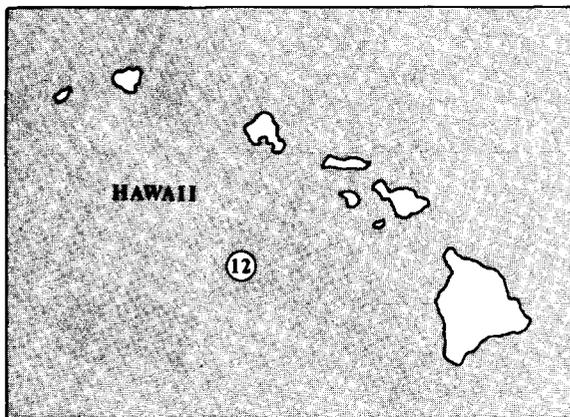
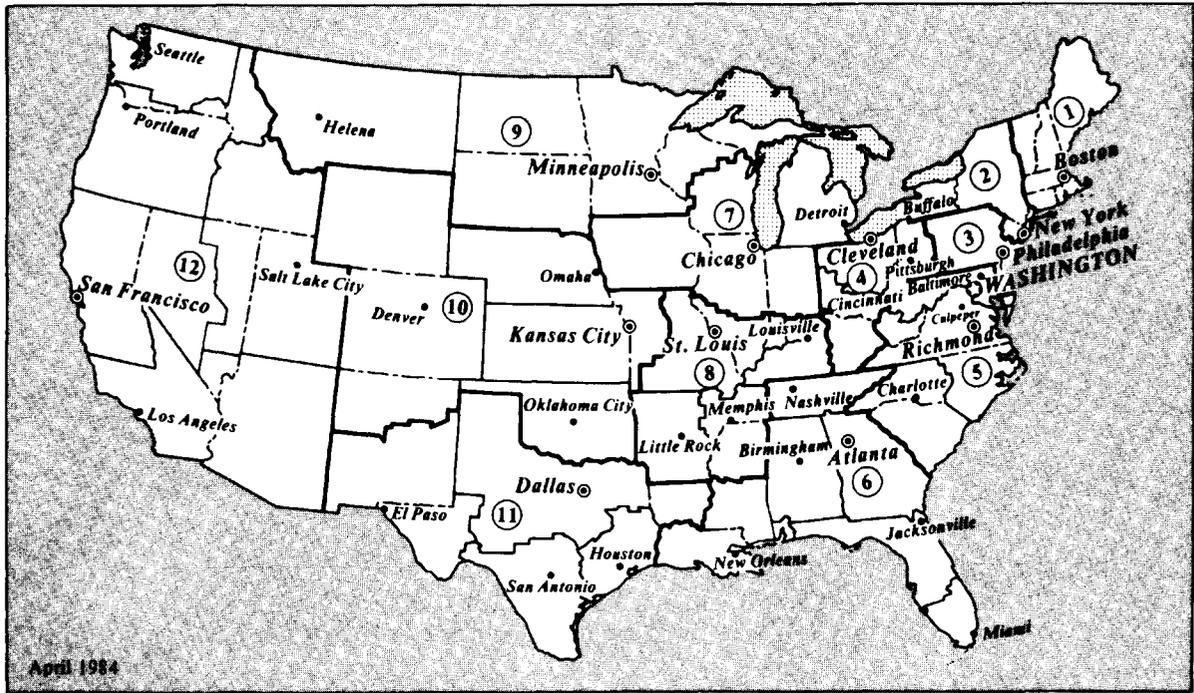
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PHILADELPHIA..... 19105	Peter A. Benoliel Gunnar E. Sarsten	Edward G. Boehne William H. Stone, Jr.	
CLEVELAND*..... 44101	Charles W. Parry John R. Miller	W. Lee Hoskins William H. Hendricks	Charles A. Cerino ¹ Harold J. Swart ¹
Cincinnati..... 45201	To be announced		
Pittsburgh..... 15230	Robert P. Bozzone		
RICHMOND*..... 23219	Hanne M. Merriman Anne Marie Whittemore	Robert P. Black Jimmie R. Monhollon	Robert D. McTeer, Jr. ¹ Albert D. Tinkelenberg ¹ John G. Stoides ¹
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Charlotte..... 28230	William E. Masters		
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Birmingham..... 35283	A. G. Trammell		
Jacksonville..... 32231	Lana Jane Lewis-Brent		
Miami..... 33152	Robert D. Apelgren		
Nashville..... 37203	Victoria B. Jackson		
New Orleans..... 70161	To be announced		
CHICAGO*..... 60690	Marcus Alexis Charles S. McNeer	Silas Keehn Daniel M. Doyle	Roby L. Sloan ¹
Detroit..... 48231	Phyllis E. Peters		
ST. LOUIS..... 63166	H. Edwin Trusheim Robert H. Quenon	Thomas C. Melzer James R. Bowen	John F. Breen ¹ Howard Wells Ray Laurence
Little Rock..... 72203	L. Dickson Flake		
Louisville..... 40232	Raymond M. Burse		
Memphis..... 38101	Katherine H. Smythe		
MINNEAPOLIS..... 55480	Michael W. Wright Delbert W. Johnson	Gary H. Stern Thomas E. Gainor	John D. Johnson
Helena..... 59601	J. Frank Gardner		
KANSAS CITY..... 64198	Fred W. Lyons, Jr. Burton A. Dole, Jr.	Roger Guffey Henry R. Czerwinski	Kent M. Scott David J. France Harold L. Shewmaker
Denver..... 80217	Barbara B. Grogan		
Oklahoma City..... 73125	John F. Snodgrass		
Omaha..... 68102	Herman Cain		
DALLAS..... 75222	Bobby R. Inman Hugh G. Robinson	Robert H. Boykin William H. Wallace	Tony J. Salvaggio ¹ Sammie C. Clay Robert Smith, III ¹ Thomas H. Robertson
El Paso..... 79999	Donald G. Stevens		
Houston..... 77252	Andrew L. Jefferson, Jr.		
San Antonio..... 78295	Roger R. Hemminghaus		
SAN FRANCISCO..... 94120	Robert F. Erburu Carolyn S. Chambers	Robert T. Parry Carl E. Powell	Thomas C. Warren ² Angelo S. Carella ¹ E. Ronald Liggett ¹ Gerald R. Kelly ¹
Los Angeles..... 90051	Yvonne B. Burke		
Portland..... 97208	William A. Hilliard		
Salt Lake City..... 84125	Don M. Wheeler		
Seattle..... 98124	Bruce R. Kennedy		

*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

Publications of Interest

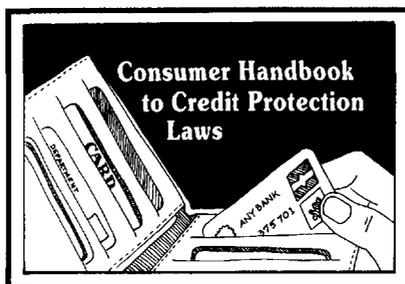
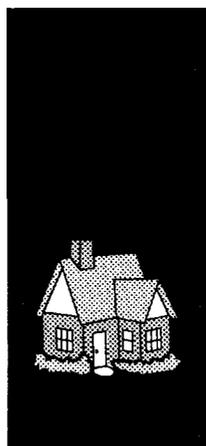
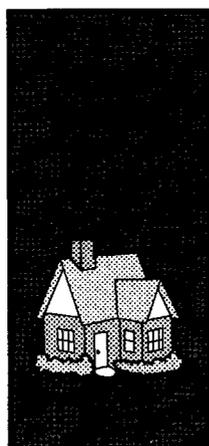
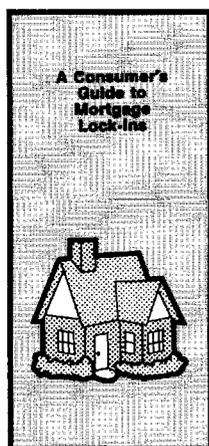
FEDERAL RESERVE CONSUMER CREDIT PUBLICATIONS

The Federal Reserve Board publishes a series of pamphlets covering individual credit laws and topics, as pictured below. The series includes such subjects as how the Equal Credit Opportunity Act protects women against discrimination in their credit dealings, how to use a credit card, and how to resolve a billing error.

The Board also publishes the *Consumer Handbook to Credit Protection Laws*, a complete guide to consumer credit protections. This 44-page booklet explains how to use the credit laws to shop for credit, apply for it, keep up credit ratings, and complain about an unfair credit.

Three booklets on the mortgage process are also available: *A Consumer's Guide to Mortgage Refinancings*, *A Consumer's Guide to Mortgage Lock-Ins*, and *A Consumer's Guide to Mortgage Settlement Costs*. These booklets were prepared in conjunction with the Federal Home Loan Bank Board and in consultation with other federal agencies and trade and consumer groups.

Copies of consumer publications are available free of charge from Publications Services, Mail Stop 138, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. Multiple copies for classroom use are also available free of charge.



Publications of Interest

NEW HANDBOOK AVAILABLE FROM THE REGULATORY SERVICE

The Federal Reserve Board has announced publication of *The Payment System Handbook*. The new handbook, which is part of the *Federal Reserve Regulatory Service*, deals with expedited funds availability, check collection, wire transfers, and risk-reduction policy. It includes Regulation CC (Availability of Funds and Collection of Checks), Regulation J (Collection of Checks and Other Items and Wire Transfers of Funds by Federal Reserve Banks), the Expedited Funds Availability Act and related statutes, official Board commentary on Regulation CC, and policy statements on risk reduction in the payment system. In addition, it contains detailed subject and citation indexes. It is published in loose-leaf binder form and is updated monthly.

To promote public understanding of its regulatory functions, the Board publishes the *Federal Reserve Regulatory Service*, a three-volume loose-leaf service

containing all Board regulations and related statutes, interpretations, policy statements, rulings, and staff opinions. For those with a more specialized interest in the Board's regulations, parts of this service are published separately as handbooks pertaining to monetary policy, securities credit, consumer affairs, and, available for the first time in September 1988, *The Payment System Handbook*.

For domestic subscribers, the annual rate for *The Payment System Handbook* is \$75. For subscribers outside the United States, the price, including additional air mail costs, is \$90. For the *Federal Reserve Regulatory Service*, not including handbooks, the annual rate is \$200 for domestic subscribers and \$250 for subscribers outside the United States. All subscription requests must be accompanied by a check payable to "Board of Governors of the Federal Reserve System." Orders should be addressed to Publications Services, Mail Stop 138, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

