Annual Report: Budget Review

Board of Governors of the Federal Reserve System

1988–89

Contents

Appendixes

Introduction

This report describes the budgeted expenses of the Federal Reserve System for 1989 and compares them with expenses for 1987 and 1988. In addition, to provide some insight into the technology of a major function of the System and the budgetary implications of keeping that technology current, this report examines the development of the automated currency processing equipment used at the Reserve Banks.

The Federal Reserve System was created by the Federal Reserve Act, passed by the Congress in 1913 to establish a safer and more flexible monetary and banking system. With time, it became clear that these original purposes were part of broader national economic and financial objectives. Growth of the economy, stable prices, and reasonable balance in transactions with foreign countries have come to be recognized as primary objectives of governmental economic policy. Over the years, such objectives have been articulated by the Congress in legislation giving the Federal Reserve more authority and responsibility.

The Board of Governors, together with the 12 Federal Reserve Banks and their 25 Branches, serves as the nation's central bank and lender of last resort. In addition, the Board has broad supervisory and regulatory responsibilities covering banks that are members of the Federal Reserve System, bank holding companies, international banking facilities in the United States, Edge act and agreement corporations, foreign activities of member banks, and activities of U.S. branches and agencies of foreign banks. In addition, the System is responsible for implementing major federal laws governing consumer credit.

The Federal Reserve System also plays a major role in the nation's payments mechanism. The Federal Reserve Banks distribute currency and coin, provide both wire and automated clearinghouse transfers of funds and securities, and process 35 percent of all domestic checks. The Federal Reserve serves as the fiscal agent for the U.S. Treasury and provides a variety of other financial services for the Treasury and other government agencies.

To carry out these responsibilities, the Federal Reserve System spent an estimated $1,352 million in 1988 and has budgeted expenses for 1989 of $1,427 million. These are the gross operating expenses for the Board of Governors and the Federal Reserve Banks and their Branches. Offsetting them in 1988 was an estimated $783 million in revenue from priced services, reimbursements, and other income, which brought 1988 net operating expenses to $568 million. Net spending for 1989 is expected to total $597 million.

The major source of Federal Reserve income, estimated at $18.2 billion in 1988, is earnings on the portfolio of U.S. government securities in the System Open Market Account. The System uses purchases and sales from this portfolio to implement monetary policy. Losses on foreign exchange transactions approached $500 million.

Each year the Federal Reserve returns to the U.S. Treasury its earnings in excess of expenses, dividends, and surplus—in 1988, an estimated $17.4 billion. These earnings are treated as receipts in the

U.S. budget accounting system; projections of these earnings by the Office of Management and Budget appear in the U.S. budget.

Part I of this report discusses Federal Reserve budgeted expenses for 1989 for the System as a whole and for the Board of Governors and the Reserve Banks taken separately. Part II is a discussion of the currency operations of the Reserve Banks and of the new generation of currency processing equipment to begin arriving at the Banks in 1990. Appendixes provide additional information on System operations, budget processes, special categories of System expense, sources and uses of funds, Federal Reserve System audits, and trends in Bank expenses and employment.

This report, which discusses the System's budget in detail, is a companion to the Board's *75th Annual Report, 1988*. That document covers all activities and initiatives of the Federal Reserve System during the year. ■

Part I

The 1989 Budgets

Chapter 1
Federal Reserve System

The Federal Reserve System has budgeted operating expenses of $1,426.5 million for 1989, an increase of 5.5 percent over 1988 estimated expenses. The budgeted operating expenses of the System comprise those of the Reserve Banks, $1,330.5 million, and the Board of Governors, $96.0 million (table 1.1).

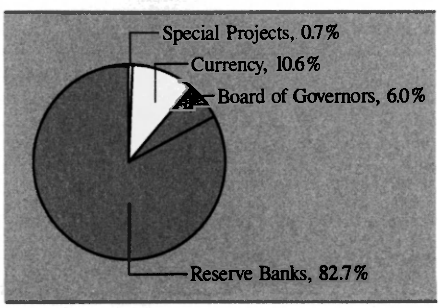
Not included in these costs are special projects, budgeted at $11.1 million for 1989, up from $4.9 million estimated for 1988.[1] Also excluded is the budget for the cost of currency, $171.0 million, an increase of 3.9 percent from the estimated 1988 cost.[2] With special projects and the cost of currency added to operating expenses, the Reserve Banks account for 82.7 percent of the total; the Board, 6.0 percent; special projects, 0.7 percent; and currency, 10.6 percent (chart 1.1). This distribution of expenses is essentially the same as in 1988.

Chapter 2 discusses the budget for the Board of Governors; chapter 3 details the budgets of the Reserve Banks. The budget by operational area is provided later in this chapter. The operational areas are described in more detail in appendix A; appendix B describes the budget processes of the Board and of the Reserve Banks.

Net Expenses

The System expects to recover 58 percent of the expense it incurs during 1989. The following items are deducted from System operating expenses to derive the net cost: (1) receipts for payments mechanism services provided to depository institutions, (2) other income for services on behalf of the U.S. Treasury that are charged to depository institutions using the services, and (3) expenses that are reimbursable by the U.S. Treasury and other government agencies for fiscal agency services. After deducting these items, net expenses of the System are expected to equal $597 million, or 42 percent of total budgeted operating expenses, the same percentage as in 1988 (table 1.2).

Chart 1.1
Distribution of Expenses of the
Federal Reserve System, 1989[1]



1. See text notes 1 and 2.

1. As research and development efforts, special projects are separate from the continuing operations of the System and hence are not included in System operating expenses. These relatively costly, short-term projects are expected to benefit both the System and the banking industry as a whole. A description of the special projects for 1989 appears in appendix C.

2. The cost of currency to the Federal Reserve is determined largely by public demand for new currency and by the cost of printing at the Bureau of Engraving and Printing; therefore the cost of currency is not included in Federal Reserve operating expenses. See appendix C.

As required by the Monetary Control Act, receipts for priced services represent fees that are set to recover the full cost of providing these services to depository institutions, including the imputed costs of float and the return on capital that would have been provided and the taxes that would have been paid had the services been furnished by a business firm in the private sector. The revenue from priced services is detailed in table 1.3; the constraint imposed on Federal Reserve budgets by the need to keep such services competitive and the calculation of fees are discussed in appendix C. All sources and uses of funds are presented in appendix D; the audits of the System are listed in appendix E.

The "other income" category in table 1.2 includes fees from services such as the transfer of book-entry U.S. Treasury securities in the secondary market, the settlement of such transfers among depository institutions, and the wire transfer of

Table 1.1

Operating Expenses, Special Projects, and Cost of Currency of the Federal Reserve System, 1987-89[1]

Millions of dollars, except as noted

Entity and type of expense	1987 actual	1988 estimate	1989 budget	Percent change	
				1987-88	1988-89
Reserve Banks[2]	1,191.8	1,261.3	1,330.5	5.8	5.5
Personnel	743.2	788.8	834.6	6.1	5.8
Nonpersonnel	448.7	472.5	495.9	5.3	4.9
Board of Governors[3]	86.3	90.6	96.0	5.0	5.9
Personnel	60.4	63.6	69.1	5.3	8.6
Nonpersonnel	25.9	27.0	26.9	4.3	−.4
System operating expenses	**1,278.1**	**1,351.9**	**1,426.5**	**5.8**	**5.5**
Personnel	**803.6**	**852.4**	**903.7**	**6.1**	**6.0**
Nonpersonnel	**474.6**	**499.5**	**522.8**	**5.3**	**4.7**
Special projects[4]	...	4.9	11.1	...	...
Currency[5]	170.7	164.5	171.0	−3.6	3.9

1. In this and subsequent tables in this volume, details may not add to totals and may not yield percentage changes shown because of rounding.
2. For detailed information see chap. 3.
3. For detailed information see chap. 2.
4. See text note 1 and appendix C.
5. See text note 2 and appendix C.

Table 1.2

Operating Expenses of the Federal Reserve System, Net of Receipts and Claims for Reimbursement, 1987–89

Millions of dollars, except as noted

Item	1987 actual	1988 estimate	1989 budget	Percent change	
				1987-88	1988-89
Total System operating expenses	1,278	1,352	1,427	5.8	5.5
LESS					
Revenue from priced services	650	664	704	2.2	6.0
Other income	15	16	17	9.3	3.7
Claims for reimbursement[1]	109	103	109	−5.4	5.1
EQUALS					
Net System operating expenses	**504**	**568**	**597**	**12.7**	**5.1**

1. The costs of fiscal agency services to the U.S. Treasury and other government agencies for which the agencies have agreed to reimburse the Federal Reserve. In practice, not all these claims are paid.

Table 1.3
Revenue from Priced Services, 1987-89
Millions of dollars

Service	1987 actual	1988 estimate	1989 budget
Funds transfer and net settlement	70	68	71
Automated clearinghouse	37	42	48
Commercial check	501	512	543
Book-entry securities	8	9	10
Definitive securities	7	7	6
Noncash collection	12	12	12
Cash services	15	14	15
Total	**650**	**664**	**704**

funds between a depository institution and the Treasury.

Claims for reimbursement represent the expenses incurred by Reserve Banks in providing fiscal agency services to the U.S. Treasury or to other government agencies and for which the agencies have agreed to reimburse the Federal Reserve.

Trends in Expenses and Employment

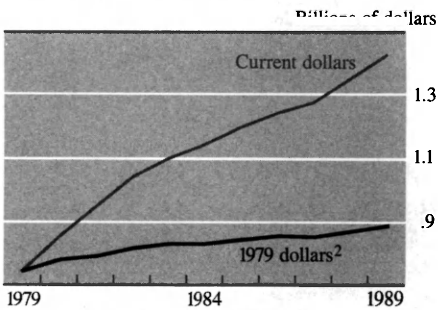
From 1979 to 1989, operating expenses of the System increased an average of 6.7 percent per year in current dollars and 1.8 percent per year when adjusted for inflation (chart 1.2). Over the same period, System employment increased a total of 381, or 0.2 percent per year (chart 1.3).

Several initiatives during the decade had a pronounced effect on System expenses and employment. The Monetary Control Act of 1980 (MCA) extended reserve requirements to all nonmember banks and thrift institutions, requiring the Federal Reserve to establish new systems for the collection of data and the maintenance of deposit accounts. The MCA also extended access to Federal Reserve services to all depository institutions. Accordingly, System employment rose significantly during 1980 and 1981.

From 1982, when the transition to the requirements of the MCA was completed, through 1984, System expenses remained essentially flat when adjusted for inflation, and employment declined. In 1985 the Federal Reserve increased staff in a concerted effort to strengthen the supervision and regulation of member banks and bank holding companies. The System was able to offset partially the increase in staff through reductions in employment in other areas, primarily in services to financial institutions and the public and in support and overhead.

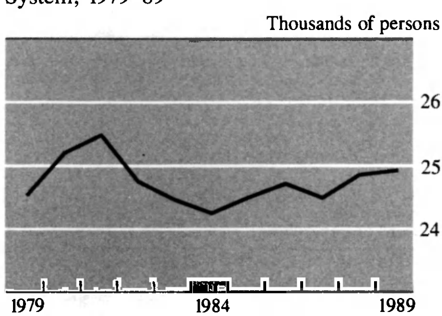
In August 1987 the Congress passed

Chart 1.2
Operating Expenses of the Federal Reserve System, 1979-89[1]



1. For 1988, estimate; for 1989, budget.
2. Calculated with the GNP implicit price deflator.

Chart 1.3
Employment in the Federal Reserve System, 1979-89[1]



1. For 1988, estimate; for 1989, budget.

the Expedited Funds Availability Act (title VI of Public Law 100–86, the Competitive Equality Banking Act of 1987). The act, which became effective on September 1, 1988, requires the Federal Reserve to issue regulations to ensure the prompt availability of funds and the expeditious return of checks. Staff increases throughout the System were necessary to meet this mandate and to handle anticipated increases in the volumes of returned checks processed through the Reserve Banks.

Operational Areas

Federal Reserve expenses are classified for budgeting purposes according to the major operational areas of the System: monetary and economic policy, supervision and regulation, services to financial institutions and the public, and services to the U.S. Treasury and other government agencies (table 1.4). Costs for support and overhead are redistributed or allocated to the four operational areas. Only the Reserve Banks perform services to the Treasury and other government agencies. The operational area unique to the Board of Governors, System policy direction and oversight, is considered an overhead expense of the System (see chapter 2).

1989 Budget Initiatives

The Reserve Banks and the Board are beginning or continuing several major initiatives for 1989. Several such projects involve savings bonds on behalf of the U.S. Treasury: expansion of a project within the Fourth District for centralized issuance of over-the-counter savings bonds; accounting for, and printing, bonds on behalf of companies with employee payroll deduction plans; and processing retired savings bonds on check-sorting equipment. The Treasury has also asked the Federal Reserve for improvements in Treasury Direct, a

Table 1.4
Operating Expenses of the Federal Reserve System, by Operational Area, 1987–89[1]
Millions of dollars, except as noted

Operational area and entity	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Monetary and economic policy	143.6	149.4	159.8	4.0	7.0
Reserve Banks	86.5	88.8	95.8	2.7	7.9
Board of Governors	57.1	60.6	64.0	6.0	5.6
Supervision and regulation	197.3	214.1	230.5	8.5	7.6
Reserve Banks	170.4	187.1	201.5	9.8	7.7
Board of Governors	26.9	27.0	28.9	.6	7.1
Services to financial institutions and the public	801.6	846.0	887.9	5.5	5.0
Reserve Banks	779.2	842.9	884.9	5.5	5.0
Board of Governors	2.3	3.0	3.1	29.1	3.7
Services to the U.S. Treasury and other government agencies[2]	135.7	142.4	148.4	5.0	4.2
Total	**1,278.1**	**1,351.9**	**1,426.5**	**5.8**	**5.5**
Reserve Banks	**1,191.8**	**1,261.3**	**1,330.5**	**5.8**	**5.5**
Board of Governors	**86.3**	**90.6**	**96.0**	**5.0**	**5.9**

1. Operating expenses reflect all allocations for support and overhead and exclude capital outlays. The operational area unique to the Board of Governors, System policy direction and oversight, which is shown separately in chap. 2, has been allocated across the operational areas shown above. As a result, the numbers in chap. 2 for the operational areas are not the same as those shown here.
2. Reserve Banks only. The Board of Governors does not provide these services.

system begun in 1987 to handle in book-entry (computerized) form all Treasury securities bought and sold by individuals.

Automation initiatives continue to have a large effect on the System's operating budgets. The Board and Reserve Banks are expanding office automation systems, several Districts are anticipating the expansion of their computer capacity, and many Reserve Banks are working on contingency processing for critical operations.

Supervision and regulation efforts also continue to receive a major emphasis in the budgets. Spending in this area will be larger than 1988 estimated expenses to accommodate the greater complexity of examinations, more holding company examinations, and Regulation CC (Expedited Funds Availability). In addition, the Board and Reserve Banks are developing a National Information Center to provide a single source for much of the information needed to review applications, monitor safety and soundness, and maintain the integrity of data in an era of wider interstate banking and growing complexity in the financial markets.

Last, the Board is reevaluating its compensation structure with a view to improving its ability to attract and retain high-quality staff and to meet critical responsibilities. ■

Chapter 2
Board of Governors

For 1989 the Board of Governors has budgeted operating expenses of $96.0 million, an increase of $5.4 million, or 5.9 percent, over estimated expenses for 1988. These expenses are 6.0 percent of the total for the Federal Reserve System as a whole, including the costs of special projects and of currency (see chapter 1).

The growth in Board expenses between 1988 and 1989 is attributable to a number of factors. The general pay increase and routine salary actions add $3.2 million to salaries. First-year costs for the implementation of a new compensation structure require $900,000, a portion of which will be offset over time by savings associated with reduced turnover. Because of rate increases, costs for health insurance are $700,000 higher, and because of the greater proportion of employees covered by Social Security in 1989, retirement expenses increase $300,000. The $700,000 cost of a study of consumer finances, when netted against the expense of other surveys completed in 1988, will raise the net expense allocated for such work $100,000. Costs for the development of software for the National Information Center, a Systemwide, standardized database on the structure and finances of the nation's banking industry, will rise $300,000 in 1989, to $700,000. Also included in the budget are funds for the continued strengthening of the supervision function plus an upgrade of the resources available to the Board to perform audits of the automation systems at the Reserve Banks.

Central automation services provided to the operating divisions by the Information Resources Management (IRM) divisions account for a significant part of the Board's costs. As it was last year, the budget for centralized IRM resources has been reduced: user requirements have diminished, and productivity and quality in the IRM provider divisions have improved. Under the Board's chargeback procedures for using IRM resources, such resources can be exchanged, within certain constraints, for alternative means to attain objectives, a choice that gives both the operating program manager and the provider of the resources a strong incentive to be more efficient. The Board, through its budget process, continues to refine these chargeback procedures.

The following sections analyze the operating budgets for the Board's four operational areas and discuss trends in expenses and employment. Appendix A describes the operational areas of the Board and the Banks, appendix B discusses the Board's budgeting process, and appendix C presents, among other topics, the Board's capital outlays.

The Budget by Operational Area

The Board's activities fall into four broadly defined operational areas: monetary and economic policy, supervision and regulation of financial institutions, services to financial institutions and the public, and System policy direction and oversight (see also chapter 1 and appendix A).

Table 2.1 shows the operating expenses, and table 2.2 shows the number of authorized positions, for each of the Board's operational areas for the years 1987–89. The costs include those for support and overhead, allocated to each operational area according to that area's proportion of total direct expenses. The budgets for the operational areas include general factors that influence all operational areas in 1989 (such as the general pay increase and the increases in health insurance rates), as well as changes unique to each area.

Monetary and Economic Policy

Under its monetary and economic policy function, the Board monitors and analyzes developments in the money and credit markets, sets reserve requirements, approves changes in the discount rate, and otherwise manages the nation's monetary policy. This function is expected to cost $50.8 million in 1989, an increase of $2.4 million, or 4.9 percent, over 1988.

Beyond maintaining the quality of economic analysis and forecasts, the budget in this area provides for a major research survey of consumer finances, a portion of the investment in the National Information Center, and continued initiatives in end-user computing. These are discussed in turn.

The Survey of Consumer Finances is a major update of data, last obtained in 1983, on the income, assets, debts, pensions, employment, and use of financial services by U. S. households. The Board's 1989 share of the survey will be $700,000. The Survey of Household Use of Financial Services, originally scheduled for 1988, will be part of this project and will give the Board data on the traditional and nontraditional sources of

Table 2.1

Operating Expenses of the Board of Governors, by Operational Area, 1987–89 [1]

Thousands of dollars, except as noted

Operational area	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Monetary and economic policy	45,670	48,389	50,752	6.0	4.9
Supervision and regulation	21,468	21,584	22,955	.5	6.4
Services to financial institutions and the public	1,864	2,405	2,477	29.0	3.0
System policy direction and oversight	17,329	18,252	19,839	5.3	8.7
Total	**86,331**	**90,630**	**96,023**	**5.0**	**5.9**

1. Operating expenses reflect all allocations for support and overhead. They exclude capital outlays. Services to the U.S. Treasury and other government agencies is an operational area unique to the Reserve Banks and is not shown here; see chaps. 1 and 3.

Table 2.2

Positions Authorized at the Board of Governors, by Activity, 1987–89

Activity	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Monetary and economic policy	396	397	399	.3	.5
Supervision and regulation	261	264	265	1.1	.4
Services to financial institutions and the public	22	22	22	0	0
System policy direction and oversight	149	148	148	−.7	0
Support and overhead	741	742	739	.1	−.4
Total	**1,569**	**1,573**	**1,573**	**.3**	**0**

financial services to households. Combining the surveys yields significant savings.

In 1988 the Board approved the creation of the National Information Center to provide a cost-effective and high-quality database on the structure and finances of the nation's banks and bank holding companies. The staff made progress in 1988 to define the requirements of the project and prepare the necessary software. The 1989 budget provides $737,000 to continue the development of the software and prepare the data. When completed, the National Information Center will provide the Board and the Reserve Banks a single source for much of the information needed to review applications, monitor the safety and soundness of financial institutions, and maintain the integrity of data in an era of increasing interstate banking and financial market complexity.

The budget provides for the final phase of the research automation project. The 1989 operating costs of this project, $245,000, are offset by reductions, for the second year in a row, in expenses for centrally provided automation services. The decrease in mainframe charges is tied to lower rates charged by the divisions providing the mainframe resources, to progress made in transferring work from the mainframe to the local network, and to software that allows more efficient programming and data manipulation on the departmental computer. The savings also help offset the costs of two positions added to this operational area to improve the data and analysis concerning the debt problems of developing countries, the U.S. foreign trade deficit, and other key issues.

Supervision and Regulation

Supervision of financial institutions includes reviews of examination and inspection reports on state member banks prepared by the Reserve Banks, special studies related to international applications, direction of enforcement actions, and regulation of trust activities. Regulation includes the following activities: the formulation of regulations; the oversight of mergers, foreign banking activities, and compliance with consumer regulations; and the regulation of securities credit.

The $23.0 million budget for supervision and regulation is $1.4 million, or 6.4 percent, greater than estimated expenses for 1988. The size of the increase in this operational area would have been larger except for the one-time $450,000 expense for the Small Business Survey, which was charged to this category in 1988 and does not recur in 1989. The budget funds the known costs of the project on risk-based capital standards, but additional resources, not included in this budget, may be required for software development to support this initiative.

The 1989 budget supports the continued strengthening of supervision and regulation through the creation of six new positions: two positions are to revise examination manuals for banks and bank holding companies; the remaining four are to manage a growing database for country exposure and risk-based capital, improve the accounting review of public disclosure documents, increase emphasis on the Regulatory Improvement Project, and help establish the National Information Center. The new positions are almost completely offset by the elimination of five administrative positions, a reduction permitted by the greater productivity derived from office automation.

Services to Financial Institutions and the Public

The $2.5 million budgeted for services to financial institutions and the public is $72,000, or 3.0 percent, higher than

1988 estimated expenses. This operational area is composed almost entirely of programs supporting the payments function of the Federal Reserve System.

The 3.0 percent increase for 1989 is small because the 1988 budget included a large one-time increment to improve the management of currency operations through automation. The 1989 budget includes $283,000 to continue the project at approximately the same level as in 1988. Costs should fall in 1990, when all development is complete and expenses decline to the maintenance level. The automation project allows managers to make more informed and timely decisions on ordering and transporting currency. Efficiencies generated by the project will reduce the volume of currency ordered and the number of shipments required, potentially saving the System's currency budget about $500,000 per year.

System Policy Direction and Oversight

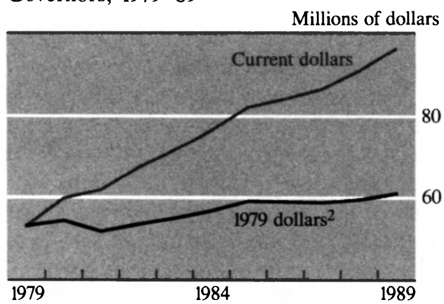
The $19.8 million budget for System policy direction and oversight is $1.6 million, or 8.7 percent, more than estimated 1988 expenses. Three factors caused the increase. First, the number and length of position vacancies in the Office of Board Members and in the Office of the Inspector General was high in 1988, causing actual salary expenses that year to be low relative to the 1989 budget for the same number of positions. Second, the budget includes development of software to enhance the administration of the Board's compensation program. Third, the budget funds several new projects, including the records management initiative and an effort to improve the frequency and thoroughness of audits of automation systems at the Reserve Banks.

10-Year Trend

During the period from 1979 through 1989 the Board's operating expenses have grown from $53.2 million to $96.0 million, an average increase of 6.1 percent per year in current dollars and 1.4 percent in constant dollars (chart 2.1). During this period, the costs for personnel have increased at an average of 5.2 percent per year in current dollars (chart 2.2), while expenses for goods and services have risen at 8.8 percent (chart 2.3). When measured in inflation-adjusted dollars, expenses for personnel

Chart 2.1

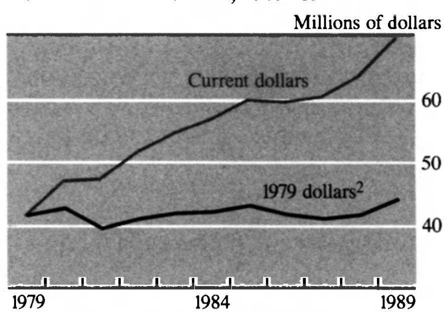
Operating Expenses of the Board of Governors, 1979–89[1]



1. For 1988, estimate; for 1989, budget.
2. Calculated with the GNP implicit price deflator.

Chart 2.2

Expenses for Personnel Services at the Board of Governors, 1979–89[1]



1. For 1988, estimate; for 1989, budget.
2. Calculated with the GNP implicit price deflator.

rose even more slowly relative to those for goods and services, 0.6 percent per year and 4.0 percent per year respectively. The markedly faster pace for goods and services reflects the substantial investment in automation during the period and successful efforts to limit the number of positions at the Board.

The size of the actual annual increases in expenses has varied greatly (chart 2.4): periods of major growth in the workload required additional resources, which were then scaled back as the new work was assimilated, productivity-enhancing technology was acquired, and lower-priority tasks discontinued. This variation is demonstrated by the changes in staffing during the 10-year period. At one point nearly 150 positions had been added, but by 1989 the net increase had been reduced to 37 positions, an increase of 2.5 percent (chart 2.5).

The following discussion breaks the 10-year period into three segments: 1979–84, when resources, particularly for data collection and storage, were added to meet the requirements of major legislation; 1985–87, when adjustments by the Board reduced the number of positions added during the previous period; and 1988–89, when the year-to-year decreases associated with the position reductions of the earlier period ended, allowing the rate of increase to return to a more normal pace.

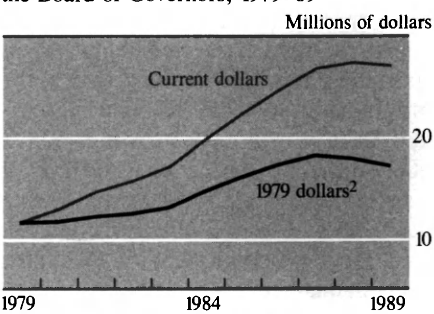
1979–84

Expenses rose sharply in the first five years. Federal pay increases during these years, although markedly below those in the private sector, were high compared with the federal increases approved later in the decade. More significant, however, were the costs of resources added to meet the requirements of new legislation. The average increase in expenses for these first five years, 8.1 percent, derived mainly from the Monetary Control Act (MCA) and was the highest during the 10-year period.

Under the MCA, the number of institutions directly or indirectly reporting financial data to the Federal Reserve tripled, from about 14,000 to about 45,000, and the number of items all institutions were required to report grew substantially. This surge in the volume of work handled at the Federal Reserve required a new mainframe computer and large additions to the staff for data processing and for monetary policy. The

Chart 2.3

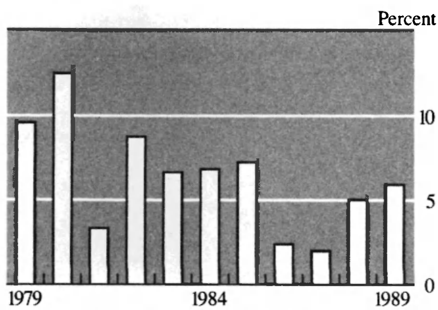
Expenses for Goods and Services at the Board of Governors, 1979–89[1]



1. For 1988, estimate; for 1989, budget.
2. Calculated with the GNP implicit price deflator.

Chart 2.4

Annual Rate of Change in Operating Expenses of the Board of Governors, 1979–89[1]



1. For 1988, estimate; for 1989, budget.

requirement of the MCA that the Federal Reserve price many services it had previously provided without explicit charge and expand their availability also imposed costs of implementation. Also during this period, the deregulation and other changes in the banking industry arising from the Financial Institutions Regulatory and Interest Rate Control Act required additional supervisory staff at the Federal Reserve. To meet all of these requirements the number of positions jumped from 1,508 to 1,653, an increase of almost 10 percent, over the five years. Employment grew by a like percentage, from 1,447 to 1,588.

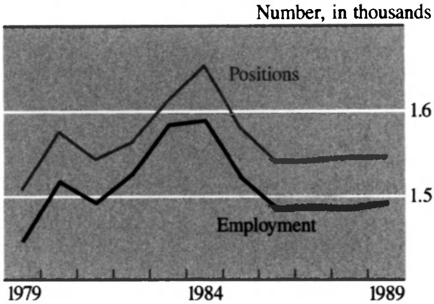
1985–87

In mid-1984 the Board established the Program Improvement Project (PIP) with the goal of reducing the number of positions at the Board 7 percent by the end of 1986. PIP made large changes in the structure and size of the data processing divisions; somewhat lesser reductions were made throughout the rest of the Board's staff.

Although PIP gave careful consideration to exempting areas addressing problems such as the trade deficit and the debt positions of developing countries, the only area excluded from the overall reduction program was supervision and regulation. After six positions supporting lower-priority functions in the supervision and regulation area were abolished, 29 positions were added to the programs in the area directly concerned with the growing number of problems in the nation's banking industry. Even with this increase, the net number of positions Board-wide declined by 73 in 1985.

The one-time costs of implementing PIP, coupled with enhanced efforts to automate critical functions, limited the effect of these reductions on the Board's expenses in 1985. PIP yielded a further decrease of 40 positions in 1986. The effect of these reductions was clearly evident in 1986 and 1987, when the growth of expenses was 2.4 percent and 2.0 percent respectively.

Chart 2.5
Employment and Positions at the Board of Governors, 1979–89[1]



1. Year-end data. For 1988, estimate; for 1989, budget. Excludes interns and summer positions for youth.

1988–89

Without the legislative demands of the earlier years of the decade or the one-time increment in savings from the staff reductions of the middle years, increases in the Board's expenses returned to a more normal average of 5.4 percent per year in 1988 and 1989. In response to the continued pressures in the supervision function and to the problems of the trade deficit and the debt of developing countries, the Board has authorized expenditures to improve automation and has approved minor, selected increases in staff. Pressures in other areas, such as the programs responsible for financial markets, have been met by a growing volume of overtime and a reduction in the level of long-term research that is funded within the budget. Overall, the reductions in staff level accomplished by PIP have been maintained.

Chapter 3
Federal Reserve Banks

The Board of Governors has approved a 1989 operating budget of $1,330.5 million for the Reserve Banks, an increase of $69.2 million, or 5.5 percent, over 1988 estimated expenses. The Reserve Banks have excluded from their budgets, as they did last year, the costs for research and development related to special projects. This year these costs, totaling $11.1 million, are for check image processing ($1.7 million), a system for the optical detection of counterfeiting ($3.3 million), and an electronic payments processor ($6.1 million). When the costs of special projects are included, the Reserve Banks' budgets total $1,341.6 million, an increase of $75.4 million, or 6.0 percent, over 1988 estimated expenses (table 3.1).

Employment, excluding special projects, is budgeted at 23,441 average number of personnel (ANP), an increase of 62 ANP, or 0.3 percent, from the estimated 1988 employment levels.[1] When the effect of special projects is included, 1989 employment at the Reserve Banks is budgeted at 23,476 ANP, an increase of 87 ANP, or 0.4 percent (table 3.1). In 1989, the Expedited Funds Availability Act accounts for an addition of 134 ANP; excluding this increment, Reserve Bank employment is down 47 ANP.

1. The term average number of personnel describes levels and changes in employment at the Reserve Banks. ANP measures the number of employees in terms of full-time positions for the time period. For instance, a full-time employee who starts work July 1 counts as 0.5 ANP for that year; two half-time employees who start January 1 count as one ANP. The ANP for any given year is the average of the number of full-time employees (measured in this way) in the months of that year.

Expenses for personnel, which comprise salaries and other compensation, account for $834.6 million, or 63 percent, of Bank expenses in 1989, an increase of $45.8 million, or 5.8 percent, over 1988 (table 3.2). Nonpersonnel expenses, influenced primarily by spending on automation equipment and building projects, are budgeted at $495.9 million, an increase of $23.4 million, or 5.0 percent.

The following two sections discuss the major initiatives and the budget objective for the Reserve Banks in 1989. Subsequent sections provide details for the four operational areas as well as objects of expense, capital outlays, and long-term trends. Appendix C gives details on capital outlays, special projects, and other special categories of expense. Appendix F gives further data by District and by operational area.

Major Initiatives

Several Bank-specific projects and two Systemwide initiatives account for a large portion of the budgeted increase in Reserve Bank expenses. The projects within specific Banks are automation initiatives, facility improvements, increased supervision of banks and bank holding companies, initiatives for the U.S. Treasury, contingency back-up for critical operations, and enhanced check operations. The two Systemwide initiatives are the establishment of a National Information Center for data on depository institutions and improvements to the Federal Reserve's electronic payments system. Table 3.3 shows that, excluding the expenses for these programs ($26.4 million), the total expenses of the Reserve Banks increase 3.6 percent in 1989.

Automation efforts include the expansion of computer capacity in several Districts, the development of an information display system and continued expansion of an office automation system at New York, improved communications and electronic networks at Chicago, and the continued conversion of operating systems at San Francisco. Many District budgets include funds for automation projects related to contingency back-up and efforts to improve the availability of systems, shown separately in table 3.3.

Building projects of the Reserve Banks account for an incremental expense of $5.7 million. The largest such expenditures in 1989 are for building projects in Charlotte, Atlanta, and Chicago. Minneapolis is continuing an asbestos containment project and plans to start the complete removal of asbestos in 1989. The net increase attributable to these projects is reduced by the completion of $2.1 million of building projects in 1988; these include New York's relocation expenses to move check operations to its regional check processing centers, the expenses to move into the new Charlotte building, and moving expenses and rent associated with the Chicago building project.

Expenses increase in supervision and regulation because of the greater complexity of examinations, more holding company examinations, more problem institutions, and the implementation of Regulation CC (Expedited Funds Availability). Increases in employment and costs occur in most Reserve Districts.

Expenses for services to the U.S. Treasury increase primarily because of expansion of the Ohio Project, which is

Table 3.1

Expenses and Employment at the Federal Reserve Banks, 1988–89

Category	1988 estimate	1989 budget	Change	
			Amount	Percent
Expenses (millions of dollars)				
Operations	1,261.3	1,330.5	69.2	5.5
Special projects	4.9	11.1	...	...
Total	1,266.2	1,341.6	75.4	6.0
Employment (average number of personnel)				
Operations	23,379	23,441	62	.3
Special projects	10	35	...	...
Total	23,389	23,476	87	.4

Table 3.2

Operating Expenses of the Federal Reserve Banks, 1987–89[1]

Thousands of dollars, except as noted

Object	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Personnel	743,168	788,807	834,626	6.1	5.8
Nonpersonnel	448,665	472,491	495,861	5.3	4.9
Total	**1,191,833**	**1,261,298**	**1,330,487**	**5.8**	**5.5**

1. Including the costs of support and overhead (see appendix F, table F.3, note 1, for definition).

centralizing issuance of over-the-counter savings bonds; its expansion throughout the Fourth District will add $1.2 million in expenses and 17 ANP. Two other savings bond projects in Cleveland and enhancements to the Treasury Direct system at Philadelphia will also contribute to the 1989 increase in expenses.

Several Districts are improving the efficiency of check operations. Philadelphia is reviewing its needs for a new check processing system and plans to begin conversion in 1990. Atlanta will be replacing old equipment and software to respond to a strong growth in volume.

Two new System initiatives, the National Information Center and the electronic payments system project, will together add $2.3 million and 15 ANP. The National Information Center ($1.2 million, 7 ANP) will maintain information on the structure and finances of banks. This database will be available to Reserve Banks, the Board, and possibly other regulatory agencies. The electronic payments system project ($1.1 million, 8 ANP) aims to improve the availability of these systems at all the Banks.

Unusually large cost increases and the loss of rental income also contribute to the 1989 increment: health insurance premiums increase $6.0 million; expenses to implement the Expedited Funds Availability Act, adjusted for one-time costs for training and postage, increase $5.4 million in 1989; and Boston will forego rental income of $1.0 million during the period that construction is done on the top three floors of the Bank. In the aggregate, these items represent about one-sixth of the overall increase in operating expenses and more than one-fourth of the increase excluding major initiatives.

Table 3.3
Effect of Major Initiatives on the 1989 Operating Expenses of the Reserve Banks

Thousands of dollars, except as noted

Item	Amount
1988 estimate[1]	1,259,164
1989 budget	1,330,487
Increase, 1988 to 1989	
Amount	**71,323**
Percent	**5.7**
LESS	
Major 1989 initiatives:	
Automation	9,770
Facility improvements	5,663
Increased supervisory and regulatory activities	3,130
Programs for the U.S. Treasury	2,214
Contingency back-up	1,834
Improved check operations	1,541
National Information Center	1,162
Electronic payments system	1,115
Total	26,429
EQUALS	
Increase excluding major 1989 initiatives	
Amount	**44,894**
Percent	**3.6**

1. Excludes one-time expenses of $2.134 million for improvements to facilities.

Budget Objective for 1989

The Board approved a 5.5 percent increase in 1989 for Reserve Bank operating expenses (covering central bank and Treasury services and priced services, including the expedited availability of funds). At the time this budget objective was approved, it was anticipated that the Board would be requested to approve an additional $11.1 million for research and development on special projects (see appendix C).

Total operating expenses, including those for expedited availability of funds, increase $69.2 million, or 5.5 percent; excluding expedited funds, these expenses increase 5.1 percent (table 3.4).

Operational Areas

Tables 3.5 and 3.6 summarize Reserve Bank expenses and employment in each of the four operational areas. Tables 3.7

through 3.9 show expense details for each area.

Monetary and Economic Policy

Expenses at the Reserve Banks for monetary and economic policy are budgeted at $95.8 million, about 7.2 percent of the Banks' operating expenses (table 3.7). The increase over 1988 estimated expenses is $7.0 million, or 7.9 percent. Employment in this area is 786 ANP, an increase of 18 ANP, or 2.3 percent, over 1988.

Net additions to the Banks' staff (primarily economists), salary actions, and automation initiatives are the main sources of higher spending. The 1989 staffing level is slightly lower than that budgeted for 1988.

Dallas plans to expand its staff by 6 ANP over the 1988 estimate of 39 ANP to better address regional issues and to improve its monetary policy research. Richmond plans to add 2 ANP (the current level is 33) to enhance its work in international and regional studies. Automation initiatives, all at the New York Bank, include a new system to display information on the markets for government and corporate securities and foreign exchange; a new system of trading and clearing securities; and streamlining the reporting series for government securities dealers.

Table 3.4

Comparison of 1989 Budget of the Reserve Banks with 1989 Budget Objective

Percent increase from 1988 estimated expenses

Item	1989 budget objective	1989 budget
Operating expenses excluding those related to the Expedited Funds Availability Act	4.7	5.1
Expenses related to the Expedited Funds Availability Act	.8	.4
Total operating expenses	5.5	5.5
Special Projects	.3	.5
Total	**5.8**	**6.0**

Supervision and Regulation

Expenses for supervision and regulation, $201.5 million, increase $14.4 million, or 7.7 percent, over 1988 (table 3.8). This area now comprises 15.1 percent of total expenses for the Reserve Banks, compared with 13.2 percent in 1984. The 1989 staff level of 2,250 ANP is an increase of 27, or 1.2 percent, over 1988. Since 1984, staffing has increased 365 ANP.

The 1989 increase in costs and ANP are the result of continued growth in the number of bank holding companies; increases in the number of de novo banks that, under Board guidelines, require more frequent examinations; the System's enhanced program for examinations of international operations of U.S. banks and U.S. offices of foreign banks; and monitoring for compliance with Regulation CC. The increase for staff, spread over most Districts, is moderate compared with that in recent years. Other factors contributing to the cost increment are a greater emphasis on monitoring reserve accounts with respect to daylight and overnight overdrafts, the full year effects of the development of the National Information Center, and the continued expansion in the use of microcomputers.

Services to Financial Institutions and the Public

Expenses for services to financial institutions and the public include both priced and nonpriced services (table 3.9). They are budgeted at $884.8 million and account for two-thirds of total expenses, a ratio only slightly higher than in 1984.

The budget is $41.8 million, or 5.0 percent, larger than 1988 estimated expenses. Staffing is budgeted at 9,049 ANP, up 35, or 0.4 percent, from 1988. Expenses of priced services, budgeted at $579.0 million, are increasing 5.1 percent; expenses of nonpriced services, at $305.8 million, are increasing 4.8 percent.

Commercial check processing is by far the largest service ($440.1 million), comprising almost half the budgeted expenses of this operational area and employing 5,478 ANP. Expenses for this service are increasing $19.3 million, or 4.6 percent, over 1988, and the number of staff members will increase 42 ANP. The Banks expect to process 15.4 billion commercial checks in 1989, an increase of 2.8 percent, while unit cost is expected to increase 2.2 percent. Added expenses of $5.4 million and additional staff of 134 ANP can be attributed to the full-year effect of the Expedited Funds Availability Act, which went into effect in September 1988. This increase in staff is largely offset by the 1988 consolidation of check operations in the New York District in the regional check processing centers. The consolidation and the dropping of temporary workers used for the consolidation allowed New York to reduce its ANP by 53 in 1989.

Expenses for the currency and coin service are expected to rise $5.5 million, or 3.5 percent, in 1989 and to constitute

Table 3.5
Operating Expenses of the Federal Reserve Banks, by Operational Area, 1987–89

Thousands of dollars, except as noted

Operational area	1987 actual	1988 estimate	1989 budget	Percent change 1987–88	Percent change 1988–89
Monetary and economic policy	86,484	88,788	95,812	2.7	7.9
Supervision and regulation	170,428	187,123	201,539	9.8	7.7
Services to financial institutions and the public	799,227	842,947	884,784	5.5	5.0
Services to the U.S. Treasury and other government agencies	135,693	142,440	148,352	5.0	4.2
Total	**1,191,832**	**1,261,298**	**1,330,487**	**5.8**	**5.5**

Table 3.6
Employment at the Federal Reserve Banks, by Activity, 1987–89

Average number of personnel, except as noted[1]

Activity	1987 actual	1988 estimate	1989 budget	Percent change 1987–88	Percent change 1988–89
Operational areas					
Monetary and economic policy	775	768	786	−.9	2.3
Supervision and regulation	2,147	2,223	2,250	3.5	1.2
Services to financial institutions and the public	8,776	9,014	9,049	2.7	.4
Services to the U.S. Treasury and other government agencies	1,836	1,844	1,805	.5	−2.1
Support and overhead[2]					
Support	4,452	4,565	4,597	2.5	.7
Overhead	5,024	4,964	4,954	−1.2	−.2
Total	**23,010**	**23,378**	**23,441**	**1.6**	**.3**

1. See text note 1 for definition of ANP.
2. See appendix F, table F.3, note 1, for definitions.

18.3 percent of the budget for this operational area. The Banks have budgeted 1,717 ANP in this service, a decrease of 22, or 1.3 percent. Volume is expected to increase 4.2 percent and unit cost to decline 1.3 percent.

Expenses for the automated clearinghouse service in 1989 increase $5.1 million, or 7.4 percent, and employment increases 18 ANP. The staff will expand primarily to accommodate a service the System intends to offer in 1989 called Government Notification of Change. Requested by the Treasury and the banking industry, this service converts paper documents to electronic form at the Reserve Banks. Volume for the ACH service is expected to increase 14.7 percent and unit cost to decrease 7.2 percent.

Expenses for the funds transfer service increase $3.5 million, or 5.6 percent, reflecting a staff reduction of 3 ANP and an increase in volume of 4.0 percent. The growth of volume in this service has slowed because of mergers of bank holding companies and bank consolidations.

Expenses for the book-entry securities service will increase $3.0 million, or 11.2 percent, while ANP and volume remain about steady. Unit cost is increasing 9.9 percent and can be attributed to two factors, higher costs to test and maintain the book-entry securities system and improvements in contingency capabilities.

Bank and public relations costs are expected to rise $2.1 million, or 5.3 percent, and the associated staff is expanding by 4 ANP. These increases are primarily the result of the growth of community affairs programs in several Districts. Also, the "other" service category is rising $1.1 million, or 5.4 percent, reflecting automation efforts in the New

Table 3.7

Expenses of the Federal Reserve Banks for Monetary and Economic Policy, 1987–89

Thousands of dollars, except as noted

Item	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Economic policy determination	74,069	74,635	78,659	.8	5.4
Open market trading	12,415	14,153	17,153	14.0	21.2
Total	**86,484**	**88,788**	**95,812**	**2.7**	**7.9**

Table 3.8

Expenses of the Federal Reserve Banks for Supervision and Regulation, 1987–89

Thousands of dollars, except as noted

Item	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Supervision of District financial institutions	100,813	111,688	122,123	10.8	9.3
Administration of laws and regulations related to banking	62,999	67,028	69,483	6.4	3.7
Studies of banking and financial market structures	6,617	8,408	9,934	27.1	18.2
Total	**170,428**	**187,123**	**201,539**	**9.8**	**7.7**

York District for services to other central banks. Staff in this service area is expected to decline by 6 ANP.

Services to the U.S. Treasury and Other Government Agencies

Expenses for services to the U.S. Treasury and other government agencies are budgeted at $148.4 million, about 11 percent of total operating expenses of the Banks. The increase is $5.9 million, or 4.2 percent, over 1988 (table 3.10). Total staffing is budgeted to decrease 39 ANP, or 2.1 percent, to 1,805 ANP.

The reduction in ANP reflects major efforts over several years by the Reserve Banks and the Treasury to promote efficiency, generally through consolidation of operations and the expansion of automation. Most Districts have budgeted reductions for 1989.

Major operational changes are taking place in the savings bonds area: the Ohio Project, in the Cleveland District, featuring centralized issuance of over-the-counter savings bonds; the Masterfile Payroll program, which involves accounting for, and printing, bonds purchased through payroll deduction plans, a project also in the Cleveland District, with the Richmond and Minneapolis

Table 3.9
Expenses of the Federal Reserve Banks for Services to Financial Institutions and the Public, 1987–89

Thousands of dollars, except as noted

Service	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Currency and coin	153,764	156,434	161,942	1.7	3.5
Commercial checks	398,051	420,830	440,143	5.7	4.6
Other checks	18,979	17,911	20,064	−5.6	12.0
Funds transfers	56,668	61,376	64,843	8.3	5.6
Automated clearinghouse	61,425	68,828	73,890	12.1	7.4
Book-entry securities transfers	22,837	26,672	29,661	16.8	11.2
Definitive securities safekeeping and noncash collections	18,148	17,105	16,585	−5.7	−3.0
Loans to members and others	13,086	13,996	14,651	6.9	4.7
Bank and public relations	36,194	40,219	42,368	11.1	5.3
Other	20,076	19,571	20,637	−2.5	5.4
Total	**799,227**	**842,947**	**884,784**	**5.5**	**5.0**

Table 3.10
Expenses of the Federal Reserve Banks for Services to the U.S. Treasury and Other Government Agencies, 1987–89

Thousands of dollars, except as noted

Service	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Savings bonds	40,215	41,656	47,958	3.6	15.1
Other Treasury issues	20,902	17,382	18,353	−16.8	5.6
Centrally provided Treasury agency services	20,270	25,493	22,011	25.8	−13.7
Government accounts	19,677	20,402	22,792	3.7	11.7
Food coupons	12,217	12,903	13,030	5.6	1.0
Other	22,412	24,605	24,209	9.8	−1.6
Total	**135,693**	**142,440**	**148,352**	**5.0**	**4.2**

Districts participating on a smaller scale; and consolidated operations of Series HH/H payments in the Philadelphia District.

Objects of Expense

The operating expenses of the Federal Reserve Banks for personnel and nonpersonnel are detailed in table 3.11.

Personnel expenses comprise salaries for officers and employees, compensation to other personnel, and retirement and other benefits. Total personnel costs account for almost 63 percent of Reserve Bank expenses and are expected to increase 5.8 percent in 1989.

Total personnel expenses except those for retirement and other benefits account for nearly 52 percent of 1989 budgeted expenses and anticipated growth is $31.5 million, or 4.6 percent. Salaries are expected to increase $35.7 million, or 5.5 percent, and will be offset partially by a decline of $4.2 million, or 32.5 percent, in expenses for other personnel. Merit increases are the primary source of higher expenses for salaries. Also contributing

Table 3.11

Operating Expenses of the Federal Reserve Banks, by Object, 1987–89

Thousands of dollars, except as noted

Object	1987 actual	1988 estimate	1989 budget	Percent change 1987–88	Percent change 1988–89
PERSONNEL					
Officers' salaries	60,010	63,685	67,345	6.1	5.7
Employees' salaries	545,358	579,838	611,844	6.3	5.5
Other personnel	16,335	12,956	8,750	−20.7	−32.5
Retirement and benefits	121,465	132,327	146,687	8.9	10.9
Total personnel	743,168	788,807	834,626	6.1	5.8
NONPERSONNEL					
Equipment					
Purchases	4,694	3,829	3,447	−18.4	−10.0
Rentals	33,857	27,004	24,740	−20.2	−8.4
Depreciation	75,802	78,432	85,619	3.5	9.2
Repairs and maintenance	42,467	47,453	51,810	11.7	9.2
Total equipment	156,820	156,717	165,616	−.1	5.7
Buildings					
Insurance	842	760	761	−9.8	.1
Taxes on Real Estate	21,710	25,005	27,181	15.2	8.7
Property Depreciation	26,078	28,911	32,125	10.9	11.1
Utilities	22,906	23,387	25,113	2.1	7.4
Rent	17,119	21,611	21,500	26.2	−.5
Other	18,726	18,217	19,009	−2.7	4.3
Total buildings	107,381	117,890	125,687	9.8	6.6
Shipping					
Postage	12,150	13,638	13,631	12.3	−.1
Other	69,200	68,979	70,180	−.3	1.7
Total shipping	81,350	82,617	83,811	1.6	1.4
Other					
Supplies	47,282	49,333	51,077	4.3	3.5
Travel	22,155	24,717	25,466	11.6	3.0
Communications	12,291	11,976	12,009	−2.6	.3
Fees	11,357	11,308	12,652	−.4	11.9
Other	10,029	17,933	19,544	78.8	9.0
Total other	103,114	115,267	120,747	11.8	4.8
Total nonpersonnel	448,665	472,491	495,861	5.3	4.9
Total	**1,191,833**	**1,261,298**	**1,330,487**	**5.8**	**5.5**

are promotions, reclassifications, and higher levels of staffing. These increases are partially offset by position vacancies (lag), by the replacement of a departing employee with one at lower pay (turnover), and reduced expenses for overtime. The decrease in expenses for other personnel results from declining use of contract computer programmers and decreased need for temporary help in check operations.

Expenses for retirement and other benefits, which account for 11 percent of the Banks' budget, are anticipated to increase $14.4 million, or 10.9 percent, in 1989. This increase is a result of the continued escalation in hospital and medical costs, a rise in the maximum salary subject to Social Security tax, and increased participation in the System's thrift plan.

Nonpersonnel expenses account for 37 percent of the Reserve Banks' expenses and are projected to increase 4.9 percent in 1989. Equipment expenses are 5.7 percent higher for 1989 and will account for 12.4 percent of total operating costs. The increase results from the purchase of data processing and data communications equipment to handle increased workloads and improve contingency functions, the full-year impact of equipment purchased to meet the demands of the Expedited Funds Availability Act, and a shift from leasing to purchasing of equipment.

Building expenses will rise 6.6 percent for 1989 and account for 9.4 percent of total expenses. Building expansion and renovation projects at Chicago and Atlanta and construction of a new building for the Charlotte Branch of the Richmond Bank contribute to increased expenses for property depreciation, real estate taxes, utilities, and other building operations. Depreciation expenses will also increase in 1989 as numerous smaller renovation and repair projects are completed. Offsetting increased rental expense at New York and Atlanta is a decrease of $900,000 in Chicago as the Bank gives up rental space and moves back to its newly expanded main building.

Shipping costs account for 6.3 percent of the 1989 budget and will increase 1.4 percent next year. This increase is primarily the result of expanded check routes necessary for expedited funds. Partially offsetting the 1989 increase is the reduction in postage expenses incurred in 1988 to inform depository institutions of the requirements for expedited funds.

Expenses for other nonpersonnel will increase 4.8 percent to accommodate additional software and the higher cost of supplies.

Capital Outlays

Capital outlays of the Reserve Banks are budgeted at $231.7 million, an increase of $28.4 million, or 14.0 percent, over the estimate for 1988 (table 3.12). The capital budgets of the Reserve Banks continue to be dominated by equipment for data processing and data communications and by building projects.

Outlays for data processing and data communications equipment total $87.6 million in 1989, approximately 38 percent of the capital budget. The machines include mainframes or upgrades for New York ($6.4 million), Cleveland ($4.9 million), Richmond ($2.6 million), and Kansas City ($7.4 million); new or upgraded check processing equipment for Cleveland ($1.0 million), Richmond ($2.6 million), and Atlanta ($3.0 million); peripheral computer equipment and upgrades for New York ($4.2 million), Chicago ($1.7 million), and San Francisco ($1.3 million); and data processing equipment to support the asbestos abatement project at Minneapolis ($4.6 million).

Building outlays amount to $57.0 million in 1989, approximately 25 percent of total capital outlays. The major items in this account are the building additions and improvements in Boston ($1.3 million), New York ($3.8 million), Cleveland ($4.1 million), and Kansas City ($1.2 million); consulting fees for the New York District's East Rutherford operations center ($2.3 million); a new building design in Dallas ($4.9 million); the new Helena site, in the Minneapolis District ($7.6 million); and the new building at Charlotte, in the Richmond District ($5.1 million).

Major purchases of furniture and other equipment, which total $30.2 million for 1989, are planned for Boston ($1.0 million), Richmond ($800,000), Atlanta ($2.7 million), New York ($1.2 million), and Minneapolis ($1.2 million).

Outlays for building machinery and equipment are budgeted at $13.3 million. Improvements to facilities for emergency power are planned at Cleveland ($1.8 million) and Dallas ($1.4 million), and Kansas City is updating its building support systems ($3.1 million).

Purchases of land and other real estate, at $34.4 million, are primarily for the acquisition of land if a proposal for a new building at Dallas is approved ($23 million) and for the purchase and site preparation for New York's East Rutherford operations center ($10.7 million).

Leasehold improvements, which total $9.1 million, are primarily at the Minneapolis Bank and are related to its asbestos removal project ($6.6 million).

Trends in Expenses and Employment

From 1979 to 1989, expenses of the Reserve Banks have increased an average of 6.7 percent per year in current dollars (chart 3.1). In the 1980–83 period, when the Banks began implementing the Monetary Control Act (MCA) and inflation drove up wages, the annual average change was 9.1 percent. The average for the 1984–89 period is 4.5 percent per year. Figured in constant (1979) dollars, the annual rate of growth was fairly steady over the decade, averaging 1.8 percent.

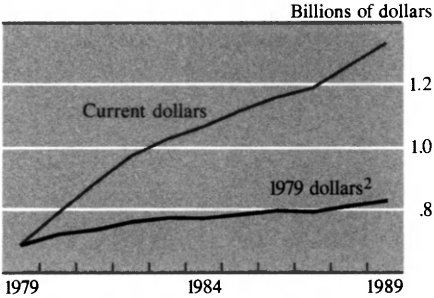
Over the last decade the number of employees at the Reserve Banks has increased 337 ANP, or 0.1 percent per year (chart 3.2). From 1974, when the average number of personnel at the Reserve Banks was at its peak of 26,567, employment declined 3,624 ANP, or 13.6 percent, to 22,943 in 1979 under a Systemwide program to increase productivity. Employment increased in 1980

Table 3.12
Capital Outlays of the Federal Reserve Banks, by Class of Outlay, 1987–89

Thousands of dollars, except as noted

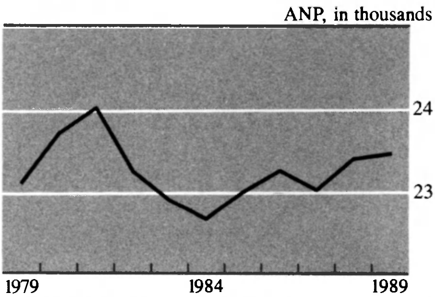
Class	1987 actual	1988 estimate	1989 budget	Percent change	
				1987–88	1988–89
Data processing and data communications equipment	45,162	86,404	87,638	91.3	1.4
Furniture and other equipment	22,394	23,511	30,237	5.0	28.6
Land and other real estate	1,759	2,262	34,419	28.6	1,421.5
Buildings	58,715	78,178	56,964	33.1	−27.1
Building machinery and equipment	6,163	9,678	13,311	57.0	37.5
Leasehold improvements	4,121	3,275	9,105	−20.5	178.0
Total	**138,314**	**203,308**	**231,673**	**47.0**	**14.0**

Chart 3.1
Operating Expenses of the Federal Reserve Banks, 1979–89[1]



1. For 1988, estimate; for 1989, budget.
2. Calculated with the GNP implicit price deflator.

Chart 3.2
Employment at the Federal Reserve Banks, 1979–89[1]



1. For 1988, estimate; for 1989, budget. See text note 1 for definition of ANP.

and 1981 because of the MCA; however, over the next three years, employment declined a total of 1,320, or 5.5 percent, reaching 22,669 in 1984, its lowest level in the 1979–89 period. Employment rose again in 1985 and 1986 as bank examiners were added and actions were taken to handle increasing volume. Employment declined in 1987 by 229 ANP, in part because of the budget restraint attending the Gramm–Rudman–Hollings legislation. Employment was budgeted to increase 369 ANP in 1988 and 62 in 1989, primarily to implement the Expedited Funds Availability Act.

Volume and Unit Cost

Volume for all measured operations is budgeted to increase 3.2 percent over 1988, and unit cost is expected to rise by 1.8 percent (table 3.13). With this expectation for 1989, the five year (1984–89) average annual growth rate will be 3.5 percent for volume and 1.5 percent for unit cost. Implementation of the Expedited Funds Availability Act is the major reason for the increase in unit cost in 1989, although efforts to improve availability in the funds transfer service and declining volumes in many of the fiscal services also contribute to the increase in unit cost.

1988 Budget Performance

The 1988 Bank budgets, excluding provisions for implementation of operations related to the Expedited Funds Availability Act, were approved in December 1987 for a total of $1,245.1 million, an increase of $48.9 million, or 4.1 percent, from estimated 1987 expenses. The Re-

Table 3.13
Changes from 1988 to 1989 in Volumes and Unit Costs of Federal Reserve Bank Services

Percent

Service	Volume	Unit cost
Payments	4.3	1.1
Commercial checks	2.8	2.2
Automated clearinghouse	14.7	−7.2
Funds transfers	4.0	3.2
Other	.4	2.9
Cash	4.2	−1.3
Currency	5.7	−2.4
Coin	−5.3	6.7
Fiscal agency	−2.6	8.1
Savings bonds	−3.6	6.7
Other Treasury issues	−9.1	14.4
Other fiscal agency	.5	8.5
Treasury Direct	1.3	2.8
Securities and noncash services	−.8	7.4
All	**3.2**	**1.8**

serve Banks now estimate 1988 expenses will be $1,249.7 million (again excluding provisions for operational aspects of expedited funds), which is $4.6 million, or 0.4 percent, over the approved budget. One-half of this overrun is attributable to incremental expenses for (nonoperational) educational efforts and postage related to the expedited funds mandate, which the Reserve Banks were unable to absorb completely within approved budgets. Of the Districts estimated to be over their approved budgets, five of them notified the Board of their expected overrun. The budget overruns of the remaining Districts are within the guideline allowed by the Board.

The Reserve Banks, while attempting to hold down costs overall, have found it necessary to direct additional resources in several areas. Problems with check operations in Boston, New York, and Cleveland required additional staff, as did increased responsibilities in Philadelphia and Dallas for supervision and regulation. The 1988 budget proposed by Dallas had been reduced with the understanding that the Bank could exceed its budget provided that resources were needed for supervision. Efforts to improve the availability of automated functions and support for programming has increased expenses and staffing levels at Richmond and Kansas City.

1988 Budget Performance on Expedited Funds

In early 1988, the Director of the Division of Federal Reserve Bank Operations, acting under authority delegated by the Board, approved supplemental expense budgets, totaling $12.5 million, for the 12 Districts to carry out the Expedited Funds Availability Act. The Reserve Banks now estimate these supplemental expenses at $11.6 million, which is $0.9 million, or 7.8 percent, less than the approved amount. The Boston District expects to exceed its supplemental budget; all other Districts anticipate spending an amount equal to, or less than, their approved amounts. ■

Part II

Special Analysis

Chapter 4

The Automated Currency Processing System

Although the public's use of checks, credit cards, and electronic means of payment is expanding, its demand for currency continues to rise (table 4.1). An important function of the Federal Reserve is to satisfy this demand for currency and for coin. Depository institutions circulate their currency through the Reserve Banks, which in turn remove worn and counterfeit bills and recirculate the fit currency. Under the terms of the Federal Reserve Act, the System orders from the Bureau of Engraving and Printing the amount of currency it deems necessary to supplement the recirculated bills.[1] Over the years, the Federal Reserve has looked to improvements in technology to meet at the lowest cost the public's demand for currency.

History of Currency Processing Technology

A simple counting machine called the Federal Bill Counter was one of the first pieces of equipment used to sort currency at the Reserve Banks. While hand-sorting bills into various pockets on this machine, tellers would visually inspect the quality of the notes and look for counterfeits.

As the volume of notes increased, the Federal Reserve shifted to mechanical counting devices. Employees were unable to inspect the notes processed by these machines, which performed a simple count of a stack of notes, typically 100 at a time. As a result, the quality of notes in circulation fell and the detection of counterfeits suffered. Marginally more advanced machines were introduced over the years, but currency processing remained labor-intensive, the ability to cull notes remained low, and the volume of notes in circulation continued to expand.

In 1977 the Federal Reserve introduced a technologically far more advanced generation of equipment called Currency Verification, Counting, and Sorting (CVCS) machines. CVCS machines can process up to 60 thousand notes per hour and are equipped with sensors that detect the denomination, quality, and authenticity of each note. Today, the 37 Federal Reserve Banks and Branches operate 116 CVCS machines.

In the face of rising demand for currency, the Federal Reserve increased productivity through more intensive use of the CVCS machines and through improvements in the machines themselves. For example, the Banks' managers and processing staff developed more efficient processing teams, reduced idle time, and added shifts. Also, the Banks installed new sensors on the machines during 1982 and 1983 to better detect worn bills; use of the machines slowed during the installation, but by 1984, output per person was 13 percent above the level for 1981. Thanks to such efforts, the number of notes processed by each employee has grown 43 percent between 1979 and 1988, from about 13 million to more than 19 million. As a result, since 1979 the Banks have held the increase in the staffing level for currency processing

1. The Federal Reserve assumes the cost of producing and distributing the currency. The expense of producing and distributing coin, which the Federal Reserve receives from the Bureau of the Mint at face value, remains a liability of the U.S. Treasury. Coin accounts for a minor portion of the value of cash in the nation's payments system. See pp. 5, 13–14, table 3.13 on p. 27, and pp. 48–49 for other information on currency and coin.

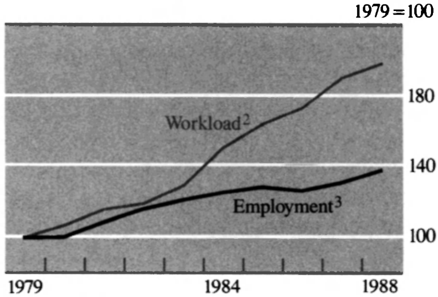
to 38 percent, while the volume of notes processed has increased 98 percent (chart 4.1).

The New Automated Currency Processing System

The CVCS machines are reaching the limits of their efficiency and of their useful life. At the same time, the Banks expect the economy's need for processed currency to continue growing, to more than 34 billion pieces by the year 2000. In 1982 the Federal Reserve engaged several domestic and foreign vendors to begin developing a new generation of equipment. In November 1987 the Board of Governors approved the machines developed by Recognition Equipment, Inc, of Irving, Texas, and authorized $40 million for their purchase. The first units will be delivered in mid-1990.

The new equipment, called the Automated Currency Processing System (ACPS), is the next step in the technological evolution of currency processing in the Federal Reserve System. Among the advantages of the new machines will be a 20 percent increase in output and a 40 percent reduction in labor costs. In addition, the ACPS machines will be more accurate, provide better security, and destroy unfit notes more thoroughly to make disposal easier. The purchase is thus a major step in the continuing effort by the Federal Reserve to minimize the cost of providing the public with high-quality currency.

Chart 4.1
Trends in Currency Processing[1]



1. For 1988, estimate.
2. Billions of pieces.
3. Average number of personel; for definition of ANP, see chap. 3, note 1.

Table 4.1
Currency Processed and Paid into Circulation by the Reserve Banks, 1979–88
Billions

Year	Notes received from circulation and processed (pieces)[1]	Notes paid into circulation[2]	
		Pieces	Dollars (face value)
1979	8.9	10.2	109.1
1980	9.5	11.0	124.6
1981	10.3	11.8	137.5
1982	10.6	12.1	146.1
1983	11.5	13.1	161.5
1984	13.4	14.4	181.4
1985	14.6	15.4	199.7
1986	15.4	16.4	216.1
1987	16.9	17.7	233.8
1988[3]	17.6	18.3	243.3

1. Excludes new currency.
2. Includes new currency.
3. Estimate.

Appendixes

Appendix A

Mission and Operational Areas of the Federal Reserve System

The Federal Reserve Banks and the Board of Governors have established four major operational areas to account for their activities: monetary and economic policy, supervision and regulation of financial institutions, services to financial institutions and the public, and services to the U.S. Treasury and other government agencies.[1] This appendix describes each of these areas in detail.

Monetary and Economic Policy

The Federal Reserve contributes to the attainment of the nation's economic and financial goals through its ability to influence money and credit in the economy. The System has several tools to affect the availability and cost of the nation's money and credit: setting of reserve requirements; setting of the discount rate (which affects the cost of borrowing); and the primary tool of monetary policy, open market operations.

The seven-member Board of Governors sets reserve requirements, and it acts on requests from the Federal Reserve Banks to adjust the discount rate. The Federal Open Market Committee (FOMC) meets in Washington eight times per year, usually twice each business quarter, to set policies for System open market operations; it comprises the Board, the President of the Federal Reserve Bank of New York, and, on a rotating basis, the presidents of four other Reserve Banks.

A vast amount of banking and financial data flows through the Reserve Banks to the Board, where it is compiled and made available to the public in weekly and monthly statistical releases in such areas as the monetary aggregates, interest rates, bank credit, and exchange rates. The research staffs at the Board and the Reserve Banks use this information, along with data collected by other public and private institutions, to assess the state of the economy and the relationships between the financial markets and economic activity. Staff members provide background for the Board and for each meeting of the FOMC by preparing detailed economic and financial analyses and projections for the domestic economy and international markets. In addition, they conduct longer-run economic studies of issues at the regional, national, and international levels.

Supervision and Regulation

Under the authority of the Federal Reserve Act and the Bank Holding Company Act, the Federal Reserve System plays a major role in the supervision and regulation of banks and bank holding companies. Under the Bank Holding Company Act, the Board is responsible for assuring that all activities of bank holding companies are "closely related to banking and a proper incident thereto." The Board of Governors adopts regulations to carry out statutory directives and

1. Services to the U.S. Treasury and other government agencies is an operational area unique to the Federal Reserve Banks. The fourth operational area for the Board of Governors, System policy direction and oversight, provides resources for the supervision of Board and Bank programs and is discussed in chap. 2.

establishes System supervisory and regulatory policies; the Reserve Banks conduct on-site examinations and inspections of state member banks and bank holding companies; review applications for mergers, acquisitions, and changes in control from banks and bank holding companies; and take formal supervisory actions. The System makes available to the public nonidentifying information it periodically collects on the condition and income of banks and bank holding companies.

Beyond these activities, the Federal Reserve maintains continuous oversight of the banking industry to ensure the overall safety and soundness of the financial system. This broader responsibility is reflected in the System's presence in financial markets, through open market operations, and in the Federal Reserve's role as lender of last resort. Toward that goal, the Federal Reserve, together with the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation, in March 1988 introduced to the G-10 countries a proposal regarding capital requirements that employs the risk-based framework developed by the Basle Supervisors' Committee. The principal objective of the proposal is to achieve greater convergence in the measurement and assessment of capital positions of major international banking organizations.

The Board's staff believes that adoption of risk-based capital requirements will achieve important objectives long sought by the Federal Reserve. First, it will make regulatory capital requirements more sensitive to differences in risk profiles among banking organizations. Second, it will take an important step in the factoring of off-balance-sheet risks into the assessment of capital adequacy. Third, it will minimize disincentives to holding liquid, low-risk assets.

The development of a risk-based framework in conjunction with supervisory officials from other industrial countries acknowledges the growing internationalization of major banking and financial markets. The harmonization and strengthening of capital standards worldwide should contribute to a more stable and resilient international banking system and help mitigate a source of competitive inequality for international banks stemming from differences in national supervisory requirements.

Over the past two years, the System has intensified its supervision of state member banks and bank holding companies in light of the rising number of failing and problem banks. In 1988 the Board and the Banks conducted 875 examinations of state member banks, an increase of 4.8 percent over 1987, and 2,726 inspections of bank holding companies and their subsidiaries, an increase of 3.5 percent over 1987. The System reviewed 2,247 applications from foreign and domestic bank holding companies.

The Board enforces compliance by state member banks with the federal laws protecting consumers in their use of credit. In 1988 the System conducted examinations for such compliance at an estimated 605 banks.

The Board's supervisory responsibilities also extend to foreign operations of U.S. banks and, under the International Banking Act, to U.S. operations of foreign banks.

Services to Financial Institutions and the Public

The Federal Reserve System plays a central role in the nation's payments mechanism, which consists of many independent systems designed to move funds among financial institutions. The Federal Reserve distributes currency and coin, processes checks for collection, operates electronic funds transfer networks, and provides for transfers of securities and for coupon collection.

Ensuring that the supply of currency and coin meets the public's demand for cash is the responsibility of the Federal Reserve. The Reserve Banks obtain currency and coin from the Bureau of Engraving and Printing and the Mint and distribute them through depository institutions. The Banks use highly sophisticated equipment to count cash, identify counterfeits, and destroy currency that is unfit for circulation. In 1988, the Reserve Banks paid out $243.3 billion in currency and $4.5 billion in coin and destroyed $53.9 billion of unfit currency.

The Reserve Banks collect and clear checks under the specific authority of the Federal Reserve Act of 1913. The Banks, Branches, and regional check-processing centers currently clear approximately 15 billion checks each year with an average daily value of more than $41 billion. Most checks deposited with the Federal Reserve by financial institutions are collected on the day they are deposited or on the next business day.

In 1987 the Congress adopted the Expedited Funds Availability Act (title VI of Public Law 100-86, the Competitive Equality Banking Act). The law, which became effective on September 1, 1988, is intended to balance the risk to financial institutions with the needs of customers by limiting the time an institution may delay the access of customers to their deposited funds. To implement the act, the Federal Reserve adopted Regulation CC, which sets out schedules of access to different types of deposits in various types of accounts.

The Federal Reserve also plays a central role in the nation's payments mechanism through its electronic wire transfer system, Fedwire. Depository institutions can draw on their reserves or clearing accounts at the Reserve Banks through Fedwire and transfer funds anywhere in the country within minutes. Approximately 5,800 depository institutions use Fedwire through direct computer connections with Federal Reserve Banks, and another 5,400 institutions use Fedwire through off-line means such as telephone and telex. During 1988, approximately 56 million transfers valued at about $160 trillion were sent over Fedwire, an average of $29 million per transfer and $639 billion per day.

The Federal Reserve allows participants in private clearing arrangements to exchange and settle transactions on a net basis through reserve or clearing-account balances. Users of this net settlement service include local check clearinghouse associations, credit card processors, networks of automated teller machines, and national and regional funds transfer networks. In 1988, about 695,000 net settlement entries were processed by the Reserve Banks.

Approximately 22,000 depository institutions use the automated clearinghouse, which makes recurring payments electronically instead of by check. The institutions use the ACH primarily to pay salaries and pensions and to make preauthorized bill payments, such as those for insurance premiums and mortgages. About 3,700 of the institutions using the ACH originate and receive transactions via electronic connections with the Federal Reserve; the others use machine-readable magnetic tapes. In 1988 the Reserve Banks processed about 1 billion ACH transactions; about 40 percent were governmental, largely disbursements of Social Security benefits and civilian and military pay.

The securities services provided by the Reserve Banks cover the handling of book-entry securities and definitive securities and the collection of coupons and miscellaneous items. The book-entry service, begun in 1968, enables holders of government agency securities to transfer them to other institutions throughout the country. The Reserve Banks maintained 40,117 book-entry accounts in 1988 and processed 10.3 million security transfers.

In the definitive securities service, the Banks store physical securities ineligible for maintenance on the book-entry system. The Federal Reserve held approximately $25 billion of such securities at the end of 1988.

In its noncash collection service, the Federal Reserve processes coupons, bonds, and miscellaneous items such as bankers acceptances and certain checks and drafts. Coupon collection, which accounts for approximately 95 percent of the transactions in this service, amounted to about 4.2 million coupons in 1987 and about 3.3 million in 1988.

Services to the U.S. Treasury and Other Government Agencies

The U.S. government uses the Federal Reserve as its bank. Through deposit accounts at the Federal Reserve Banks, the government issues its checks and payments and collects its receipts. The Reserve Banks also process wire transfers of funds and automated clearinghouse payments and give the Treasury daily statements of account activity.

Beyond these typical depository activities, the Federal Reserve Banks provide several unique services to the government. They monitor the tax receipts deposited in the 14,883 tax and loan accounts maintained by depository institutions designated by the Treasury to perform this function; and they hold the collateral that those institutions pledge to support those deposits and transfer funds to the Treasury's account at its request. The Reserve Banks assist the Treasury in its financing of the public debt by issuing, servicing, and redeeming all marketable Treasury securities as well as all Treasury savings bonds and retirement plan bonds. In another unique fiscal service, the Reserve Banks redeem food coupons for the Department of Agriculture and destroy them. ■

Appendix B

Budget Processes

As a group, the Reserve Banks follow a budgeting process distinct from that of the Board of Governors. This appendix describes those processes and explains PACS, the planning and control system that the Banks use for accounting.

The Budget and Control Process of the Board of Governors

All levels of management at the Board take part in a planning, budget, and control process based on the calendar year. To ensure that all elements are coordinated and objectives are achieved, the Administrative Governor oversees the process under authority delegated by the Chairman.

The Board places expenses and employment in four operational areas: economic and monetary policy, supervision and regulation of financial institutions, services to financial institutions and the public, and System policy direction and oversight. Costs for data processing are charged as direct expenses to the four major areas according to usage. Expenses for other elements of support and overhead are allocated to the four areas in proportion to the shares of direct costs attributable to each area.

The Budget Schedule

Early each year, the divisions at the Board conduct strategic planning meetings. In May, the Board's functional oversight committees review, for the divisions under their purview, the plans for the following year and beyond. The Board's Controller and Staff Director for Management coordinate the oversight meetings and the Controller simultaneously prepares a budget estimate based on the current level of operation, taking into account anticipated initiatives discussed at the meetings and other factors such as wage increases, changes in costs of employee benefits, and inflation.

Using this projection of expenses, the Controller prepares a proposed guideline for approval of the Board in June. The approved guideline is then used by the divisions for preparation of their budget proposals in the fall.

The objectives and budgets prepared by the divisions are reviewed with the Controller, the Staff Director for Management, and the oversight committees. After appropriate adjustments, the Controller in coordination with the Staff Director for Management prepares a consolidated budget for the Administrative Governor to present to the Board for final approval at a public meeting in December.

Treatment of Capital Expenditures

In 1985 the Board began capitalizing certain assets and depreciating their value over appropriate time periods, instead of expensing them in their year of purchase. Capitalizing, which is in accordance with generally accepted accounting principles, more closely aligns the cost of capital assets with their periods of service and is consistent with the accounting practices followed by the Reserve Banks.

The capital budget is developed concurrently with the operating budget, following the same procedures. Although the capital budget is not covered by the guideline for the operating budget, depreciation and other costs such as maintenance that are associated with capital assets fall under the guideline because they are operating costs.

Financial Monitoring and Control

Each division constructs quarterly operating plans, which managers monitor and review throughout the year. The Controller observes performance against budgeted targets and submits quarterly reports to the Board.

After a midyear review of current expenses with each division director, the Controller and the Staff Director for Management estimate expenses for the entire year and submit the estimate to the Board along with any recommendations for reallocations. The midyear review helps control current expenses and provides a baseline for analyzing budget requests. At the beginning of the next year, the Controller and the Staff Director for Management report to the Board on the previous year's performance against budget and operating goals.

Assessments

The cash requirement for operations during the first half of the year, which is estimated after the Board adopts its budget, is approved by the Administrative Governor in early January. As the Federal Reserve Act provides, the required amount is raised by an assessment on each of the Reserve Banks in proportion to its capital stock and surplus. For the second half of the year, the cash requirement is estimated in June, and the second assessment is made in July. Funds are transferred quarterly to minimize cash balances held by the Board.

The Budget and Control Process of the Federal Reserve Banks

Each year the Federal Reserve Banks, like the Board, establish major operating goals for the calendar year, devise strategies for their attainment, estimate required resources, and monitor results of current operations and financial performance.

The Budget Process

A task force drawn from staff members of the Board and the Reserve Banks develops a proposed budget guideline for the coming year based on forecasts of changes in workload and productivity at the Reserve Banks. The Conference of First Vice Presidents and the Conference of Presidents of the Reserve Banks review the work of the task force, and revise it if necessary, before sending it to the Board of Governors. The Board determines the appropriateness of the proposed level of spending and at about midyear communicates the budget objective to the Reserve Banks for their guidance in developing plans and budgets. To plan for priced services, the Banks update a multiyear strategic statement.

The management of each Bank department develops its budget based on workloads, required initiatives, and the budget objective. Senior Bank officials review the departmental requests and together with the President and First Vice President determine priorities for the overall budget level to be recommended to the Bank's Board of Directors. In the fall the Board of Governors approves the budget of each Reserve Bank as well as the fee schedule for priced services, which is developed simultaneously with the budget data.

The Capital Budget Process

The Reserve Banks account for capital expenditures in accordance with generally accepted accounting principles and, therefore, include depreciation of capital assets in expenses. Technical staff members at the Board review all plans for large capital expenditures, whether for buildings, automation equipment, furnishings, or land. The staff members then make recommendations to the Director of the Division of Federal Reserve Bank Operations or to the Board of Governors, depending on the significance of the item or project.

Review at the Board of Governors

In the fall, analysts at the Board review the budgets of each Reserve Bank and note Systemwide issues to be addressed during the budget review. They analyze the executive summary and the statement of objectives in each budget in light of the Bank's own trends, plans at the other Banks, the System budget objective and the cost-recovery objectives for priced services. The Product Directors and the Pricing Policy Committee examine the budgets for priced services.[1] A committee of three governors reviews the budget of each Reserve Bank and meets directly with the President and First Vice President of each Bank to discuss issues and directions.

Board Approval

Following review by the Committee of three governors, all Bank budgets are sent to the Board of Governors for action at a public meeting in December.

Special Projects

Special projects are those few research and development efforts that have the potential for a major improvement in the nation's payments mechanism or in the Federal Reserve's ability to provide services. Because of their long-range importance, special projects are approved separately from the process described above, which focuses on operational costs. Although not included in the budget objective, these projects are individually approved by the Conference of Presidents and the Board of Governors, and their effect on total system outlays is carefully reviewed. Three such projects, described in appendix C, have been approved for 1989.

The Planning and Control System

The Planning and Control System (PACS), implemented by the Reserve Banks in 1977, serves as the fundamental cost accounting system for all the services provided by the Banks, whether priced or nonpriced, special or routine. Because PACS serves as the structure for budgeting, budgets can be compared to actual expenses by service and object. PACS also enables the Board of Governors to compare the financial and operating performance of the Reserve Banks.

PACS groups all costs by major services, shown here under the four operational areas and under support and overhead (see the accompanying list). The costs of support and overhead, in turn, are fully allocated to the four operational areas. PACS offers a detailed analysis of all these services and activities, including productivity statistics (primarily unit costs and items per employee hour), "environmental" statistics (to clarify the differences among the Banks' operating environments), and "quality" statistics (to measure performance).

PACS affords the Banks a review of expenses, an audit trail, and expense accountability. Through periodic on-site reviews, the Board confirms that the

1. The Product Directors are the First Vice Presidents at selected Reserve Banks with responsibility for day-to-day policy guidance over specific Systemwide priced services. The Pricing Policy Committee comprises one Governor, the Board's Staff Director for Federal Reserve Bank Activities, the Presidents of two Reserve Banks, and the First Vice Presidents of two other Reserve Banks.

Reserve Banks are complying with PACS instructions and also with System guidelines set by the Board. In addition, the General Accounting Office and an outside public accounting firm have determined in independent examinations that PACS is an appropriate and effective accounting mechanism for the Federal Reserve.

Federal Reserve Bank Activities

OPERATIONAL AREAS

Monetary and economic policy
Economic policy determination
Open market trading

Supervision and regulation
Supervision of District financial institutions
Administration of laws and regulations related to banking
Studies of banking and financial market structure

Services to financial institutions and the public
Special cash service
Currency
Coin
Transfer of account balances
Automated clearinghouse
Commercial check
Other check
Book-entry securities
Definitive securities
Loans to depository institutions and others
Noncash collection
Public programs
Other

Services to the U.S. Treasury and other government agencies
Savings bonds
Other Treasury issues
Centrally provided Treasury and agency services
Government agency issues
Other Treasury and government agency services
Treasury and government coupons
Food coupons
Government accounts

SUPPORT AND OVERHEAD

Support
Data processing
Centrally provided support
Occupancy service
Printing and supplies
Centralized planning
District projects

Overhead
Administration
System projects and contingency processing center
Special projects
Mail
Legal
General books and budget and expense control
Files and records storage
Personnel
Purchasing
Protection
Motor vehicles
Library
Telephone
Audit

Appendix C

Special Categories of System Expense

This appendix discusses System expenses for priced services, capital assets, special projects, and currency.

Priced Services

The Monetary Control Act of 1980 (MCA) requires the Federal Reserve to make available to all depository institutions, for a fee, certain services that the Federal Reserve had previously provided without explicit charge and only to member banks. Under the act, the fees must recover the full costs of providing the services, including all direct and indirect costs, the interest on items credited before collection (float), and the return on capital and the taxes that would have been paid had the services been furnished by a private business firm. The cost of capital and taxes is referred to as the private sector adjustment factor (PSAF).

The Federal Reserve has developed an annual pricing process, which involves a review of Reserve Bank expenses in addition to the one required by the budget process, to meet the requirements for the full recovery of costs. Use of the budgets is an integral part of the pricing exercise because most of the recoverable costs of priced services consist of direct and indirect costs as determined by the budgets.

Generally, fees are set only once a year, in the fourth quarter for the next calendar year, so that depository institutions can more easily plan their own correspondent banking services. The Federal Reserve temporarily deviated from this schedule in June 1988, when it announced explicit fees for check collection return items to be effective in September. These new fees are part of the Board's implementation of the Expedited Funds Availability Act. The Federal Reserve anticipates resuming its normal schedule, announcing prices for 1990 in the fourth quarter of 1989.

Fees for Federal Reserve services must be approved by the Product Director for the respective service, by the Pricing Policy Committee, and ultimately by the Board of Governors.[1] If fees for any service are set so that the full recovery of costs is not anticipated, the Board announces the rationale.

The cost of float is determined by applying the current rate for federal funds to the level of float expected in the coming year. Income taxes and the return on capital are determined by applying tax and financing rates to the assets the Federal Reserve expects to use in its priced services operations in the coming year. The tax and financing rates are derived from a model of the nation's 25 largest bank holding companies. The other components of the PSAF are derived from the budgets of the Reserve Banks: the imputed sales tax (based on budgeted outlays for materials, supplies, and capital assets); the assessment for FDIC insurance on expected clearing balances maintained with the Federal Reserve to settle transactions; and the portion of the expenses of the Board of Governors that is related directly to the development of priced services.

The inclusion of all these costs means the Federal Reserve offers its priced services on a basis comparable with that in the private sector, and the discipline of

1. See appendix B, note 1, for a description of the position of Product Director and of the Pricing Policy Committee.

the market ensures that the prices charged will be no higher than necessary.

Calculation of the PSAF for 1989

In 1988 the Board approved a 1989 private sector adjustment factor of $69.7 million, a decrease of $6.5 million, or 8.5 percent, from the PSAF of $76.2 million targeted for 1988.

Asset Base

The estimated value of Federal Reserve assets to be used in providing priced services in 1989 is $3,240.3 million (table C.1). The value of assets assumed to be financed through debt and equity is $445.2 million in 1989, an increase of $28.0 million, or 6.7 percent, from 1988 (table C.2). The rise is attributable largely to capital expenditures for bank premises, furniture, and equipment.[2]

2. Short-term assets are assumed to be financed by short-term liabilities; long-term assets are assumed to be financed by a combination of equity and long-term debt.

Table C.1

Pro Forma Balance Sheet for Federal Reserve Priced Services, 1988–89[1]

Millions of dollars

Asset or liability	1988		1989	
ASSETS				
Short-term assets				
Imputed reserve requirement on clearing balances	268.2		283.3	
Investment in marketable securities	1,967.0		2,077.9	
Receivables[2]	28.0		29.6	
Materials and supplies[2]	6.4		7.1	
Prepaid expenses[2]	5.8		6.2	
Net items in process of collection (float)	438.3		432.8	
Total short-term assets		2,713.7		2,836.8
Long-term assets				
Premises[2 3]	245.4		259.9	
Furniture and equipment[2]	129.5		137.9	
Capital leases	2.5		1.1	
Leasehold improvements[2]	2.2		4.7	
Total long-term assets		379.6		403.6
Total assets		**3,093.3**		**3,240.3**
LIABILITIES				
Short-term liabilities				
Clearing balances	2,235.2		2,361.2	
Balance arising from early credit of uncollected items	438.3		432.8	
Short-term debt[4]	40.1		42.8	
Total short-term liabilities		2,713.6		2,836.8
Long-term liabilities				
Obligations under capital leases	2.5		1.1	
Long-term debt[4]	136.4		156.8	
Total long-term liabilities		138.9		158.0
Total liabilities		2,852.5		2,994.7
Equity[4]		240.7		245.6
Total liabilities and equity		**3,093.2**		**3,240.3**

1. Data are averages for the year.
2. Financed through the private sector adjustment factor; other assets are self-financing.
3. Includes $0.4 million in allocations of assets of the Board of Governors to priced services for 1989 and $0.5 million for 1988.
4. Imputed figures representing the source of financing for certain priced-service assets.

Cost of Capital and Taxes

In 1987 the Board approved the use of a three-year average of rates of return on equity for calculating the PSAF. Because of abnormally low earnings by bank holding companies in 1987, however, the Board approved the use of five-year average rates of return on equity for use in the 1989 PSAF computation. Use of a three-year average for 1989 would have resulted in a PSAF that is significantly below the PSAF approved by the Board.

Changes in the relative sizes of bank holding companies have changed somewhat the composition of the 25-company sample used to calculate the PSAF. As in the past, the sampled bank holding companies with the highest and lowest rates of return on equity before taxes were

Table C.2

Derivation of the Private Sector Adjustment Factor, 1988–89

Millions of dollars, except as noted

Item	1988	1989
PSAF COMPONENTS		
Assets to be financed[1]		
Short-term	40.1	42.8
Long-term[2]	377.1	402.4
Total	417.2	445.2
Cost of capital (percent)[3]		
Short-term debt	7.1	6.6
Long-term debt	9.7	9.0
Pretax return on equity[4]	20.1	16.9
Weighted average	15.4	13.8
Capital structure (percent)		
Short-term debt	9.6	9.6
Long-term debt	32.7	35.2
Equity	57.7	55.2
Total	100.0	100.0
Tax rate (percent)[4]	32.3	20.5
REQUIRED PSAF RECOVERIES		
Capital costs[5]		
Short-term debt	2.8	2.8
Long-term debt	13.3	14.0
Equity	48.3	41.4
Total	64.4	58.3
Other costs		
Sales taxes	8.2	8.0
Assessment for federal deposit insurance	1.9	1.9
Expenses of Board of Governors	1.7	1.4
Total	11.8	11.4
Total PSAF recoveries		
Millions of dollars	**76.2**	**69.7**
As a percent of capital	**18.3**	**15.7**
As a percent of expenses	**16.3**	**13.8**

1. The asset base for priced services is directly determined.

2. Total long-term assets less capital leases that are self-financing.

3. All short-term assets are assumed to be financed by short-term debt. Of the total long-term assets, 39 percent are assumed to be financed by long-term debt and 61 percent by equity in 1989. The data are average rates paid by the bank holding companies included in the sample.

4. The pretax rate of return on equity is based on average after-tax rates of return on equity for the sample of bank holding companies, adjusted by the effective tax rate. The 1989 figures for pretax equity and the tax rate are based on the average of these rates for the five years 1983–87.

5. The calculations underlying these data use the dollar value of assets to be financed, divided as described in note 3, and the rates for the cost of capital.

excluded, and calculations were based on the remaining 23 firms.

Other Imputed Costs
Other required PSAF recoveries for 1989—imputed sales taxes, FDIC insurance, and Board expenses—total $11.4 million, down $0.4 million from 1988 (table C.2). The reduction is due to a decline from 1988 to 1989 in projected capital expenditures, which in turn lowered imputed sales taxes. The decline is also attributable to a reduction in the proportion of time Board staff members work on the development of priced services as the proportion of time spent on implementing the Expedited Funds Availability Act increases.

Capital Outlays

In accordance with generally accepted accounting principles (GAAP), the Federal Reserve System depreciates the cost of fixed assets over their estimated useful lives. In the federal government, where no requirement exists for depreciation accounting, the cost of fixed assets is typically recorded as an expense at the time of purchase. However, *the Policy and Procedures Manual for Guidance of Federal Agencies* of the General Accounting Office, which governs accounting procedures in the federal government, specifies in title 2 the use of depreciation accounting for business types of operations and for activities that recover costs from reimbursements or user charges. Certain activities of the Federal Reserve meet both of these criteria. Under GAAP, the cost of acquiring an asset that is expected to benefit an entity over future periods should be allocated over those periods. Such treatment allows a more realistic measurement of operating performance.

The Banks capitalize and depreciate all assets that cost $1,500 or more; they can either capitalize or expense those assets costing less. The capitalization guideline for the Board is $1,000.

The Banks maintain a multiyear plan for capital spending. The Board, in turn, requires the Banks to budget annually for capital outlays by capital class to estimate the effect of total operating and capital spending. During the budget year, the Banks must submit proposed major purchases of assets to the Board for further review and approval. The Board of Governors reviews capital expenditures for the Board.

Table C.3 shows total System outlays for recent years based on the federal government's typical practice of expensing assets. Total outlays for each year are derived from operating expenses less depreciation costs plus capital outlays. Because capital outlays are thus shown in total in the year of purchase rather than spread over the useful lives of the assets, the amounts and percent changes vary widely from year to year.

Special Projects

For 1989 the Board of Governors has approved research and development on three projects intended to provide long-range benefits to the Federal Reserve and the banking industry. Because the spending on such projects is relatively high and short-term, the Federal Reserve accounts for it separately from its operating expenses.

Digital Imaging of Checks

In mid-1985 the Conference of First Vice Presidents approved the concept of testing the technology for making digital images as it might be applied to check processing. The archiving of information on checks written by the U.S. Treasury and the processing of bad checks (return items) are the potential applications with the most stringent requirements. The information captured from such checks must be especially detailed and of high quality and therefore requires a large capacity for data storage. These two check processes were thus selected as the most likely to reveal the feasibility of the technology. If the technology is successful, it could replace the Federal Reserve's current practice of microfilming government checks and could speed the handling of return items.

In 1989 the check imaging project, building upon the first three years of results, will test an imaging system at two Reserve Banks with high-speed check processors. Total 1989 expenses for the project are estimated to be $1.7 million.

The technology has been under consideration since December 1986 by a group of commercial banks, primarily for check processing within a single District. These institutions believe that, in evaluating this technology, the Federal Reserve has a role to play similar to the one it played in the 1950s in evaluating Magnetic Ink Character Recognition (MICR). That is, the System can determine whether the technology can support inter-District functions at the required speeds while producing acceptable images; the Federal Reserve can also address the legal issues associated with image capture. The effort by the commercial banks might

Table C.3

Total Outlays of the Federal Reserve System, Federal Government Accounting Method, 1984–89[1]

Millions of dollars, except as noted

Year and entity	Operating expenses	Depreciation		Capital outlays	Total outlays	Percent change from previous year
		Equipment	Property			
	(1)	(2)		(3)	(1)−(2)+(3)	
1984						
Reserve Banks	1,067.8	51.4	20.6	88.7	1,084.5	...
Board of Governors	76.5	2.0	1.6	7.9	80.8	...
Total	1,144.3	53.4	22.2	96.6	1,165.3	...
1985						
Reserve Banks	1,117.4	60.3	21.1	148.2	1,184.2	9.2
Board of Governors	82.0	3.3	1.6	4.2	81.3	.6
Total	1,199.4	63.6	22.7	152.4	1,265.5	8.6
1986						
Reserve Banks	1,161.3	68.0	23.5	164.1	1,233.9	4.2
Board of Governors	84.0	4.2	1.6	16.5	94.7	16.5
Total	1,245.3	72.2	25.1	180.6	1,328.6	5.0
1987						
Reserve Banks	1,191.8	75.8	26.1	138.3	1,228.2	−.5
Board of Governors	86.3	5.9	1.6	5.0	83.8	−11.5
Total	1,278.1	81.7	27.7	143.3	1,312.0	−1.2
1988 estimate						
Reserve Banks	1,261.3	78.4	28.9	203.3	1,357.3	10.5
Board of Governors	90.6	6.0	1.6	3.4	86.4	3.1
Total	1,351.9	84.4	30.5	206.7	1,443.7	10.0
1989 budget						
Reserve Banks	1,330.5	85.6	32.1	231.7	1,444.5	6.4
Board of Governors	96.0	5.9	1.6	3.3	91.8	6.3
Total	1,426.5	91.5	33.7	235.0	1,536.3	6.4

1. Excludes the costs of special projects and currency.

not have developed without the involvement of the Federal Reserve.

Optical Detection of Counterfeit Currency

The Federal Reserve is using the technology of digital image processing discussed above to develop optical sensors that can detect counterfeit U.S. currency. The sensors would be integrated into the new generation of automated currency processing machines to be used at the Reserve Banks (see chapter 4).

In 1989, selected vendors will develop a prototype system to be tested against prescribed performance standards. The Federal Reserve, which will share with the vendors the cost of development, has budgeted $3.3 million for the project in 1989.

Processing Electronic Payments

A study by the Federal Reserve has indicated that, to meet the needs of users, the System must extend the number of hours it provides electronic payments services and that to better control risk in the payments system, it must improve the reliability of these services. The study also indicated that users of electronic payments are looking for more flexibility in the range of services offered as well as cost-effectiveness.

In 1989 the Federal Reserve will complete its testing of equipment to satisfy these requirements. The pilot program, known as the Electronic Payments Processor, uses nonstop, fault-tolerant equipment of the type used in networks of automatic teller machines and in payments processing at commercial banks.

The Federal Reserve is installing the equipment at three Reserve Banks and developing software for the automated clearinghouse service. The program, budgeted at $6.1 million for 1989, will also demonstrate the use of fault-tolerant equipment for the transfer of funds and securities.

Currency Printing

The Bureau of Engraving and Printing produces currency; the Federal Reserve Banks put it into circulation through depository institutions and destroy it as it wears out (table C.4). The Federal Reserve Act stipulates that the costs of producing currency, as well as the costs of putting it into circulation and destroying it, are to be assumed by the Federal Reserve System (table C.5).

New currency is printed to replace worn notes and to accommodate increases in the demand for circulating currency. Notes are also required for inventories held by the Reserve Banks to meet changes in demand.

To minimize the number of new notes ordered and the cost of their printing, the Board consults with the Bureau of Engraving and Printing to ensure that it uses efficient methods and maintains

Table C.4

Currency in Circulation, New Notes Issued, and Notes Destroyed, 1988 Estimate

Millions of pieces

Dollar denomination	Notes in circulation[1]	New notes paid out[2]	Notes destroyed[2]
1	4,304	3,320	2,857
5	1,077	906	770
10	1,169	832	777
20	3,016	1,544	1,345
50	578	158	84
100	1,061	198	73
Total	**11,024**	**6,958**	**5,906**

1. As of July.

2. Based on actual levels through the third quarter and expected levels for the fourth quarter. Notes paid out do not include additions to inventory at the Reserve Banks.

System guidelines on the quality of notes; the Board also sees that Reserve Banks do not destroy notes prematurely. The Board and the Banks monitor all related costs, such as those for transportation and packaging.

Table C.5

Costs to the Federal Reserve of New Currency, 1987-89

Millions of dollars, except as noted

Item	1987 actual	1988 estimate	1989 budget	Percent change, 1988-89
Printing[1]	164.2	158.0	164.5	4.1
Shipping from Washington[2]	4.3	4.8	4.8	−2.1
Reimbursement to the Treasury for issuance and retirement	1.6	1.6	1.6	0
System-Treasury programs to deter counterfeiting	.6	0	0	0
Total costs of currency	**170.7**	**164.5**	**171.0**	**3.9**

1. Based on 6.6 billion notes in 1987, 6.0 billion notes in 1988, and 6.3 billion notes in 1989.

2. Includes purchase of seals and labels for Bureau of Engraving and Printing.

Appendix D

Sources and Uses of Funds

The Federal Reserve System follows generally accepted accounting principles in accruing income and expenses and in capitalizing assets whose useful lives extend over several years (see appendix C).

The Reserve Banks receive income primarily from U.S. government securities that the Federal Reserve has acquired through open market operations, one of the tools of monetary policy. These earnings account for approximately 95 percent of current income. Table D.1 shows that the Banks received $17.6 billion in 1987 and an estimated $19.5 billion in 1988 from these securities and other sources.

Table D.2 shows the distribution of the current income of the Banks for 1987 and 1988. The current expenses of the Reserve Banks are their operating expenses and the cost of the earnings credits they grant to depository institutions on clearing balances held with the Banks. The Reserve Banks record extraordinary adjustments to current net income in a profit-and-loss account. The primary entries in the profit-and-loss account are for gains or losses on the sale of U.S. government securities and for gains or losses on assets denominated in foreign currencies that result either from the sale of those assets or from their revaluation at market exchange rates.

The Reserve Banks maintain a surplus account to cushion unexpected losses, much as commercial organizations retain earnings. As required by the Board of Governors, the Reserve Banks adjust the size of the surplus account to keep it equal to the paid-in capital of the member banks. Under the policy established by the Board of Governors at the end of 1946, all income net of the statutory dividend to member banks and net of the amount necessary to equate surplus to paid-in capital is transferred to the U.S. Treasury as interest on Federal Reserve notes. Such payments to the Treasury were $17.7 billion in 1987 and are estimated to be $17.4 billion for 1988.

Table D.1
Income of the Federal Reserve Banks, 1987–88
Millions of dollars

Source	1987 actual	1988 estimate
Loans	224.3	355.6
U.S. government securities	16,371.4	18,173.3
Foreign currencies	343.9	303.4
Priced services	644.7	657.7
Other	48.7	34.5
Total	**17,633.0**	**19,524.5**

Table D.2

Distribution of the Income of the Federal Reserve Banks, 1987–88

Millions of dollars

Item	1987 actual	1988 estimate
Current income [1]	17,633	19,524
LESS		
Current expenses of Reserve Banks [2,3]		
Operating expenses	1,033	1,081
Earnings–credit costs	114	127
EQUALS		
Current net income	16,486	18,316
PLUS		
Net additions to, or deductions from (−), current net income [4]	1,844	−489
LESS		
Cost of unreimbursed Treasury services [5]	47	31
Assessments by Board		
Board expenses	82	84
Cost of currency	171	164
Other distributions		
Dividends paid to member banks [6]	117	126
Transfers to, or from (−), surplus [7]	174	65
EQUALS		
Payments to U.S. Treasury	**17,739**	**17,356**

1. See table D.1.
2. Net of reimbursements due from the U.S. Treasury and other government agencies.
3. Reflects reduction of $69.5 million in 1988 and $49.2 million in 1987 in credits for net periodic pension cost.
4. This account is the same as that reported under the same name in the table "Income and Expenses of the Federal Reserve Banks," in the Statistical Tables section of the Board's *Annual Report* and includes gains and losses on foreign exchange transactions due primarily to revaluations at market exchange rates, gains and losses on sales of U.S. government securities, and miscellaneous gains and losses.
5. This account reflects the cost of services provided to the U.S. Treasury that are reimbursable under agreements with the Treasury and for which reimbursement is not anticipated.
6. The Federal Reserve Act requires the Federal Reserve to pay dividends to member banks at the rate of 6 percent of paid-in capital.
7. Each year the Federal Reserve transfers to its surplus account an amount sufficient to equate surplus to paid-in capital to provide a reserve against losses.

Appendix E
Federal Reserve System Audits

The Federal Reserve System as a whole, as well as the Board of Governors and each of the Reserve Banks taken separately, are all subject to a variety of audits and reviews. At each Federal Reserve Bank, a full-time staff of auditors under the direction of a general auditor reports directly to the Bank's board of directors. The Board's Division of Federal Reserve Bank Operations, acting on behalf of the Board of Governors, regularly audits the financial operations of each of the Banks and periodically reviews all other Bank operations. The Board itself is reviewed by its own staff of auditors and operations reviewers; the responsibility for these internal reviews at the Board was consolidated in 1987 by the creation of the Office of the Inspector General. In addition, an independent auditor annually examines the fairness of the Board's financial statements and its compliance with the laws and regulations affecting those statements.

The 1978 passage of the Federal Banking Agency Audit Act (Public Law 95–320) brought most of the operations of the Federal Reserve System under the purview of the General Accounting Office (GAO). The GAO, which currently has 16 projects in various stages of completion, since 1979 has completed 49 reports on selected aspects of Federal Reserve operations (see tables E.1 and E.2). The GAO has also involved the Federal Reserve in about 60 other reviews not directly related to the System and has terminated 29 others before completion. The reports are available directly from the GAO.

Table E.1
Active GAO Projects Related to the Federal Reserve System

Subject	Date initiated
Conflicts of interest	5/1/86
Food stamp redemption process	5/7/86
Food stamp program within the Federal Reserve banking system	7/22/87
Merging federal deposit insurance funds	8/17/87
Federal Reserve pricing of check clearing services	8/19/87
High-yield bond study	8/19/87
Government-in-the-Sunshine Act	9/17/87
Bank failures in 1987	2/22/88
Handling troubled financial institutions	3/14/88
Quality of U.S. monthly trade statistics	3/23/88
Clearance and settlement in stock, options and futures markets	5/25/88
Electronic funds transfer systems	7/15/88
International coordination of securities regulation	8/16/88
Food stamp program	8/24/88
CFTC reauthorization	9/28/88
Proposals for dealing with the international debt crisis	10/27/88

Table E.2
Completed GAO Reports Related to the Federal Reserve System

Report	Number	Date
Comparing Policies and Procedures of the Three Bank Regulatory Agencies	GGD-79-27	3/29/79
Federal Systems Not Designed to Collect Data on All Foreign Investments in U.S. Depository Institutions	GGD-79-42	6/19/79
The Federal Reserve Should Assure Compliance with the 1970 Bank Holding Company Act Amendments	GGD-80-21	3/12/80
Internal Auditing Can Be Strengthened in the Federal Reserve System	GGD-80-59	8/8/80
Despite Positive Effects, Further Foreign Acquisitions of U.S. Banks Should be Limited until Policy Conflicts are Fully Addressed	GGD-80-66	8/26/80
Federal Examinations of Financial Institutions: Issues That Need to be Resolved	GGD-81-12	1/6/81
Examinations of Financial Institutions Do Not Assure Compliance with Consumer Credit Laws	GGD-81-13	1/21/81
Disappointing Progress in Improving Systems for Resolving Billions in Audit Findings	AFMD-81-27	1/23/81
Federal Reserve Security over Currency Transportation is Adequate	GGD-81-27	2/23/81
The Federal Structure for Examining Financial Institutions Can be Improved	GGD-81-21	4/24/81
Response to Questions Bearing on the Feasibility of Closing the Federal Banks	GGD-81-49	5/21/81
Bank Secrecy Act Reporting Requirements Have Not Yet Met Expectations, Suggesting Need for Amendment	GGD-81-80	7/23/81
Federal Reserve Could Improve the Efficiency of Bank Holding Company Inspections	GGD-81-79	8/18/81
Information on Selected Aspects of Federal Reserve System Expenditures	GGD-82-33	2/12/82
Federal Review of Intrastate Branching Can Be Reduced	GGD-82-31	2/24/82
Despite Improvements, Recent Bank Supervision Could Be More Effective and Less Burdensome	GGD-82-21	2/26/82
Issues to Be Considered while Debating Interstate Bank Branching	GGD-82-36	4/9/82
The Federal Reserve Should Move Faster to Eliminate Subsidy of Check Clearing Operations	GGD-82-22	5/7/82
Information about Depository Institutions' Ancillary Activities Is Not Adequate for Policy Purposes	GGD-82-57	6/1/82
Bank Merger Process Should Be Modernized and Simplified	GGD-82-53	8/16/82
An Analysis of Fiscal and Monetary Policies	PAD-82-45	8/31/82
Bank Examination for Country Risk and International Lending	ID-82-52	9/2/82
Credit Insurance Disclosure Provisions of the Truth-in-Lending Act Consistently Enforced Except When Decisions Appealed	GGD-83-3	10/25/82
Financial Institutions Regulatory Agencies Can Make Better Use of Consumer Complaint Information	GGD-83-13	8/25/83
Unauthorized Disclosure of the Federal Reserve's Monetary Policy Decision	GGD-84-40	2/3/84
Federal Financial Institutions Examination Council Has Made Limited Progress toward Accomplishing Its Mission	GGD-84-4	2/3/84
Control Improvements Needed in Accounting for Treasury Securities at the Federal Reserve Bank of New York	AFMD-84-10	5/2/84
Statutory Requirements for Examining International Banking Institutions Need Attention	GGD-84-39	7/11/84
Supervisory Examinations of International Banking Facilities Need to Be Improved	GGD-84-65	9/30/84
An Examination of Concerns Expressed about the Federal Reserve's Pricing of Check Clearing Activities	GGD-85-9A	1/14/85

Table E.2 – Continued

Report	Number	Date
Information on Independent Public Accountant Audits of Financial Institutions	GGD-84-44FS	4/21/86
An Analysis of Two Types of Pooled Investment Funds	GGD-86-63	5/12/86
How the Markets Developed and How They Are Regulated	GGD-86-26	5/15/86
U.S. Banking Supervision and International Supervisory Principles	NSIAD-86-93	7/25/86
Financial Institution Regulators' Compliance Examination	GGD-86-94	8/1/86
The Market's Structure, Risks, and Regulation	GGD-86-80BR	8/20/86
Dealer Views on Market Operations and Federal Reserve Securities Transfer System	GGD-86-147FS	9/29/86
Questions About the Federal Reserve's Securities Transfer System	GGD-87-15BR	10/20/86
Federal Reserve Board Opposition to Credit Card Interest Rate Limits	GGD-87-38BR	4/7/87
Insulating Banks From the Potential Risk of Expanded Activities	GGD-87-35	4/14/87
The Federal Reserve Response Regarding its Market-Making Standard	GGD-87-55FS	4/21/87
Change in Fees and Deposit Account Interest Rates Since Deregulation	GGD-87-70	7/13/87
An Examination of Views Expressed about Access to Brokers' Services	GGD-88-8	12/18/87
Issues Related to Repeal of the Glass-Steagall Act	GGD-88-37	1/22/88
Supervision of Overseas Lending is Inadequate	NSIAD-88-87	5/5/88
Administrative Expenses at FHLBB and FRB for 1985 and 1986	AFMD-88-33	6/15/88
Trends in Commercial Bank Performance, December 1976–June 1987	GGD-88-106BR	7/28/88
Lending to Troubled Sectors	GGD-88-126BR	9/26/88
Government Check Cashing Issues	GGD-89-12	10/7/88

Appendix F

Expenses and Employment at the Federal Reserve Banks

Table F.1

Operating Expenses of the Federal Reserve Banks, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	76,429	80,422	3,993	5.2
New York	247,156	261,139	13,983	5.7
Philadelphia	67,957	71,400	3,443	5.1
Cleveland	75,273	80,619	5,346	7.1
Richmond	97,617	102,135	4,518	4.6
Atlanta	116,707	124,211	7,505	6.4
Chicago	147,050	154,241	7,191	4.9
St. Louis	62,432	63,734	1,303	2.1
Minneapolis	62,103	66,391	4,289	6.9
Kansas City	82,591	86,803	4,211	5.1
Dallas	81,060	85,562	4,503	5.6
San Francisco	144,924	153,830	8,906	6.1
Total, all Districts[1]	**1,261,298**	**1,330,487**	**69,189**	**5.5**
Special projects	4,945	11,103	...	...
Total	1,266,243	1,341,590	75,347	6.0

1. Includes $13.9 million in 1988 and $19.3 million in 1989 to implement the Expedited Funds Availability Act.

Table F.2

Employment at the Federal Reserve Banks, by District, 1988–89

Average number of personnel[1]

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	1,535	1,503	−32	−2.1
New York	4,068	4,037	−32	−.8
Philadelphia	1,252	1,263	11	.9
Cleveland	1,435	1,476	41	2.9
Richmond	1,978	1,991	13	.7
Atlanta	2,241	2,271	30	1.3
Chicago	2,682	2,676	−6	−.2
St. Louis	1,306	1,246	−59	−4.5
Minneapolis	1,088	1,113	25	2.3
Kansas City	1,704	1,704	0	.0
Dallas	1,590	1,623	33	2.1
San Francisco	2,501	2,538	37	1.5
Total, all Districts	**23,379**	**23,441**	**62**	**.3**
Special projects	10	35	...	...
Total	23,389	23,476	8	.4

1. See chap. 3, note 1, for definition of ANP.
2. Includes 213.6 ANP for ANP in 1988 and 347.7 ANP in 1989 for implementation of the Expedited Funds Availability Act.

Table F.3

Expenses of the Federal Reserve Banks, by Operational Area, 1988–89

Thousands of dollars, except as noted

Operational area	1988 estimate	1989 budget	Change	
			Amount	Percent
Monetary and economic policy	88,788	95,812	7,024	7.9
Supervision and regulation	187,123	201,539	14,417	7.7
Services to financial institutions and the public	842,947	884,784	41,836	5.0
Services to the U.S. Treasury and other government agencies	142,440	148,352	5,912	4.2
Total	**1,261,298**	**1,330,487**	**69,189**	**5.5**
MEMO[1]				
Support	405,949	432,382	26,433	6.5
Overhead	352,855	374,445	21,590	6.1

1. Costs of support and overhead included in expenses by operational area. Support refers to activities, such as data processing, whose costs can be charged to users according to amount of use. Overhead refers to activities, such as auditing, whose costs are charged according to the users' shares of total direct costs.

Table F.4

Expenses of the Federal Reserve Banks for Monetary and Economic Policy, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	4,386	4,617	231	5.3
New York[1]	32,680	37,260	4,580	14.0
Philadelphia	3,743	3,812	69	1.8
Cleveland	4,742	4,750	8	.2
Richmond	4,423	4,817	394	8.9
Atlanta	5,263	5,774	511	9.7
Chicago	7,674	7,529	−146	−1.9
St. Louis	4,633	4,978	345	7.4
Minneapolis	4,232	4,490	258	6.1
Kansas City	4,170	4,404	234	5.6
Dallas	4,864	5,244	380	7.8
San Francisco	7,976	8,138	162	2.0
Total	**88,788**	**95,812**	**7,024**	**7.9**

1. Expenses of open market trading operations, located in the District, are $14.2 million for 1988 and $17.2 million for 1989.

Table F.5

Expenses of the Federal Reserve Banks
for Supervision and Regulation, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	8,214	9,128	914	11.1
New York	39,800	43,214	3,413	8.6
Philadelphia	8,426	9,630	1,204	14.3
Cleveland	10,613	10,671	58	.5
Richmond	11,089	12,115	1,026	9.3
Atlanta	15,081	16,395	1,313	8.7
Chicago	26,441	28,429	1,988	7.5
St. Louis	7,584	8,209	625	8.2
Minneapolis	8,766	9,527	762	8.7
Kansas City	16,516	17,240	724	4.4
Dallas	14,672	15,366	694	4.7
San Francisco	19,921	21,615	1,695	8.5
Total	**187,123**	**201,539**	**14,417**	**7.7**

Table F.6

Expenses of the Federal Reserve Banks
for Services to Financial Institutions and the Public, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	57,172	59,406	2,235	3.9
New York	142,497	146,652	4,155	2.9
Philadelphia	38,695	40,527	1,832	4.7
Cleveland	48,260	52,596	4,336	9.0
Richmond	73,379	76,356	2,978	4.1
Atlanta	86,157	91,458	5,302	6.2
Chicago	97,064	101,907	4,844	5.0
St. Louis	42,678	43,173	495	1.2
Minneapolis	44,524	47,534	3,011	6.8
Kansas City	55,256	58,211	2,955	5.3
Dallas	54,954	58,076	3,122	5.7
San Francisco	102,314	108,887	6,572	6.4
Total	**842,947**	**884,784**	**41,836**	**5.0**

Table F.7

Expenses of the Federal Reserve Banks
for Services to the U.S. Treasury and Other Government Agencies, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	6,657	7,272	614	9.2
New York	32,179	34,014	1,835	5.7
Philadelphia	17,094	17,432	338	2.0
Cleveland	11,659	12,602	943	8.1
Richmond	8,727	8,846	120	1.4
Atlanta	10,205	10,584	379	3.7
Chicago	15,871	16,376	505	3.2
St. Louis	7,536	7,374	−162	−2.2
Minneapolis	4,581	4,839	258	5.6
Kansas City	6,649	6,948	298	4.5
Dallas	6,569	6,876	307	4.7
San Francisco	14,712	15,189	477	3.2
Total	**142,440**	**148,352**	**5,912**	**4.2**

Table F.8

Expenses of the Federal Reserve Banks
for Salaries of Officers and Employees, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	43,947	44,930	984	2.2
New York	126,457	135,442	8,985	7.1
Philadelphia	33,820	35,358	1,539	4.6
Cleveland	36,896	39,390	2,495	6.8
Richmond	49,253	51,540	2,287	4.6
Atlanta	56,677	60,168	3,491	6.2
Chicago	73,353	76,117	2,764	3.8
St. Louis	32,847	32,969	122	.4
Minneapolis	29,097	31,410	2,312	7.9
Kansas City	44,389	46,731	2,342	5.3
Dallas	43,081	46,350	3,270	7.6
San Francisco	73,772	78,853	5,081	6.9
Total	**643,587**	**679,257**	**35,670**	**5.5**

Table F.9

Factors in the 1988–89 Change in Salaries
of Officers and Employees of the Federal Reserve Banks, by District

Percentage points

District	Merit adjustment	Structure adjustment	Promotion and reclassification	Change in staffing	Turnover and lag [1]	Overtime	Other	Total change
Boston	5.5	.2	1.6	1.6	−2.0	−1.5	.0	2.2
New York	4.4	.0	.8	2.6	−1.0	−.1	.4	7.1
Philadelphia	4.7	.1	.6	2.4	−2.4	−.8	.0	4.6
Cleveland	4.4	.1	.8	3.2	−1.7	.6	.5	6.8
Richmond	4.7	.0	1.8	−.7	−.7	−.4	.0	4.6
Atlanta	4.9	.4	1.3	1.1	−1.1	−.4	.0	6.2
Chicago	3.6	.0	1.1	−.3	−.1	−.7	.2	3.8
St. Louis	4.7	.0	.4	−3.9	−.5	−.4	.0	.4
Minneapolis	4.4	.1	1.3	2.0	−.2	.4	.0	7.9
Kansas City	4.5	.3	1.6	.3	−1.2	−.2	.0	5.3
Dallas	4.8	.1	.7	2.2	−.6	.2	.2	7.6
San Francisco	5.0	.0	.4	1.9	−.1	−.3	.0	6.9
Total	**4.6**	**.1**	**1.0**	**1.0**	**−.9**	**−.4**	**.1**	**5.5**

1. Turnover is the replacement of a departing employee with one having a lower pay grade. Lag is the time during which a position remains vacant.

Table F.10

Capital Outlays of the Federal Reserve Banks, by District, 1988–89

Thousands of dollars, except as noted

District	1988 estimate	1989 budget	Change	
			Amount	Percent
Boston	8,646	8,050	−596	−6.9
New York	26,834	42,999	16,164	60.2
Philadelphia	5,041	5,800	759	15.1
Cleveland	11,211	16,813	5,602	50.0
Richmond	26,350	17,696	−8,654	−32.8
Atlanta	15,784	18,795	3,011	19.1
Chicago	62,872	19,879	−42,993	−68.4
St. Louis	5,086	9,690	4,605	90.5
Minneapolis	4,964	24,171	19,207	386.9
Kansas City	6,183	17,859	11,676	188.8
Dallas	17,663	37,922	20,259	114.7
San Francisco	12,674	12,000	−675	−5.3
Total	**203,308**	**231,673**	**28,365**	**14.0**

Table F.11

Capital Outlays of the Federal Reserve Banks, by District and Class of Outlay, 1988–89[1]

Thousands of dollars

District and year	Data processing and data communication equipment	Furniture, furnishings, and fixtures	Other equipment	Land and other real estate	Buildings	Building machinery and equipment	Leasehold improvements	Total
Boston								
1988	5,876	198	615	0	1,151	807	0	8,646
1989	3,615	1,151	409	0	1,928	113	835	8,050
New York								
1988	14,553	2,055	3,847	1,580	2,639	85	2,076	26,834
1989	20,780	2,869	1,499	10,734	6,302	571	244	42,999
Philadelphia								
1988	2,554	151	402	0	15	1,315	604	5,041
1989	2,654	45	959	0	0	1,390	753	5,800
Cleveland								
1988	7,564	1,117	701	0	1,340	490	0	11,210
1989	7,801	945	1,352	0	4,689	2,026	0	16,813
Richmond								
1988	6,251	233	1,117	25	18,619	105	0	26,350
1989	7,834	799	1,810	275	6,836	142	0	17,696
Atlanta								
1988	7,996	2,726	1,015	142	2,667	1,063	176	15,784
1989	9,420	4,457	2,868	0	1,452	598	0	18,795
Chicago								
1988	16,523	1,872	1,288	0	40,171	2,811	207	62,872
1989	8,841	1,729	1,118	0	7,224	320	648	19,879
St. Louis								
1988	2,597	55	548	0	1,515	371	0	5,086
1989	1,606	292	325	0	6,483	985	0	9,690
Minneapolis								
1988	2,720	72	444	263	1,264	200	0	4,964
1989	7,164	1,394	544	0	8,479	0	6,591	24,171
Kansas City								
1988	2,208	687	1,127	108	1,423	630	0	6,183
1989	9,481	924	1,214	382	1,915	3,944	0	17,859
Dallas								
1988	10,769	387	312	144	4,374	1,652	25	17,663
1989	4,014	90	604	22,953	7,934	2,292	35	37,922
San Francisco								
1988	6,794	858	1,685	0	3,000	150	188	12,674
1989	4,429	927	1,915	75	3,722	931	0	12,000
Total								
1988	**86,404**	**10,410**	**13,100**	**2,262**	**78,178**	**9,678**	**3,275**	**203,308**
1989	**87,638**	**15,622**	**14,615**	**34,419**	**56,964**	**13,311**	**9,105**	**231,673**

1. For 1988, estimate; for 1989, budget.

Table F.12

Budget Performance of the Federal Reserve Banks, Operating Expenses, by District, 1988[1]

Thousands of dollars, except as noted

District	1988 budget	1988 estimate	Change	
			Amount	Percent
Boston	74,547	76,429	1,882	2.5
New York	246,796	247,156	359	.1
Philadelphia	67,568	67,957	389	.6
Cleveland	74,737	75,273	537	.7
Richmond	96,303	97,617	1,315	1.4
Atlanta	116,474	116,707	233	.2
Chicago	147,557	147,050	−507	−.3
St. Louis	63,334	62,432	−903	−1.4
Minneapolis	62,221	62,103	−118	−.2
Kansas City	82,027	82,591	565	.7
Dallas	80,371	81,060	689	.9
San Francisco	145,707	144,924	−783	−.5
Total	**1,257,642**	**1,261,298**	**3,656**	**.3**

1. Includes expenses associated with the Expedited Funds Availability Act.

Table F.13

Budget Performance of the Federal Reserve Banks, Employment, by District, 1988[1]

Average number of personnel, except as noted[2]

District	1988 budget	1988 estimate	Change	
			Amount	Percent
Boston	1,523	1,535	12	.8
New York	4,016	4,068	52	2.2
Philadelphia	1,249	1,252	3	.6
Cleveland	1,406	1,435	29	2.5
Richmond	1,959	1,978	19	2.0
Atlanta	2,210	2,241	31	2.1
Chicago	2,684	2,682	−2	.3
St. Louis	1,333	1,306	−27	−.6
Minneapolis	1,086	1,088	2	1.1
Kansas City	1,681	1,704	23	3.6
Dallas	1,587	1,590	3	.5
San Francisco	2,516	2,501	−15	.8
Total	**23,250**	**23,379**	**129**	**1.5**

1. Includes personnel associated with the Expedited Funds Availability Act.
2. See chap. 3, note 1, for the definition of ANP.

Table F.14

Expenses of the Federal Reserve Banks, by Operational Area, 1984–89

Thousands of dollars, except as noted

Year	Monetary and economic policy	Supervision and regulation	Services to financial institutions and the public	Services to the U.S. Treasury and other government agencies	Total
1984	99,351	140,690	701,453	126,307	1,067,802
1985	90,945	151,991	742,896	131,544	1,117,377
1986	90,570	163,915	770,016	136,789	1,161,290
1987	86,484	170,428	799,227	135,693	1,191,832
1988 estimate	88,788	187,123	842,945	142,440	1,261,295
1989 budget	95,812	201,539	884,783	148,352	1,330,487
Average annual change, percent	−.7	7.5	4.8	3.3	4.5

Table F.15

Employment at the Federal Reserve Banks, by Operational Area, 1984–89

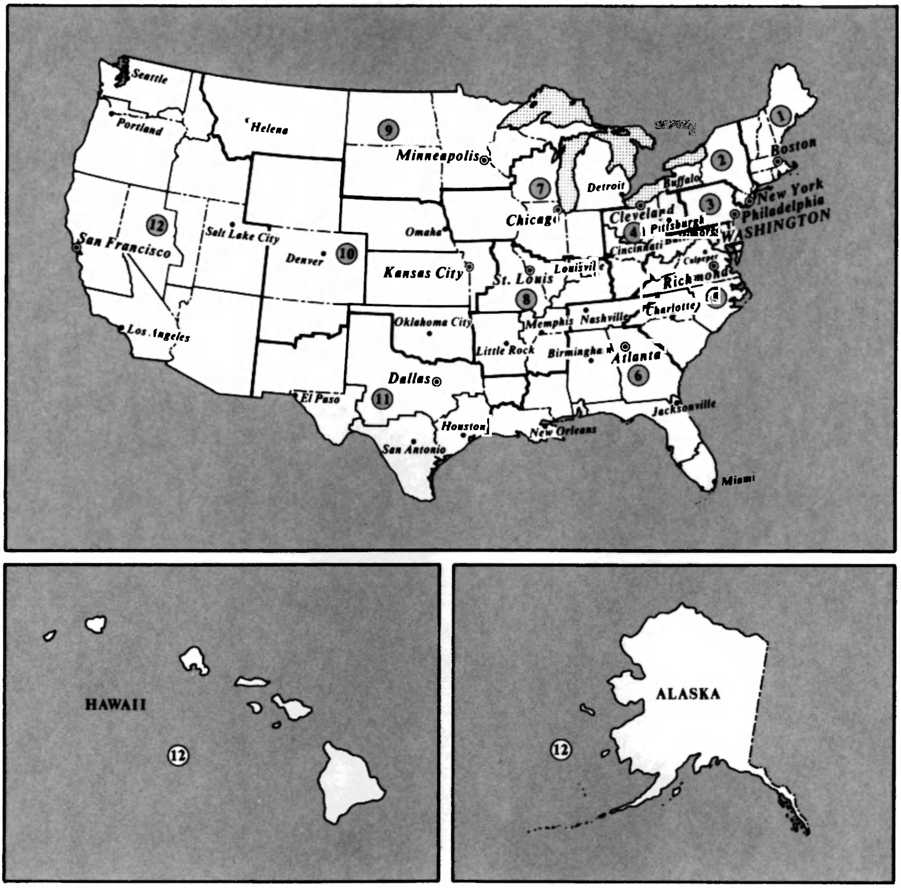
Average number of personnel, except as noted [1]

Year	Monetary and economic policy	Supervision and regulation	Services to financial institutions and the public	Services to the U.S. Treasury and other government agencies	Support [2]	Overhead [2]	Total
1984	826	1,885	8,395	1,798	4,340	5,424	22,668
1985	816	1,912	8,754	1,781	4,398	5,323	22,984
1986	791	2,087	8,799	1,819	4,469	5,274	23,239
1987	776	2,148	8,777	1,837	4,452	5,025	23,015
1988 estimate	768	2,223	9,014	1,844	4,565	4,964	23,379
1989 budget	786	2,250	9,049	1,805	4,597	4,954	23,441
Average annual change, percent	−1.0	3.6	1.5	.1	1.2	−1.8	.7

1. See chap. 3, note 1, for definition of ANP.
2. See table F.3, note 1, for definition.

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 Facilities

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