The Federal Reserve Should Move Faster To Eliminate Subsidy Of Check Clearing Operations

The Monetary Control Act of 1980 required the Federal Reserve to begin charging in 1981 for selected services that used to be provided free to member banks. This report examines how the Federal Reserve implemented pricing for clearing checks and for clearing payments electronically—two services that together account for more than one-third of the operating budgets of Federal Reserve banks.

In establishing a system for pricing its services, the Federal Reserve generally made reasonable judgments in exercising the wide discretion given it by the Monetary Control Act. GAO believes, however, that the Federal Reserve Board could be moving more quickly to achieve the Monetary Control Act's longrun objective of pricing services without subsidy. GAO recommends actions which would increase the Federal Reserve payment to the U.S. Treasury by as much as $175 million in each of fiscal years 1982 and 1983. These actions would also enhance the ability of private sector institutions to compete with the Federal Reserve on a more equal basis.
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To the President of the Senate and the Speaker of the House of Representatives

This report discusses how the Federal Reserve System has implemented pricing for check clearing and automated clearing-house services—two of the services the Monetary Control Act of 1980 required the Federal Reserve to begin pricing in 1981.

Since taxpayers indirectly pay for revenue shortfalls, we wanted to know whether the Federal Reserve was achieving the Monetary Control Act's longrun objective of full cost recovery in as timely a manner as practicable. We found that the Federal Reserve is making progress toward full cost recovery, but this report also indicates what the Federal Reserve could do to achieve this objective more quickly.

We are sending copies of this report to the Chairman of the Board of Governors of the Federal Reserve System, the Secretary of the Treasury, the Director of the Office of Management and Budget, and interested Members and committees of the Congress.

Comptroller General of the United States
DIGEST

In 1981, pursuant to a major policy change mandated by the Monetary Control Act of 1980, the Federal Reserve began charging financial institutions for certain services that used to be provided without cost to member banks. This report focuses on how the Federal Reserve implemented pricing for clearing checks and accomplishing fund transfers through an automated clearinghouse system. GAO undertook this study to determine whether the Monetary Control Act's long run objective of pricing services without subsidy was being achieved in as timely a manner as practicable.

The Federal Reserve System clears about 40 percent of all checks written in the United States. In 1980, the Federal Reserve spent almost $280 million clearing about 14 billion checks at an average cost of about 2.0 cents per check. Expenditures for Federal Reserve check clearing activities, which involve 48 offices connected by air courier and wire services, accounted for about 35 percent of the entire Federal Reserve banks' expenditures in 1980. Expenditures for the Federal Reserve's much smaller automated clearinghouse system were about $16 million in 1980.

RECOMMENDATIONS

In establishing a system for pricing its services, the Federal Reserve generally has made reasonable judgements in exercising the discretion given to it by the Monetary Control Act over when and how to price specific services. However, GAO believes the Federal Reserve should take these actions to establish as soon as practicable a price structure for its clearinghouse operations that fully recovers costs:
--Eliminate promptly the subsidy in the check clearing area that has arisen due to declining check processing volume and rising expenses. (See p. 39.)

--Establish a definite timetable for pricing float (an interest-free advance to financial institutions which arises during the check collection process when the reserve account of a depositing bank is credited with funds before those funds are deducted from the reserve account of the paying bank). (See p. 57.)

--Raise the price of automated clearinghouse services. (See p. 68.)

The management actions GAO recommends to help balance check clearing costs and revenues include formal procedures for monitoring performance, revising prices every 6 months, disclosing how revenues compare with expenses, and, if necessary, substantially reorganizing the check clearing function. (See p. 39.) Because the Monetary Control Act is not specific about when float must be priced, GAO does not recommend a specific date.

Clearinghouse operation subsidies are indirectly paid for by taxpayers because the Federal Reserve finances them out of earnings that otherwise would be paid to the U.S. Treasury. GAO estimates that timely Federal Reserve actions to eliminate subsidies could increase earnings paid to the U.S. Treasury by about $175 million for the last half of fiscal year 1982 and also about $175 million for all of fiscal year 1983. Of these amounts, which could be offset by up to 40 percent by reduced income tax collections, approximately $150 million in each period is attributed to fully recovering float costs (see p. 51), about $20 million to eliminating check clearing subsidies, (see pp. 20 and 40), and about $5 million to eliminating automated clearinghouse subsidies (see p. 61). Eliminating subsidies would also provide private sector institutions the opportunity to compete on more equal terms with the Federal Reserve System. (See p. 66.)

The following sections discuss agency comments on the report's recommendations and on GAO's suggestion that the ability of the Federal Reserve
to respond to market forces without reliance on subsidy is an appropriate focus for congressional oversight activities.

**SUBSIDIES ARISING FROM DECLINING CHECK CLEARING VOLUME AND RISING EXPENDITURES SHOULD BE ELIMINATED PROMPTLY**

The Federal Reserve assumed that check clearing volume would stay about level with that of the previous year when pricing began in August 1981. However, in the 4-month period ending November 1981, the number of checks cleared by the Federal Reserve declined by 7 percent and the number of checks sorted declined by 17 percent compared to the comparable period of 1980. There has been some effort to trim expenses to offset the volume decline, but the Federal Reserve is also increasing expenditures in some areas. As a result, GAO estimates that check clearing is now being subsidized at an annual rate of about $40 million to $50 million. (See p. 20.)

In commenting on GAO's draft report the Federal Reserve suggested that the volume decline has been a "one time" occurrence and indicated its intention to match check clearing revenues and costs, to undertake reporting of information that would facilitate this, and to review fee schedules at least annually. GAO believes that a commitment to review prices every 6 months would be practical and would enable the Federal Reserve Board to minimize subsidies. At the current rate of subsidy, putting off major revision of prices until August 1982, the anniversary date on which pricing for this service began, would cost about $20 million in fiscal year 1982. Because GAO believes that forecasting volume for 1983 may be more difficult than the Federal Reserve Board suggests, avoidable subsidies of a comparable amount are likely to occur in fiscal year 1983 if major price revisions are undertaken only once per year. (See p. 40.)

**GREATER COMMITMENT TO RECOVERING THE COST OF FLOAT IS NEEDED**

The daily amount of float now averages about $2.5 to $3.0 billion. The cost of interest
calculated on this float exceeds other processing costs incurred directly by the Federal Reserve in clearing checks. Before committing itself to a definite date for pricing float, the Federal Reserve wants to make additional operational improvements to reduce float to minimal levels. Such improvements have already cut float by about 40 percent from the level prevailing when the Monetary Control Act of 1980 was passed. Although the Federal Reserve is planning measures to reduce float to about $1 billion, the outlook for accomplishing these reductions is unclear. One of the principal ways in which the Federal Reserve plans to reduce float levels, electronic check clearing, has not yet been proven practical. (See p. 47.)

In commenting on GAO's draft report, the Federal Reserve stated that its actions on float pricing are consistent with (1) the Monetary Control Act requirement to begin to price services by September 1, 1981, (2) congressional intent with respect to not increasing the financial burden on banks that were members of the system when the Monetary Control Act was passed, and (3) meeting the Board's commitment that passage of the Monetary Control Act would not result in a net decrease in U.S. Treasury receipts.

GAO does not question the legal basis for the Federal Reserve's actions on float but believes the Federal Reserve has not moved to recover the full cost of float in the most timely manner practicable. The Federal Reserve presented no evidence showing how charging for float would increase in real terms the burden on Federal Reserve members whose reserve requirements have already been reduced by the Monetary Control Act. GAO also believes the Federal Reserve's definition of its revenue commitment under the Monetary Control Act is based on out-of-date estimates of what would have happened if the act had not been passed. (See p. 53.)

THE FEDERAL RESERVE'S JUSTIFICATION FOR SUBSIDIZING COMMERCIAL USE OF ITS AUTOMATED CLEARINGHOUSE IS WEAK

The policy of setting the price for commercial use of the automated clearinghouse system below costs derives from the Federal Reserve's belief that the service, now used primarily for U.S.
Treasury transactions, is more efficient than checks for many other types of transactions. The Federal Reserve expects that it will take 5 years to achieve a commercial volume that would allow it to price at cost. This projection assumes a drastic increase each year—a 33-fold increase between 1980 and 1986. However, the actual rate of increase in the first half of 1981 was well below the forecasted rate. (See p. 61.)

In commenting on the draft report the Federal Reserve restated its position on the value of the automated clearinghouse and the consistency of its approach with the Monetary Control Act language permitting it to take account of the need to provide an adequate level of service nationwide when setting prices. The Board indicated, however, that it is studying issues associated with automated clearinghouse pricing. Although not questioning the automated clearinghouse subsidy on legal grounds, GAO continues to believe that the Federal Reserve has not demonstrated a link between subsidy of its present automated clearinghouse services and its goal of encouraging efficiency in the nation’s financial system. (See p. 68.)

CONGRESSIONAL OVERSIGHT SHOULD FOCUS ON HOW THE FEDERAL RESERVE RESPONDS TO MARKET FORCES

The Federal Reserve enjoys wide discretion in defining and operating its check clearing activity, with effects on users of its services, on competition, and on the amount of interest income the Federal Reserve pays into the U.S. Treasury. In commenting on the draft report the Federal Reserve indicated that it expects market forces to help it more clearly to define its role over time. The Board stated, however, that it is likely there will be a continued need for the Federal Reserve to perform many of the functions that it currently provides. While this may be, GAO believes the Congress should scrutinize carefully all situations in which the Federal Reserve subsidizes service. (See p. 76.)
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## ABBREVIATIONS

<p>| ACH | The Federal Reserve's Automated Clearinghouse |
| GAO | General Accounting Office |
| ITS | The Federal Reserve's interdistrict transportation system |
| PACS | The Federal Reserve's Planning and Control System that compiles information on costs and volume of services |</p>
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CHAPTER 1
INTRODUCTION

Checks provide a safe and inexpensive means for transferring funds from one person or business to another. In 1979, Americans wrote about 35 billion checks valued at over $20 trillion. Although the annual rate of increase in check usage, now about 5 percent, has been slowing, recent forecasts suggest that it will be at least 1990 until the number of checks written begins to decline as a result of the widespread use of credit cards and innovative electronic payment mechanisms.

The Nation's checking system works well because the millions of checks written each day can be presented promptly for payment by the banks on which they were drawn. The Federal Reserve System, an important part of the check clearing system, facilitated the development of the nation's checking system by providing a reliable nationwide system for clearing checks. In 1980, the Federal Reserve spent almost $280 million in clearing about 14 billion checks—40 percent of all checks written in the United States. The average cost of clearing a check was about 2.0 cents.

Initially, Federal Reserve check clearing services were made directly available only to banks which chose to be members of the Federal Reserve System. The services, provided free-of-charge, were financed out of Federal Reserve banks' income derived primarily from interest earned on Treasury securities. Nonmember banks had access to the service through member banks. However, in 1971 nonmember banks began getting direct access to the service for checks drawn on other banks within the same geographical area.

The Monetary Control Act of 1980 included provisions making check clearing and other selected services available to all nonmember financial institutions (including thrift institutions). However, the act also required the Federal Reserve to begin charging both members and nonmembers for use of these services. This report focuses on the Federal Reserve's actions to implement the Monetary Control Act's provisions for pricing both check clearing services and services of the closely related automated clearinghouse system for clearing payments electronically.

HOW THE FEDERAL RESERVE CLEARS CHECKS

The Federal Reserve operates 48 processing centers, referred to as regional check processing centers (RCPCs), one at each of the 12 District banks, one at each of 25 branch banks, and 11 in cities where no bank or branch is located. (See app. II for a listing.) Although the Federal Reserve has provided check
processing and collection services since it was established, the present structure of RCPCs was developed in response to a policy adopted by the Board of Governors in June 1971 which encouraged Reserve banks to expand the geographic area in which immediate credit would be given to banks' deposits. Each center is linked by air courier and wire services. Each processing center serves a given geographical area, known as a zone. Except by permission, banks using the Federal Reserve's services must deposit checks for collection with the processing centers in their respective zones.

The majority of checks processed by a center are for collection within that center's territory. Although the processing centers work around the clock, the busiest time is after midnight, when RCPC checks are sorted according to paying banks and prepared for dispatch early the same day.

The volume of checks processed by centers varies considerably (see app. III for 1980 volumes), but the basic process followed by each is the same. Each center requires the same types of skills and equipment.

The sorting process is highly mechanized, using high-speed sorting and data processing equipment. This is made possible through the use of machine-readable magnetic encodings on checks showing amount of the check, the Federal Reserve zone in which the paying bank is located and the specific paying bank on which the check is drawn.

Service categories

In turning checks over to the Federal Reserve for collection, banks must encode the amount of the check in magnetic ink and prepare a listing, called a cash letter, of the individual checks with each grouping of checks being deposited. Because the day on which the funds will be credited to the depositing bank's account varies according to the length of time it takes to achieve collection, the Federal Reserve requires deposits to be grouped into different categories—city, regional, country, other Federal Reserve, nonmachinable, \(^1\) and consolidated shipment.

City, regional, and country checks are defined as those deposited and collected within the territory assigned each processing center. City items are collected from paying banks located in the same city as the processing center. Regional

\(^1\)Nonmachinable items are ones rejected by sorting machines due to problems with the magnetic encoding or the physical condition of the check.
checks are collected outside the Federal Reserve city but within an area designated as a regional check processing center zone. Country checks are collected outside the RCPC zone but still within the processing center's territory. In the case of most processing centers, the RCPC boundaries include the center's entire territory and thus do not require country check grouping. The Federal Reserve grants depositing banks immediate availability on city and regional checks, provided they reach the Reserve bank prior to the designated cutoff hours. Availability given to country checks is deferred 1 banking day.

Checks to be collected in the territory of another processing center are referred to as "other Fed" checks. These checks qualify for 1- or 2-day availability, depending upon the time required to make collection.

There are exceptions to these groupings. For example, some Federal Reserve offices will accept deposits that are not sorted into the various categories if the number of checks deposited is less than 5,000. In addition, the Federal Reserve will allow banks within the territory of a processing center to send checks directly to another center for collection in that center's territory either through consolidated shipment, where the depositing bank uses Federal Reserve transportation to reach the collecting center, or through "direct send" where the depositing bank arranges other transportation. In these cases, the depositing banks will be given availability according to the availability schedules applicable in the collecting zone. By doing this, banks can gain quicker availability than by using the normal processing and delivery service.

Settlement

Settlement occurs through the banks' reserve accounts with the Federal Reserve bank or branch within their zone. Credits are given to depositing banks daily for checks on which they receive immediate availability and for amounts due on checks that were given deferred availability. Their accounts are debited for the value of checks presented to them for collection. At the end of a day's transactions, banks are given a status report of the net settlement results, which includes adjustments made as a result of returned checks, errors, and disputed items. In the same manner, the Federal Reserve banks and branches settle among themselves on a daily basis using their wire services.
Float

The Federal Reserve provides banks an assured collection schedule of no more than 2 days, the number of days depending upon the locations of the depositing and paying banks. The Federal Reserve is not always able, however, to actually collect the funds from the paying bank before it has credited the account of the depositing bank. Crediting the depositing bank's reserve account before debiting the paying bank's reserve account creates Federal Reserve float within the check clearing system. Federal Reserve float arises for a number of reasons—peak workloads that exceed processing capacity, delays in transportation, or transportation schedules that do not permit collection within the time the Federal Reserve has allowed itself.

In essence, Federal Reserve float is an interest-free advance provided to depositing institutions by a Federal Reserve bank. The amount of Federal Reserve float has declined over the past 2 years but is still substantial. In June 1981 the daily average amount of float was about $3.2 billion. Calculated at the Federal funds rate, the value of the interest on this amount of float is greater than the direct expenses for personnel, transportation, and equipment that the Federal Reserve incurs in clearing checks.

The nature of Federal Reserve float and its cost are discussed more fully in chapter 3.

THE FEDERAL RESERVE'S MARKET SHARE

In 1980 the Federal Reserve collected about 14 billion checks which, as noted above, represented 40 percent of all checks written in the United States. In recent years, the Federal Reserve's share has increased. Most of the checks the Federal Reserve does not collect are either checks drawn on and deposited with the same bank or, because of a Federal Reserve policy discouraging the practice, checks clearing between banks in the same metropolitan area.

Although the Federal Reserve dominates the market for intercity check collection, private collection channels do exist. Banks often opt to clear checks through direct contact with the payor bank when this will achieve quicker use of the funds. The time value of money, in such cases, outweighs the value of the Federal Reserve services.
The resources devoted to check clearing represent only a small part of all of the resources devoted to the nation's checking account system. The Federal Reserve estimates that it costs banks, their customers, and the Government about $24 billion to maintain and service the Nation's 122 million checking accounts. Resources devoted to the Federal Reserve's check clearing activities thus account for only about 1 percent of the total resources devoted to the nation's checking account system.

PRICING PROVISIONS OF THE MONETARY CONTROL ACT AND HOW THEY HAVE BEEN IMPLEMENTED

The Monetary Control Act of 1980 (Title I of the Depository Institutions Deregulation and Monetary Control Act of 1980) requires the Federal Reserve to price its payment collection services, float, and other services. Specifically, the act charged the Federal Reserve with

--publishing a set of pricing principles and a proposed fee schedule based on those principles for public comment by September 1, 1980, and

--beginning to put into effect a schedule of fees based on those principles by September 1, 1981.

Section 107 of the act, which contains the pricing provisions, is reproduced in appendix I.

Implementation of pricing provisions

After the passage of the Monetary Control Act of 1980, the Federal Reserve Board of Governors established a Pricing Policy Committee consisting of representatives from the Board and the Reserve banks. It was given major responsibilities in advising the Board on policy matters, implementing pricing, and monitoring results.

1/This figure includes the cost incurred by commercial banks, households, business and government for printing checks, processing check payments, clearing checks, maintaining checking accounts, mailing statements, and writing and mailing checks. The resources devoted to the checking account system represent about 1 percent of the Nation's gross national product.
The Pricing Policy Committee was established as an interim group to serve until the Federal Reserve System gained experience with pricing. In the longer run, the Reserve banks and their Conference of First Vice Presidents will be given primary responsibility for changes in fees and services, subject to the traditional review by the Board and its Committee on Reserve Bank Activities.

The Board of Governors of the Federal Reserve System published a set of pricing principles, policies, and a proposed schedule of fees on August 28, 1980, for public comment. Over 230 comments were received, including ones from each of the 12 Reserve districts, 200 from commercial banks and their associations, 10 from thrift institutions and their associations, and 4 from Federal agencies—the Department of Justice, the Federal Deposit Insurance Corporation, the Federal Trade Commission, and the National Telecommunications and Information Administration.

On December 31, 1980, the Board revised several of its pricing principles after considering public comments. The first service price to be implemented—wire transfer—took effect on January 29, 1981. On March 27, 1981, the Board published a set of proposed fees for check clearing services. These fees, listed in appendix II, were put into effect on August 1, 1981. The Board plans to review prices at least annually.

Except for charging for its services, the Federal Reserve made no basic changes in its operations in the transition from a nonpricing to a pricing environment.

The Federal Reserve initially had indicated it would begin pricing its check clearing activities in April 1981, but the August 1 starting date was still one month ahead of the deadline specified in the act. The beginning dates for pricing of other services are:

- Wire transfer: January 29, 1981
- Net settlement: January 29, 1981
- Automated clearinghouse: August 1, 1981
- Purchase, sale, safekeeping, and transfer of securities: October 1, 1981
- Noncash collection: October 1, 1981
- Coin and currency delivery: January 28, 1982
- Coin wrapping: January 28, 1982
The Federal Reserve has not yet committed itself to a date for pricing float. The automated clearinghouse price for commercial users was deliberately set at less than average cost of service in order to attract additional customers.

OBJECTIVES, SCOPE, AND METHODOLOGY

We initially undertook an examination of Federal Reserve check clearing operations because of its relative importance in the Federal Reserve System. Federal Reserve banks' expenditures for clearing checks in 1980 were about 35 percent of their total expenditures, and about 5,800 persons--25 percent of Federal Reserve bank employees--are employed in providing this service.

When the Monetary Control Act of 1980 was adopted, however, our primary objective shifted to evaluation of the Federal Reserve's implementation of the act's pricing provisions. We confined our analysis to those items to be priced related to the clearinghouse functions of the Federal Reserve--clearing of paper checks, automated clearinghouses, and float. These three services comprise about 90 percent of the value of items to be priced by the Federal Reserve.

Our basic audit work was completed before August 1, 1981, the date the Federal Reserve actually began to charge users of its clearinghouse services. In completing the report we incorporated some information about what has happened after pricing was implemented. This information primarily concerned more recent data on check clearing volume and levels of float.

Evaluation of Federal Reserve implementation of the Monetary Control Act's pricing mandate is complicated by the wide discretion the act gives to the Board

The Monetary Control Act requires that selected services, including Federal Reserve float, be priced explicitly and sets forth the principle that prices should be based on all direct and indirect costs. The act also gives the Federal Reserve Board authority to implement such pricing arrangements for all priced services after proposed principles and fees are made available for public comment. In addition, however, the act gives the Federal Reserve Board discretion in determining when and how explicit pricing of services is to be accomplished. The Federal Reserve has interpreted the language of the Monetary Control Act to "begin to put into effect a schedule of fees" by September 1, 1981, to mean that some--but not all--prices had to be in effect
on that date. We do not question the validity of this interpreta-
tion from a legal standpoint because the act does not state spe-
cifically when all services and float must be priced. The prin-
ciple that prices be based on all direct and indirect costs is
to be accomplished over the long run, and the Federal Reserve
can implement this principle by taking into account competitive
factors or applicable requirements for provision of an adequate
level of services nationwide. Given the wide latitude which the
Federal Reserve has in implementing the act's pricing provisions,
we directed our attention to matters involving how the Federal
Reserve has exercised its discretion.

Criteria we selected in evaluating Federal Reserve actions to date

Our major criterion for evaluating the Federal Reserve's
decisions and actions was whether the longrun objective of the
act to recover full costs was being achieved in as timely a manner
as practicable. The act is fairly specific about what is meant
by full cost recovery, and we therefore felt it reasonable to use
progress made in achieving this objective as a basis for evaluating
the Federal Reserve's implementing of the act's pricing provisions.
The act provides that

--prices should be based on all direct and indirect costs, 
overhead, and the capital costs and taxes that the Federal Reserve would have to pay if it were a private business;

--float is to be priced at the rate for Federal funds (which is a market rate); and

--the Federal Reserve is to reduce the budgets of Federal Reserve banks if volume declines, paying the full amount of savings so realized to the Treasury.

As stated above, we recognize that the act does not state when the
longrun pricing objective should be achieved. However, we feel
that the Federal Reserve should demonstrate sufficient reasons
for the use of policies or practices which are not consistent
with achieving the longer run objective as soon as practicable.

Prices that result in subsidies for Federal Reserve services
have consequences for taxpayers and for private sector institu-
tions that compete or would like to compete with the Federal Reserve in the provision of certain services. If Federal Reserve
prices are not subsidized, market forces can determine which
services the Federal Reserve can provide most efficiently and
which can be better supplied by the private sector. Because of
the way the Federal Reserve is financed, any shortfall in cost
recovery effort results in a corresponding reduction in Federal Reserve earnings turned over to Treasury. Thus, the taxpayers
indirectly pay for any subsidy of check clearing operations that might occur. 1/

We also applied other criteria in evaluating implementation of the Monetary Control Act:

--Compliance with procedural requirements of the Monetary Control Act.

--Consistency of prices adopted by the Board with commonly accepted principles of efficiency and equity. 2/

Issues highlighted in the report

The Federal Reserve Board and the banks in the Federal Reserve System faced many complex issues in implementing the pricing provisions of the Monetary Control Act. In applying our criteria to Federal Reserve actions to date, we found that the Board diligently implemented many aspects of the act and adopted many reasonable principles and policies.

Our criteria, however, highlighted several aspects of Federal Reserve Board implementation of the Monetary Control Act pricing provisions that we believe need to be brought to the attention of the Congress. These areas are

1/See pages 36 and 53 for additional discussion of Federal Reserve finances.

2/The general objective of efficient pricing in a nonsubsidized environment is to achieve a balance of demand for and supply of services to accomplish check clearing activity at least cost to society. The Monetary Control Act does not require that prices be efficient. However, efficient prices represent the best way from the standpoint of accepted economic theory to obtain sufficient revenue from pricing to cover all costs, including the imputed cost of capital.

Equity, as used here, involves considering whether similar classes of users of Federal Reserve services will be charged the same price and whether departures from efficient prices have a reasonable justification. Since it is often impractical to set prices that conform to strict efficiency principles, the reasonableness of departures from efficient pricing play an important role in evaluating Federal Reserve Board actions.
--possible difficulty the Federal Reserve may encounter in avoiding subsidy in the event of a substantial decline in the volume of checks processed;

--questionable justification for delay in pricing float;

--questionable basis for subsidization of commercial use of automated clearinghouse services; and

--instances where individual prices charged for processing paper checks can be questioned on efficiency or equity grounds.

Our concerns, especially those involved with ability to cope with declines in demand for service, necessarily include some conjecture on our part as to what is likely to happen when the Federal Reserve faces more vigorous price competition from the private sector. Nonetheless, we believe it appropriate to make our concerns known at this point, when policies are still evolving and corrective actions can be more easily taken within the framework of existing law.

Specific information gathered and analyzed

In preparing this report, we reviewed the processes and procedures the Federal Reserve used to develop its prices by holding discussions with members of the Federal Reserve Board of Governors' staff and members of the Federal Reserve's Pricing subcommittee and by reviewing related documentation. We also assessed comments on the Federal Reserve's proposed prices, analyzed how the costs will be borne among types of users, and reviewed the legislative history of the Monetary Control Act of 1980.

We examined check collection operations in nine check processing centers--Atlanta, Jacksonville, New Orleans, Chicago, Milwaukee, New York City, Jericho (New York), Los Angeles, and San Francisco. We selected these offices to provide variation in regions of the country and in types of services provided.

To test the justification of the prices for clearing paper checks, we

--examined the methodology employed by the Board in arriving at prices;

--tested the collection of data and the pricing computations to assess their accuracy;
validated the capacity of the prices to generate the revenues needed to cover direct and indirect costs (including the imputed before-tax cost of capital); and

considered whether variations in prices among types of services or among offices were justified by cost or other considerations.

The data we used was for the most part drawn from the Federal Reserve's information systems or workpapers.

We interviewed district and branch officials concerning the effect pricing will have on the level of their operations and their plans for reducing their operations should volume declines occur. We did not, however, attempt to design a cost model nor did we attempt to set up a procedure to determine the relative efficiency of each office. Our review was performed in accordance with GAO's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."
CHAPTER 2
THE CHECK CLEARING SYSTEM NEEDS TO BE
WELL MANAGED TO AVOID SUBSIDIES

The Monetary Control Act changed the ground rules under which the Federal Reserve clears paper checks. Now it must not only be concerned with the timeliness and quality of service but also with charging users enough to cover costs.

The reasonable procedures followed by the Federal Reserve Board in establishing the prices that went into effect on August 1, 1981, provide a good framework for continuing to set prices that will cover all costs. However, certain problems evident in this initial period of price-setting--such as the difficulty of estimating future volume--are likely to prove troublesome in the future unless the Board increases its efforts to manage its check clearing operations as an efficient nationwide system.

THE INITIAL PRICES FOR PROCESSING PAPER CHECKS WERE DESIGNED TO COVER FULL COSTS

In an unsubsidized system, volume of service provided multiplied by the price of that service should yield an amount of revenue that covers all costs. Although volume in the future can only be estimated, the procedures the Federal Reserve Board used to set price and volume estimates were generally reasonable.

The price-setting methodology was logical and based upon the best available data

Within the framework of the broad pricing principles established by the Monetary Control Act, the Federal Reserve Board had to exercise a considerable amount of discretion in determining the categories of service to be separately identified and how the costs of services were to be spread over all users. The Board decided to adopt a relatively simple structure for its prices. Depositing institutions were charged according to whether items deposited were to be collected by the same or by a different Federal Reserve office. For items for collection within the same office, a distinction was made among these deposit types: city zone, regional or country zone, package sorted, and group sorted. A surcharge was provided when a depositing institution was allowed to send checks directly to another Federal Reserve office using the Federal Reserve's interoffice transportation system. Districts were given the option to price by district or by individual office.
The Federal Reserve Board decided that prices for 1981 should be based on the expected average cost of providing services for the year. This was a reasonable way to begin, given the lack of data or experience in a pricing environment. The prices now in effect are the result of two rounds of price estimating. The first resulted in prices published for public comment in August 1980, and the second in final prices published in March 1981 and put into effect on August 1, 1981.

Prices for check clearing services were based on the cost and volume shown by the Federal Reserve's Planning, Accounting and Control System (PACS), adjusted to reflect estimated changes in costs and volume expected for 1981. However, the PACS data does not break down cost by deposit type nor does it distribute overhead cost to the office level. The Pricing Task Force provided the districts with guidance in deriving pricing data but did not specify how total costs should be distributed among deposit types.

We examined the work sheets prepared by offices in the Atlanta, New York, Chicago, and San Francisco Districts. The calculations made by each of the offices followed Federal Reserve Board guidelines, given the limited cost accounting data that was available. Our detailed review of the calculations by the offices in the Atlanta District turned up a few instances where assumptions were made in allocating costs that could be questioned, but these instances had negligible effects on the prices calculated.

On average, for all services in all offices, the 1981 fees were 11 percent higher than those published for comment in August 1980. The principal reasons for the higher prices were: the higher Private Sector Adjustment Factor (PSAF) added to 1981 costs; operating costs increasing more rapidly than volume from 1980 to 1981; and the substantial increase in the surcharge for consolidated shipments (from 0.44 cent to 0.64 cent per item) which reflects the interoffice transportation costs associated with the Federal Reserve System's float reduction effort.

In setting its final prices, the Federal Reserve Board increased the private sector adjustment factor to 16 percent. The 12 percent factor used in the August 1980 calculations was considered too low by most of those who commented on this aspect of proposed prices. Calculating an appropriate private sector adjustment factor is not a simple proposition. Decisions need to be made about what organizations are most likely to be Federal Reserve competitors and the capital structure (debt and equity), applicable tax rate, and before-tax cost of capital of a representative mix of such competitors. In raising the private sector adjustment to 16 percent, the Federal Reserve Board essentially recognized the higher cost of funds in 1980.
and determined that higher effective tax rates and a higher share of long term debt and equity financing were applicable to check clearing operations.

The Federal Reserve calculates the PSAF on the basis of the following information: (a) the book value of Federal Reserve plant and equipment utilized in priced services (b) proportionate share of the book value of plant and equipment assumed to be financed by equity, long term debt, and short term debt (determined by survey of selected financial institutions), (c) average cost of capital (also determined by survey of selected financial institutions), and (d) the expected value of priced services other than those contracted to the private sector. 1/ In January 1982, the Federal Reserve Board adopted a 16 percent PSAF for calendar year 1982, based on an average cost of capital of 17.2 percent. 2/

Prices would have recovered costs if volume assumptions held

To test the validity of the Federal Reserve's price-setting methodology, we multiplied the proposed prices by the volume of check clearing services which the Federal Reserve Board estimated it would have. The methodology used by the Federal Reserve Board in setting prices was based upon the average cost of services for all of calendar year 1981 (and not just the 5-month period following August 1, 1981). We therefore multiplied the Board's prices by the volume expected for all of 1981.

1/The formula is:

\[
PSAF = \frac{(Priced Service Asset Base) \times (Average Cost of Capital)}{Value of Priced Services}
\]

2/The PSAF is close in value to the average cost of capital because the estimated priced service asset base is close in amount to the value of priced services. Using the formula contained in footnote 1, the 15.8 percent PSAF for 1982, (rounded to 16 percent) results from the following calculation:

\[
.158 = \frac{\$345.5 \text{ million} \times .172}{\$376.6 \text{ million}}
\]
The test showed that if the Federal Reserve's estimate of check volume and costs were realized the revenue generated by the prices would closely approximate costs plus the private sector adjustment. The results of our test are summarized as follows:

- **Budgeted costs for 1981, except contracted items**: $262 million
- **Private sector markup to account for imputed before tax cost of capital (16 percent of budgeted costs, except contracted items)**: $42 million
- **Contracted items (principally transportation)**: $47 million
- **Total**: $351 million
- **Estimated revenue (prices times volume)**: $350 million
- **Underrecovery of costs**: $1 million

The estimated revenue is less than 1/2 percent lower than the budgeted total. This is within the margin of error which must be expected in such a calculation.

**CHECK PROCESSING VOLUME IS BELOW WHAT WAS FORECAST WHEN PRICES WERE SET**

In estimating volume in a pricing environment the Federal Reserve Banks had to attempt to assess the change in demand for the various services that would result from its own prices, possible changes in competitors' prices, changes in the state of the economy, and other factors. Although there were reasons to expect volume to decline when pricing began, it was difficult to anticipate how much decline could be expected and when this would happen. Prices for 1981 were based on the assumption that volume would remain at about the 1980 level.

In the 4-month period from August through November 1981, however, the Federal Reserve's check clearing workload decreased significantly. The decline in volume will result in service subsidies until costs are reduced and/or prices increased.

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1/As the Monetary Control Act requires, this amount represents revenue to be recovered over and above the directly budgeted operating expense of services.
In calculating its prices the Federal Reserve estimated that the volume of checks cleared in 1981 would be about the same as in 1980. The increase in 1980 over the previous year was 4.3 percent. The Federal Reserve's assumption for 1981 thus seemed to anticipate that imposition of prices might reduce demand for service.

For individual districts, the Federal Reserve estimated that changes in volume in 1981 would range from plus 11.6 percent to minus 13.4 percent. This variation, much higher than the actual variation experienced the previous year, suggests uncertainty existed about future volume. A breakdown of the past and projected change in check clearing volume by district is shown in the following table:
### CHANGE IN VOLUME OF CHECKS PROCESSED

**BY DISTRICT: 1979 TO 1980 AND 1980 TO 1981 (ESTIMATED)**

<table>
<thead>
<tr>
<th>District</th>
<th>Percent change 1979 to 1980</th>
<th>Percent change 1980 to 1981 (estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
<td>+5.3</td>
<td>+ 0.7</td>
</tr>
<tr>
<td>New York</td>
<td>+3.9</td>
<td>+ 3.6</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>+4.4</td>
<td>+ 6.6</td>
</tr>
<tr>
<td>Cleveland</td>
<td>+4.6</td>
<td>+ 5.1</td>
</tr>
<tr>
<td>Richmond</td>
<td>+3.9</td>
<td>+ 3.9</td>
</tr>
<tr>
<td>Atlanta</td>
<td>+3.9</td>
<td>- 3.7</td>
</tr>
<tr>
<td>Chicago</td>
<td>+ .3</td>
<td>-13.4</td>
</tr>
<tr>
<td>St. Louis</td>
<td>+3.1</td>
<td>+ 3.0</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>+8.3</td>
<td>+11.6</td>
</tr>
<tr>
<td>Kansas City</td>
<td>+3.7</td>
<td>- 6.0</td>
</tr>
<tr>
<td>Dallas</td>
<td>+6.6</td>
<td>+ 6.5</td>
</tr>
<tr>
<td>San Francisco</td>
<td>+3.5</td>
<td>+ 3.9</td>
</tr>
<tr>
<td>System</td>
<td>+4.3</td>
<td>+ 0.2</td>
</tr>
</tbody>
</table>

**Volume declined when pricing began**

In the 4 months August through November 1981, the number of checks presented to the Federal Reserve for collection declined by 7 percent. Because a larger percentage of the checks the Federal Reserve did process were already sorted before they were presented to the Federal Reserve, the volume of checks requiring full Federal Reserve processing services declined by 17 percent. Statistics on recent volume of work by individual district and office were not available at the time of this writing. However, some offices, such as Philadelphia, have experienced declines considerably above the average for the system.
We believe it is not possible at this point to anticipate the extent of decline that may ultimately be experienced. More time may be needed for all of the parties involved in the nation's check processing system to adjust to service pricing. Upward revision of prices could also result in further loss of volume, and, as described in the next chapter, the Federal Reserve has not yet priced float, which could add significantly to the price the Federal Reserve charges for clearing checks.

Why a decline in volume should be expected to accompany service pricing

Depositing banks are concerned with two elements of cost when selecting check processing and collection services—the cost of physically handling the check and the float cost. Even when the Federal Reserve provided services without explicit charge, depositing banks would often send their checks directly to the paying bank, incurring additional sorting and transportation expense in order to receive earlier credit for the funds than the Federal Reserve System offered. Unless competitors also raise their fees for check clearing service by a corresponding amount, the levying of charges by the Federal Reserve for services formerly provided free should lead to reduced demand for these services.

How much demand may decrease from what it would have been without pricing and when the effects will be experienced are difficult to predict. Federal Reserve officials are unwilling to make longer term predictions of future changes in volume. Before pricing began, one official responded to our question about forecasts of future volume by estimating that many Federal Reserve officials working in the check clearing area expect the decreases in volume as a result of pricing to be in the 9 to 12 percent range.

Reserve bank officials in the districts included in our review cited a number of reasons for expecting substantial volume declines, as follows:

Reappearance of local clearinghouses

The Federal Reserve has had a policy of encouraging banks within the same city to exchange checks among themselves; however, with the implementation of the regional check processing center concept in 1970, the incentive for doing this was essentially neutralized. Banks in the same city could send their checks to the Federal Reserve and receive immediate credit for the value of the checks, the same as if they had exchanged them locally. They avoided having to sort the checks and the time actually spent in the exchange and collection of checks. Under
pricing, however, such banks will likely find it more cost effective to once again exchange checks directly among themselves rather than pay the Federal Reserve for the service.

**Increased “fine-sorting”**

A major part of the Federal Reserve's operations are devoted to sorting checks to individual banks for collection. Under a nonpricing environment, the Federal Reserve did not require, nor was there any incentive for, banks to "fine sort" checks turned over to the Federal Reserve for collection (i.e., to sort them to individual institutions prior to turning them over to the Federal Reserve for collection). Under pricing, the Federal Reserve offers cheaper rates for checks which have been fine sorted. Financial institutions may find it more cost effective to provide their own sorting or to acquire it elsewhere.

**Increased use of privately arranged transportation**

Pricing has changed the equation by which banks will determine whether to have their checks collected through their local Federal Reserve bank or branch, through the bank or branch in the paying bank's zone, or through correspondent channels. Banks often can achieve earlier fund availability by bypassing the Federal Reserve bank in their districts, taking advantage of frequently scheduled air transportation between major cities to send directly to the collecting Federal Reserve bank, to a correspondent bank, or to the bank on which the check is drawn. Now that Federal Reserve services are no longer free, using alternative means to achieve earlier fund availability will become more attractive.

**Competing services being offered**

The check collection process uses readily obtainable inputs—commercially available equipment and transportation, and a labor force that can be trained relatively easily. This means that it would be relatively easy for competitors to enter the market. One of the first publicly announced competing services was that of a Tennessee bank which offers nationwide services using the flight schedules of the Federal Express Corporation, a national courier specializing in overnight service. The bank provides 1-day clearance, as compared to the 2-day clearance the Federal Reserve offers for checks being deposited in one district and collected in another.

Correspondent banks might also have the opportunity to package a wide variety of services in ways that are not open to the Federal Reserve. In such packaging arrangements, private
sector institutions could consider check clearing as a loss leader for a period of time and price at or below Federal Reserve rates irrespective of costs.

**Increased use of electronic payments**

If the Federal Reserve's promotion of its automated clearinghouse services is successful, it would have some impact on the volume of paper checks handled by Reserve banks. The "mature volume" of 2 billion items per year which the Federal Reserve hopes to achieve for the automated clearinghouse represents about 14 percent of the volume of paper checks now handled by Federal Reserve banks. The Federal Reserve expects electronic check processing to spread rapidly for some types of payments now that charges are made for processing paper checks. (See ch. 4.)

**DECLINING VOLUME AND RISING COSTS ARE RESULTING IN SERVICE SUBSIDIES**

Declining volume is one factor at work which is resulting in check clearing services currently being priced below cost. Increases in expenses not anticipated when the current price level was adopted is another factor. In essence, the Federal Reserve is pricing 1982 services on the basis of outdated estimates of 1981 volume and expenses. Until action is taken to bring revenues and costs into balance, we estimate that check clearing activities are being subsidized at the present time at the annualized rate of about $40 million to $50 million.

Looked upon from the standpoint of the best use of society's resources, a decline in Federal Reserve check clearing market share or volume can represent a positive contribution to achieving efficiency in the nation's payment system. This is because pricing Federal Reserve services may induce institutions to use lower cost private sector alternatives to clearing checks.

In pursuing a no-subsidy policy, however, the Federal Reserve must also be prepared to deal with the practical consequences of a decline in volume. Unless volume declines are anticipated when prices are set, such declines could lead to a chronic situation in which each year the Federal Reserve fails to obtain enough revenue to cover costs, including the imputed costs represented by the PSAF. Every 1 percent decline in volume from the estimate used in calculating prices results in a loss of revenue of about $3.5 million, although the exact amount depends upon the category of service experiencing the shortfall. (A shift in service demand favoring lower cost deposit types, such as occurred in the fall of 1981 after pricing began, also leads to a revenue shortfall even though total volume is unaffected.)
The Federal Reserve is now experiencing revenue shortfalls, but figures on the actual balance between costs and revenues for the period since pricing began were not available by the end of January 1982. On an order of magnitude basis, however, we estimate that the 17 percent decline in processing volume experienced from August through November 1981 translates into about a 12 percent revenue decline, or a shortfall of $42 million on an annualized basis. We have been advised that the System has made some effort to reduce expenses but that the decline in expenses associated with the drop in volume has been much less than proportionate.

Although volume is declining, the Federal Reserve appears to be increasing expenses for check clearing activities beyond those included in the prices that went into effect in August 1981. In calculating the PSAF for the coming year that was adopted in January 1982, the Federal Reserve anticipated that the cost of priced services subject to mark-up would increase by 21 percent from 1981 to 1982—from $311 million in 1981 to $377 million in 1982. (A 21 percent net increase in investment in plant and equipment attributed to priced services for 1982 was also anticipated.) We have not been able to determine what percentage of this increase in cost involves check clearing activities. However, the dominance of check clearing activities suggests that at least some of this $66 million in higher operating costs would be attributable to this area. Since these higher expenses were not factored into the prices now in effect, we conclude that this increase in expenses not covered by revenue is a second factor adding to the current rate of subsidy for check clearing activities. It seems reasonable to assume that this second factor brings the current rate of subsidy for check clearing service to about $40 million to $50 million on an annualized basis.

If subsidies are to be avoided in an environment of declining market share, the Federal Reserve needs to be able to identify volume declines as they occur and take the necessary steps to bring revenues and expenses into balance by adjusting prices, services, and costs. The following section describes options which the Federal Reserve has for managing its check clearing system without subsidy in a dynamic market setting.

OPTIONS AVAILABLE FOR ELIMINATING SUBSIDY OF THE FEDERAL RESERVE CHECK CLEARING SYSTEM

The structure of the Federal Reserve System with its independent district banks is different from that of a typical government agency. At this stage in the implementation of the Monetary Control Act's pricing provisions we are not certain
how much formal organizational change, if any, is needed in the way the check clearing system is administered. We believe, however, that there are certain things which the Federal Reserve System needs to do to assure that its check clearing operations are well managed and unsubsidized. They are:

-- Improve efficiency and make costs as responsive as possible to changes in volume.

-- Evaluate prices from the point of view of incentives to maintain efficient, unsubsidized service.

-- Evaluate performance in markets for both higher and lower value checks.

-- Develop cost effective service and pricing packages.

-- Adopt a more systemwide management orientation.

The Federal Reserve System needs to improve efficiency and make costs as responsive as possible to changes in volume.

There are two reasons why cost consciousness is needed in managing Federal Reserve check clearing services without subsidy. By being able to reduce costs and thereby lower prices, the Board can improve the relative attractiveness of its services and thereby help avoid losses in volume that might otherwise occur. Also, by making costs as flexible as possible the Federal Reserve banks can keep down the amount of price increase needed to offset any decreases in volume which might occur.

Extent of inefficiency is hard to document

By improving efficiency, the Board can reduce its costs and prices without affecting the quality or level of services, thereby providing a clear net gain to society. Many of the banks and branches included in our review were making improvements intended to improve efficiency, but it is difficult to tell how efficient Federal Reserve services are.

Unit costs of production, expressed by the Federal Reserve as the cost of processing and collecting 1,000 checks, varied widely by processing center. For example, for the year ending December 31, 1980, unit costs in the nine centers included in our review ranged from a low of $5.33 to a high of $12.07. These unit costs exclude the cost of transportation since this cost varies more with geographical characteristics of the zone served by a processing center—the size of the area and density of banks within the area—rather than decisions by management. (See app. III for 1980 unit costs of all processing centers.)
### 1980 Unit Processing Costs of Nine Selected Check Processing Centers

<table>
<thead>
<tr>
<th>Center</th>
<th>Unit cost (including trans-portionation)</th>
<th>Percent above average</th>
<th>Unit cost (excluding trans-portionation)</th>
<th>Percent above average</th>
<th>Unit cost of system</th>
<th>Percent above average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>$10.63</td>
<td>+ 6.3</td>
<td>$ 7.09</td>
<td>- 4.6</td>
<td>$3.54</td>
<td>+37.7</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>7.69</td>
<td>-23.1</td>
<td>5.33</td>
<td>-28.3</td>
<td>2.36</td>
<td>-8.1</td>
</tr>
<tr>
<td>New Orleans</td>
<td>11.15</td>
<td>+11.5</td>
<td>0.47</td>
<td>+14.0</td>
<td>2.60</td>
<td>+ 4.3</td>
</tr>
<tr>
<td>New York</td>
<td>15.20</td>
<td>+52.0</td>
<td>12.07</td>
<td>+62.4</td>
<td>3.13</td>
<td>+21.3</td>
</tr>
<tr>
<td>Jericho</td>
<td>9.36</td>
<td>- 6.4</td>
<td>8.37</td>
<td>+12.7</td>
<td>.99</td>
<td>-61.5</td>
</tr>
<tr>
<td>Chicago</td>
<td>12.71</td>
<td>+27.1</td>
<td>9.64</td>
<td>+29.7</td>
<td>3.07</td>
<td>+19.5</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>7.62</td>
<td>-23.8</td>
<td>5.55</td>
<td>-25.3</td>
<td>2.05</td>
<td>-20.2</td>
</tr>
<tr>
<td>San Francisco</td>
<td>10.40</td>
<td>+ 4.0</td>
<td>8.13</td>
<td>+ 9.4</td>
<td>2.27</td>
<td>-11.7</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>8.84</td>
<td>-11.6</td>
<td>5.09</td>
<td>-20.7</td>
<td>2.95</td>
<td>+14.0</td>
</tr>
<tr>
<td><strong>System average</strong></td>
<td>$10.00</td>
<td></td>
<td><strong>$7.43</strong></td>
<td></td>
<td><strong>$2.57</strong></td>
<td></td>
</tr>
</tbody>
</table>

Such wide variation in prices may indicate the presence of inefficiency, but unit costs of production can also vary because of differences in service levels provided, geographical features, operating methods, and depreciation related to age and cost of facilities. Even when the prices are relatively even, this may be the net result of a combination of offsetting factors. While some factors entering into the unit costs are not controllable, such as the relative size of banks that are served or the distances between them, the level of service and the degree to which management can influence efficiency are controllable. The Federal Reserve's PACS management information system does not provide enough detail to be able to identify unit costs that reflect inefficient operations.

Using regression techniques, we have also been unable to explain differences in unit costs, or changes in unit costs from 1979 to 1980, in terms of readily identifiable objective characteristics, such as size of center, number of endpoints (check destinations), or degree to which the center used data processing equipment and services. Progress being made in reducing costs, however, suggests that inefficiencies do exist in the system. Over time, market-generated information should prompt the Federal Reserve System to identify and eliminate major sources of inefficiency.
Example of efficiency improvement—
modular processing in New York

A particularly dramatic example of productivity improvement resulted from adoption of a modular processing approach in the New York District. The New York District has restructured its basic operating concept to eliminate assembly line techniques, with separate units and supervisors assigned to different phases of the check-sorting process—i.e., receiving, preparation, sorting, settlement, and dispatch—and replaced it with teams of employees who conduct the entire operation. The concept was developed by the district to capture economies it had observed in smaller center operations where employees, of necessity, must become familiar with all processing phases. In effect, the concept reproduces smaller-center operations in "modular" form. Depending upon the volume that must be processed, modules (self-contained operating units) can be added or deleted.

The district's results from installing the modular concept have been impressive. For example, the Jericho processing center increased production from an average of 2,294 checks per staff hour in May 1979 to 3,039 in the third quarter 1980, an increase of 32 percent. Similarly, the New York District Bank increased production by 20 percent—from 1,643 checks per staff hour in the second quarter 1980 to 1,977 in the third quarter 1980.

The importance of striving to make costs as responsive as possible to changes in volume

When the Federal Reserve Board experiences a decline in volume, the effect on prices depends upon the degree to which the Federal Reserve can control its costs. If costs varied in exactly the same proportion as volume, a drop in volume would not result in higher prices. In situations where some operating costs are fixed, unit prices will have to rise if volume falls unless costs are to be subsidized. Raising prices to cover falling volume can, in turn, lead to more decline in volume, thereby setting off a spiral of price hikes, declines in volume, and incentives to allow service to deteriorate or to provide service subsidies.
Federal Reserve Board studies show an absence of economies of scale in all but the smallest check processing centers, which suggests that over the long run costs should move in proportion to volume. However, costs are always more flexible the longer the period being considered.

In assessing shortrun cost flexibility, the key items are transportation, equipment depreciation or rental, and personnel costs which together account for 88 percent of the resources the Federal Reserve devotes to its check collection operations. Transportation, which accounts for 25 percent, is now the most fixed of all costs under the Federal Reserve's present means of operating. The Federal Reserve uses charter transportation service which is totally dedicated to Federal Reserve check clearing activities to exercise a maximum degree of control. If the volume declines, this means that basically the same cost is spread over fewer items, resulting in a higher unit cost. The present set of contracts for transportation expires in late 1983.

Equipment costs, which account for about 20 percent of total processing costs, are not as fixed as transportation costs and can be reduced within given scales, but the high capacity of each piece of equipment can cause widely fluctuating average costs. For example, the center processing the highest volume of checks within the system requires only seven sorting machines and two central processing units. Thus, even a substantial decline in volume may not permit the release of a sorting machine or of a central processing unit if the center is to maintain its level of service. Personnel costs, which account for 43 percent of total processing costs, provide the Federal Reserve with some flexibility in reducing costs in proportion to volume declines.

It appears that over the short run some of the Federal Reserve's costs, especially those related to transportation and equipment, are relatively fixed. This means that, under current operating assumptions, unit prices would have to rise if volume falls unless service is to be subsidized. However, the actual degree of flexibility in costs over the short term if volume falls is not known. An analysis of cost flexibility is complicated by the fact that what is fixed and what is variable can also depend upon management's willingness to make changes in response to changing conditions. Thus, the Federal Reserve could examine options to alter its transportation contracts to reduce costs if volume begins to decline. To minimize

1/ In these Federal Reserve studies, large centers tend to show decreasing returns to scale, which suggests that over the longer run real prices might decline if volume falls.
any tendencies toward subsidization that might result from falling volume, it is important that Federal Reserve managers take every opportunity to make the costs of present operating procedures as flexible as possible.

The structure of prices should be evaluated from the point of view of incentive to achieve efficiency and avoid subsidy.

The Monetary Control Act sets forth the longrun objective of recovering full costs in aggregate through pricing, but the Board has flexibility in setting prices among its mix of services. The Federal Reserve should periodically review its price structure and its operating experience to determine that the price structure is contributing as much as possible to achieve an efficient, nonsubsidized check clearing system. An example of a policy that needs to be reviewed from this perspective is the decision to allow check clearing services to be priced at the district rather than at the office level.

The Board of Governors chose not to set a single nationwide price for its check processing services because of widely varying unit costs of processing checks among processing centers. At the same time, it gave each district the option of setting a district-wide price or prices for each processing center, specifying that the district should develop office prices where significant cost differences exist among offices. The Board, however, did not set criteria for what constituted a "significant" cost difference. Seven of the 12 districts chose to set districtwide prices. An eighth district, Philadelphia, does not have other offices and, therefore, had no option. In the New York District, the same price was set for the four offices outside of New York City. Thus, only three districts chose to price completely by office.

Averaging masks differences in unit costs and this can create price inequities among users of the services and dull the incentive of processing center managers to operate as efficiently as possible. As the following table indicates, the Atlanta District shows the substantial variation in costs that can underlie a single district price.
**Variation in Unit Costs by Office**

**Within the Atlanta District in 1980**

<table>
<thead>
<tr>
<th>Office</th>
<th>Unit cost (including transportation)</th>
<th>Percent above or below district average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>$10.63</td>
<td>+15.4</td>
</tr>
<tr>
<td>Birmingham</td>
<td>8.65</td>
<td>-6.1</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>7.69</td>
<td>-16.5</td>
</tr>
<tr>
<td>Nashville</td>
<td>9.56</td>
<td>+3.8</td>
</tr>
<tr>
<td>New Orleans</td>
<td>11.15</td>
<td>+21.1</td>
</tr>
<tr>
<td>Miami</td>
<td>8.44</td>
<td>-8.4</td>
</tr>
</tbody>
</table>

District average $9.21

The wide difference in the unit costs between the Atlanta and Jacksonville processing centers is explained largely by substantial differences in service levels. The Jacksonville center over a period of several years had embarked on a program to reduce its operating costs by gaining the cooperation of banks for passing along part of its processing burden to them and by careful attention to its internal operations. For example, the Jacksonville center:

---substantially reduced its sorting operations by sorting checks to the common processor serving multiple banks rather than to the banks individually.

---expanded the city area served beyond the central business district to cover the whole county in which the Jacksonville center is located, creating a wider area in which banks were required to exchange checks among themselves.

---began a program of having banks it served prepare summary encodings showing batch totals with their cash letters, which the center had previously to prepare after receipt of the cash letters.

---reduced the number of deposit stations from which it picked up deposits from banks in other cities within its zone and established those remaining stations at airports, while replacing its ground courier services with air courier to speed the delivery of the checks to the processing center.

In addition, it had an aggressive program for working with banks to eliminate errors occurring in their deposits. Internally, the bank had established a program for crosstraining employees to improve their productivity and usefulness.
On the other hand, the Atlanta center did not pass as many processing burdens to the financial institutions it served. It reduced some endpoints through consolidated sorting, but it had the potential of further substantial reductions. Its city area was still confined to the central business district; it did not require summary encodings with cash letters; and it did not work as aggressively with banks to eliminate errors in deposits. In late 1980 it did reduce the number of deposit stations served. Staff productivity between the two centers varied substantially; between January and June 1980, for example, the Jacksonville center processed 21 percent more checks than the Atlanta center with 22 percent fewer employees.

Past experience shows that the equity and efficiency problems created by districtwide prices will not necessarily diminish over time. For example, New Orlean's and Birmingham's costs were respectively much farther above and below the average district cost in 1980 than they were in 1979.

By overcharging financial institutions in offices with lower than average costs, districtwide pricing policy creates an incentive for competitors to take over business that may be performed efficiently by the Federal Reserve System. Since short-run Federal Reserve costs seem to have an element of inflexibility about them, as was suggested in the previous section, incentives to drive away business that the Federal Reserve System can handle efficiently should be avoided because they are likely to increase the possibility of service subsidies. By the same token, a district price has the effect of shielding high cost centers from competition. The pressure to subsidize check clearing services over the longer run will decrease if Federal Reserve banks systematically reduce costs or cut services when the private sector demonstrates it can perform the service cheaper. Pricing on a districtwide basis also creates a disincentive for centers to take actions to improve their efficiency, since the effects of such actions are diluted through the averaging process.

This discussion of districtwide prices shows the kinds of considerations that should be brought to bear in periodic evaluation of the price structure. By monitoring operations closely, the Federal Reserve should be able to use market-generated information to determine what prices most need to be changed to help achieve overall objectives of efficiency and avoidance of subsidy for the system as a whole.
Performance in the markets for both higher and lower value checks should be evaluated systematically.

Federal Reserve banks accept all checks presented to them for clearance pursuant to their regulations. For purposes of considering how Federal Reserve managers can best balance revenues and costs, however, it is useful to distinguish between lower and higher value checks.

The Federal Reserve must respond to two different market needs in order to serve all segments of the check clearing market—the need to provide a low cost service for low value checks and the need to provide speedy collection at premium costs to checks of higher dollar value. By attempting to attract both markets with an average price, the Federal Reserve is vulnerable to losing substantial volume in both markets.

Speed of collection is an important factor in the high value check clearing market. This speed is very costly but is justified because of the interest accumulated on funds in transit. For example, at a rate of 15 percent the daily interest on a check of $500 is about 20 cents, as compared to the basic check processing cost of about 2 to 5 cents.

The speed required to clear high value checks while minimizing float places heavy demand on the Federal Reserve's transportation, personnel, and processing equipment resources. Sufficient equipment must be on hand to assure that all checks presented for collection by depositing banks can be processed in a given cycle to avoid holdover. Since there are peaks in the flow of checks during hours of the day, days of the week, and seasons, this means that the amount of equipment must be geared to handling peak workloads and thus in excess of what would be needed if the need to avoid holdover were not critical. In improving its interdistrict transportation system to speed the collection of checks, the Federal Reserve increased the cost of transportation by about $5 million. The Federal Reserve's commitment to a charter system and the need to minimize collection time also requires heavy use of personnel during early morning hours and this results in a high turnover rate, high training costs, and the use of overtime to accommodate peak workloads.

The Federal Reserve's improved intercity charter transportation system will be unlikely to make much difference in attracting higher value checks. Before pricing, competing services were prevalent, with banks opting to use faster collection means to achieve earlier funds availability than offered by the Federal Reserve. With pricing, competing services have not
only an advantage in achieving quicker availability of funds but also a cost advantage since, by using commercial services, transportation costs can be more sensitively adjusted to volume.

If the Federal Reserve finds that it cannot provide unsubsidized service for both high value and low value checks at an average price, it could adjust its operations or change its price structure to be more attractive to lower value checks sensitive to basic processing prices. Lower value checks are the ones most likely to be given to the Federal Reserve as the clearer of last resort, and therefore it is particularly important that they be processed without subsidy. By tailoring its operation to the lower value segment of the market the Federal Reserve could achieve substantial cost reductions, while honoring its obligation under the Monetary Control Act to ensure an adequate level of nationwide services. When the Federal Reserve's planned electronic check clearing service becomes operational (see ch. 3), the Federal Reserve may be better able to provide unsubsidized service in the markets for both low and high value checks.

Cost effective service and pricing packages should be developed

The Federal Reserve System can use the flexibility it has to make service and pricing arrangements that enhance its ability to recover costs. The Jacksonville Office's efforts to work out approaches to service such as fewer deposit stations which minimized costs but which met user needs has already been discussed. Consolidated sorting, another arrangement used in Jacksonville, is being instituted at other processing centers and appears likely to improve the ability of the Federal Reserve System to balance its costs and revenues.

With consolidated sorting, a Federal Reserve bank limits its service to banks which use a common processor. This reduces the Federal Reserve's check-sorting equipment needs by reducing the number of endpoints to which checks are sorted. Each endpoint requires a separate pocket on equipment that is generally configured with 16 to 24 pockets. Thus, in a simplified example, if a Reserve bank using 24-sort-pocket equipment is sorting to 40 endpoints, it only can sort to 22 on the first sorting operation, reserving one pocket for checks which cannot be sorted to a specific endpoint because of the sorting pocket limitations and another for checks which the equipment rejected because the magnetic ink encodings were not readable. It must then rerun the checks going to the 18 remaining endpoints in a second operation. Rerunning checks adds to the time needed to complete a processing cycle.
Use of consolidated sorting had been a source of potential savings to Reserve banks and branches as a means of reducing costs and was previously encouraged by the Board of Governors as early as 1972, but the practice was not required and was not widely adopted. The Chicago District Bank, with over 1,200 endpoints (the second largest number of any Federal Reserve bank), expected through consolidated sorting to reduce its number of endpoints by 50 percent by implementing the practice in June 1981. Its Milwaukee branch expects to achieve an even larger 63 percent reduction—from 510 to 191 endpoints.

Cost effective service arrangements such as consolidated sorting make a positive contribution to the efforts of Federal Reserve managers to provide check clearing services without subsidy in a competitive market. Pricing arrangements, such as discounts for longer term contracts, might also prove feasible if they can be related to cost of service and fairly administered.

A systemwide management orientation is needed

The strength of the Federal Reserve in check collections lies in its ability to operate as a nationwide system. Users know that regardless of where a paying bank is located, it can be reached through the Federal Reserve’s service. This is a convenience that should continue to be attractive if the service is not overpriced in relation to other alternatives available to users.

Under a nonpricing environment, check collection activity was managed loosely as a system. In keeping with their independent status, Reserve banks and branches had wide discretion in decisions about operating procedures, service levels, staffing, equipment, and transportation, with the result that the unit costs of production varied widely by processing center, as noted previously.

Now that services must be priced, the Federal Reserve's decentralized management allows each bank or office to respond to local market conditions. It also gives each bank or office the opportunity to innovate and improve efficiency. The present management system does not, however, lend itself to reacting quickly to changes in clearing patterns. Decisions having systemwide implications must work their way through committee tiers for Board of Governors approval, and this process is time consuming and burdensome.
To be fully effective in accomplishing organizational goals, decentralized management must be bound together into a system which, for the benefit of the organization as a whole, can set and measure performance against expectations and standards and can offer specialized supporting services which may be uneconomical for individual units to provide themselves. In this, the Federal Reserve management structure has not been effective. The Federal Reserve Board has not set specific performance expectations or standards. Cost comparisons produced by its PACS were not refined enough to measure the relative efficiency of a processing center because costs which were controllable were not separated from those which were not.

In the absence of a management structure tying the individual operating units together, the individual units were responsible for identifying management problems and dealing with them. Often these problems are part of a common pattern among the units and can be best dealt with on a systemwide basis. For example, several of the centers in our review had experienced chronic problems in obtaining responsive service from equipment manufacturers during the late night peak processing hours. One processing center does not have the same leverage in dealing with a manufacturer as does someone representing the system as a whole and thus this type of problem could be best addressed at the system level.

Research into the most productive operating procedures and into how new technology can be best applied, which benefits all centers, can also best be financed and organized as a central function. For example, the San Francisco District had employed a full time productivity expert to develop standards for its operations, which in an operation of its size, could be done without burdening its overhead costs to an unacceptable limit. However, this option would not be available to a smaller operation because it could not justify full-time staff.

Finally, the decentralized management does not provide a means of resolving conflicts between the individual units over systemwide policy. For example, the previously described 1972 attempt by the Board of Governors to encourage the Reserve banks to adopt consolidated sorting failed because the individual banks and branches considered it a diminishment of the services they provided. In another attempt, the Board asked Reserve banks and branches to require the outsort of checks valued $250,000 and over so they could be given priority processing as a means of reducing float. This policy was not implemented at any of the banks or branches.
By requiring over the long run total revenue to cover costs for the system as a whole, the Monetary Control Act imposes a constraint on Federal Reserve System check clearing operations that in our opinion will lead to a greater need to manage Federal Reserve check clearing operations as a unified system. At this point it is too early to tell whether sufficient systemwide orientation can be accomplished without changing the structure of Federal Reserve check clearing operations. The independent status of the individual reserve banks that operate the check clearing facilities makes it more difficult to develop arrangements that would increase the degree of central direction of the System's check clearing operations. The test for the present system will come if volume falls and the system is faced with problems in bringing revenues and costs into balance. It would be better to change the administrative structure, if that is required, than to tolerate a situation in which substantial subsidies result because of inability to accomplish on a timely basis the changes needed to avoid such subsidies.

The Federal Reserve needs to be able to consider fundamental changes in the system as a whole.

If volume should decline and the Federal Reserve Board finds itself in a situation where a spiral of rising prices, deteriorating service, and falling volume seems likely to result, the existing decentralized management of the check clearing system is likely to inhibit the Federal Reserve Board from considering fundamental changes in the system as a whole. Substantial savings might result, for example, if the system used more or less than 48 centers.

It might also be possible to redesign an effective national transportation network using existing commercial services so that the cost of the system became much more responsive to changes in volume. The fact that the San Francisco District relies on commercial flights rather than the Federal Reserve's charter system indicates that alternatives using commercial service might be feasible.

Attitude of the Board of Governors and of top Reserve bank officials toward subsidies is important.

The priority which the Board of Governors and top Reserve bank officials place on managing the system as a whole so that revenues cover all costs is an essential element in how likely the goal is to be achieved. After repeating the principles stated in the Monetary Control Act, the statement of principles
adopted by the Federal Reserve Board in December 1980 added the following principle:

The Board intends that fees be set so that revenues for major service categories match costs (inclusive of a private sector mark-up). During the initial start-up period, however, new operational requirements and variations in volume may temporarily change unit costs for some service categories. It is the System's intention to match revenues and costs as soon as possible and the Board will monitor the System's progress in meeting this goal by reviewing regular reports submitted by the Reserve Banks. If in the interest of providing an adequate level of service nationwide, the Board determined to authorize a fee schedule for a service below cost, it will announce its decision.

Since the length of an initial startup period can be subject to various interpretations, the speed with which the Board intends to achieve a situation in which revenues cover costs is uncertain. Also, there is room for exercise of a considerable degree of discretion in determining which service might be subsidized in order to provide an adequate service level and what standards of adequacy are to be applied in making such decisions. Ready access to funds from the yield on the Treasury securities the Federal Reserve owns makes a policy of subsidy easy to accomplish.

SPECIFIC MANAGEMENT STEPS NEEDED TO CONTROL SUBSIDY OF CHECK CLEARING ACTIVITIES

Previous discussion has demonstrated the importance of moving quickly to identify and correct problems if revenues recovered from priced services are to fully cover all costs (including the imputed before-tax cost of capital). We believe the procedures needed to accomplish this goal are:

--Assignment of responsibility for advising the Board of Governors on success in meeting service and financial goals and on actions needed to accomplish such goals.

--An information system that captures data on volume, costs, and revenue for each office and district and for the system as a whole.
--Reporting to responsible officials of the Reserve banks and the Board of Governors at least quarterly on volume, costs, and revenue trends and on how actual performance compares with what was projected when prices were set.

--Timely, ad hoc study of problems which arise from analysis of the quarterly reports or from other sources.

--Formal review of the price structure by the Board of Governors at least every 6 months. When sufficient experience has been gained with priced services and it is clear that financial goals can be achieved, an annual review period would be sufficient.

The Federal Reserve is making progress in many of these areas. Board staff working with members of the Pricing Policy Committee has monitored pricing implementation in its early phases. Over the longer run, however, problems that develop will be the responsibility of individual Reserve banks and the Conference of First Vice-Presidents. An information system that relates volume, revenue, and cost data for each processing center is being developed for quarterly reporting. The level of detail of information to be gathered and the format of the reports, particularly how performance compares with what was assumed when the prices were last set, have not yet been determined.

The Board of Governors of the Federal Reserve originally expected to consider major revisions to the fee schedules for check clearing and other priced services early in calendar year 1982. In December 1981, however, the Board adopted a policy setting target dates for review of fee schedules that generally coincide with the anniversary date for pricing of each service. Although price changes still may be made at other times during the year as a result of unexpected market events or other developments, this policy suggests the major revisions in the check clearing fee schedule will not be made until about August 1982.

In view of the revenue shortfall that we estimate is currently running at an annual rate of about $40 million to $50 million per year, we believe that major revision of the fee schedules should not wait until late summer. For each month that revision is delayed a subsidy on the order of about $4 million is apparently being incurred. We believe that a more frequent review period is needed at this time so that problems causing subsidies to mount up can be dealt with promptly.
Relationship of revenues from priced services to Federal Reserve earnings transferred to the U.S. Treasury should be clearly reported.

So the Congress and the public are also aware of the Board's progress in providing check clearing services without subsidy, earnings and expense statements of the Federal Reserve System and tables on operations included in the Annual Report should be modified to include specific reference to revenue derived from service pricing and the costs associated with such activities. This can be accomplished by a combination of memorandum notes, supplementary tables, or changes in existing tables. Providing the information in this way allows for full disclosure without the need for preparation of special reports.

The Federal Reserve System annually pays to the Treasury the difference between the revenues it receives (largely from interest on the Treasury securities it owns) and the expenses it incurs after deducting dividends and a relatively small payment to surplus. In 1980, the Federal Reserve System paid $11.7 billion to the Treasury, an amount equal to about 2 percent of total U.S. Treasury receipts. ¹/ The Federal Reserve operating results for 1979 and 1980 are summarized in the following table, which is a simplified version of tables which the Federal Reserve routinely prepares for inclusion in the Annual Report and elsewhere. ²/

¹/The $11.7 billion payment to the U.S. Treasury in 1980 represented about 15 percent of the Treasury outlays for interest on the public debt.

²/For example, see statistical table 6 "Earnings and Expenses of Federal Reserve Banks," beginning on p. 258 of the 1980 Annual Report.
### EARNINGS, EXPENSES, AND DISTRIBUTION OF NET EARNINGS OF FEDERAL RESERVE BANKS, 1979 AND 1980

<table>
<thead>
<tr>
<th></th>
<th>1979</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current earnings:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on U.S. Government</td>
<td>10,310</td>
<td>12,802</td>
</tr>
<tr>
<td>securities</td>
<td>10,071</td>
<td>12,479</td>
</tr>
<tr>
<td>Other earnings</td>
<td>(239)</td>
<td>(323)</td>
</tr>
<tr>
<td><strong>Current expenses</strong></td>
<td>694</td>
<td>791</td>
</tr>
<tr>
<td><strong>Current net earnings</strong></td>
<td>9,617</td>
<td>12,011</td>
</tr>
<tr>
<td><strong>Net deductions from current earnings</strong></td>
<td>151</td>
<td>115</td>
</tr>
<tr>
<td>Assessments for expenditures of the Board of Governors</td>
<td>51</td>
<td>62</td>
</tr>
<tr>
<td><strong>Net earnings before payments to U.S. Treasury</strong></td>
<td>9,415</td>
<td>11,834</td>
</tr>
<tr>
<td>Dividends paid</td>
<td>67</td>
<td>71</td>
</tr>
<tr>
<td>Payments to U.S. Treasury</td>
<td>9,279</td>
<td>11,706</td>
</tr>
<tr>
<td>Transferred to surplus</td>
<td>69</td>
<td>57</td>
</tr>
</tbody>
</table>

**Note:** Detail may not add due to rounding

Revenues from pricing services will be counted in an "income from services" account in statements of earnings and expenses of reserve banks. If these revenues fall short of what is needed to cover expenses plus the additional amount for a private sector adjustment factor, the Reserve Board has the option, in the short run, to "write off" the shortfall, reducing the payment to Treasury. This action, which can be taken outside of an annual congressional authorization or appropriation process, would shift the burden of the shortfall to the taxpayers. However, unless standard financial statistics included in the Annual Report and elsewhere clearly indicate the revenues and expenses associated with priced services, and how the revenues actually received compare with what would have been required to cover all direct and indirect costs (including the imputed costs represented by the private sector adjustment factor), the Congress and the public will have no easy way of assessing the relationship of revenues and expenses and thus the extent to
which the Monetary Control Act's no-subsidy objective has been achieved.

CONCLUSIONS

The Federal Reserve used a reasonable procedure to establish prices for check clearing services pursuant to the pricing mandate of the Monetary Control Act. A framework for pricing services on an unsubsidized basis has therefore been established if volume and costs can be estimated accurately each time the prices are adjusted.

Check clearing volume fell when the Federal Reserve began charging for its services. This decline together with the uncertainty about volume evident when the price schedule that took effect in August 1981 was prepared indicates that it may not be easy to make accurate estimates of volume that are fair to users and that also provide sufficient revenues to cover costs. Declining volume together with increasing expenditures not anticipated when prices were set have created a situation in which the annualized rate of subsidies for check clearing services is currently running at an estimated $40 to $50 million.

Timely review of the pricing structure is needed to operate check clearing services in a competitive environment without reliance on subsidies. This review should take into account changes in costs and effects that policies such as district-wide pricing or averaging costs for both high and low value checks may be having on volume and efficiency. We recognize, however, that the Federal Reserve System needs a measure of flexibility in determining how to price individual services. So long as the Board sticks to the principle of proposing prices that in total are expected to cover costs plus the private sector adjustment factor, we believe it is reasonable for the Board to develop the pricing structure that best fits the circumstances of the markets it serves. We therefore have not made a recommendation to change any particular price or to change the way services are grouped for pricing purposes. We believe that competitive pressures will give the Board the appropriate signals about which prices are out of line.

Over time, changes in management structure, including development of a systemwide orientation to check clearing, may be needed to assure that high quality Federal Reserve check clearing services are provided without subsidy in a competitive market. The current system of committees and decentralized operational responsibility is making progress toward providing central direction for implementing the Monetary Control Act's pricing provisions. We are not able
to conclude that changes in the Federal Reserve's management system are needed at this time; such a conclusion would have to result from inability of current arrangements to deal effectively with problems that could lead to operational subsidies if not corrected. We believe there are, however, procedures that need to be put in place to adequately monitor, review, and report on check collection performance.

RECOMMENDATIONS

The Board of Governors should:

--Review and modify prices, where appropriate, at least every 6 months until sufficient experience is gained to be certain that financial targets can be realized.

--Compare actual volume and costs with prior estimates at least quarterly for each district and office and take necessary action to bring costs and revenues into line.

--Prepare financial statements for use in the Annual Report and elsewhere that show clearly both the revenues and expenditures associated with priced services. Such statements should (a) indicate the balance between revenue and expenses by major service line and (b) show the difference between revenues and expenses for priced services when the private sector adjustment factor is included as an expense. If expense data on priced services is not separately identified on the standard financial statement of earnings and expenses of Federal Reserve banks, a footnote or memorandum note to such statement should indicate where this information can be found.

--Review the structure of check clearing prices, especially prices set by district rather than by office and prices for lower value checks, to be certain that the prices make maximum contribution toward achieving efficient, unsubsidized check clearing services.
AGENCY COMMENTS

We received written comments on the report from the Board of Governors of the Federal Reserve System and from the Department of the Treasury. These are reproduced in appendixes VII and VIII, respectively.

In commenting on our concern about the ability of the Federal Reserve with its current procedures and organization to accurately predict volume and to make needed price adjustments to ensure a matching of revenues and expenses, the Board stated that the System expected substantial variability in volume changes among offices, that the adjustments in volume that have occurred since August 1981 are, by themselves, "one-time" in nature and should not bring about further substantial declines in volume; and that it foresees no problem in accurately projecting future volumes. The Board stated further that it had established periodic reporting requirements for revenues, costs, and volumes, and is prepared to modify fee schedules at least annually and more frequently, if necessary.

We are not as optimistic as the Board of the "one-time" character of the declines that have occurred. As stated in the text, it seems to us to be difficult to know how long it will take the nation's check processing system to adjust fully to Federal Reserve pricing, and timely upward adjustments of prices could also lead to further volume declines. In addition, volume may be adversely affected when the Federal Reserve takes action to recover the cost of float. (See ch. 3.) We thus believe watchfulness and the capacity to be responsive to market signals will be critical in avoiding substantial losses.

Although the Federal Reserve Board has committed itself to review fee schedules at least annually, we are disappointed that it has not committed itself to review prices every 6 months until a period of stability is reached. It was clear by January that there was a substantial gap between the revenues received and expenses incurred in check clearing operations, and we see no reason why it should be necessary to wait 6 or 8 months to make the necessary major revisions. At the estimated current rate of subsidy for check clearing operations, an avoidable subsidy of about $20 million can result from making major revisions to prices in August 1982 (the anniversary date of check clearing pricing) rather than early in 1982. To the extent that projection of volume in 1983 proves troublesome, an avoidable subsidy of similar magnitude could easily result in 1983 from revising prices yearly rather than every 6 months.

In commenting on our concern about the adverse effect districtwide pricing had on incentives to manage individual offices efficiently, the Board acknowledged that this point has some validity but reaffirmed its belief that its
policy of permitting District banks to decide upon district-wide or office pricing was correct because they are in the best position to know the respective needs and market conditions in their districts.

Our report conceded that the Federal Reserve needed flexibility in setting prices so that it can take into account local market needs and conditions. We agree, in principle, that the Federal Reserve should tailor its services to meet the demands of financial institutions, provided it can do so without subsidy. Where districtwide prices prevail which are based on varying levels of service provided by each office, there is a risk that the demand for service will be distorted. Theoretically, users who are asked to pay a higher price for less service will seek more economical prices from alternative sources while those in another office receiving bargain prices for the service they receive will signal a demand that is not justified by the economics in place. If the Federal Reserve's only choice were either to correct any such market distortions or to suffer the usual consequences of losses as a private firm, we believe the discipline of competition would produce the necessary checks and balances. However, because the Federal Reserve has access to unrelated income against which to charge losses, it must impose a greater measure of self-discipline.

The Department of the Treasury agreed with the overall thrust of the report but recognized that most of the specific items discussed in the report were outside of Treasury's direct area of responsibility. Treasury supported modification of Federal Reserve annual income and expense statements to show clearly the relationship of revenues derived from priced services to the costs associated with those services.

In discussing its plans for public reporting, the Federal Reserve Board did not indicate whether published information on revenues and expenses will include the private sector adjustment factor as a cost. We believe that it is essential that the private sector adjustment factor be included in a statement on revenues and expenses so that the Congress and others will be aware of the extent to which the no-subsidy objective of the Monetary Control Act of 1980 is being achieved.
CHAPTER 3

THE FEDERAL RESERVE SHOULD EXPEDITE
EFFORTS TO RECOVER THE COST OF FLOAT

Federal Reserve float was averaging about $4 billion daily at the time the Monetary Control Act was passed. Although float cost exceeded the cost of other Federal Reserve resources devoted to check clearing, the Federal Reserve has not yet priced float. By making operational improvements since the legislation was passed, the Federal Reserve Board has, however, accomplished a significant reduction in float—a reduction which increases Federal Reserve gross earnings. However, float in the last half of 1981 still averaged about $2.7 billion and further operational improvements will not completely eliminate it. At current float levels, the Treasury is losing revenue at an annual rate of up to about $400 million due to the delay in pricing float. Even if planned reductions in float occur, revenue losses of up to $300 million in 1982 and $150 million in 1983 are expected.

The Federal Reserve Board has suspended implementation of a change in the way funds are credited to depositing banks which would have eliminated almost all float by the end of 1981, and it now appears that there is no definite time schedule for pricing float. The Monetary Control Act requires that float at some point be priced at the rate for Federal funds. We believe the Federal Reserve Board should move faster to eliminate the costly check clearing subsidy to depositing institutions that float represents.

FLOAT IS AN INTEREST-FREE ADVANCE TO BANKS

Federal Reserve float is an interest-free advance that arises when a Federal Reserve bank credits the account of a depositing bank before it collects the funds from the paying bank. The reason this occurs is explained in chapter 1 (see p. 4.).

Float lowers Federal Reserve earnings

Float is ultimately a cost to the taxpayers because it prematurely increases member bank reserves at the expense of Federal Reserve interest income. When the Federal Reserve bank credits a depositing bank before collecting from the paying bank, the overall level of the bank reserves is increased. Assuming that the Federal Reserve Board is attempting to manage the money supply by keeping member bank reserves within certain predetermined ranges, this increase in reserves that arises from float must be offset by Federal Reserve Board sale of securities. (By selling securities, the Federal Reserve Board reduces bank reserves, the money supply, and its interest income.) Float costs the Federal Reserve the foregone earnings
on the securities it had to sell in order to maintain a targeted level of bank reserves. Since earnings from such securities would ultimately be passed back to the U.S. Treasury, the taxpayers, in essence, pay for float by foregone revenue that must be made up either from taxes or borrowing. 1/

By providing interest-free advances to banks when clearing checks, the Federal Reserve is pricing its check clearing service below cost. Other competitors who must operate at a profit are not in a position to advance funds in the same manner.

Float is a significant factor in monetary policy implementation

Controlling reserve accounts is the chief way that the Federal Reserve restrains the growth of the money supply. Federal Reserve float is one of the important variables that must be taken into account when implementing targets for member bank reserves. The average amount of float in June 1981 was equal to about 13 percent of total reserve account balances at Federal Reserve banks, and variation in float makes it harder for the Federal Reserve to keep tight control on reserve accounts.

Comparing month to month changes in the average amount of float with changes in average reserve account balances shows that fluctuations in float are by no means a trivial factor in implementing a monetary policy of targeted reserve balances. For example, in October 1980, float dropped by about $900 million from the previous month while the reserve balances increased by about $800 million.

Both the percent change in float and the change in float as a percent of the change in reserve balances vary greatly from month to month. From March 1980 to June 1981, the 15-month period following the passage of the Monetary Control Act, the monthly percent change in float (on an absolute basis) varied from a high of 31 percent to a low of 1.5 percent. During this period the change in float as a percent (also on an absolute value basis) of the change in reserves fluctuated from a high of over 16,000 percent to a low of 5 percent. (See app. IV.) In 5 of the 15 months the change in float was more than 100 percent of the change in reserve account balances, and in only 5 months was the percentage less than 50 percent. The Federal Reserve

1/The argument here is not that every variation in float is immediately offset by Federal Reserve Board Open Market transactions but that open market policy accommodates the average float prevailing over a period of time.
believes, however, that its comprehensive float reporting system enables it to avoid any significant problems that float creates for the conduct of monetary policy.

Two ways to recover the cost of float

Float costs can be recovered in two ways. Float can be priced directly at the Federal funds rate so that the depositing bank that receives the advance is also charged for it.

The cost of an existing level of float can also be recovered indirectly by eliminating float. This can be done by speeding collection processes or lengthening the time before depositing institutions receive credit for funds. When float is reduced, the Federal Reserve purchases securities to increase bank reserves to offset the reduction caused by a smaller amount of float. By holding more securities, Federal Reserve earnings will be increased. At current market rates, the funds recovered by indirect means are less than if float is priced at the Federal funds rate because the yield of Treasury securities purchased by the Federal Reserve is below the Federal funds rate that would be charged to depositing banks.

FEDERAL RESERVE ACTIONS TO RECOVER THE COST OF FLOAT

Concern in the Congress and elsewhere about the amount of Federal Reserve float goes back several years. In the first quarter of 1979, float reached a peak daily average of $8 billion. Through a series of management improvements, the Federal Reserve Board by March 1980, when the Monetary Control Act passed, had reduced the amount of float to a daily average of about $4 billion.

The Federal Reserve's strategy of reducing rather than pricing float

In considering how to implement the pricing provisions of the Monetary Control Act, the Federal Reserve decided to reduce the levels of float rather than immediately pricing the full amount then being generated. If more than $4 billion worth of float were priced at the Federal funds rate (the rate specified in the act), the expected amount of revenue would have been much more than the $350 million to be recovered annually through explicit pricing of check clearing services. The Federal Reserve considered it impractical to spread a float cost of this magnitude equally over all checks processed since this would have more than doubled the prices. On the other hand, if it were to price according to the value of checks, this would have raised the price of larger value items substantially.
The Board, therefore, opted for a strategy to try to reduce or eliminate float but felt it needed time to develop and implement a program.

In its August 1980 pricing announcement to obtain public comments, the Board described a three-phase program for dealing with float. Phase 1, which began immediately, was devoted to making operational improvements to speed the collection of checks, including improvements in its Interdistrict Transportation System (ITS). Phase 2, to begin in September 1981, when the pricing of other services was also beginning, would further reduce float by changing availability schedules to better coincide with the average time required to collect checks. Phase 3, slated for mid-1982, would involve pricing the expected small amount of remaining float after completing implementation of the two other phases. In deciding to defer pricing until mid-1982, the Board determined that this action was consistent with the calendar requirements the legislation set for pricing because it began to price its other services by the September 1, 1981, date the act specified.

The phase 2 plan proposed adjusting availability schedules on a fractional basis, as opposed to the traditional method of granting availability only in terms of whole days. For example, if 97 percent of check clearings between two Reserve offices actually occur in 1 day and 3 percent in 2 days, then 97 percent of the dollar amount presented by depositing banks clearing between these two offices would be credited the first day and 3 percent the second day. Thus, the 3 percent that regularly is not collected until the second day would be eliminated as float.

The cost of Phase 1 operational improvements is to be spread over each check processed on a per-item basis regardless of the dollar amount of each check. Since each dollar spent reducing float is expected to reduce the cost of float by at least three times as much, the price for clearing would be much less affected than if float were priced directly. The pricing of the small residual amount of float in the system at the time Phase 3 would be implemented is also expected to be on a per-item basis.

1/An availability schedule lists when a depositing financial institution receives credit to its reserve account for different types of checks deposited with a Federal Reserve bank for clearance.
Float strategy implementation

The Federal Reserve Board has had considerable success in reducing float since the Monetary Control Act was passed. In a 13-week period, from September through early December of 1981, the average daily float was about $2.5 billion—a reduction of 34 percent from the same time period of 1980. Most of the reduction is attributable to changes in the transportation network. Other Phase 1 operational improvements are planned that could reduce float to about $1 billion if fully successful.

Transportation improvements

The changes in the transportation network were designed to increase the ontime reliability of the charter air transportation service which links each check processing center, in each district except the San Francisco District, by daily or, in some cases, more frequent flights, and to place greater emphasis on speeding the collection of checks between cities with the highest dollar volume. While the Federal Reserve had previously relied primarily upon one contractor to provide the service nationwide, the restructured system, which began operating in Fall 1980, had been advertised and awarded in route segments to allow the Federal Reserve to better isolate and deal with unreliable performance. In addition, to ensure that absolute priority would be given by the contractors to transporting checks, the contracts provide that carriers would not be permitted to transport shipments for others on the Federal Reserve flights. As an incentive for increased ontime reliability between cities with the highest dollar volume of checks, the contracts provide incentive payments for performance that exceeds the standards specified. Finally, the Federal Reserve superimposed another system over the basic system to give priority to transportation of checks between cities with the highest dollar volume.

The Federal Reserve's cost for the ITS system increased about $5.5 million annually, raising the total cost of the system to about $20.5 million per year. The Federal Reserve attributes most of a substantial float reduction which it has experienced since the restructured ITS system began operation in September 1980 to the ITS improvements. In 1979, its float averaged about $6 billion daily, as compared to about $4.2 billion in 1980, which included 4 months' experience with the restructured ITS system. Float continued to decline in 1981, with a daily average of about $2.7 billion during the last half of 1981, with a monthly range of $2.4 billion to $3.2 billion.
Phase 2 withdrawn for further study

Citing criticism by a number of banks of the Phase 2 changes in availability schedules, the Federal Reserve, in December 1980, decided to withdraw that proposal for further study. Banks argued that a fractional availability approach was not compatible with current banking practice. In delaying further implementation of Phase 2, the Board did not reaffirm its intention to price float in mid-1982. Thus, the cost of float, which would have begun to be substantially recovered in the closing months of 1981 under Phase 2, continues to run.

OPERATING IMPROVEMENTS BEING CONSIDERED WILL REDUCE FLOAT FURTHER BUT WILL NOT ELIMINATE IT

With fractional availability deferred, the Federal Reserve Board has concentrated its efforts to reduce float on additional operational improvements. Federal Reserve officials told us that a large effort is underway to design procedures for the collection of large dollar-value checks electronically, which would allow them to grant same day availability to the depositing institution. However, the officials stated that they were not far enough along yet to be sure that electronic check collection could be successfully implemented, because it will require significant changes in the operational and legal arrangements that currently exist in the collection of checks.

The Federal Reserve had made no decision on the minimum dollar value of checks to be collected through electronic presentment if it is adopted. In the fall of 1981, officials estimated that if checks over $64,000 were collected electronically, float would be reduced by about $960 million daily; if the cutoff was $16,000, the reduction would be about $1.2 billion. A more recent estimate contained in the Federal Reserve's comments on our draft report is that electronic check clearing might reduce float by about $500 million.

The Federal Reserve is also considering other alternatives, as follows:

--Delaying the presentment of checks to local clearing-houses from the present 9:00 a.m. to 11:30 a.m. deadline, depending upon local banking practices, to 12:00 noon nationwide, with the potential of reducing average daily float from $100 to $150 million.

--Charging the reserve accounts of paying banks on the first banking day items are ready for presentment, even though the bank is regularly closed on that day, with a potential float reduction averaging $100 million daily.
--Extending availability on deposits from the current maximum of 2 days to 3 days, when 3 days are regularly required between certain points, with a potential float reduction of $100 to $200 million.

--Increasing ontime percentage from 75 to 90 percent for banks sending deposits directly to another Federal Reserve zone to qualify for 100 percent credit to their accounts for the amount of the deposits. The Federal Reserve had not estimated the float reduction potential of this measure.

--Reducing float associated with check returns and adjustments by various measures, with float reduction potential of $100 million daily.

A new alternative being considered by the Federal Reserve for elimination of interterritory transportation float is referred to in the Federal Reserve's comments on our draft report.

The proposals being considered were in various stages of development. Average float would still be about $1 billion if and when these proposals are fully implemented.

The Board's earlier intention to price float by mid-1982 was premised on the reduction of float to an insignificant level by that time. All indications are, however, that float will be no lower than $1 to $2 billion during 1982, and the Federal Reserve Board appears to be unwilling to price this amount of float. The prospect of still further delay arises.

GAO EXPRESSED CONCERN WITH THE FLOAT-PRICING DELAY IN A MARCH 1981 LETTER TO THE FEDERAL RESERVE

On March 31, 1981, we wrote to the Chairman of the Board of Governors of the Federal Reserve System expressing our concern about the relatively slow schedule that the Federal Reserve Board was following in pricing and reducing float. We expressed our concern that this slow pace would result in misallocated resources in the check clearing process because it had the effect of seriously understating the Federal Reserve Board's true cost of providing check clearing services. This under-estimation of cost, in turn, allowed the Federal Reserve Board to retain a distinct advantage in competing with the private sector.

We also expressed our concern that the slow pace in pricing or eliminating float represented a significant loss of Federal Government revenues at a time when reducing the amount of the Federal deficit is a matter of overriding concern. We noted that
if the then-existing levels of float were priced immediately, net earnings of the Federal Reserve Board that could be transferred to the Treasury would increase by about $40 million to $50 million per month. If the Board were to delay pricing float until mid-1982 as it had planned, we estimated at that time that the net earnings loss to the Federal Government could total as much as $500 million.

On April 10, 1981, the Board of Governors responded that estimates of net revenue loss were somewhat high but that the Board was entirely sympathetic to the concerns raised in our letter and stressed that the Federal Reserve was making considerable progress in reducing float through operational means. The letter acknowledged that the Board had "slowed down somewhat" the refinements of the fractional availability proposal. It also stressed the benefits which were likely to come from its efforts to develop an electronic check collection procedure, although it acknowledged that this procedure would require significant changes in the operational and legal arrangements that currently exist in the collection of checks.

Our exchange of correspondence with the Federal Reserve Board is contained in appendixes V and VI.

In the following sections, we discuss two arguments contained in the Board of Governor's letter. One is the Federal Reserve's contention that moving quickly to price float or change availability schedules would be counter to the objective of increasing efficiency in the Nation's payments mechanism. The other is the Federal Reserve's position that moving more quickly to price or eliminate float is not required for the Board to meet revenue expectations the Congress had when it passed the Monetary Control Act.

PRICING FLOAT CAN COMPLEMENT FUTURE EFFORTS TO ACHIEVE EFFICIENCY THROUGH OPERATIONAL IMPROVEMENTS

In its April 10 letter, the Federal Reserve stated that changing availability schedules or explicitly pricing float should not be done before the full effects of electronic check clearing and other operational improvements are realized. The Board indicated that moving more quickly to eliminate or
Price float would unfairly penalize depositing institutions. 1/ Speeding collection of checks through operational improvements would accomplish most of the reduction in float by decreasing the reserves of paying banks, an arrangement which the Federal Reserve Board believes is more equitable. 2/

The Federal Reserve also indicated it favors operational improvements because they provide more incentive to achieve efficiency in the Nation's check collection process. In part, this is because faster collections reduce the incentive for customers of paying banks to engage in remote disbursement of checks. 3/ Also, explicit pricing of float or lengthened availability schedules increases the incentive for depositing banks to seek other means to collect checks. The Federal Reserve believes that this incentive will encourage the private sector to commit more resources than are justified to collecting checks.

Reducing float through operational improvement has great merit. We question, however, whether the Federal Reserve is moving as quickly as practicable to achieve the longrun objective of full float cost recovery. As explained below, we do not believe that achieving efficiency in the nation's payment mechanism should be used as the sole justification for waiting until float has been virtually eliminated before setting in place procedures for recovering the cost of float. Rather, additional operational improvements and efforts to eliminate the cost of float by pricing or changes in availability

1/ Pricing float or changing availability schedules places the cost of float on the depositing institution. If availability schedules are lengthened, reserves held by financial institutions at Federal Reserve Banks would drop because funds are credited to the accounts of member banks only when the funds are collected from paying banks. The depositing banks would then be unable to lend the reserves to other institutions in the Federal funds market or otherwise make use of the funds.

2/ Depositing banks would, however, pay for the cost of operational improvements in higher per-item check clearing charges. But these charges represent only a small fraction of the cost of float.

3/ Remote disbursements lengthen the interval between when checks are written and when the checkwriters' accounts are charged. It is accomplished by writing checks drawn on banks geographically removed from payees.
schedules can complement each other. As the Federal Reserve Board recognized in August 1980, when proposing its three-phase program to recover the cost of float, a decision to deal with float by one method does not need to exclude the use of others.

The Federal Reserve has already had a great deal of time for planning and implementing operational changes. By the time the Federal Reserve began pricing check clearing services, 16 months had elapsed since the passage of the Monetary Control Act, and by February 1, 1982, 6 more months had gone by.

In August 1980, the Federal Reserve Board appeared willing to commit itself to pricing float by mid-1982, but when the proposed fractional availability plan was deferred in December 1980, this commitment was not reaffirmed. There is no assurance that electronic check clearing—the centerpiece of the Federal Reserve's planned operational improvements—will be implemented by that time. The Board's April 10 letter recognized that electronic check clearing "will require significant changes in the operational and legal arrangements that currently exist in the collection of checks." The Federal Reserve still does not know when the system could be in operation.

The Federal Reserve is required by the Monetary Control Act to price float at some point at the rate for Federal funds. Since planned operational improvements will not reduce float altogether and since delays could easily occur in implementing electronic check clearing or other new arrangements, we believe a sound approach to implementing the Monetary Control Act requirements at this point would be to begin as soon as practicable to price float or change availability schedules, allowing other improvements to come on line when they are ready and can be justified economically. If float is to be priced explicitly only after almost all of it has been eliminated through operational improvements, the time for implementing float pricing could be extended indefinitely.

It is difficult to estimate precisely the revenue loss that will occur in fiscal years 1982 or 1983 as a result of the current approach being used by the Federal Reserve to reduce float by operational improvements because there are no firm forecasts of when float reductions will be accomplished. At the $2.7 billion level of float prevailing during the last half of 1981, the value of float at a 15 percent rate for Federal funds is about $400 million per year. On the assumptions that float would be progressively reduced by operational improvements to about $750 million by the end of fiscal year 1983, and that the interest rate for Federal funds would remain about 15 percent, we estimate that revenue loss to the Treasury would be about $300 million for fiscal
year 1982 and about $150 million for fiscal year 1983. These estimates, which do not include allowance for income taxes paid on private bank earnings from the use of float, are subject to a considerable degree of error depending upon when the Federal Reserve is able to accomplish planned operational improvements.

In estimating the net effect of float pricing on U.S. Treasury revenues, the Federal Reserve takes account of reduced income tax collections from banks that would result if banks no longer had the opportunity to make profitable use of Federal Reserve float. The Federal Reserve assumes that from about 35 percent to 40 percent of the increased amount the Federal Reserve would pay the Treasury as a result of pricing float (and other services) would be offset by reduced income tax collections. Offsets of this magnitude would lower the estimated net increase in U.S. Treasury receipts from pricing float to about $200 million in fiscal year 1982 and to about $100 million in fiscal year 1983. Estimates about the income tax offset from pricing Federal Reserve Services depend, however, on assumptions about the extent to which higher costs are passed on to customers and about the overall income tax circumstances of the private sector institutions and individuals directly or indirectly affected by Federal Reserve pricing. Because we are uncertain about what assumptions to make in estimating offsetting tax reductions, the increased earnings that the Federal Reserve would pay the Treasury if float and other subsidies were eliminated have been stated in this report without an offset for reduced tax collections. The figures we use are thus upper limits of the net increase in Treasury receipts that would result from pricing float and removing other subsidies in the check clearing system.

If the Federal Reserve acted to price or eliminate float, this would provide additional incentive to the System to press ahead with operational improvements that would enable it to reduce its prices or improve availability. Furthermore, without the discipline of market forces, the ability of the Federal Reserve to determine the priority it should give to making improvements to compete more vigorously for clearing high value checks is severely curtailed. The Board's approach thus increases the possibility that it will make uneconomic investments in trying to reduce float. By continuing interest-free advances to depositing institutions and thereby pricing its check collection service below cost, the Federal Reserve is shielding its check collection services from the full impact of market forces, an action which has the effect of protecting the Federal Reserve's share of the check clearing market.

In our letter of March 31, 1981, we stated that the Board's apparent concern that timely action on float would encourage private sector waste of resources seemed to reflect little confidence in the dynamics of a competitive economy. We also indicated that
given the Board's well-publicized plans for further operational improvements, we believed it unlikely that private sector institutions would undertake large-scale investments that would prove to be wasteful when the Board's improvements took effect. The Board's letter of April 10, 1981, did not provide evidence taking issue with either of these statements.

The Federal Reserve does not claim that check clearing is a natural monopoly, like electric power, that must be provided by either a government agency or a closely-regulated utility. It has not demonstrated that the present value of the resources that would allegedly be wasted by the private sector if float were priced or availability schedules changed exceeds the present value of the taxpayer subsidy for float. We, therefore, see no valid reason for the Federal Reserve to assert, in essence, that it is in a better position than market forces to know how to allocate resources efficiently to check clearing activities.

We appreciate the Board's interest in trying to have the burden of reducing float fall as much as possible on the paying bank. However, the question of the proper party to charge involves all aspects of check clearing services, not just float. The interest-free advance represented by float is actually made available to the depositing bank. So long as the basic structure for processing checks places responsibility on depositing institutions, we see no equity problem in charging the value of the advance to the party that obtains its funds sooner than it otherwise would.

RECENT HIGHER ESTIMATES OF RESERVE BALANCES UNDER THE MONETARY CONTROL ACT SHOULD NOT BE USED TO JUSTIFY DELAYS IN ELIMINATING OR PRICING FLOAT

The net impact of the Monetary Control Act on the payment each year by the Federal Reserve to Treasury was given considerable attention by the Congress during its deliberations on the legislation. When the Senate was taking final action on the Monetary Control Act on March 27, 1980, Senator Proxmire, then Chairman of the Senate Committee on Banking, Housing and Urban Affairs, introduced certain tables and appendixes into the record which he indicated were vital for the Monetary Control Act's appropriate interpretation in the courts and elsewhere. 1/ This information shows that the revenues generated by the pricing of Federal Reserve services and float were expected to rise from $464 million in 1981 and $770 million in 1982 to more than $1 billion in 1984. This money was expected to be slightly more than sufficient.

1/"Federal Reserve Staff Memorandum on Five Year Cost Projections for Monetary Improvement Legislation," Congressional Record, March 27, 1980, p. S3172.
to offset the decline in Federal Reserve earnings that would result from a net reduction in reserve balances at the Federal Reserve banks. (Under the act, reserve balances of members were to be lowered over a 4-year period. The imposition of reserve requirements on nonmember depositing institutions, to be phased in over an 8-year period, would not produce enough reserves to offset the full amount of member bank reductions.) To further assure that there would be no net revenue loss, the Federal Reserve even promised to transfer funds from its surplus account if a shortfall of revenues occurred.

In its April 10, 1981, response to the General Accounting Office, the Federal Reserve stated:

"Your letter would seem to imply that Congress intended the Federal Reserve to charge fees for its services in ways that would yield a net increase in general revenues to the Treasury. We believe that Congress envisioned the effects of the Act as a total package that included a loss of Treasury revenues from reduced reserve requirements, offset by an increase in revenues from the pricing of Federal Reserve services. Our current estimates of the total impact of the Monetary Control Act on net revenues to the Treasury continue to indicate that there will be a modest increase in revenues compared to an environment (without the Act) in which the Treasury would have experienced a gradual revenue loss due to declining Federal Reserve membership."

In reviewing the matter further, we found that the Federal Reserve has increased its estimate of the level of financial institution reserve account balances that will be on deposit with Federal Reserve banks for the years 1981 through 1985. This re-estimate of reserve balances appears to be a reason why the Board now feels that moving more quickly to recover the cost of float is not necessary.

Reserve balances are now estimated to be from 16 to 22 percent higher during the 1981 to 1985 period. This in turn, leads to higher estimates of Federal Reserve earnings from interest on securities. This re-estimate of reserve balances has occurred largely because of an increase in the assumed rate of inflation, and because the Monetary Control Act's definition of accounts requiring reserves is more inclusive than was assumed when the original estimate was made. The following table shows the lower earnings from pricing float and services now estimated by the Federal Reserve to be needed to pay Treasury the same amounts that would have been paid if the Monetary Control Act had not been passed.
### Change in June 1981 Federal Reserve Estimates of Reserve Balances, Interest Earnings, Revenue from Priced Services, and Payment to the Treasury Under the Monetary Control Act Compared to Federal Reserve Estimates Used At the Time the Act Was Passed

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<td></td>
<td>(millions)</td>
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<td>Change in estimate of aggregate reserve balances:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Amount</td>
<td>+$3.6</td>
<td>+$3.9</td>
<td>+$3.5</td>
<td>+$3.2</td>
<td>+$3.6</td>
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<tr>
<td>Percent change</td>
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<td>+20.0</td>
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</tr>
<tr>
<td>Change in estimate in Federal Reserve earnings from interest on securities</td>
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<td>+$294</td>
<td>+$213</td>
<td>+$165</td>
<td>+$231</td>
</tr>
<tr>
<td>Change in estimate of revenues from pricing float and services</td>
<td>-$331</td>
<td>-$231</td>
<td>-$96</td>
<td>-$65</td>
<td>-$51</td>
</tr>
<tr>
<td>Net change in estimate of payments to Treasury (note a)</td>
<td>-$29</td>
<td>+$37</td>
<td>+$71</td>
<td>+$57</td>
<td>+$97</td>
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*Note: This item is not equal to the difference between the two lines above because of other minor adjustments not shown in this table.*

Insofar as we are aware, the question of what to do about pricing float or other services if reserve balances did not drop as far as was originally projected was never discussed when the Monetary Control Act was passed. The act gives the Federal Reserve discretion in implementing pricing provisions that would eliminate subsidy of services over the long run, but the act is silent about how the Federal Reserve should exercise its discretion. There is certainly no requirement that float pricing be delayed on the basis of revised revenue projections.
The re-estimate of reserve balances that has taken place since March 1980 in essence seems to provide the Federal Reserve with a "cushion" to moderate efforts to price or eliminate float. As stated below, we have reservations about continuing to use comparisons between current and past revenue projections as a guide for proceeding with float pricing. Using revised revenue projections in this manner does not appear to be consistent with achieving unsubsidized pricing as soon as practicable.

We agree that a main purpose of the Monetary Control Act was not to raise money for the Treasury. We believe, however, that there are problems in continuing to use past revenue projections as a basis for making pricing decisions. The information available at the time that earlier projections were made obviously was limited and subject to many uncertainties, especially in a period of relatively high inflation. A key element in those projections involved estimating the attrition from Federal Reserve membership that would have occurred if the Monetary Control Act had not been passed. Member bank reserve balances, also a key element in any such forecast, are subject to a number of economic forces that have little to do with specific provisions of the Monetary Control Act—including how private sector parties choose to allocate funds between types of accounts and types of institutions. As time goes by we believe less reliance should be placed on using out-of-date projections in support of decisions to delay accomplishment of Monetary Control Act longer run pricing objectives.

One of the reasons why member bank balances are higher than when forecast earlier is that the nation's demand deposits and savings accounts are larger than originally projected due to various inflationary factors that were not anticipated. If the Federal Reserve's base line figures of what would have happened to bank reserve deposits if the Monetary Control Act had not been passed were updated for inflation, the revenue goal that the Federal Reserve feels it would have to meet would not be so easy to achieve. Thus, if the revenue goal was considered in dollars of constant purchasing power, the case for delaying pricing on revenue grounds would be much less plausible.

The Board's letter stated that pricing float or lengthening availability schedules at this stage of pricing implementation was inconsistent with the Federal Reserve's understanding of the Monetary Control Act's attempt to avoid adding to the burden of member banks. It is, of course, true that these member banks will have higher reserve requirements than other institutions during the 8-year reserve phase in the period under the act, but the inequity involved here is already less than when nonmember institutions had no reserve requirements and member bank reserve requirements were higher than they are now. By September 1981 three-eighths of the reduction in member
bank reserves authorized by the act were accomplished, providing member banks with greater earnings opportunities. In a competitive environment, there is substantial reason to believe that many of the costs of pricing float and other services are passed on to customers. The Monetary Control Act does not, however, assure each member bank that the increased earnings which the reserve reductions are making possible will exceed that bank's expenses for priced services. The cost of priced services properly falls on all financial institutions according to the use each member and nonmember institution makes of such services. If a member bank that deposits large quantities of checks finds that its costs for clearing checks exceeds its earnings attributable to reduced reserve requirements, this should be viewed as a necessary adjustment in moving to a more efficient check clearing system and not an inequity that justifies restraint in recovering the cost of float.

CONCLUSIONS

The Federal Reserve has made significant reductions in float since enactment of the Monetary Control Act; however, a substantial amount still remains. In the last half of 1981, the daily amount averaged about $2.7 billion.

In implementing the Monetary Control Act the Federal Reserve decided to make further operational changes to reduce float rather than to institute explicit pricing or change availability schedules. These improvements are likely to reduce float to about $1 billion when fully implemented. One of the key features of the Federal Reserve's float reduction program, electronic check clearing, still has not proven to be practical. The Federal Reserve has made no definite commitment to institute pricing of float at the rate for Federal funds, and we do not believe that the Federal Reserve is moving as quickly as practicable toward meeting this objective.

More rapid implementation of measures to price or eliminate float are consistent with efforts to utilize market forces in achieving an efficient check clearing system. They would also result in an increase in Federal Reserve payment to the U.S. Treasury of about $35 million per month at current levels of float. For the full fiscal years 1982 and 1983, we estimate the loss in payment to the Treasury due to delays in float pricing at about $300 million and $150 million, respectively. If float were priced, the Federal Reserve estimates that 35-to-40 percent of its increased payments would be offset by reduced income tax collections from banks.

RECOMMENDATION

We recommend that the Federal Reserve Board of Governors move immediately to set a definite timetable for pricing float
at the rate for Federal funds. We recognize such a timetable could take account of efforts to reduce float through operational changes or changes in availability schedules. We believe, however, that implementation of float pricing should begin at the earliest date practicable. We also believe pricing does not need to be delayed until float has been virtually eliminated by operational improvements.

**AGENCY COMMENTS**

The Federal Reserve Board responded that its float pricing decisions were consistent with: (1) the congressionally imposed deadline to begin pricing Federal Reserve services; (2) the intent of the Congress not to exacerbate the existing burden on member banks (caused by the phasing in of reserve requirements on nonmember as well as member banks; and (3) the revenue projections (from interest earnings on reserve balances and pricing of services) the Federal Reserve had provided to the Congress prior to passage of the act. Other than revising estimates of how operational improvements could reduce float, the Federal Reserve response did not, however, provide arguments other than those already discussed in the report.

We have not argued that the Federal Reserve is under legal obligation to price float immediately. But float must be eventually priced at the rate for Federal funds and we believe it reasonable that the Federal Reserve implement this requirement as soon as practicable. The text of the report conveys our reasons why we feel the Federal Reserve could appropriately have moved to eliminate the costly float subsidy more quickly than it has.

The draft report commented on by the Federal Reserve suggested that the Federal Reserve move immediately to price float at the Federal funds rate or to eliminate float by changing availability schedules. We modified the wording of this recommendation to make it clear that we believe taking decisive action to price float is consistent with achieving the Monetary Control Act float pricing objective as soon as practicable.

With respect to the Board's concern that pricing float would place added burden on member banks, we are not convinced for reasons stated in the text that this should be used as a reason for continuing to delay pricing float. Pricing float does not discriminate against member banks; members and nonmembers now enjoy the benefits of float without charge, and they would both share the cost of float if it were priced. The Federal Reserve has provided no specific evidence of financial institutions that would bear an unfair burden if float was priced. If such
data exists, it should be evaluated in terms of reasonableness of assumptions made about whether the cost of float was being passed on to customers and the decreasing purchasing power of the dollar that has occurred since the Monetary Control Act was passed.

The Board also commented that our report failed to give sufficient recognition to its success in reducing float from a daily level of $6.7 billion in 1979, to $2.5 billion in the period from September 3 to December 2, 1981, and challenged our statement in the draft that further operational improvements and operational changes would not reduce float below the $1 billion figure. We made numerous references in our report to the Federal Reserve's progress in reducing float and therefore believe it is fairly represented. On the basis of the Federal Reserve's comments, we revised the report to indicate that operational improvements, if fully implemented, could reduce float to about $1 billion. Our main concerns are the vagueness of the Federal Reserve's timetable to implement float-reducing measures and the vagueness of the level of reduction needed before it will institute pricing of any remaining float.
CHAPTER 4

THE FEDERAL RESERVE SHOULD ELIMINATE SUBSIDY FOR
COMMERCIAL USE OF ITS AUTOMATED CLEARINGHOUSE SERVICES

Prices set by the Federal Reserve for commercial users of its automated clearinghouse (ACH) services are substantially below cost of such services. The justification for these low prices is questionable. We believe the present policy of subsidizing ACH services should be terminated and the price of service to commercial users increased.

DESCRIPTION OF THE AUTOMATED CLEARINGHOUSE NETWORK

Since 1978, the Federal Reserve has run a national automated clearinghouse (ACH) network, an electronic clearing and settlement system composed of 40 regional ACH facilities interconnected by the Federal Reserve's wire communications system. Each regional ACH association is comprised of member financial institutions; however, in all but one instance, the Federal Reserve provides the data processing facilities for operating this clearing mechanism. The New York Clearinghouse Association provides its own operational facilities but ties into the Federal Reserve network for settlement and collections between regions.

These clearinghouses allow payors to deposit funds directly into the accounts of payees electronically; and, in reverse, allow payees to debit the demand deposit accounts of payors electronically. The Federal Reserve accepts batched transactions on tape from a payee or payor through their bank, sorts the transactions electronically, and prepares tapes of transactions going to each payee or payor bank to achieve the payment transfer.

Payments processed through the ACH consist principally of Government benefit payments, such as Social Security, Government payrolls, and business payrolls. The Government and businesses provide tapes containing payment data to an ACH member for transmittal through the system electronically to the checking accounts of payees who have given their consent to the arrangement. In 1980, ACH facilities processed about 227 million payments on behalf of over 23,000 depositing institutions and 6,800 corporations. The Federal Government is, however, the major user of ACH, accounting for 72 percent of total volume.

Because of the low volume of transactions attracted to the service, the cost of these electronic transactions has greatly exceeded what it would have cost the Federal Reserve to process the same transactions by paper check. For example, its average
cost, including overhead, for collecting a paper check for 1980 was about 2.0 cents, as compared to 6.9 cents for an ACH transaction.

DEVELOPMENT OF INCENTIVE PRICES

In setting prices for its ACH service, the Federal Reserve chose not to price at the average cost of the service it is now providing. Including an allowance for overhead and a 16 percent private sector adjustment factor, charging at the average cost of service for the volume of service projected for 1981 would require a price of about 5.8 cents per item. Instead, noting that it believed the ACH to be subject to substantial economies of scale, the Federal Reserve estimated the average direct cost that would apply if the ACH network were operating at what it considered to be a mature volume of 2 billion items annually—about nine times the actual volume handled in 1980. On the basis of this calculation, which excluded explicit reference to overhead and private sector adjustment, the incentive prices set by the Federal Reserve, effective August 1, 1981, were 1 cent for an intra-ACH item and 1-1/2 cents for an inter-ACH item. The prices adopted will raise something less than 25 percent of the revenue that would have been obtained if the prices had been calculated in the same manner as other prices.

The costs to run the automated clearinghouse (including overhead and imputed cost of capital) must be financed from the interest earnings of the Federal Reserve if they are not recovered from user charges. At the volume of business expected in 1981, charging commercial users of ACH services on an average cost basis would increase Federal Reserve revenue by about $6.5 million—an amount which would be turned over to the U.S. Treasury since it would be an increase in Federal Reserve earnings. 1/ For the 5-month period August 1, 1981, to December 31, 1981, an estimated $2.7 million in revenue was foregone by charging commercial users at less than average cost. We estimate that for fiscal years 1982 and 1983 the revenue shortfall would be on the order of $5 million per year.

1/As the Treasury's banker, the Federal Reserve does not charge Treasury on a per item basis for handling ACH items or for most other services associated with Treasury transactions. Although the Federal Reserve's general policy is to charge receiving banks for ACH credits, it does not charge receiving banks for Treasury direct deposit items.
The Board believes that the ACH fee schedule is justified by the flexibility it was allowed by the Monetary Control Act in implementing the pricing provisions. The Board also believes that for many types of payments, the ACH will ultimately prove to be a more efficient and secure means of transferring funds than checks and that the pricing policy adopted should allow ACH to assume a role in the payment system that will reduce costs to the consumer. The Board has indicated that it will review the fee schedule on an annual basis to ensure that in a "mature" (about 2 billion items per year) environment, prices will fully cover costs and that the volume growth and other assumptions used to develop those prices are reasonable.

PROSPECTS FOR FUTURE GROWTH

The Federal Reserve estimates it can achieve a mature volume in 5 years, 1/ due to a rapid increase in commercial volume. The rate of growth from 1980 through 1986 implied by this forecast is 50 percent per year for total ACH volume and about 80 percent per year for the commercial volume. A 33-fold increase in commercial volume is expected between these years. The following table illustrates the very rapid growth in ACH services assumed for the next few years, accelerating somewhat the increase that occurred in recent years. From 1977 to 1980 commercial volume increased by 254 percent. From 1980 to 1983 the volume is expected to increase by 686 percent.

1/This estimate was confirmed in a letter from the Chairman of the Board of Governors of the Federal Reserve Board to the Chairman of the House Committee on Banking, Finance and Urban Affairs on July 2, 1981.
Actual ACH Volume Growth through 1980 and Projected Growth through 1986

<table>
<thead>
<tr>
<th>Year</th>
<th>Government items (thousands)</th>
<th>Commercial items (thousands)</th>
<th>Total (thousands)</th>
<th>Percent Government items</th>
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<tbody>
<tr>
<td>1976</td>
<td>29,000</td>
<td>6,456</td>
<td>35,456</td>
<td>82</td>
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<tr>
<td>1977</td>
<td>88,025</td>
<td>18,181</td>
<td>106,206</td>
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<td>1978</td>
<td>125,289</td>
<td>21,088</td>
<td>146,377</td>
<td>86</td>
</tr>
<tr>
<td>1979</td>
<td>143,254</td>
<td>33,060</td>
<td>176,314</td>
<td>81</td>
</tr>
<tr>
<td>1980</td>
<td>162,987</td>
<td>64,457</td>
<td>227,444</td>
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<tr>
<td>1981*</td>
<td>190,694</td>
<td>150,472</td>
<td>341,166</td>
<td>56</td>
</tr>
<tr>
<td>1982*</td>
<td>223,131</td>
<td>288,618</td>
<td>511,749</td>
<td>44</td>
</tr>
<tr>
<td>1983*</td>
<td>261,042</td>
<td>506,581</td>
<td>767,623</td>
<td>34</td>
</tr>
<tr>
<td>1984*</td>
<td>305,419</td>
<td>846,016</td>
<td>1,151,435</td>
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<tr>
<td>1985*</td>
<td>357,665</td>
<td>1,369,487</td>
<td>1,727,152</td>
<td>21</td>
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<tr>
<td>1986*</td>
<td>418,088</td>
<td>2,172,641</td>
<td>2,590,729</td>
<td>16</td>
</tr>
</tbody>
</table>

*estimated

The Federal Reserve believes the reason for what is considered to be a relatively slow growth in the past has been the fact that ACH transfers competed in a payments system in which originators of payments transfers had strong reason to continue use of paper checks. Originators were not charged explicitly for the processing costs incurred by banks or by the Federal Reserve System. In addition, paying by check had the effect of delaying the transfer of funds to the payee and allowed the payor to enjoy the use of the funds longer.

The Federal Reserve expects that elimination of float by operational improvements (when this occurs) will diminish these advantages and spur growth in ACH transactions.

The Federal Reserve also expects that some recent innovative uses of the ACH may result in increased volume. For example, the Treasury Department has used ACH to make large value deposit transfers to State and local governments participating in the Federal revenue sharing program. The banking industry has also selected ACH as the mechanism for clearing truncated checks in the American Bankers Association check safekeeping test.

We did not attempt to independently project future ACH volume. We therefore cannot say whether the volume estimates put forward by the Federal Reserve are reasonable, although the sustained rapid rate of growth implied in the Federal Reserve's projection does, by itself, raise questions. The estimate does not seem to be based on definitive studies showing rapidly increasing market demand. Although the volume of commercial
transactions in the first half of 1981 was 81 percent higher than the first half of 1980, it was substantially below the 134 percent increase for the year which the Federal Reserve projected. In the past, the Federal Reserve has also tended to overestimate ACH volume. In 1978, for example, a study conducted jointly by the Atlanta and Boston Reserve Banks estimated that annual ACH volume should approach 2 billion items in 1982. Past optimism does not, of course, necessarily mean that current projections are also overly optimistic. The ultimate potential for expansion seems to exist, however, since the 1980 ACH volume was only about 1.6 percent of the 14 billion checks processed in that year.

The Federal Reserve's method of calculating price depends also on a projection of costs that is likely to be subject to a considerable margin of error. Although independent evaluation of ACH costs was outside the scope of this study, there seems to be little doubt about the existence of economies of scale in ACH services. But cost estimates for handling 9 times the present total volume—and more than 30 times the present volume of commercial items—probably are not very precise.

NEED TO PRICE AT MATURE VOLUME LEVEL NOT SUPPORTED BY ADEQUATE DATA

Under a nonpricing environment, when the cost of paper checks and electronic payments were even at zero, the service was not widely used. Does it follow that setting a price that is at most only a few cents lower than the cost of collecting a paper check will lead to a great increase in the demand for ACH services? We do not think the Federal Reserve has demonstrated that such a result is likely from its subsidized ACH price.

A business firm making a decision on whether to use ACH services for payments would compare the total costs of paying by paper checks or by electronic means. Savings attributable to electronic funds transfers include not having to print and individually mail paper checks. A firm might, however, experience a considerable reduction in benefit from float as a result of the faster debiting of its cash account that occurs with ACH processing.

It is our understanding that most of the savings likely to accrue from ACH use arises from areas other than the actual charge for payment processing. A study by the Bank Administration Institute, for example, showed that cost savings of between 17 to 52 cents per item were associated with the direct deposit of Social Security checks. If savings of this magnitude exist, the vast increase in demand for ACH services should be evident without the need for subsidy of the payment processing aspect.
of the system. If the savings outside of payment processing are not large, then it is unlikely that the subsidy involved in ACH services will induce increased demand in the magnitude expected by the Federal Reserve. In short, we question the value of a subsidy for ACH services unless the subsidy involved can reasonably be considered to be necessary for bringing about the contemplated economies of scale.

The Federal Reserve justifies the desirability of its subsidy of ACH services on the basis that it will ultimately increase the efficiency of the payment mechanism. To justify the subsidy on efficiency grounds, however, the Federal Reserve should be able to demonstrate that the present value of the resources that would be saved in processing checks due to the existence of the subsidy can reasonably be expected to exceed the present value of the subsidy itself. We are not aware that any such study has been made.

Another possible justification for subsidizing ACH would be simply to help underwrite the development of new technology for commercial transactions. However, the pace of change in the automated payment area could flow from the needs of the private sector rather than be pushed by subsidies from the Federal Reserve. Subsidy of the Federal Reserve ACH could have the result of inhibiting technological change if the subsidy's effect was to discourage private sector innovation. So far as we are aware, the Federal Reserve has not demonstrated that its ACH system represents the most efficient approach possible to using technology to facilitate payment transfers. It is thus difficult, if not impossible, to know whether the ACH subsidy's effect on technology over the long term will be positive or negative.

FEDERAL RESERVE'S ACH PRICES SHOULD MORE CLOSELY APPROXIMATE COSTS

When the Monetary Control Act was passed, the ACH network was an ongoing operation whose entire cost in 1980, including an allocation for overhead, was $15.5 million. The system appears to be justified strictly on the basis of savings to the Government in handling Treasury items. If the ACH were abolished, studies of savings attributable to ACH activities suggest that the Government would have to spend more than $16 million if Treasury reverted to paper checks.

If the ACH network can be justified strictly on the grounds of the Federal Reserve's fiscal agent services for Treasury, charging commercial users anything more than the incremental cost attributable to commercial work would contribute to reducing the cost of the system to the general taxpayer. The Federal
Reserve accounting system does not allow us to determine whether the 1 or 1.5 cents per item charge covers the incremental cost attributable to the current volume of commercial items, but a rough estimate using incremental cost data compiled by the Federal Reserve in 1978 suggests that the ACH price might be close to incremental cost.

As a matter of public policy, however, a Federal agency competing with the private sector should be concerned with more than whether the price charged the public exceeds incremental cost. A Federal agency also should look to see whether a price is anticompetitive. The Monetary Control Act sets forth the principle that over the long run Federal Reserve prices should be based on all direct and indirect costs, including an allocation of imputed costs which takes into account the taxes that would have been paid and the return on capital that would have been provided had the services been furnished by a private firm. Although the Federal Reserve can also take other matters such as competitive factors and adequate level of service nationwide into consideration in setting prices, we question whether these other matters should be used to provide a basis for the Federal Reserve to use its position and access to funding in a manner that has the practical effect of discouraging competition and competitive pricing.

Alternative ways of pricing competitively

There are alternative ways the Federal Reserve could price its ACH services to commercial users and be consistent with long run Monetary Control Act no-subsidy objectives. The simplest way would be to set the ACH price at the average cost (plus imputed cost of capital) expected to be incurred in providing services to all users for the forthcoming period of time. This is the method the Federal Reserve uses in pricing other services. For 1981, at the volume forecasted by the Federal Reserve and assuming a 10 percent increase over 1980 costs, the price of an ACH transaction would be about 5.8 cents as compared to prices ranging from 3.8 to 5.3 cents for sending a paper check from one district to another. The 1982 price, estimated on the same basis as the 1981 price, would be about 4.3 cents.

A more complicated way to price competitively without raising prices immediately would be to limit the period of subsidy (e.g., to a period of 3 years) and capitalize all subsidies occurring during this time at market rates of interest. The capitalized losses would be amortized over a period immediately following the transition period. This approach, which in effect converts the subsidy into a loan, should be
used only if a price lower than average-price-per-item can be demonstrated to be essential in achieving higher volume or minimizing the amount of the subsidy. 1/

Federal agencies criticized the anti-competitive nature of ACH prices

The Department of Justice, in commenting in November 1980 on the Federal Reserve’s proposed price schedules, expressed the opinion that the Board’s proposal to use incentive pricing for ACH services was not justified, stating:

"The only result that appears likely to flow from the Board's proposal is the continued domination of ACH services by the Federal Reserve, with little opportunity for private sector participation. If ACH technology is indeed the more efficient technology, the market will move in that direction without Federal Reserve subsidy erecting a barrier to entry."

In addition, the Federal Trade Commission, the National Telecommunications Information Administration, and the Federal Deposit Insurance Corporation, each submitted comments opposed to the Federal Reserve's proposed subsidy of its ACH services. They were concerned that the subsidy might deter the entry of competition into the ACH market place. Although we are not in a position to identify potential competitors that have already been discouraged by the Federal Reserve's ACH pricing, we believe the concern of these Federal agencies is justified.

CONCLUSIONS

For commercial users of its ACH services, the Federal Reserve established prices substantially below current average cost in order to encourage use of electronic payment media. As a result, the Federal Reserve received about $3 million less in revenue for the 5 months in 1981 that pricing has been in effect than it would have received if ACH services had been priced in the same manner as other Federal Reserve services. The low price set by the Federal Reserve could have the effect of restricting entry into the automated clearinghouse market and

1/Assuming that costs are relatively inflexible with respect to change in volume, a price lower than average cost will minimize the share of ACH services financed implicitly by the Treasury if the price elasticity of demand for ACH services is greater than than 1. In this situation, the increase in volume induced by a reduction in price is sufficiently large to result in higher total revenue.
inhibiting technological innovation in the private sector. The Federal Reserve has not presented convincing justification for the amount of the subsidy.

The Monetary Control Act set forth the principle that prices for Federal Reserve services over the long run are to recover all costs, including the imputed costs of taxes and capital that would be incurred if the services were being provided by a private business firm. In moving to accomplish the long-run goal as quickly as practicable, we believe that the Federal Reserve should change its method of pricing ACH services.

RECOMMENDATION

The Board of Governors of the Federal Reserve System should change its policy of subsidizing the commercial use of its ACH network. Unless the Federal Reserve can demonstrate that a price less than current average cost is economically justified in achieving greater volume or reduced loss, the price should be set on the same average cost basis as other prices. For 1982, the estimated price to recover full costs would be about 4.3 cents per item, based on current estimates of ACH volume in that year. If a price less than average cost is economically justified, the amount of such subsidy should be capitalized and amortized over subsequent years.

AGENCY COMMENTS

The Board of Governors of the Federal Reserve reaffirmed its belief that its strategy of pricing ACH services below cost is allowed by the legislation and will contribute to economic efficiency and continued technological innovation. The Board, however, stated that in light of the controversy which has developed over the current ACH pricing policy, its staff is conducting a study of the issues and will consider the suggestions made in the GAO report.

In its comments, the Board did not introduce arguments that we had not considered in developing our recommendation that ACH prices be increased. We do not dispute the Federal Reserve's discretion to charge below-cost prices for ACH services, but we do question the soundness of the Board's policy. While the Board asserts the Federal Reserve has a role in contributing to the economic efficiency of the payments system and in supplying technological innovation, it is also reasonable to assert that efficiency and innovation may also be accomplished by establishing an atmosphere where competition thrives. We believe that by reserving to itself the privilege of determining what is efficient and innovative, the Federal Reserve is placed in conflict with basic principles of competition.
We understood the economies of scale present in developing this type of service and we have acknowledged that less-than-average-cost pricing may be justified for a short time until volume economies are achieved. Nevertheless, it is not obvious that the Federal Reserve's system is the one that will achieve the greatest scale economies for society, and we believe it is incumbent upon the Federal Reserve to impose a measure of financial discipline on its decisions.
CHAPTER 5

CONGRESSIONAL OVERSIGHT SHOULD FOCUS ON HOW THE FEDERAL RESERVE RESPONDS TO MARKET FORCES

The Monetary Control Act required the Federal Reserve to give due regard to providing an adequate level of services nationwide in setting prices. The Federal Reserve has interpreted this as a mandate for continuing an operational presence in all aspects of the check clearing process in which it was providing service at the time the Monetary Control Act was passed. The conditions which led to and sustained the Federal Reserve's past operational role in intercity check collections have changed. With pricing and the emerging acceptance of electronic payments, the environment within which Federal Reserve activities in the payments area takes place will continue to change. The role that the Federal Reserve Board strives to achieve in the future can affect potential private sector competitors and Treasury revenues. The Congress should use the effect of competition on the Federal Reserve market share as a focus for its oversight of the Federal Reserve's future involvement in the payments clearing process.

CONDITIONS WHICH LED TO THE FEDERAL RESERVE'S CHECK CLEARING ROLE HAVE CHANGED

The intervention of the Federal Reserve into the collection process was the result of certain abuses which were occurring at the time the Federal Reserve Act of 1913 was passed. In the absence of a national clearinghouse, many different check collection patterns appeared. Banks that had frequent transactions among themselves established correspondent relationships to facilitate collection and settlement of checks. In the absence of a correspondent relationship, however, it became a common practice for paying banks to discount checks presented to them by out-of-town banks for payment, making a check drawn on, for example, a Chicago bank worth less in New York than its face value. To many banks, these discount or exchange fees became a major source of income.

To avoid the exchange charge, a bank would send out-of-town checks to one of its "correspondents" rather than directly to the paying bank. That correspondent might, in turn, send the check to one of its correspondents enroute to the paying bank, with the result that checks sometimes traveled circuitous routes for collection. Thus, exchange charges resulted in a slow, cumbersome, and costly collection system and were considered an impediment to commerce and economic growth.
The Federal Reserve's role was part of a package of services that banks, which chose to become members of the Federal Reserve System, received in exchange for noninterest bearing reserves members kept on deposit with the Federal Reserve. In 1972, the Federal Reserve entered into the electronic payments field by establishing an automated clearinghouse as a developmental project. In 1978, a national ACH network was established.

The conditions which led to the Federal Reserve's involvement in the payments mechanism have changed substantially. The passage of the Monetary Control Act, which, over time, will require all depository institutions to set aside reserves against transaction accounts, means that the Federal Reserve need no longer be concerned with providing check collection services as an inducement to membership. The convention of paying checks at full face value has become well established in the payments system, and transportation has improved vastly to assure prompt collection of checks.

These changes raise a number of basic questions regarding the role of the Federal Reserve:

Should the Federal Reserve seek to maintain the same presence as in the past?

Should its role be restricted to functioning as an alternative which complements services the private sector can efficiently provide?

Should the Federal Reserve continue to maintain an operational role at all?

THE FEDERAL RESERVE MAY BE FACING MAJOR DECISIONS ABOUT ITS ROLE IN THE CHECK CLEARING PROCESS

The Monetary Control Act of 1980 provided challenging tasks for the Federal Reserve Board in many areas. Therefore, it is understandable that in the check clearing area the Board has tried simply to shift existing services onto a pricing basis rather than to rethink its goals or methods of operating. Eventually, however, under the provisions of the act, the Board
will probably have to deal more explicitly and analytically with its role in the check clearing process. 1/ This may occur relatively soon if the Board finds itself under pressure to subsidize various aspects of the check clearing process. The Board need not, of course, wait for financial problems to materialize before beginning to rethink its role.

There are a number of options available to the Federal Reserve. Those discussed in the following paragraphs are:

--Maintain a competitive presence in all aspects of the payment clearance process.

--Specialize in low value checks.

--Become the residual provider of services.

--Assume a regulatory role.

--Foster the development of electronics technology in the payments area.

Maintain a competitive presence in all aspects of the payment clearance process

Basically, the Federal Reserve has retained its option to provide the same basic services it has provided in the past. It has chosen to set prices and to arrange its operations to be in a position to compete in a full range of services—competing in terms of the cost of check processing, in terms of availability offerings, and in terms of electronic processing. The decision to compete both on the basis of basic check processing costs and availability provides a set of goals that may conflict with each other and lead to pressures to subsidize services, as discussed in chapter 2.

1/ The pricing principles adopted by the Federal Reserve Board under the Monetary Control Act are expected to give "due regard to competitive factors" and to the "provision of an adequate level of services nationwide." Giving consideration to these matters inevitably raises basic questions about the role of the Federal Reserve vis-a-vis that of the private sector.
Specialize in low value checks

The Federal Reserve could provide a more economical service if it catered to a market which is price sensitive, rather than availability sensitive. This could be achieved by setting availability schedules at a base level of service so that it would not have to obtain high-priority transportation, could use its equipment on a more even basis during a day, and would not have to incur overtime to ensure that all checks are cleared in a daily cycle. This particular role seems well suited for the Federal Reserve and consistent with the Monetary Control Act's concern for maintaining an adequate level of service nationwide. Even under a nonpricing environment, banks with larger deposits frequently sought faster means of collecting checks through use of non-Federal Reserve processing facilities and/or transportation. If its electronic check clearing process proves feasible, the Federal Reserve could once again compete in the higher value check market.

Become the residual provider of services

As it has now priced its services, the Federal Reserve has averaged its cost in setting a single price to serve all institutions—those for whom collection transactions are costlier, such as where paying banks are in sparsely populated areas and those where actual costs are less than average costs. By being selective in the services provided, private sector institutions may be able to compete away the more profitable business, leaving the Federal Reserve with the higher cost aspects of the Nation's payment system. Rather than compete actively in selective markets, the Federal Reserve could simply function as the clearer of last resort. As has been the case with the U.S. Postal Service's role in parcel delivery, this role would likely entail a spiral of higher prices and smaller volumes, leading also to possible declines in service and pressure to subsidize services to keep prices from rising above some maximum level.

Assume a regulatory role

The basic operational role the Federal Reserve plays in the payments mechanism is not uniquely suited to be performed by an agency of the Federal Government. The resources used are easily obtained in the private sector. The equipment is commercially available; and personnel used in the activity can be trained relatively easily. The Federal Reserve could, therefore, move much more to a regulatory role, particularly if it began to lose volume in a competitive environment. If some or all aspects of the private sector check clearing services were not subject to competition among several providers, regulation or direct competition from an efficiently run Federal Reserve operation might be needed to combat monopoly pricing in the private sector.
Foster the development of electronics technology in the payments mechanism

With the operation of automated clearinghouses (see ch. 4) and a proposal to use electronics to collect high value checks, the traditional Federal Reserve role in check collections has been changing. A key question (also discussed in ch. 4) is whether the Federal Reserve should foster the application of electronics technology by its presence or whether the market itself will adopt electronics technology without such nurturing.

MARKET FORCES CAN DETERMINE CHANGES IN THE FEDERAL RESERVE'S ROLE IN THE PAYMENTS PROCESS

Two considerations may lead the Congress to want to take a more active role in its oversight of Federal Reserve check processing activities. One of these concerns the respective roles of the Federal Reserve and the private sector. The other, often directly related to the first, concerns the extent to which decisions by the Federal Reserve to subsidize activities should be reviewed by the Congress since such activities are indirectly paid for by the taxpayers.

The Federal Reserve is heavily involved in clearing checks for historical reasons, not because a major operational role is inherent in its central bank function. While the existence of a reserve account as a central clearing mechanism is a major convenience, there is little in the check clearing role that could not be performed by private sector institutions. There appear to be neither economies of scale nor other factors which would require that many of the activities now being carried out by the Federal Reserve be continued in the future.

In keeping with current challenges to the role of many Government agencies, the Congress could address the matter of the appropriate payment system role for the Federal Reserve System in the coming years. It could proceed on the assumption that a future operational role in the payments mechanism is not required and place the burden on the Federal Reserve to justify each service that it provides as to why it is in the public's interest that it be performed by an agency of the Federal Government.

Rather than considering a direct reconstruction of the Federal Reserve's role in payment areas, operation of the competitive pricing provisions of the Monetary Control Act can result in market determination of which services are performed most efficiently by the Federal Reserve and which by the private sector. Over time, this market approach can achieve clarification of the Federal Reserve's role provided the Federal Reserve is not in a position to use what amounts to its direct access to
public funds to subsidize its operation or to pre-empt private investment in certain areas. Using market forces to define the Federal Reserve's role allows changes to take place with minimal disruption and provides a clear focus for congressional oversight activities.

Giving attention to market forces would be particularly important if Federal Reserve volume falls

If check clearing volume continues to fall as it did in the first several months since pricing began, the Federal Reserve Board may find itself wrestling with how to meet an obligation to provide service on demand to all financial institutions and, at the same time, set prices to recover full costs. It is reasonable to assume the Federal Reserve will generally be the check collection agent of last resort in providing services the private sector does not believe it can profitably provide.

It is possible that the Federal Reserve Board may encounter situations where charging some users the full cost of services provided would not seem equitable. Such situations should, however, be an exception. Decisions to use subsidies should only be made after all possible ways of changing services to meet market demand without subsidy have been exhausted. If a spiral of higher costs and falling volume begins to develop, this should be viewed as a market signal requiring basic reassessment of the Federal Reserve's role in providing clearinghouse services. Congressional oversight could play a key role in assuring that the Federal Reserve is doing everything possible to break a cycle of declining service, higher prices, and deteriorating quality.

Legislation may be needed to further enhance the ability of market forces to determine the nature of the nation's payments mechanisms

One important issue which the Federal Reserve Board had to decide is whether the depositing or paying bank should be charged for check clearing services. A strong argument can be made that charging the paying bank will produce a more efficient collection system since it is the check written by this bank's customer that sets the check clearing activities in motion. With the development of alternative means of payment, especially electronic transfer arrangements, charging paying banks could foster the development of greater cost consciousness among persons and businesses in deciding how to transfer funds. Historically, however, a bank accepting a check for deposit also accepted all costs associated with collecting the funds, a practice recognized in existing bank procedures. Also, since the depositing
bank chooses the method for collecting the check, it is important to bring cost considerations to bear on this decision. The Federal Reserve Board had to recognize that a decision to charge payors might be disruptive to the system and, in the absence of clarifying legislation, might be subject to legal challenge. In addition, if the Federal Reserve System were the only party to be able to successfully charge paying banks, it would gain a major competitive advantage in that depositing banks would have strong incentives to use the Federal Reserve System.

In view of the complexities involved in this area, in preparing this report we have not assessed the judgment made by the Federal Reserve Board to charge depositing banks for check clearing services. This is an issue which the Congress at some point may wish to take up, perhaps in response to Federal Reserve proposals to provide a legislative basis for a change in procedure.

**CONCLUSIONS**

The operational role of Federal Reserve Banks in clearing checks has served the Nation well for more than 65 years. But now that the technology, practice, and economics of the Nation's payments mechanism have changed, the Congress may want to reconsider the operational role that the Federal Reserve should play in the future. The Monetary Control Act of 1980 provides an opportunity for the Federal Reserve Board to set explicit goals for its role in maintaining an adequate nationwide system, but it has not yet taken significant action in this area.

We believe the Congress should use progress in achieving service pricing without subsidy as a focus for its oversight activities in this area. If the Federal Reserve moves quickly to price or eliminate float and complies with the other recommendations we have made in this report, it will be easier for the Congress to use market signals to assess the relative efficiency of various Federal Reserve and private sector check clearing services.

**AGENCY COMMENTS**

In responding to our comments that the Congress should use market forces as the focus of its oversight on the future role of the Federal Reserve in providing check clearing services, the Board stated that continuous examination of the appropriate role of the Federal Reserve in the payments mechanism occurs throughout the Federal Reserve System—from the Board level down to the various System subcommittees. The Board further stated that it is likely that there will be a continuing need for the
Federal Reserve to perform many of the functions which it currently provides but expects that, over time, market forces will help them more clearly define this role.

Our comments were not meant to imply that the Federal Reserve was not aware of the need to continually examine and, where necessary, to redefine its role on the basis of the effect of pricing on the demand for its services. They were meant to underscore what we perceive is a basic conflict between its long-established role of promoting the efficiency of the payments system by actions over which it had almost total control and its new role under pricing which seeks to achieve similar ends through competition. We believe the Congress should particularly be aware of instances where the Federal Reserve's actions in the name of promoting an efficient payments system result in taxpayer subsidy and may have the effect of discouraging competition. We believe Federal Reserve decisions to delay pricing float and to price ACH services well below the cost of providing them indicate the desirability of congressional oversight over these aspects of Federal Reserve operations.
EXCERPT FROM THE MONETARY CONTROL ACT OF 1980
(PUBLIC LAW 96-221, MARCH 31, 1980)

REGARDING PRICING OF SERVICES

Sec. 107. The Federal Reserve Act is amended by inserting after section 11 the following new section:

PRICING OF SERVICES

"Sec. 11A. (a) Not later than the first day of the sixth month after the date of enactment of the Monetary Control Act of 1980, the Board shall publish for public comment a set of pricing principles in accordance with this section and a proposed schedule of fees based upon those principles for Federal Reserve bank services to depository institutions, and not later than the first day of the eighteenth month after the date of enactment of the Monetary Control Act of 1980, the Board shall begin to put into effect a schedule of fees for such services which is based on those principles.

"(b) The services which shall be covered by the schedule of fees under subsection (a) are --

"(1) currency and coin services;
"(2) check clearing and collection services;
"(3) wire transfer services;
"(4) automated clearinghouse services;
"(5) settlement services;
"(6) securities safekeeping services;
"(7) Federal Reserve float; and
"(8) any new services which the Federal Reserve System offers, including but not limited to payments services to effectuate the electronic transfer of funds.

"(c) The schedule of fees prescribed pursuant to this section shall be based on the following principles

"(1) All Federal Reserve bank services covered by the fee schedule shall be priced explicitly.

"(2) All Federal Reserve bank services covered by the fee schedule shall be available to nonmember depository institutions and such services shall be priced at the same fee schedule applicable to member banks, except that nonmembers shall be subject to any other terms, including a requirement of balances sufficient for clearing purposes, that the Board may determine are applicable to member banks.

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"(3) Over the long run, fees shall be established on the basis of all direct and indirect costs actually incurred in providing the Federal Reserve services prices, including interest on items credited prior to actual collection, overhead, and an allocation of imputed costs which takes into account the taxes that would have been paid and the return on capital that would have been provided had the services been furnished by a private business firm, except that the pricing principles shall give due regard to competitive factors and the provision for an adequate level of such services nationwide.

"(4) Interest on items credited prior to collection shall be charged at the current rate applicable in the market for Federal funds.

"(d) The Board shall require reductions in the operating budgets of the Federal Reserve banks commensurate with any actual or projected decline in the volume of services to be provided by such banks. The full amount of any savings so realized shall be paid into the United States Treasury."
### FEE SCHEDULE FOR FEDERAL RESERVE COMMERCIAL CHECK SERVICES

*in cents per item*

**Effective August 1, 1981**

<table>
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<tr>
<th>District*/office</th>
<th>City zone</th>
<th>Regional or country zone</th>
<th>Package sorted</th>
<th>Group sorted</th>
<th>Items deposited with and collected by same Federal Reserve office (note a)</th>
<th>Items deposited with one Federal Reserve office and collected by another</th>
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*If the depositing institution uses Federal Reserve interoffice transportation, a surcharge of 0.64 cent is added to the price of each item.*
### FEDERAL RESERVE CHECK PROCESSING CENTERS

#### 1980 PERFORMANCE DATA (note a)

<table>
<thead>
<tr>
<th>District/office</th>
<th>Operating costs (thousands)</th>
<th>Checks processed (thousands)</th>
<th>Unit costs (note b)</th>
<th>Average number of employees</th>
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<td>137,220</td>
<td>11.26</td>
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<tr>
<td>San Francisco/</td>
<td>3,891</td>
<td>373,983</td>
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<td>San Francisco</td>
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<td>7.99</td>
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<td>Total</td>
<td>$157,084</td>
<td>15,702,445</td>
<td>$10.00</td>
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a/ Costs do not include $119,526,000 for indirect costs or the costs associated with returned items, adjustments, fine sort, and system projects. Indirect costs account for $81,183,000 of this amount. The checks processed total double counts checks sent by one office to another. This accounts for about 10 percent of all checks.

b/ Unit costs are expressed as the cost of processing 1,000 items.
## Analysis Showing the Relationship Between the Fluctuation in Float and the Fluctuation of Reserve Balances

(Monthly average of daily figures)

<table>
<thead>
<tr>
<th>Net statement float (thousands)</th>
<th>Reserve balances (thousands)</th>
<th>Monthly change in float</th>
<th>Monthly change in reserve balance</th>
<th>Change in float as a percent of Reserve balances (absolute value basis)</th>
<th>Percent change in float from previous month's float</th>
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<td><strong>1980</strong></td>
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The Honorable Paul A. Volcker  
Chairman, Board of Governors  
of the Federal Reserve System  

Dear Mr. Volcker:

The U.S. General Accounting Office is reviewing the Federal Reserve's check clearing and collection services, including the development of prices mandated by the Depository Institutions Deregulation and Monetary Control Act of 1980. This letter seeks clarification of the Board's plans with respect to a closely related issue—charging for items credited to member banks prior to actual collection (float). We plan to issue a report to the Congress on float in the near future and want to be certain that our understanding of Federal Reserve Board plans is correct.

Our concern arises from the relatively slow schedule that the Federal Reserve Board appears to be following in pricing and further reducing float. We believe this schedule is likely to result both in misallocated resources in the check clearing process and in significant loss of Federal Government revenues at a time when reducing the amount of the Federal deficit is a matter of overriding national concern.

As you know, the Monetary Control Act's pricing objective is to recover over the long run all direct and indirect costs incurred in providing various services specified in the act. While the Board is proceeding with plans to have fee schedules in place for most items other than float by October 1981, our understanding is that Federal Reserve Board actions needed to reduce and price float will not be implemented fully until sometime in 1982. Following the plan prepared in August 1980, the Board reduced average float below $4 billion through measures that improved the transportation system and other operations. Additional reduction will occur when and if the Board initiates electronic check clearing procedures. Although the Board planned last fall to virtually eliminate remaining float by implementing a fractional availability schedule in September 1981, this proposal has been withdrawn for further study as a result of industry criticism. Insofar as we can tell, the Board is not planning to price float until availability schedules have been changed and electronic clearing procedures have been implemented.
We are unconvinced, on the basis of evidence we have seen thus far, that actions to price float or change availability schedules should be delayed beyond the date users will have to begin paying for check clearing. Deferring action on float has the effect of seriously understating the true cost of providing check clearing services. The cost of float is now running at about twice as much as all other costs involved in the check clearing and collection process for which pricing is expected to begin in August 1981.

As a representative of one commercial financial institution commented on your pricing proposal, it may prove to be a meaningless gesture to charge commercial institutions for other services if they are implicitly provided with more than enough income through the float to pay those charges. Such a situation would certainly not promote economical use of the Federal Reserve System's check-clearing resources. Moreover, the System would retain a distinct advantage in competing with the private sector—an advantage the Monetary Control Act of 1980 was supposed to eliminate.

If the Federal Reserve either charges for or reduces the amount of float, its additional net earnings can be transferred to the Federal Government. The sooner these actions are put into effect, the sooner the taxpayers will benefit from float pricing or reduction. If float were priced immediately, net earnings of the Federal Reserve Board would increase by about $40 million to $50 million per month. If the Board were to delay action until mid-1982, the net earnings lost to the Federal Government could total as much as $500 million.

Despite the adverse consequences of delaying action on float, Board records indicate that timely action on float is not believed to be essential. As an example, a memorandum from Federal Reserve Board staff, in commenting on the requirements of the Monetary Control Act of 1980, states:

"The Act does not require the pricing of all services by September 1981. Rather the Act requires that the Board begin pricing some of the specified Federal Reserve services by that time. Because all other Federal Reserve services will be priced by September 1981, the Board clearly would be in compliance with the Act even if it was not then ready to price for float. The Board would then have a reasonable amount of time beyond that to begin pricing for float.

"The question has also been raised as to whether float must be priced concurrently with check collection. Although float does arise from the check collection process, the Legal Division does not believe that the Act requires pricing for float to be implemented at the same time as pricing for checks since float is a separately identified service line in the Act."
Although the Federal Reserve System may have a legal basis to delay further action on float beyond August 1981, such a policy decision does not, in our view, seem prudent from a financial management or a resource allocation standpoint.

Reasons that have been advanced for delaying float pricing do not, in our opinion, have sufficient merit to outweigh the advantages of immediately proceeding to take action on float. We do not see why the Federal Reserve Board needs more time to make operational improvements before float is priced. The Monetary Control Act with its mandate for competitive pricing has been on the books for a year, and by August the Board will have had 17 months to improve the efficiency of its operations. Indeed, pricing should simply provide further impetus to efficiency improvement efforts.

The concern that timely action on float would encourage the private sector to develop duplicate check clearing services that would waste society's resources seems to reflect little confidence in the dynamics of a competitive economy. Furthermore, given the Board's well-publicized plans for further operational improvements, we believe it is unlikely that private sector institutions will undertake large-scale investments that will prove to be wasteful when the Board's improvements take effect.

Finally, according to published Federal Reserve Board estimates, the additional earnings already accruing to member banks as a result of Monetary Control Act reductions in required reserves will more than offset the cost of all priced services, including the payment of interest on float. It appears to us from the Board estimates that member banks will still come out ahead if the Board moves to price float in August. Therefore we think it equitable as well as economical that the Federal Reserve Board take action on float at the earliest possible time.

We recognize that the Federal Reserve Board has had much to do in implementing the far-reaching, complex provisions of the Monetary Control Act of 1980. However, we believe the Board should take every reasonable action to reduce the size of the Federal budget deficit and improve the competitive character of the U.S. economy. Because it costs taxpayers $1 million to $2 million for each day that float is not priced or eliminated, we believe the Federal Reserve Board should expedite the implementation of float pricing.

We would appreciate clarification of your plans and supporting reasoning so that we might be in a better position to advise the Congress on this matter. In view of the relatively short time until check clearing pricing takes effect, we would like to have your response no later
than April 10, 1981. If you have any questions or would like to discuss this matter, please contact Stephen Swaim on 389-4254.

Sincerely yours,

(Signed) William J. Anderson

William J. Anderson
Director
April 10, 1981

Mr. William J. Anderson, Director
General Government Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Anderson:

I am responding to your letter of March 31 to Chairman Volcker concerning the Federal Reserve's plans to price check collection float. As you know, your staff and ours have been in frequent contact during the past year regarding the Federal Reserve's pricing plans; only a small portion of those discussions, however, were devoted to float. Therefore, we welcome this opportunity to respond to your concerns and to clarify the Federal Reserve's efforts and intentions in pricing and reducing float.

During 1980 the Board proposed a three-phased program for dealing with float. That program involved reductions in float through operational improvements and availability changes (Phases I and II) and imposition of charges calculated at the Federal funds rate (Phase III). As required by law, the Board published this plan on August 28, 1980, for public comment. As a result of these comments, the Board's December 30, 1980 announcement indicated that further analysis of this issue is necessary and that recommendations will be presented to the Board in 1981.

Pricing float in ways that increase efficiency in the payments mechanism is a complex matter that resists simplistic solutions. The actions we have taken to date were shaped by the requirements and the intent of the Monetary Control Act. They are designed to improve the efficiency of the payments mechanism, and also to ensure that the Board will keep its commitments to the Congress that Treasury revenues would not be diminished by the implementation of the Act.

One of the knottiest problems involved in the handling of float stems from the fact that efforts to speed up the process of collecting checks may lead to a wasteful use of resources from the standpoint of the economy as a whole. Duplication of the Federal Reserve's check-collection facilities in the private sector is only a small part of the problem. The larger part stems from the fact that both originators and collectors of checks expend substantial amounts of real resources to increase the availability of funds to themselves. Since the result is merely a transfer of money from one economic unit to another, there may be no useful social product created.
Timely collection of checks is important to prevent fraud and abuse in the nation’s payments mechanism. In all probability, however, the time value of money—especially in an economy with a 10 percent inflation rate—would lead to a greater use of resources to speed up the check collection process than could be justified by such considerations. This would tend to be true, moreover, even in an economy in which check collection services were provided entirely by firms in the private sector, operating under competitive conditions, and charging prices that reflect the costs of collecting checks.

It seems to us extremely important, therefore, that we take this problem very carefully into account in handling float. Also, we believe it is important to avoid, if possible, loading all of the cost of float onto the depositing institution. Doing so would not create the incentives for efficiency in resource use that the Monetary Control Act intended. Unfortunately, it is not easy to design effective procedures for charging the paying institution for checks drawn on it.

The first phase of our program for dealing with float has emphasized operational improvements within the Federal Reserve that have a high benefit-cost ratio. Since these improvements have speeded up the collection of checks at relatively low cost they put the burden of reducing float mainly on the paying bank.

These efforts have met, we believe, with considerable success. For example, in 1979, the daily average level of total Federal Reserve float was $6.7 billion. As a result of operational improvements, float decreased 37 percent in 1980 to a level of $4.2 billion. More recently, from January 1, 1981 through March 11, 1981, total Federal Reserve float was further reduced by almost 20 percent to $3.4 billion—nearly 50 percent below the 1979 level. This is, we believe, substantial progress in dealing with a troublesome problem. The costs of the operational improvements undertaken, I would note, are reflected in the prices for check collection that will go into effect August 1, 1981. Other operational improvements are under review and are expected to achieve further reductions in float.

We have slowed down somewhat the refinement of the fractional availability proposal due to problems pointed out in the public comments. As a result, for the second part of Phase I, we have a large effort underway to design procedures for the collection of large dollar-value checks electronically—electronic check collection (“ECC”). This approach, we believe, has enormous advantages over others. In effect, it provides immediate availability to the collecting institution and removes the benefit of Federal Reserve float that previously accrued to the paying institution.
Thus, if ECC proves to be operationally feasible, it would significantly reduce payments practices (such as remote and controlled disbursement) that are very costly from the standpoint of society as a whole. Electronic check collection will require significant changes in the operational and legal arrangements that currently exist in the collection of checks. We are not far enough along yet to be sure that electronic check collection can be implemented successfully, but progress to date has been very encouraging. We believe that the nation's long-range interests have been well served in the process. We would be pleased to keep you advised of our progress in this matter.

You suggest that the Federal Reserve should accelerate its float pricing efforts by implementing, as soon as possible, changes in availability schedules or explicit pricing for float. Doing so before the full effects of pending operational improvements, including ECC, are realized would unfairly penalize depositing institutions since charging for float is a less efficient alternative and is more expensive to users. Additionally, charging for float at this time is inconsistent with our understanding of the legislative history of the Act, which attempts to avoid adding to the burden of member banks.

You suggest that pricing float immediately would return to the government $40 to $50 million per month, and that a delay until 1982 would cost the government $500 million. We believe these amounts are somewhat overstated. For example, they do not take into account float reductions due to operational improvements already implemented and those we plan to implement over the next year, as well as the taxes on the benefit of float that must be paid by private industry.

Your letter would seem to imply that Congress intended the Federal Reserve to charge fees for its services in ways that would yield a net increase in general revenues to the Treasury. We believe that Congress envisioned the effects of the Act as a total package that included a loss of Treasury revenues from reduced reserve requirements offset by an increase in revenues from the pricing of Federal Reserve services. Our current estimates of the total impact of the Monetary Control Act on net revenues to the Treasury continue to indicate that there will be a modest increase in revenues compared to an environment (without the Act) in which the Treasury would have experienced a gradual revenue loss due to declining Federal Reserve membership.

We are entirely sympathetic to the concerns raised in your letter. The Federal Reserve is making considerable progress toward the objective of eliminating the cost of float to the government. We believe that our efforts will increase the efficiency of the payments mechanism through allocating the cost of float to the principal beneficiaries of float. While this process is extremely complex, we are making every effort to achieve the objectives of the MCA in as expeditious a manner as possible.
I hope that this response is helpful to your review of the development of Federal Reserve fee schedules. The complexity of the issues may however, warrant further discussion between your staff and ours. If you feel that further staff interchange would be helpful from your standpoint, Board staff will be available at your convenience to discuss these matters.

Sincerely yours,

Lyle E. Gramley
Mr. William J. Anderson, Director  
General Government Division  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Anderson:

The Board of Governors appreciates the opportunity to comment on the draft General Accounting Office ("GAO") report, "The Federal Reserve System Should Take Additional Steps to Eliminate Subsidy of its Check Clearing Operations." The Board is pleased that the GAO found to be reasonable many of the policies that the Board adopted in implementing the pricing provisions of the Monetary Control Act of 1980 (Title I of PL. 96-221) ("Act"). While the report represents a comprehensive evaluation of the Federal Reserve's actions in pricing the check service, the Board does not agree fully with some of the conclusions and recommendations of the report.

The Federal Reserve's transition from an environment of non-priced and restricted-access services to one of pricing and open access is enormously complex and affects both the Federal Reserve and the private sector. In the transition, the Federal Reserve is faced with the need to alter some of its basic approaches to providing services. Therefore, it is inevitable that there would be start up problems not unlike those associated with any new business enterprise. It was in recognition of this situation that Congress provided the Board with some flexibility in setting fees and sufficient time to begin the implementation of pricing. Looked at against that standard, the System has made considerable progress. For example, the Federal Reserve began pricing wire transfer and net settlement services in January 1981, check collection and automated clearing house services in August 1981, and securities and noncash collection services in October 1981; and major reductions in float have been achieved.

Against this background, we are pleased to comment on the four broad areas of the report: (1) pricing of the check clearing service, (2) pricing of float, (3) automated clearing house pricing, and (4) the Federal Reserve role in the payments mechanism.

Pricing of the Check Clearing Service

The GAO report states that district-wide pricing "masks differences in unit costs (at the office level) and this can create price inequities among users of the services and dull the incentive of processing center managers to operate as efficiently as possible." This point has some validity, but there
are considerations to be taken into account. In particular, it is important that service arrangements and related fee schedules be responsive to changing needs in local or regional markets, and some decentralization in administering the check service is essential if the System is to respond effectively to these changes. Consequently, the Board provided Reserve Banks, who are in the best position to know the needs and market conditions in their Districts, the option of setting fees for check services on either a District or office basis, recommending that office prices be developed where significant cost differences exist among offices within a District. Several System committees review and monitor changes in fee schedules and service arrangements for check services. Additionally, the System Pricing Policy Committee reviews carefully all changes to ensure compliance with the Board's pricing principles and to ensure the provision of an adequate level of check services nationwide. Significant changes in fee schedules or service arrangements are also presented to the Board for its review. The Board believes that, on balance, this approach has served our customers and the System well in the initial period for pricing of check services.

The GAO report also indicates that accurate check volume estimates are necessary for total revenues to cover all costs, plus the private sector adjustment factor ("PSAF"), and that variations among District volume projections for 1981 suggest uncertainty about cost recovery. The System did, in fact, expect and has experienced substantial variability in check volume changes among the Federal Reserve offices since pricing began last August. This variation in volume changes is largely a result of the availability or development of alternatives to Federal Reserve services in local markets. A number of these alternatives cited in the report--such as the reappearance of local clearing houses--were a natural consequence of pricing and are viewed by the Federal Reserve System as contributing to the efficiency of the nation's payment system. For the most part, such adjustments are, by themselves, "one-time" in nature and should not bring about further substantial declines in volume. The Federal Reserve is prepared to deal with the practical consequences of a decline in check service volume, we foresee no problem in projecting volumes with sufficient accuracy to be able to match revenues and costs. In this regard, the Board has established periodic reporting requirements for revenues, costs and volumes. These reporting requirements meet the GAO recommendation that such data be collected at least quarterly. The actual cost and revenue data will be published annually. Furthermore, the Board has committed to review, and if necessary modify, fee schedules at least annually, and more frequently if necessary.

Immediate Pricing of Float

The report recommends that the Federal Reserve "move immediately to price float at the Federal funds rate or eliminate float by changing availability schedules". In citing the foregone revenue to the Treasury that results from not pricing the Federal Reserve float immediately, the report seems to imply that the Act requires the Federal Reserve to focus exclusively on the amount of revenue returned to the Treasury in its determinations with respect to priced services. The purposes of the Act are much broader. With regard to the effects on Treasury revenue, we believe the intent of Congress was to
offset reductions in revenue resulting from lower reserve requirements. Indeed, as stated by the then chairman of the Senate Banking Committee, Senator Proxmire, the Board's implementation of pricing should not exacerbate the burden already incurred by member banks during the transition period. The Board believes that its actions on float pricing are consistent with: 1) the Monetary Control Act with respect to meeting the deadline to begin pricing of Federal Reserve services, 2) Congressional intent with respect to not increasing the burden of Federal Reserve membership, and 3) meeting the Board's revenue projections previously submitted to the Congress.

The GAO report recommends that the Federal Reserve move immediately to explicit pricing of float. In August 1980, the Board proposed a three-phased program to reduce and price float. The first phase, reducing float through operational improvements, was strongly supported by the banking industry. The second phase, fractional availability, was generally opposed by the banking industry as being too complex and costly. Many banks also opposed phase three, pricing of float, because the cost burden of float would be passed on to the depository bank. The Board announced in December 1980 that it was delaying implementation of fractional availability because of the strong concerns expressed about the proposal in public comments. The Board's announcement stated further that fractional availability, along with other float programs, was being reassessed.

Although the report acknowledges that the Federal Reserve has made progress in reducing float, it fails to give sufficient recognition to the fact that Federal Reserve float reduction initiatives which began prior to the passage of the Act have been quite successful. In 1979, the Federal Reserve System implemented a procedure for establishing float reduction targets at each Federal Reserve office, improved the float data collection system, and restructured the Federal Reserve air charter network for transporting checks. As a result, Federal Reserve float, which reached a seasonally unadjusted daily level of $6.7 billion in December 1979, was reduced to an average level of $2.9 billion during the first three quarters of 1981. This trend has continued into the fourth quarter of 1981 and daily average float for the 13-week period between September 3 and December 2 was $2.5 billion. Thus, Federal Reserve float has been reduced by more than 60 percent within the last two years. The Board believes that this progress is significant and demonstrates the effectiveness of reducing float through operational improvements.

The report also concludes that Federal Reserve operational improvements are unlikely to reduce float below $1 billion. We believe that further operational improvements and the policy changes listed below contain the

1/ Fifty respondents to the Board's August 1980 pricing proposal opposed fractional availability, while nineteen respondents endorsed it. Respondents opposed to fractional availability cited the following as major reasons: a) substantial reprogramming costs required, and b) the alleged resulting disincentive to the Reserve Banks to reduce float through operational improvements.
potential to reduce float below the $1.0 billion level. Operational improvements undertaken by the Reserve Banks for 1981, are expected to reduce Federal Reserve float by $0.5 billion to $0.7 billion below the January 1981 average daily level of $3.6 billion. Other improvements that are under study, including electronic check collection, have the potential to reduce float even further, by another $0.5 billion or more. In addition to operational improvements there are several policy measures under consideration, including: later presentment of checks, charging for weekday closings, extension of deferment schedules to a three-day maximum, elimination of inter-territory transportation float and eliminating return item float. These measures combined can reduce float by approximately $1.5 billion. In combination with the operational improvements cited above, such policy measures would reduce float below $1.0 billion.

In estimating the revenue potential to be gained by charging for float immediately, the GAO employed what we believe to be an incorrect marginal tax rate. Consequently, the estimate of revenue from pricing float explicitly is overstated. The Board staff analysis, agreed to by the Treasury Department and cited in Board testimony to the Congress, used a first year marginal tax rate of 35 percent, with the rate for the next four years increasing annually by 2.5 percentage points to a maximum rate of 45 percent. The Board believes that these are the appropriate marginal tax rates to be used in estimating effects on Treasury revenue. With the appropriate rates, the reported potential revenue increase associated with pricing float immediately would be reduced by about $6 million per month.

Finally, the report implies that float makes it more difficult for the Federal Reserve to implement monetary policy. With our comprehensive float reporting system, the existence of float related to check operations does not create any significant problems for the conduct of monetary policy.

Automated Clearing House Pricing

The report recommends that the Federal Reserve begin immediately to price the automated clearing house service to recover current costs fully. One pricing alternative presented by the report is to set the ACH fees at the average cost (plus the PSAF) expected to be incurred in providing services to all users for the forthcoming period of time. Another alternative suggested in the report for pricing competitively without raising prices immediately is to limit the period of less than full cost pricing and capitalize revenue deficits occurring during this period at market rates of interest. The capitalized deficits could then be amortized over a period immediately following the transition period.

The Federal Reserve believes that its pricing strategy will contribute to economic efficiency and continued technological innovation. The ACH service has the potential to offer significant benefits to the public in terms of
decreased cost, increased convenience and greater security for certain types of payments. In this regard, the Board believes that the ACH fee schedule is in accord with provisions of the Act, which provide that over the long run fees shall be established on the basis of all direct and indirect costs, except where the Board determines a need to provide an adequate level of service nationwide.

The Board is committed to reviewing the fee schedule for ACH services on an annual basis. In light of the controversy which has developed over the current ACH pricing policy our staff is currently conducting a study of the issues associated with pricing for ACH services. In its review the Board will consider the suggestions made in the GAO report.

The Federal Reserve Role in the Payments Mechanism

The report recommends that Congress use the effect of competition on the Federal Reserve market share as a focus for its oversight of the Federal Reserve System's future involvement in the check clearing process. The report states that the Federal Reserve has not taken advantage of the opportunity provided by the Monetary Control Act to set explicit goals for its role in maintaining an adequate nationwide system.

Continuous examination of the appropriate role of the Federal Reserve in the payments mechanism occurs throughout the Federal Reserve System—from the Board level down to the various System subcommittees. The Federal Reserve today maintains a competitive presence in many aspects of the payments clearing process in order to promote efficiency and to ensure an adequate level of service nationwide. It is likely that there will be a continuing need for the Federal Reserve to perform many of the functions which it currently provides. The Board expects that, over time, market forces will help us more clearly define this role.

Again, the Board of Governors appreciates the opportunity to comment on this draft report. If you feel that further staff interchange would be helpful from your standpoint, Board staff will be available at your convenience to discuss these matters.

Sincerely,

William W. Wiles
Secretary of the Board
Dear Mr. Anderson:

This is in response to your letter of November 16, 1981, requesting Department of the Treasury comments concerning the draft report entitled "The Federal Reserve System Should Take Additional Steps to Eliminate Subsidy of Its Check Clearing Operations." The draft report calls for the Federal Reserve System to implement the pricing provisions of the Monetary Control Act (MCA) so as to avoid, to the extent practicable, subsidization of any check clearing service. The report also points out that, while the main purpose of the MCA is not to raise additional revenue for the Treasury, the Federal Reserve should give due consideration to the generation of as much revenue as possible when implementing pricing under the MCA.

The Treasury agrees with the overall thrust of the report. Many of the detailed comments and specific recommendations contained in the report are directly or indirectly related to (1) the intent of the Congress with respect to the Federal Reserve System's implementation of the pricing provisions of the MCA, (2) the goals, if any, the Congress set for the Federal Reserve System to attain, and (3) the future role the Federal Reserve System is to assume in the commercial financial sector. It is the Department's view that such issues should be resolved by the principal parties involved: the Congress, the Federal Reserve, and the GAO. We would like to be kept informed of progress in those areas.

Also, certain recommendations appearing in Chapter 2 of the report call for the Board of Governors to modify its annual income and expense statements to show clearly the relationship of revenues derived from priced services
to the costs associated with those services. The Department supports the GAO recommendations calling for the modification of the annual Federal Reserve income and expense reports.

Sincerely,

Beryd W. Sprinkel

Mr. William J. Anderson
Director
General Government Division
United States General Accounting Office
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