

FEDERAL RESERVE BANK OF DALLAS

DALLAS, TEXAS 75222

Circular No. 81-15

January 19, 1981

PRICING AND ACCESS TO FEDERAL RESERVE SERVICES

TO THE CHIEF EXECUTIVE OFFICER OF  
ALL FINANCIAL INSTITUTIONS IN THE  
ELEVENTH FEDERAL RESERVE DISTRICT:

Printed on the following pages is the text of a press release and Federal Register document issued on December 31, 1980, by the Board of Governors of the Federal Reserve System announcing the schedule of fees for certain services to depository institutions, implementation dates for pricing and access to Federal Reserve services and principles underlying the Federal Reserve's schedule of charges.

Procedures have been adopted for a depository institution to follow if it maintains low or zero required reserve balances with the Federal Reserve and it wishes to obtain services directly from the Federal Reserve. The Board provided for immediate access by all nonmember depository institutions to Federal Reserve Regional Check Processing Centers (RCPCs) for the collection of local checks under current arrangements available to nonmember commercial bank participants in RCPCs. The Board also postponed for a short period the pricing of all check collection services and access by nonmember depository institutions to Federal Reserve check collection facilities other than RCPCs.

Questions regarding pricing and access to Federal Reserve services should be directed to Tony J. Salvaggio, Senior Vice President, Ext. 6224, E. W. Vorlop, Jr., Vice President and Controller, Ext. 6223, or Larry J. Reck, Vice President, Ext. 6337 at the Dallas Office; Robert W. Schultz, Assistant Vice President, (915) 544-4730 at the El Paso Office; Sammie Clay, Assistant Vice President, (713) 659-4433 at the Houston Office; or Thomas H. Robertson, Assistant Vice President, (512) 224-2141 at the San Antonio Office.

Sincerely yours,

William H. Wallace

First Vice President

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Banks and others are encouraged to use the following incoming WATS numbers in contacting this Bank: 1-800-442-7140 (intrastate) and 1-800-527-9200 (interstate). For calls placed locally, please use 651 plus the extension referred to above.

# FEDERAL RESERVE press release



For immediate release

December 31, 1980

The Federal Reserve Board today made public schedules of fees for certain services to depository institutions, implementation dates for pricing and access to Federal Reserve services and the principles underlying the Federal Reserve's schedule of charges.

The Board also:

--Adopted procedures for a depository institution to follow if it maintains low or zero required reserve balances with the Federal Reserve and it wishes to obtain services directly from the Federal Reserve.

--Provided for immediate access by all nonmember depository institutions to Federal Reserve Regional Check Processing Centers (RCPCs) for the collection of local checks, under current arrangements available to nonmember commercial bank participants in RCPCs.

--Postponed for a short period the pricing of all check collection services and access by nonmember depository institutions to Federal Reserve check collection facilities other than RCPCs.

The Board's schedules for pricing its services, and the principles and price determinants underlying the charges, were adopted to implement provisions of the Monetary Control Act of 1980. Under the Act, the Board is required to publish a set of pricing principles and a proposed schedule of Federal Reserve fees, dealing with the following services:

1. Transportation of currency and coin, and coin wrapping.
2. Check clearing and collection.
3. Wire transfer of funds.
4. The use of Federal Reserve automated clearing house facilities.
5. Net settlement of debits and credits affecting accounts held by the Federal Reserve.
6. Book entry, safekeeping and other services connected with the purchase or sale of government securities.
7. Noncash collection (the receipt, collection and crediting of accounts of depository institutions in connection with municipal and corporate securities).

8. The cost to the Federal Reserve of float (the interest on items -- generally, the dollar value of checks -- credited by the Federal Reserve to one depository institution before being collected from another).

These requirements of the Monetary Control Act follow upon other provisions of the Act subjecting all depository institutions offering transactions accounts and nonpersonal time accounts to uniform Federal reserve requirements, and requiring the Federal Reserve to provide System services on the same terms to all depository institutions.

The Board said that the proposals are meant to conform to two objectives made clear in the legislative history of the Act:

1. Congress regarded pricing for Federal Reserve services as a means of encouraging competition and efficiency in the provision of such services.
2. Congress was concerned with the amount of revenue that would be lost to the Treasury under the Act resulting from the lower reserve requirements the Act establishes. Pricing for Federal Reserve services is expected in part to offset that loss.

At the same time, Congress charged the Board with adopting pricing principles that "give due regard to competitive factors and the provision of an adequate level of such services nationwide."

In view of these provisions of the Act, the Board has taken the following actions, which include a number of revisions made in the light of comment received on proposals published in August:

General

1. Effective December 31, 1980, all depository institutions will be eligible to deposit local checks for collection in Federal Reserve Check Processing Centers (RCPCs).

2. On January 29, 1981, the following fee schedules for the initial Federal Reserve Bank services to be priced -- wire transfer of funds and net settlement -- will become effective:

WIRE TRANSFER

	<u>Telephone Advice</u>	
	<u>NO</u>	<u>YES</u>
Originator On-Line	\$ .80	\$2.60
Originator Off-Line	3.50	5.30
Receiver Off-Line	---	1.80 <sup>1/</sup>

NET SETTLEMENT

Basic Settlement Charge Per Entry	\$ .80
Surcharges:	
Settlement Originated Off-Line	2.70
Telephone Advice requested	1.80 <sup>1/</sup>

3. On August 1, 1981 the following fee schedule for services provided to automated clearing houses by Federal Reserve Banks will become effective, concurrent with the pricing of check collection services:

AUTOMATED CLEARING HOUSE SERVICES

	<u>Intra-ACH</u>	<u>Inter-ACH</u>
	<u>debits originated &amp; credits received</u>	<u>debits originated &amp; credits received</u>
New York Reserve Bank	0.3 cents per item <sup>2/</sup>	1.2 cents per item <sup>2/</sup>
All other Reserve Banks	1.0 cent per item	1.5 cents per item

<sup>1/</sup> Fees for advices requested by originators will become effective March 26, 1981.

<sup>2/</sup> This fee gives recognition to the fact that the New York ACH is privately operated.

4. Fee schedules for other services will be implemented according to the following table, and will be announced in advance:

<u>Service</u>	<u>Schedule</u>
Check Collection & Clearing	Full access and pricing on August 1, 1981
Purchase, Sale, Safekeeping and Transfer of Securities	Access and pricing, October 1981
Noncash Collection	Access and pricing, October 1981
Coin and Currency Transportation Services	Access and pricing, January 1, 1982
Coin Wrapping	Access and pricing, January 1, 1982

5. The Board deferred action on pricing for float pending further study. Actions to reduce float through operational improvements are underway.

Principles and Determinants of Pricing  
for Federal Reserve Services

The Board adopted the following principles required by the Monetary Control Act as the basis for Federal Reserve fees:

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.

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 priced, including interest on items credited prior to actual collection, overhead, and and 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 of 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.

In addition, the Board adopted the following pricing principles, in view of the recognition in the Monetary Control Act and its legislative history of the importance of encouraging competition and providing for an adequate level of services nationwide.<sup>1/</sup>

5. 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 services nationwide, the Board determines to authorize a fee schedule for a service below cost, it will announce its decision.
6. Service arrangements and related fee schedules shall be responsive to the changing needs for services in particular markets. Advance notice will be given for changes in fees and significant changes in service arrangements to permit orderly adjustments by users and providers of similar services.

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<sup>1/</sup> In August, the Board proposed four pricing principles in addition to those required by the Act. Of these, in the light of comment received, Nos. 5, 7 and 8 have been restated and No. 6 eliminated as no longer needed after restatement of No. 5.

7. The structure of fees and service arrangements may be designed both to improve the efficient utilization of Federal Reserve services and to reflect desirable longer-run improvements in the nation's payments system. Public comment will be requested when changes in fees and service arrangements are proposed that would have significant longer-run effects on the nation's payments system.

The Board adopted the following price determinants:

- A mark-up of 16 percent as the Private Sector Adjustment Factor to the Federal Reserve's cost of providing services. This factor will be reviewed annually and changed as appropriate. 1/
- Prices will be based on full long-run costs, reviewed at least annually in the light of estimated costs for the ensuing year, using the Federal Reserve's Planning and Control System (PACS) to determine full costs.
- Fees will be national for services that are uniform across the Federal Reserve System. These are generally capital intensive items, and include wire transfer, automated clearing house services, net settlement and on-line securities transfer services.
- Where there are significant differences in costs among Federal Reserve Districts (or offices), differing District or office schedules will be used. Such prices include coin wrapping, and securities and noncash collection at the District level and currency and coin shipping at the office level.
- The Board plans to complete development of a detailed proposal for incentive pricing by Spring 1981.

The Reserve Banks have the option of setting fees for check services on either a District or office basis.

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1/ See attached Federal Register notice for detailed discussion of the Private Sector Adjustment Factor.

Clearing Balances

Under provisions of the Monetary Control Act many small depository institutions will maintain with the Federal Reserve zero or small required reserve balances. Many such institutions will satisfy their reserve requirements with their own vault cash; some will hold reserves through pass-through arrangements but may wish to obtain services directly; and during the 8-year phase-in, required reserve balances will slowly change.

Two alternatives are available to an institution with zero or small reserve balances that wishes to obtain services directly from a Federal Reserve Bank:

The first method is to arrange with a correspondent institution or with its reserve pass-through correspondent to post all of its Federal Reserve credits and charges arising from its use of System services to the correspondent institution's or pass-through correspondent's Federal Reserve account. Such arrangements must comply with the requirements of the Federal Reserve Bank involved.

The second method is to establish a clearing balance with its Reserve Bank to which Federal Reserve credits and charges may be posted. If the depository institution chooses the clearing balance method, the following procedures would apply:

The necessity for as well as the size of the clearing balance will depend upon the need to avoid frequent large daylight and overnight overdrafts. This evaluation will be made on a case by case basis in accordance with national guidelines. The size of the clearing balance may be revised monthly to reflect changes in the level and timing of an institution's transactions and the incidence of daylight and/or overnight overdrafts.



The Board has determined that earning credits will be granted on the actual or required clearing balance, whichever is less, at a rate equal to the weekly average Federal funds rate.

For monetary control purposes, the required clearing balance level will be fixed in advance of the period during which the balance must be maintained and must be met on average during a maintenance period.

Penalties will be assessed for deficiencies in required clearing balances. In addition, Federal Reserve Banks will meet with depository institutions that demonstrate an inability to maintain required balances or that incur repeated penalties to discuss how to manage required total balances better. Procedures regarding clearing balances will apply to all depository institutions as well as Federal Home Loan Banks.

#### Check Clearing

With respect to check clearing and collection, the Board endorsed the concept of separate pricing for return items and will publish a proposal for comment during 1981, with the intent of implementing separate fees for return items in the 1982 pricing structure. In March 1981, the Board will publish a final fee schedule for check clearing and collection services to reflect estimated 1981 costs and the 16 percent private sector adjustment.

#### Automated Clearing House Services

The Act provides that over the long run, fees should be based on total costs. Proposed ACH prices are based on staff estimates of costs at an annual volume of approximately two billion items, which it is believed can be achieved in approximately five years. The Board will review the fee schedule for ACH services on an annual basis to determine the appropriateness of continuing its ACH pricing policy.

The Board has considered the impact its ACH pricing policy may have on the development of private sector alternatives to the existing ACH network. It concluded that its pricing policy is in the public interest, will result in a more efficient payments mechanism in the long run and is consistent with the objectives of the Act.

Prices for ACH services will be levied against the party originating an ACH debit and against the receiver of an ACH credit. No charge will be levied on the receiver of Federal direct deposits. Automated clearing house associations may have charges for ACH services provided to their members made through their association if they so request.

#### Cash Transportation and Coin Wrapping

The Board's proposed fee schedules for currency and coin services were the subject of substantial comment. Commentators expressed concern over the disparity of prices for services across and within districts. Concern was also expressed over the methodology used in establishing the various zones used to determine prices for delivery of coin and currency.

The Board believes that the commentators have raised significant concerns with respect to the currency and coin fee schedules proposed in August. Therefore, the pricing of currency and coin delivery services will be reviewed. In order to provide an opportunity for public comment on a revised schedule, the pricing of coin and currency delivery and coin wrapping services will be delayed until January 1982.

#### Float

The System is engaged in a number of improvements to its check collection operations designed to reduce the amount of float.

The Board's August proposal suggested second and third phases, following reduction of float by improvement of System operations, designed to eliminate float to the maximum degree and price for what could not be eliminated.

As a result of consideration of comment received, the Board has decided to continue analysis of float alternatives. The Board will consider the results of this analysis in 1981.

The Board's notice in this matter is attached.

Attachment

## FEDERAL RESERVE SYSTEM

[Docket No. R-0324]

### Adoption of Fee Schedules and Pricing Principles for Federal Reserve Bank Services

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Adoption of Fee Schedules and Pricing Principles.

**SUMMARY:** The Monetary Control Act of 1980 (Title I of Public Law 96-221) requires that fees be set for Federal Reserve Bank services. The Board has adopted a set of pricing principles for Federal Reserve Bank services and has established implementation dates on which fees for each of the services will become effective. A schedule of fees has been adopted for wire transfer of funds, net settlement, and automated clearing house services. Fee schedules for the remaining services will be announced in advance of their implementation dates.

**EFFECTIVE DATE:** December 31, 1980. On that date, all depository institutions will be eligible to deposit local checks in Federal Reserve Regional Check Processing Centers ("RCPC's"). On January 29, 1981, the fee schedule for the initial Federal Reserve Bank services to be priced—wire transfer of funds and net settlement—will become effective.

**FOR FURTHER INFORMATION CONTACT:** Lorin S. Meeder, Assistant Director for Federal Reserve Bank Operations (202/452-2738); Earl G. Hamilton, Senior Operations Analyst (202/452-3878); David B. Humphrey, Section Chief (202/452-2556); Myron L. Kwast, Economist (202/452-2686); Paul P. Burik, Economist (202/452-2556); Gilbert T. Schwartz, Assistant General Counsel (202/452-3625); Lee S. Adams, Senior Attorney (202/452-3623); Daniel L. Rhoads, Attorney (202/452-3711).

#### SUPPLEMENTARY INFORMATION:

##### I. Introduction

The Monetary Control Act of 1980 ("Act") (Title I of Public Law 96-221) requires that fees be set for Federal Reserve Bank services according to a set of pricing principles established by the Board. The Act provides that the Board shall begin putting into effect a schedule of fees not later than September 1, 1981. Services covered by the fee schedules

are to be made available to all depository institutions. The Board, in accordance with the requirements of the Act, published proposed pricing principles and a schedule of fees for comment on August 28, 1980 (45 FR 58689). The period for public comment expired on October 31, 1980. After considering the more than 230 comments received from the public (primarily from depository institutions and financial institution trade groups), the Board has adopted revised pricing principles, set a series of implementation dates on which fee schedules for each of the services will become effective, and approved fee schedules for several of these services. In preparing the pricing principles and fee schedules, the Board has taken into account the objectives of fostering competition, improving the efficiency of the payments mechanism, and lowering costs of these services to society at large. At the same time, the Board is cognizant of, and concerned with, the continuing Federal Reserve responsibility and necessity for maintaining the integrity and reliability of the payments mechanism and providing an adequate level of service nationwide.

##### II. Background

The Act specifies that fees are to be set for the following Federal Reserve Bank services in accordance with the pricing principles adopted by the Board:

- (1) currency and coin transportation and coin wrapping;
- (2) check clearing and collection;
- (3) wire transfer of funds;
- (4) automated clearing house (ACH);
- (5) net settlement;
- (6) securities services;
- (7) noncash collection;
- (8) Federal Reserve float; and
- (9) any new services the Federal Reserve System offers.

The legislative history of the Act indicates that Congress had two objectives in establishing a requirement that the Federal Reserve price the services it provides. First, Congress sought to encourage competition in order to assure provision of these services at the lowest cost to society. While intending to stimulate competition, Congress did not wish to precipitate the reemergence of undesirable banking practices—such as non-par banking or circuitous routing of checks—which the Federal Reserve System was designated to eliminate. Also, Congress was concerned with ensuring an adequate level of services nationwide. Consequently, it charged the Board with adopting pricing principles that "give due regard to competitive factors and the provision of

an adequate level of such services nationwide". This objective is clearly established in the pricing principles established by the Act.

Second, Congress was concerned with the amount of revenue lost to the Treasury due to the reduction in the level of aggregate required reserves resulting from the implementation of the reserve requirement provisions of the Act. Pricing for Federal Reserve Bank services will generate revenue that will partially offset the revenue loss associated with reduced required reserves.

##### III. Pricing Principles

In its August proposal, the Board proposed eight principles as a framework for establishing fees for Federal Reserve Bank Services. Principles one through four were required by the Act while proposed principles five through eight were added by the Board to amplify its policies with respect to the establishment of fees for, and the provision of, System services. These four additional principles<sup>1</sup> evoked substantial comment. Many commentators expressed concern that those principles suggested that the Federal Reserve System might engage in unfair competition. The Board believes the concerns expressed by commentators represent a misunderstanding of Federal Reserve intentions, and has accordingly modified the additional nonstatutory principles to address those concerns. As a result, proposed Principles 5, 7, and 8 have been restated, and proposed Principle 6 has been eliminated.

Public comments expressed concern with Principle 5 because it suggested that the Federal Reserve might subsidize some services for long periods and/or systematically cross-subsidize one service from the revenue of another, to the possible detriment of private competitors offering the same service. In proposing that principle the Board intended simply to recognize that pricing of Federal Reserve services could result in significant volume losses for some

<sup>1</sup> The four nonstatutory principles proposed by the Board in August were:

Principle:

5. The fee schedule shall, over the long run, be set to recover total costs for all priced services.
6. Fees shall be structured so as to avoid undesirable disruptions in service and to facilitate an orderly transition to a pricing environment.
7. The fee schedule, as well as service levels, shall be administered flexibly in response to changing market conditions and user demands.
8. Fee and service level incentives may be established to improve the efficiency and capacity of the present payments system and to induce desirable longer run changes in the payments mechanism.

services. In the short run, this would imply large changes in unit costs since many services have a high proportion of fixed costs. If prices were immediately adjusted upward, further volume losses would result simply because insufficient time had elapsed for Reserve Banks to have adjusted their fixed costs. Thus, the Board believed it desirable for Reserve Banks to have the flexibility to maintain prices long enough to adjust fixed costs.<sup>2</sup> The Board has restated Principle 5 to clarify these intentions. The principle also specifies that the Board will announce any decision to set fees for a service below cost if such fees are established in the interest of providing an adequate level of services nationwide. In light of the restatement of Principle 5, the Board deleted proposed Principle 6 because it was no longer necessary.

With respect to proposed Principle 7, some commentators expressed concern that the word "flexibly", as used in the principle, implied that the Federal Reserve might price in a predatory fashion in order to maintain or increase its market share. In fact, this principle was proposed by the Board only to indicate that the Reserve Banks should be sensitive to the changing needs for services in particular markets. Consequently, the Board has revised this principle, now renumbered as Principle 6. This principle also states that advance notice will be provided where a Reserve Bank makes fee changes or significant service level changes in accordance with it.

Comments on proposed Principle 8 focused on concerns that the Federal Reserve might use what was termed "incentive pricing" either to undermine the competitive position of private sector providers of services or to create additional barriers to entry. In addition, commentators suggested that it was inappropriate for the Federal Reserve unilaterally to determine what long-run changes in the payments system are in the public interest.

The Board proposed Principle 8 for two reasons. First, the Board wished to recognize the desirability of inducing more efficient utilization of Federal Reserve services. For example, pricing to induce off-peak use of Federal Reserve payment services may be one way to accomplish this goal. Second, this principle was proposed to indicate that certain services, such as ACH, might be supported for a period of time to foster development of efficient new technologies that would benefit the

public in the long run. Public comment will be sought when a fee below cost is proposed in order to induce desirable longer-run changes in the payments system, as already has been done with the proposed ACH fee schedules.

Accordingly, the Board has revised this principle, now renumbered as Principle 7, in order to clarify its intention.

Thus, the Board has adopted the following pricing principles, which incorporate both the specific statutory requirements of the Monetary Control Act and provisions intended to fulfill its legislative intent:

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.

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 priced, 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 of 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.

5. 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 services nationwide, the Board determines to authorize a fee schedule for a service below cost, it will announce its decision.

6. Service arrangements and related fee schedules shall be responsive to the

changing needs for services in particular markets. Advance notice will be given for changes in fees and significant changes in service arrangements to permit orderly adjustments by users and providers of similar services.

7. The structure of fees and service arrangements may be designed both to improve the efficient utilization of Federal Reserve services and to reflect desirable longer-run improvements in the nation's payments system. Public comment will be requested when changes in fees and service arrangements are proposed that would have significant longer-run effects on the nation's payments system.

#### IV. Price Determination

The Monetary Control Act of 1980 requires that "over the long run fees shall be established on the basis of all direct and indirect costs actually incurred in providing Federal Reserve services priced." The Federal Reserve's cost accounting system provides the basis for calculating the total cost of major services (e.g., checks, wire transfer).

##### A. Private Sector Adjustment Factor

The Monetary Control Act requires that Federal Reserve fees take into account imputed taxes and financing costs that would have been incurred had System services been provided by a private firm. The proposed fees that were published for comment in August, 1980 included a private sector mark-up of 12 percent. This mark-up reflected a middle course between alternative models based on a sample of twelve large banking organizations—one model using the average cost of all bank funds and the other using the average cost of banks' long-term debt and equity only. When considering this issue, the majority of the comments received stated that the 12 percent mark-up was too low. The Board recognizes that no definitive mark-up can be calculated for the Federal Reserve for at least two reasons. The first is that there are various private competitors, including large correspondent banks and independent bank service corporations, that now offer or would offer payments function services that resemble those supplied by the System, and the costs of these competitors differ. Second, once the type of competitor is selected, the appropriate tax rate, interest rates on debt, and rate of return on equity must be ascertained. Such information may not be explicitly provided in the available financial statements prepared by firms representative of the selected type of competitor and must be inferred in order to calculate a mark-up. Despite

<sup>2</sup> Of course, as specified by the Act, the Board will require that Reserve Banks reduce their budgets to reflect long-run reductions in service volumes.

the inherent limitations on the precision with which a definitive mark-up can be calculated for the Federal Reserve, the Board believes that the methodology that was developed and modified in response to public comments is consistent with the requirements of the Act.

Comments on the Board's August proposals cited five major reasons for the alleged under-estimation of the private sector adjustment factor, focusing on the private sector's tax and financing costs. First, the 12% private sector adjustment factor (PSAF) did not reflect the cost of funds to banks during 1980. Second, it was claimed that the procedure used to estimate the short-term cost of funds improperly accounted for deposit liabilities and therefore had a downward bias. Third, the use of a tax rate which included the tax benefits arising from holdings of State and local securities was challenged. Fourth, the assumed capital structure did not correspond to that of actual private sector suppliers. Fifth, it was alleged that a mark-up based on firms other than large banking organizations may be more appropriate. These concerns are considered in more detail in Appendix I.

The Board believes many of the views expressed in these comments have merit. Therefore, by employing a matched capital structure, updating the financing costs to third quarter 1980, revising the procedures used to compute the average interest rate on short-term funds, and increasing the effective tax rate, a mark-up of 15.4 percent was generated. The procedure involved in the computation of the markup is presented in Table 2 of Appendix I. Recognizing the imprecision inherent in any attempt to impute the financing costs incurred and taxes paid by private sector suppliers, and in order to give further consideration to private sector concerns, on this occasion, the Board elected to adopt 16 percent as the PSAF. The Board intends to review the PSAF annually and will adjust it as appropriate.

#### *B. System Costs and 1981 Fee Schedule*

A number of commentators expressed concern that the fees published by the System were not based on the actual full costs of providing services. Other commentators expressed the view that use of 1979 costs as a basis for prices to be imposed in 1981 was inappropriate. The fees published by the Board in August were based on estimates of 1980 full costs of providing services and a 12 percent private sector adjustment

factor.<sup>3</sup> The derivation of full costs was based on the Federal Reserve's Planning and Control System (PACS), which establishes accounting standards for the System. That system provides for the allocation of all Reserve Bank expenses to the so-called "output" services performed by the Banks. The cost accounting principles and procedures used in PACS are described in detail in manuals that are available to the public. The proposed pricing procedures discussed by the Board in August indicated that fees would be reviewed at least annually in light of estimated costs of services for the ensuing year, including a possible revision in the private sector adjustment factor. Consistent with this procedure, the fee schedules for wire transfer and net settlement have been adjusted to reflect estimated 1981 costs and a PSAF of 16 percent. These two services will be priced and made available to nonmembers in January, 1981. No adjusted fee schedules have been adopted for any of the other services except ACH. It is the Board's intention to publish the revised fee schedules for the remaining services well in advance of their implementation dates.

#### *C. Development Costs*

The fees for wire transfer and net settlement include a provision for the costs of developing a new communications system (FRCS-80). In using the PACS full cost as the basis for setting Federal Reserve fees, an issue has been raised regarding the appropriate treatment for pricing purposes of software development and associated outlays. While PACS accounting principles require that these costs be treated as current expenses, the Board believes, for the reasons enumerated below, that fees should be set to recover these costs over future periods.

The spreading of development costs would serve several objectives:

1. Wide short-term fluctuations in fees due only to the timing and scope of development efforts would be avoided. These fluctuations might result in destabilizing shifts in volume, depending on demand elasticities. Even without immediate shifts, a volatile pattern of fee changes is undesirable, as it impairs the ability of users of System services to project their costs.

2. Spreading development costs would provide a more equitable matching of those customers bearing the

<sup>3</sup> However, an exception was provided for ACH fees and a ceiling was imposed on fees for remote endpoint cash shipments.

costs with those realizing the benefits of development efforts.

3. Development efforts, viewed from a managerial standpoint, are investments to improve future levels of service and operational efficiency. Requiring that the entire cost of such efforts be recovered in the year in which they are incurred would create a substantial barrier to future development efforts.

4. While in the private sector, product development costs are expensed as they are incurred for financial reporting purposes economic factors rather than accounting conventions determine the price-setting process.

To establish a policy for spreading development costs, the Board has decided that (a) its use be limited to cases in which development costs would have a material impact on unit costs; (b) when used, conservative time periods should be set for full cost recovery; (c) a financing factor, to be based on the marginal cost of long term capital, should be applied to the deferred portion of development costs; and (d) the System should announce the use of this technique when it is applied. In developing the wire transfer fee schedule, the Board has used this technique to incorporate FRCS-80 development costs.

#### *D. Pricing to Improve Service Efficiency (Incentive Pricing)*

The Board's August proposal contained references to additional pricing concepts being developed to use surcharges or discounts to affect customer behavior, and thus encourage more efficient utilization of resources in payment services. Such pricing concepts could result in smoothing check and wire transfer processing workloads and reductions in check and ACH return items. The Board plans to complete development of a detailed proposal for this type of pricing by spring of 1981 and, if adopted by the Board, may incorporate such concepts in 1982 fee schedules.

#### *E. Billing Procedures*

The August pricing proposal contained no details about the procedures for billing by Reserve Banks. Commentators, however, were of the view that billing procedures should be uniform across Federal Reserve offices. A recent survey indicated that Reserve Bank billing procedures being developed in accordance with current System guidelines were not as uniform as desired by commentators.

The Board expressed its desire for greater uniformity and requested the System's Conference of First Vice Presidents to develop a uniform billing

cycle, a standard interval between presentation of the bill and debiting the charges to the account of a depository institution, and a minimum standard for information that will be provided to depository institutions to describe the charges made. The Board plans to announce the details of the System's billing procedures by February 16, 1981. After that announcement, each Reserve Bank will begin as soon thereafter as operationally feasible to develop and test its billing procedures with member banks using check services and with nonmember institutions with a clearing or reserve account using RCPC services. Such testing should continue for at least two billing cycles prior to the actual levying of fees.<sup>4</sup>

#### F. Clearing Balances

The Monetary Control Act imposes Federal reserve requirements on all depository institutions with transaction accounts or non-personal time deposits. Nevertheless, a number of member and nonmember depository institutions will maintain zero or negligible required reserve balances with the Federal Reserve because of the lower reserve ratios established by the Act or because of the phase-in provisions. These institutions may want direct access to some or all Federal Reserve services. However, their reserve balances held at Federal Reserve Banks may be considered inadequate for clearing purposes. Consequently, the Board will provide two alternative methods whereby depository institutions maintaining zero or negligible required reserve balances with Federal Reserve Banks will be able to receive Federal Reserve Bank services directly, in accordance with the access provisions of the Act.

The first method is for a depository institution to arrange with a correspondent institution or with its reserve pass-through correspondent to post all of its Federal Reserve credits and charges arising from its use of System services to the correspondent institution's or pass-through correspondent's Federal Reserve account. Such arrangements must comply with the requirements of the Federal Reserve Bank involved. The second method is for the depository institution, regardless of whether or not its reserves are held through a pass-through correspondent, to establish a clearing balance with its Reserve Bank to which Federal Reserve credits and

charges may be posted. If the depository institution chooses the clearing balance method, the following procedures would apply.

The need for as well as the size of the clearing balance will depend upon the need for balances to avoid frequent or large daylight and overnight overdrafts. This evaluation will be made on a case by case basis in accordance with national guidelines. The size of the clearing balance may be revised monthly to reflect changes in the level and timing of an institution's transactions and the incidence of daylight and/or overnight overdrafts.

The Board's August proposal suggested that required clearing balances receive earnings credits equal to the 91 day Treasury bill rate. Many commentators suggested that the earnings credit rate should be the Federal funds rate, noting that the Act required that float be priced at the Federal funds rate. They also pointed out that a Federal funds earnings rate would provide a greater incentive for institutions to maintain clearing balances at required levels.

For these reasons, the Board has determined that earnings credits will be granted on the lesser of the actual or required clearing balance at a rate equal to the weekly average Federal funds rate. These earnings credits are not transferable between depository institutions and can only be used to offset charges incurred by the use of System services. However, if during a particular billing period a depository institution receives earnings credits in excess of the charges it has incurred for System services, it may carry over the credits and apply them to System service charges incurred at any time in the subsequent 12 months. Any excess credits remaining at the conclusion of the 12 month period are forfeited.

For monetary control purposes, the required clearing balance level will be fixed in advance of the period during which the balance must be maintained and must be met on average during a statement week. Each depository institution with a required clearing balance will have to maintain a required weekly average total balance—required clearing balances plus, if applicable, required reserve balances. At the end of each maintenance period any balances held with a Federal Reserve office will first be allocated to the clearing balance requirement and the remainder will apply to the required reserve balance. Thus, if a depository institution holds an average total balance with a Federal Reserve office during the maintenance period that is less than the required balance—required clearing balances

plus required reserve balances—the depository institution will be considered to be deficient in reserves. If the deficiency in average total balances is greater than required reserves, the remaining shortfall will be considered deficient clearing balances. If the maintained total balance exceeds the required balance, the institution will be considered to be holding excess reserves. However, in the case where a depository institution elects to pass through its required reserves and in addition maintains a required clearing balance directly with a Federal Reserve Office, the required clearing balance will be administered separately from the required reserve balance.

Required clearing balances will be subject to a 2 percent carry over provision (which also applies to required reserve balances), but deficiencies in excess of this carryover will be subject to a penalty rate. Clearing balance deficiencies from zero to twenty percent (after the application of carryover) will be penalized at a 2 percent annual rate while deficiencies in excess of 20 percent (after carryover) will be penalized at a 4 percent annual rate. The maintenance period for required clearing balances will correspond to the maintenance period for required reserve balances. Depository institutions are expected to meet their clearing and reserve balance requirements on a continuing basis. Federal Reserve Banks will meet with depository institutions that demonstrate an inability to maintain required balances or that incur repeated penalties to discuss how better to manage required total balances. Procedures regarding clearing balances will apply to all depository institutions as well as Federal Home Loan Banks.

#### G. Pricing Administration

The pricing proposals published for comment divided fees into those that would be administered locally and those that would be administered nationally. National fee schedules would be uniform throughout the System and are associated with services that are generally capital intensive and have similar long-run costs across Districts. National fee schedules were proposed for wire transfer, net settlement, ACH, and on-line securities transfer services. Fee schedules that vary by Federal Reserve District or office were proposed for services where there are significant cost differences across District (or across separate offices within the District) and/or where the market for that service is local in scope. District fees were proposed for coin wrapping, securities and noncash collection

<sup>4</sup> All nonmember depository institutions will have RCPC check services available to them beginning December 31, 1980. Nonmembers with a reserve or clearing account would obtain test bills for RCPC services during the test billing period.

services, while office fees were proposed for currency and coin shipping services. The Board proposed that Reserve Banks be given the option to set fees for check services on either a District or office basis.

It is contemplated that national price changes will be reviewed by the Conference of First Vice Presidents and local prices could be changed by each Reserve Bank. Any change in fees would be done in accordance with the pricing principles adopted by the Board. However, during the initial phases of pricing, it is anticipated that issues of service and pricing policy will arise that could have significance for the long-term role of the Federal Reserve in the payments mechanism. To deal with these issues during the implementation period, a Pricing Policy Committee, consisting of representatives from the Board and the Reserve Banks, has been established to review all major changes in fees and service levels.

**V. Specific Services**

**A. Wire Transfer/Net Settlement**

The proposed fee schedules published in August were based on 1979 actual costs adjusted for anticipated 1980 cost increases and a 12 percent private sector adjustment factor. These cost estimates have now been revised to reflect estimates of 1981 costs and volume as well as the recommended 16 percent private sector adjustment factor. In addition, the revised fee schedules include FRCS-80 development costs attributable to the wire transfer function, which have been allocated over the 10 year estimated useful life of this system. Off-line originator and telephone advice fees have been adjusted to reflect the increases in personnel and communications costs.

These adjustments result in a schedule for wire transfer fees as follows:

**Fee Schedule—Wire Transfer**

[Effective Jan. 29, 1981]

	Telephone advice	
	No	Yes
Originator on-line .....	\$0.80	\$2.60
Originator off-line .....	3.50	5.30
Receiver off-line .....		1.80

<sup>1</sup>Fees for advices requested by originators will become effective Mar. 26, 1981

In the August proposal, telephone advices provided to off-line receivers were to be charged to the requesting party. Some commentators suggested that since the telephone advice primarily benefits the receiver, that party should bear the cost regardless of

who requests the advice. The Board believes that the party requesting the service should bear the cost because that party is the one contracting with the Federal Reserve for the telephone advice.

Under present procedures the originator of a wire transfer may not know if the receiver is on-line or off-line. Consequently, the originator may not know if a telephone advice is necessary. The Reserve Banks have prepared a directory for on-line originators that contains information to enable originators to select the appropriate message type code and thereby ascertain the cost associated with each transfer. In order to provide originators with time to modify their operations to be able to take account of such encoding, the Board determined that the fee for telephone advice requested by the originator will be delayed until March 26, 1981.

In some cases, originators of wire transfers do not request that telephone advices be made to the off-line receivers. Because the receivers are never certain when a wire transfer may be arriving, they may place a standing order with their Reserve Bank for telephone advice of all wire transfers that are not requested by the originator. In order to service such receivers of wire transfers, all Reserve Banks will offer standing order telephone advice service if sufficient demand should develop for this service. In these cases, the receiving institution will be charged for this service. Fees for the standing order telephone advice will go into effect on January 29, 1981.

The fees for net settlement services, in which a third party typically requests the Reserve Banks to post entries to reserve accounts as a result of clearing arrangements outside of the Federal Reserve, were proposed to be the same as the fees for wire transfer. Accordingly, the net settlement prices were adjusted in the same manner as wire transfer prices.

**Fee Schedule—Net Settlement**

[Effective Jan. 29, 1981]

Basic settlement charge per entry .....	\$0.80
Surcharges:	
Settlement Originated Off-Line .....	2.70
Telephone advice requested .....	1.80

<sup>1</sup>Fees for advices requested by originators will become effective Mar. 26, 1981.

**B. Check Clearing and Collection**

Many commentators indicated that the introduction of pricing and open access, together with float reduction efforts, will significantly affect the

evolution of the nation's payment systems, the pattern of customer relationships, and the role of Reserve Banks as providers of financial services. These commentators urged the Board to adopt a more deliberate schedule for instructing these charges in order to allow the private sector an opportunity to identify and evaluate service alternatives, to redefine pricing and marketing strategies, and to adjust to Reserve Bank billing arrangements.

In response to these comments, the Board has decided to delay pricing and full nonmember access to check clearing and collection services until August 1, 1981. However, in view of the December 31, 1980 effective date for NOW accounts for all depository institutions and in order to limit the impact of delaying nonmember access to check collection services, the Board has decided to authorize access to current RCPC arrangements without charge to all nonmember depository institutions. It should be noted that nonmember commercial banks currently are permitted to deposit local items in RCPC's.

Because they must be manually processed, return items contribute disproportionately to the System's total check clearing and collection costs—approximately one percent of all checks deposited for collection with the Federal Reserve are returned and account for eight percent of check clearing expenses. However, a separate charge for return items was not included in the original Board proposal because it was believed that such fees would probably not be sufficiently high to have a significant impact on the behavior of the paying institution or its customers. In addition, a separate fee for return items would add a further complication to the fee schedule and administration. Many commentators have argued that the failure to charge separately for return items, under a price schedule intended to recover all Federal Reserve costs, unfairly increases the fee for all non-returned checks. Thus, though a separate charge might not change the behavior of participants in the collection system, it would more equitably place the cost on the parties responsible for return items.

The Board has endorsed the concept of separate pricing for return items and will publish a proposal for comment during 1981, with the intent of implementing separate fees for return items in the 1982 pricing structure. In March 1981, the Board will publish a final fee schedule for check clearing and collection services to reflect estimated 1981 costs and a 16 percent private



sector adjustment factor. The check fee schedule for 1981 will be set to fully recover all costs, including return item processing costs. When return items are separately priced in 1982, other fees in the check schedule will be reduced.

### C. ACH

Commercial ACH service fees published in August were based on mature volume costs, rather than on current costs. Commentators generally supported this decision as necessary to encourage the development of electronic funds transfer, provided that the Federal Reserve disclose the total costs associated with providing ACH services, define a mature volume environment, and set a specific deadline for pricing to recover full costs. Concern was expressed by some commentators that pricing at less than full cost could act as a barrier to possible new private sector ACH operations.

The Act provides that over the long run, fees should be based on total costs. Proposed ACH prices are based on staff estimates of costs at an annual volume of approximately two billion items, which it is believed can be achieved in approximately five years. Maintaining prices at or near their current levels as volume increases and unit costs decline should result in a declining level of Federal Reserve support for each ACH item processed. Continuing this procedure in the future would enable the System to recover some or all of its development costs. The Board will review the fee schedule for ACH services on an annual basis to determine the appropriateness of continuing its ACH pricing policy.

The Board has considered the impact its ACH pricing policy may have on the development of private sector alternatives to the existing ACH network. It concluded that its pricing policy is in the public interest, will result in a more efficient payments mechanism in the long run and is consistent with the objectives of the Act. Most private commentators agreed with this position.

The August proposal stated that charges for all services will be levied against the party originating the transaction or requesting the service. There is general agreement that Federal reserve charges should be levied on the *originator* of an ACH *debit*. However, several commentators requested the Board to levy charges on the receiver of an ACH credit. The receiver is the party that, if the transaction were made by check rather than ACH, would incur the expense of sending the check for collection. To charge the originator of an ACH credit could discharge financial institutions from marketing ACH credit

transactions. Since a depository institution is under no obligation to participate in an ACH arrangement, it can choose to avoid this cost by informing its depositors that the institution will not handle such transactions. Accordingly, the Board has determined that the charge for the processing of an ACH *credit* be imposed on the receiver. (No charge would be levied on the receiver of a U.S. government direct deposit credit; these items are handled by the Federal Reserve as part of its fiscal agency function.)

The Board's proposal provided that members of an ACH association could have charges for ACH services made either through the association or directly at the member's option. Comments from some ACH associations, including the National Automated Clearing House Association, requested the System to levy all ACH charges for association members through the association and not provide the opportunity for direct billing. These commentators noted a parallel in net settlement services where it was proposed that all charges would be made to the clearinghouse for its members. Associations also felt their own billing procedures would be simplified. The Board is of the view that the relationship between the System and the ACH association does not parallel the relationship established for net settlement services, since in the latter instance the service does not result in the processing of individual transactions. The Board believes that the issue of requiring ACH association members to receive charges for ACH services through the association should be resolved through private agreements. It would be inappropriate for the System to become involved in the enforcement of such private arrangements. Thus, charges for ACH services will be imposed through the ACH association if the association so requests, unless an individual member requests direct billing from the Reserve Bank.

In its comment, the New York Clearing House, which sponsors the New York Automated Clearing House Association (NYACH), stated that the proposed inter-ACH price did not give sufficient recognition of the processing performed by NYACH. Accordingly, NYACH requested that the Federal Reserve reimburse it for the reduction in Federal Reserve costs for items NYACH processes. The Board believes that the original pricing structure is still appropriate because users of the ACH are not being charged at full cost. The Board finds insufficient justification to reimburse NYACH at the present time

because the revenues from ACH services will not cover Federal Reserve costs.

Access to, and pricing of, ACH services will commence on the same date as check collection services (August 1, 1981) using the following fee schedule published in the August proposal.

### Fee Schedule—Automated Clearing House Services

(Effective Aug. 1, 1981)

Federal Reserve District	Intra-ACH debits originated and credits received (cents per item)	Inter-ACH debits originated and credits received (cents per item)
Boston	1.0	1.5
New York	0.3	1.2
Philadelphia	1.0	1.5
Cleveland	1.0	1.5
Richmond	1.0	1.5
Atlanta	1.0	1.5
Chicago	1.0	1.5
St. Louis	1.0	1.5
Minneapolis	1.0	1.5
Kansas City	1.0	1.5
Dallas	1.0	1.5
San Francisco	1.0	1.5

### D. Cash Transportation and Coin Wrapping

The Board's proposed fee schedules for currency and coin services were the subject of substantial comment. Commentators expressed concern over the disparity of prices for services across and within districts. Concern was also expressed over the methodology used in establishing the various zones used to determine prices for delivery of coin and currency; in the opinion of some commentators, the zones appeared to be arbitrary. Questions were also raised concerning the proposed service levels. Commentators also expressed the opinion that the proposed prices and service levels could cause a deterioration in the quality of currency. Several commentators also were concerned that full cost recovery for these services would result in significant increases in charges for rural and remote endpoint deliveries as urban institutions drop the services.

The Board believes that the commentators have raised significant concerns with respect to the currency and coin fee schedules proposed in August. Therefore, the pricing of currency and coin delivery services will be reviewed. In order to provide an opportunity for public comment on a revised schedule, the pricing of coin and currency delivery and coin wrapping services will be delayed until January, 1982.

### E. Purchase, Sale, Safekeeping, and Transfer of Securities

Only a few public comments were received on the Board's proposed fee schedule for securities services. Of those commenting, several suggested that the Treasury Department and various Federal agencies should absorb all or a portion of the costs of book-entry and secondary market transfer services offered by the Reserve Banks for Treasury and Federal agency securities.

The Treasury and various Federal agencies, which derive direct and indirect benefits from the Federal Reserve's book-entry and securities transfer services, reimburse the Reserve Banks for the expenses associated with issuing and paying book-entry securities. The aspects of these services that would be priced relate to secondary market activities—transactions between two private parties. Before the Federal Reserve offered book-entry arrangements, these transactions were handled by, and at the expense of, the parties involved. Thus, the direct benefits of the lower cost and more effective and secure services offered by the Federal Reserve for the safekeeping and transfer of these securities accrue to the users of the service. In this respect, the pricing structure provides a reasonable balance in the sharing of costs and benefits of the services between the public and private sectors.

The Board has adopted the proposed October, 1981 pricing for, and nonmember access to, securities services. A revised fee schedule will be developed, based on estimates of 1981 costs and a 16 percent private sector adjustment factor. These revised fees will be published in the first quarter of 1981.

The New York Federal Reserve Bank has for some time imposed a schedule of surcharges on securities transfers initiated by wire during peak hours. This procedure was implemented in an attempt to remedy computer capacity limitations at that Bank. The Board has authorized the New York Federal Reserve Bank to continue to apply a surcharge schedule, pending Board review of the general questions of incentive pricing in the Spring of 1981.

### F. Noncash Collection Service

The proposed fee schedule for noncash collection published in August received no significant comment. The Board adopted the proposed October, 1981 pricing for and nonmember access to, this service. As in the case of securities, fees for noncash collection services prices will be based on 1981 cost estimates and a 16 percent private sector adjustment factor.

### G. Float

The Federal Reserve's August pricing proposal suggested a three phase effort to reduce and/or price Federal Reserve float. Phase I would reduce float through operational improvements which would speed up the collection process and, thus, debit payor banks more promptly. Phase II would adjust availability schedules for depositing banks to reflect actual collection time more closely. Phase III would price any remaining float and incorporate this charge into the price of the service creating the float.

Commentators generally endorsed Phase I because payor banks and their customers will bear the greater burden of the cost of the loss of float while collecting banks will bear the lesser expense for operational improvements. A number of commentators requested the opportunity to comment on one proposed Phase I improvement, electronic check collection.

The main concern about the remainder of the Federal Reserve's float proposal centered on using fractional availability to adjust credit availability schedules to depositors. Most commentators opposed the use of fractional availability as being too complex and costly and inconsistent with general banking practice. A number of commentators also noted that Phases II and III, unlike Phase I, transfer the cost of float reduction and pricing to depositing banks.

As a result of these comments, further analysis is underway. This analysis will consider fractional availability and other float pricing alternatives such as charging the payor bank for float, expanding Phase I further to eliminate the need for Phase II, and the elimination of interterritory transportation float by the so-called "immediate advice of credit" approach. This analysis will also address the operational impact of various alternatives on the users of Federal Reserve services. Recommendations will be presented to the Board in 1981.

### VI. Cost and Competitive Concerns of Member Banks

Almost all member bank commentators expressed their concern that the Board's proposed schedule for

pricing might place them at a competitive disadvantage. They observe that they continue to bear a higher reserve burden than nonmember institutions for eight years, yet by the Fall of 1981 they would be on an equal basis with nonmembers with regard to access and charges for System services.<sup>5</sup> Many of these commentators noted that the Act does not require that pricing begin until September, 1981.

Table I shows Board staff estimates of the temporal pattern of member bank gains and losses resulting from the combination of reserve requirement reductions and pricing of Federal Reserve services under the Monetary Control Act. Line 1 indicates the likely increase in costs due to the pricing of Federal Reserve services and the reduction or pricing of Federal Reserve float. The extent to which service fee costs might be passed on to bank customers is not known and is not allowed for in the table. However, float reductions obtained through operational improvements—debiting accounts more promptly—are *not* included as a direct cost to member banks. These costs, about 50 percent of total float, will likely be absorbed by account holders at member banks who will find their accounts debited more promptly than before when cash letter presentment is expedited. Line 2 of the table indicates the gain to member banks from the reserve requirement reductions scheduled in the Act.

The net impact of these extra costs and revenues is shown in line 3. In the aggregate, member banks will experience positive net revenues under the Monetary Control Act. These aggregate figures, however, may mask possible negative net revenues for some member banks in some years. It is estimated that negative impacts, which appear to primarily affect medium size correspondent banks, would be substantially eliminated if member banks pass through only 50 percent of the direct cost of Federal Reserve priced services.

<sup>5</sup>In addition, access to System services by nonmembers may reduce member bank revenues from correspondent business. Pricing of Federal Reserve services, however, may improve a correspondent's competitive position, offset this effect, and increase correspondent revenues.

Table I.—Projected Member Bank Costs and Revenues<sup>1</sup>

	[In millions of dollars]				
	1981	1982	1983	1984	Total
1. Member bank cost of services and float.....	\$199	\$895	\$996	\$1,107	\$3,197
2. Member bank revenues from reserve requirement reductions.....	590	1,112	1,736	2,275	5,713
3. Net impact (2-1).....	391	217	740	1,168	2,516

<sup>1</sup>Uses 1980 deposit structure, 13% opportunity cost of reserves and float; 10% cost inflation rate for priced services (net of productivity improvements); 10% growth in float; 8% deposit growth rate (including NOW accounts); 1981 estimated service costs; a 16% mark-up; new pricing/access schedules; published float reduction goals; and current phase-down schedules for reserve requirements.

In evaluating the concerns of member banks, it was noted that Congress did not intend the Monetary Control Act to increase the burden on member banks.<sup>54</sup> However, any significant delay in the pricing schedule either because of equity concerns or for any other reason, would increase the cost of the Act to the Treasury in 1981 beyond those estimates provided to the Congress. It would also delay nonmember bank access to important payment services. The same increased Treasury costs results would result if temporary price discounts or earnings credits on reserves were given to member banks to reduce their cost of services during a transition period.

The Board also noted that the delays in the implementation schedule, while adopted for operational reasons, will have the effect of reducing significantly the cost burdens on member banks in 1981. When considering the advisability of taking additional steps to reduce the relative burden of members, the following factors were evaluated: (1) the difficulty of identifying those specific member institutions liable to incur serious initial adverse impacts; (2) the operational complexity inherent in any remedy designed to ameliorate the actual incidence of these impacts; (3) the possibility that members initially adversely affected could offset these impacts by passing through to their customers the costs of Federal Reserve services; and (4) the consequent increases in Treasury costs. The Board concluded that the adoption of an additional delay in service access and pricing, a price discount policy for members, or earnings credits on member

bank reserve balances is unwarranted at this time.

By order of the Board of Governors of the Federal Reserve System, December 30, 1980.  
**Theodore E. Allison,**  
*Secretary of the Board.*

#### Appendix I—The Private Sector Adjustment Factor (PSAF)

In accordance with the Monetary Control Act of 1980 the Federal Reserve is required to price its services to reflect its actual costs plus the financing and tax costs that a private sector supplier would incur. Since the System's cost accounting information does not include these private sector costs, it is necessary to derive an adjustment factor or mark-up to apply to the System's cost accounting data.

The first step in deriving the private sector adjustment factor requires a determination of the value (at historical cost) of the System's assets employed in the production of priced services. The value of assets used by the System to execute its central bank functions, supervisory and regulatory responsibilities, and duties as the Treasury's fiscal agent have been excluded. The composition of the asset base for priced services is shown in Table 1 and totals \$284.9 million.

The capital structure is assumed to approximate that of large correspondent banks' payments function service operations. It is comprised of 45% debt (21% short-term and 24% long-term) and 55% equity. When the average tax and interest rates and the average rate of return on equity of the sample of large banking organizations are applied to this capital structure, a 15.4% private sector adjustment factor is derived.<sup>6</sup> Although the Board accepted the methodology used to derive the 15.4% mark-up, it adopted a 16.0% private sector adjustment factor. The Board decided that a rounding up of the PSAF was appropriate in this instance, after giving consideration to the inherently limited precision of the procedures used to derive the PSAF.

As indicated above, the Board proposed a 12% PSAF in August. Commentators asserted that a 12% PSAF substantially underestimated the tax and financing costs borne by the System's private sector competitors. The under-estimate was attributed to five major sources: (1) the failure to reflect 1980 cost of funds data, (2) the improper treatment of interest on deposits subject to Regulation Q, (3) the use of tax rate

reflecting tax benefits not necessarily available to correspondent operations, (4) the use of a capital structure which did not coincide with that observed for private sector suppliers, and (5) the use of an alternative model for the computation of the PSAF (bank service corporations). These concerns are discussed below.

*Use of 1980 Cost of Funds.* The earlier 12 percent mark-up was based upon information published in the annual reports of 12 large banking organizations for year-end 1979.<sup>7</sup> These data were updated using financial reports for the third quarter of 1980. The average interest rates on all types of debt rose between year-end 1979 and the third quarter 1980, with the increase in the average interest rate on short-term bank funds being relatively large.<sup>8</sup> Using updated cost information, the proposed mark-up increased 0.8 of a percentage point to 12.8 percent.<sup>9</sup>

*Low Cost of Short-term Bank Debt.* A number of commentators felt that the average interest rate for short-term debt used in the August proposal (6.91 percent) was too low. They attributed this to a failure to recognize the effective, as opposed to the contractual, rate of interest paid on deposits subject to Regulation Q. They contended that deposits arising from payments function operations would typically earn an implicit rate of interest (in the form of services provided to depositors). In addition, the non-deposit components of short-term debt did not include interest paid on several categories of discount liabilities, such as acceptances, since such information cannot be identified on banks' financial reports. The interest rate paid on these liabilities is at a market rate. To the extent that banks' payments function operations require short-term financing from non-deposit sources, such financing would therefore be obtained at market rates.

<sup>7</sup> The financial reports of BankAmerica, Citicorp, Chase Manhattan, Manufacturers Hanover, J. P. Morgan, Chemical, Continental Illinois, Bankers Trust, First Chicago, Western Bancorporation, Security Pacific and Wells Fargo were used.

<sup>8</sup> Numerous commentators urged the adoption of mark-up based on the marginal tax rate, interest rates on debt, and rate of return on equity rather than the average rates. The Board believes that it would be inappropriate to use marginal costs because the mark-up is intended to impute the financing costs that the Federal Reserve itself would be incurring on its existing capital equipment as if it were a private business firm.

<sup>9</sup> Using data for the first three quarters of 1980, the average interest rates were 8.17% for short-term debt and 8.66% for long-term debt. The pre-tax average rate of return on equity was 20.3%.

<sup>54</sup> For example, Senator Proxmire, during Senate consideration of the Monetary Control Act, said that:

It is not the intent of the legislation to provide access to Fed services immediately or without charge. To do so would put members at a competitive disadvantage since they are now holding reserves that are interest free, and those reserves will be gradually reduced over four years. Nonmember reserves will be phased-in over eight years, so the combination of that long phase-in period and the fee schedule will have to be taken into consideration. After the eight year period there will be no differences in reserves, nor should there be differences in access to Fed services, but until then it is likely that there will be differences. The final judgment on just what those differences will be is left to the Federal Reserve Board. 126 Cong. Rec. S 3167 (March 27, 1980).

<sup>6</sup> This PSAF is based upon a cost of capital of 16.8% as described in footnote 3 to Table 2.

In light of these arguments, the Board adopted a revised procedure for the calculation of the average interest rate on short-term debt. By deleting domestic demand deposits from the calculation of the average short-term interest rate, the revised procedure (in addition to updating to 1980) increase the average interest rate on short-term funds to 10.44 percent and raised the mark-up by an additional 0.7 of a percentage point to 13.5 percent.

**Changing the Tax Rate.** The tax rate used in the August proposal was 26 percent, the value-weighted average of the effective tax rates applicable to all of the operations of the 12 large banking organizations.

First, some confusion arose because the procedure employed to calculate the tax rate is not that typically used by accountants. Several different measures of tax rates have been developed. Accountants compute a firm's tax rate in any given year by dividing its tax liability by gross income. This procedure can be misleading from an economic standpoint. The tax liability associated with the gross income recognized in any year can be dichotomized into taxed paid (due) in that year and taxes which will not be remitted until another year. The latter component is known as deferred taxes. Deferred taxes should not be treated as a cost in the year they are declared. The 26 percent tax rate used in the August proposal was an average of effective tax rates, each computed by dividing taxes paid by gross income.

A second criticism of the 26 percent tax rate was that it exaggerated the tax benefits associated with correspondent operations. Commentators concentrated on the inclusion of tax benefits that banks derive from their portfolios of tax-exempt State and local government securities and other tax preferred assets, such as leases. The commentators argued that tax exempts are not held in conjunction with, or as a result of their payments function service operations and the relevant tax rate is therefore substantially closer to 46 percent (the statutory Federal rate).

The Board accepted the concept that each function of a bank should be assumed to pay taxes at a rate that would be associated with the income and tax rate applicable to a particular bank operation. Publicly available financial reports provide little specific information on this matter. As a result of the uncertainty surrounding the effective tax rate appropriate to payments function operations, the Board's August proposal used an average effective tax rate reflecting the average effective tax

rates of all operations undertaken by banks.

While the Board found merit with the commentators' concern that the average effective tax rate associated with payments function operations is higher than that of the bank as an integrated entity, the Board did not adopt an average rate for several reasons. First, the plant and equipment employed in these operations would yield two forms of tax benefits. To the extent that a faster depreciation schedule is used for tax purposes than for financial reporting, deferred taxes would arise. In addition, newly acquired plant and equipment may have qualified for investment credits. Not only would it be inappropriate to ignore these benefits, but it should be recognized that correspondent payment services are relatively capital intensive and would therefore provide a greater relative tax benefit to these organizations than to the bank as an integrated entity.

Other factors are related to the treatment of a particular function's earnings. If earnings from payments function services are reinvested in another function, but all revenues, costs, and tax benefits are passed back to the payments function operation, that operation can exploit the full range of tax benefits (including those from State and local securities, loan loss provisions, and leasing activities) available to the bank as an integrated entity. Economic theory provides some support for this position. To the extent that a bank achieves cost economies by integrating different operations, the costs (including taxes) of the individual operations are not additive. That is, the sum of the costs that each operation would independently incur is greater than the bank actually incurs because of its ability to exploit economies of offering diverse services. Where there are customer tie-ins between services, the cost of offering a package of services can be less than the cost of providing the same combination of services separately.

Cognizant of these factors and the difficulties involved with their accurate measurement, the Board decided to increase the effective tax rate to 34%. This estimate of the effective tax rate applicable to payments function operations was obtained by calculating the average effective tax rate on tax-equivalent income for the sample of twelve large banking organizations. The higher effective tax rate caused the pre-tax rate of return on equity to increase to 22.7 percent (based on the updated 1980 costs) and thereby caused the

mark-up to increase by an additional 1.1 percentage points to 14.6 percent.

**Underlying Capital Structure.** The 12 percent mark-up was based on a capital structure midway between those underlying the two alternative mark-ups presented to the Board in August. The capital structure underlying both markups exhibited characteristics of the capital structure of twelve large banking organizations. The capital structure consistent with the lower mark-up replicated the average capital structure of the sample. Therefore, it was characterized by a very high proportion of short-term debt (assumed to include deposits) relative to the proportion of long-term debt and equity. The capital structure used to derive the higher mark-up was composed only of long term debt and equity. While not necessarily inappropriate, it was not obvious that the compromise capital structure would change in a systematic fashion as the composition of System assets devoted to the provision of priced services changed.

The Board adopted an alternative approach assuming that the System has a "matched" capital structure. With such a structure all of the System's "long-lived" assets are assumed to be financed with long-term debt and equity and all of the System's "short-lived" assets are assumed to be financed with short-term liabilities. Under this approach, the assumed Federal Reserve capital structure is dependent upon the composition of the System's assets devoted to the provision of services.<sup>10</sup> Compared to the capital structure assumed in the August proposal, the "matched" capital structure has a lower proportion of short-term debt and a higher proportion of long-term debt and equity. By employing a "matched" capital structure, updating the financing costs to third quarter 1980, revising the procedure used to compute the average interest rate on short-term funds, and increasing the effective tax rate, a markup of 15.4 percent was generated. The procedure involved in the computation of the mark-up is presented in Table 2. Recognizing the imprecision inherent in any attempt to impute the

<sup>10</sup> Federal Reserve buildings, furniture, equipment and other real estate were classified as "long-lived" and assumed to be financed by 30 percent long-term debt and 70 percent equity. These percentages were based upon 12 large banking organizations' composition of long-term debt or equity as a percent of long-term debt plus equity. Short-lived assets (difference and suspense accounts, net, and deferred charges) were assumed to be totally financed by short-term debt. With this approach, the assumed Federal Reserve capital structure becomes 21 percent short-term debt, 24 percent long-term debt, and 55 percent equity. Table 1 provides more detailed information regarding the System's assets devoted to the provision of priced services.

financing costs incurred and taxes paid by private sector suppliers, the Board rounded the private sector adjustment factor up to 16 percent.<sup>11</sup>

**Table 1.—Assets Employed in the Production of Priced Services<sup>1</sup>**

[Dollars in millions, 1979]

<b>"Short-lived" assets:</b>	
Difference and suspense acct., Net <sup>2</sup>	\$134.3
Deferred charges <sup>3</sup>	3.4
<b>Total<sup>4</sup></b>	<b>137.7</b>
<b>"Long-lived" assets:</b>	
Bank premises, net	409.3
Furniture and equipment, net	85.1
Other real estate	27.4
<b>Total</b>	<b>521.8</b>
<b>Total assets</b>	<b>659.5</b>
<b>Assets of priced services<sup>5</sup>: \$659.5 (.432)</b>	<b>284.9</b>
"Short-lived" assets	59.5
"Long-lived" assets	225.4

<sup>1</sup>Source: Board of Governors of the Federal Reserve System, *Annual Report*, 1979.

<sup>2</sup>The Difference and Suspense Account, Net figure in Table 1 is not equal to the net figure that can be computed from data presented on pp. 308-9 (\$181.9 million) of the *Annual Report* for two reasons. First, the *Annual Report* figures refer only to year-end 1979. Since this value fluctuates month to month over the year, an average of the 12 month-end figures over 1979 (giving \$292.0 million) was used. Second, the figure reported in Table 1 incorporates the estimated impact of an important accounting change made in 1980. This accounting change transferred some 54% of the net Difference and Suspense Account value to check float, where it more properly belongs. This 54% figure is based upon the average of check suspense items (net) to total suspense items (net) for the first three months of 1980 at all Reserve Banks. Thus, the Difference and Suspense Account, net figure, shown in the Table was computed as \$134.3 million = (1-.54)\$292.0 million.

<sup>3</sup>Deferred Charges are not separately reported in the *Annual Report*, but are included in the "All Other" figure on p. 308.

<sup>4</sup>A preliminary fee schedule for check and ACH services was forwarded to Congress in November 1978. At that time "Overdrafts" were included among the System assets to be financed. They are no longer treated in that manner because an institution incurring an overdraft can be required to maintain excess balances equal to the amount of the overdraft in the subsequent period in addition to being penalized at a rate of ten percent. Therefore such overdrafts are, in effect, "self-financing".

<sup>5</sup>Those assets which could be explicitly identified as supporting a nonpriced service are not included in Table 1. Other assets which supported both priced and nonpriced services required different treatment. The cost of priced services (less shipping expenses) represented 43.2% of total System costs (less note issue and shipping expenses). This ratio is applied to the total asset base of \$659.5 million (which supports both priced and nonpriced services) to determine the value of assets allocable to the priced services alone. Shipping and note issue expenses represent "passed through" private sector or U.S. Treasury costs and are excluded from the ratio since little or no Federal Reserve assets are involved in their production.

**Table 2.—The Calculation of the Private Sector Adjustment Factor**

[Dollars in millions]

<b>Capital structure:<sup>1</sup></b>	
Short-term debt	21
Long-term debt	24
	59.5
	67.4

<sup>1</sup>The Board rejected a mark-up of 20 percent that was based on bank service corporations' average cost of capital. Although several commentators advocated the adoption of such a model, data were available only for relatively small firms and these did not offer a mix of services comparable to that offered either by the Federal Reserve or large correspondent banks. A disproportionately large share of the processing performed by the firms in the sample involved local checks and the preparation of accounting statements as opposed to a wide range of payments services of a local and nonlocal nature.

**Table 2.—The Calculation of the Private Sector Adjustment Factor—Continued**

[Dollars in millions]

<b>Percent</b>	
Equity	55
Asset base	100
<b>Financing costs:<sup>1</sup></b>	
Short-term debt (at 10.44 percent)	\$6.2
Long-term debt (at 8.68 percent)	5.8
Equity (at 22.7 percent, before taxes)	35.9
<b>Total assumed financing and tax expenses</b>	<b>47.9</b>
Cost of system services to be marked up	310.7
<b>Private sector adjustment factor (percent)<sup>2</sup></b>	<b>15.4</b>

<sup>1</sup>Using the "matched" capital structure, it is assumed that all "short-lived" assets (valued at \$59.5 million in Table 1) are financed exclusively with short-term debt and that all "long-lived" assets (valued at \$225.4 million in Table 1) are financed with a combination of long-term debt and equity. The particular combination used, 30% long-term debt and 70% equity, was the average ratio of long-term debt to long-term debt plus equity for 1979 as well as the five year period from 1975 through 1979 for 12 large banking organizations.

<sup>2</sup>During the first 9 months of 1980 the 12 large banking organizations sampled paid an estimated average effective short-term interest rate of 10.44% and an average long-term interest rate of 8.6%. Their average after-tax rate of return on equity was 15.0%. The 34% effective tax rate was derived using year-end 1979 data due to the absence of an allocation of the tax liability into current and deferred categories and the absence of a report of the tax benefits derived from holdings of State and local securities in the financial reports for the third quarter of 1980. Using the 34% effective tax rate, an average pre-tax rate of return on equity of 22.7% was computed.

<sup>3</sup>The PSAF =  $(47.9/310.7) \times 100$ . The average pre-tax cost of capital is  $21(10.44\%) + 24(8.68\%) + 55(22.7\%) = 16.8\%$ .

**Appendix II—Service Descriptions**

**A. Wire Transfer of Reserve Account Balances Service**

Wire transfer services provide for the immediate movement of funds between any two depository institutions which maintain accounts with the Federal Reserve.

Five levels of services are available: (1) on-line origination of a transfer without telephone advice (notification) to the receiver, (2) on-line origination of a transfer with telephone advice to the receiver, (3) off-line origination without telephone advice to the receiver, (4) off-line origination with telephone advice to the receiver and (5) off-line receiver requesting telephone advice where none has been requested by the originator.

The most common wire transfer transaction is originated from an on-line terminal or computer at a depository institution and processed through the Federal Reserve's automated communication facilities with immediate settlement and transmission of an advice to the receiving depository institution's on-line terminal or computer. Off-line origination of a transfer allows depository institutions without on-line facilities to initiate wire transfers by telephone request to a Federal Reserve office. Except for initiation by telephone, off-line wire transfers are processed in the same

manner as on-line transactions. Telephone notification to an off-line receiver provides information concerning funds credited to their accounts earlier than would otherwise occur.

The originator will be charged for the wire transfer services including a fee for telephone advice to an off-line receiver if requested by the originator. If the receiver has instructed the Reserve Bank office to provide telephone advice when none has been requested by the originator, the off-line receiver will be charged for the telephone advice. If the originator requests that telephone advice be provided to a receiver and the receiver has a standing order, the originator will be charged not the receiver.

**B. Net Settlement Service**

The net settlement service is the posting of debit and credit advices generated by a third party to accounts held on the books of the Federal Reserve.<sup>12</sup> The third party is typically a provider of financial services to depository institutions (e.g., a private sector clearing house, credit card associations, funds transfer system, etc.) who normally processes a large number of transactions among its member institutions. In addition to sorting, delivering or communicating data, the third-party maintains records of these transactions. At the end of a business day, the third party sums all transactions for each institution and delivers or transmits to the Federal Reserve the entries to effect settlement among the participating institutions. Charges for the net settlement service will be calculated based on the number of entries in each settlement and will be levied against either the third party ordering the settlement or each institution participating in the settlement.

**C. Automated Clearing House Services**

The ACH service is the clearing, settling and delivery of electronic payments. Fees for automated clearing house (ACH) service reflect costs based on an expected mature volume and are applicable at all Federal Reserve operated clearing and settlement facilities. These fees include receiving sorting, reconciling, settling and delivery of both debit and credit ACH transactions. The fee for the Federal Reserve Bank of New York reflects the local ACH processing done by the

<sup>12</sup>Gross settlement, that is, the posting of debits and credits associated with the direct use of other Federal Reserve services, is not charged for separately since its cost is of necessity included in the fee for each service.

private sector with only settlement and transportation provided by the Federal Reserve.

**1. *Intra-ACH transactions***

Intra-ACH transactions are processed by only one Federal Reserve Bank ACH facility.

**2. *Inter-ACH transactions***

Inter-ACH transactions are processed by at least two facilities.

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