Federal Reserve Pricing—A New Era

By Peggy Brockschmidt and Carl Gambs

The provision of services to member banks has always been an integral part of Federal Reserve operations. One of the reasons for the creation of the Federal Reserve System in 1913 was a general dissatisfaction with the nation's payment system and the desire to create an institution that could facilitate interregional transfers of funds.[1] Throughout its history, therefore, the Federal Reserve has had an important role in the payments system. In addition to payments services, the Federal Reserve also has provided a number of services in the securities area which can be viewed as an outgrowth of its role as the fiscal agent of the U.S. government.

Central bank provision of services to depository institutions is not unique to the United States, although the extent to which such services are provided varies widely among central banks.[2] In Canada and the United Kingdom, for example, the only services made available by the central bank are the provision of currency and coin and the use of deposits for settlement purposes. In West Germany and Switzerland, on the other hand, the central bank has provided an array of services similar to those provided by the Federal Reserve.

The Federal Reserve traditionally has provided its services only to member banks and has not charged banks for those services. The noninterest-bearing reserves that member banks are required to hold have been thought to

[1] The National Monetary Commission had made a special study of the clearing system and had concluded that it was seriously deficient. See U.S. Congress, Senate, National Monetary Commission, *Clearing Houses,* by James Graham Cannon, S. Doc. 491, 61st Cong., 2d sess., 1910. The commission's report noted, "We have no effective agency covering the entire country which affords necessary facilities for making domestic exchanges between different localities and sections, or which can prevent disastrous disruption of all such exchanges in time of serious trouble." Its proposed National Reserve Association was specifically authorized to handle checks and transfer funds among banks. See U.S. Congress, Senate, National Monetary Commission, *Report,* S. Doc. 234, 62d Cong., 2d sess., Washington, D.C.: Government Printing Office, 1912, pp. 7-8, 62-63.

Section 16 of the Federal Reserve Act dealt with these concerns by specifically authorizing the Reserve Banks to accept checks for collection.

[2] A survey of services provided by foreign central banks is found in U.S. Congress, Senate, "Universal Reserve Requirements, Interest on Reserves, and Charges for Services: A Comparison of 12 Central Banks with the Federal Reserve System," by Evan Migdail and Steven M. Roberts, *Federal Reserve Requirements Act of 1978, Hearings before the Committee on Banking, Housing, and Urban Affairs on S. 3304.* 95th Cong., 1st sess., 1978, pp. 304-31.

Peggy Brockschmidt, formerly an associate economist with the Federal Reserve Bank of Kansas City, is now assistant manager of the Bank's Operations Services Department. Carl Gambs, formerly a financial economist, is vice president in charge of Operations Services.

be adequate to cover the cost of providing services. However, the Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) drastically alters this situation. DIDMCA requires that the Federal Reserve provide services on an equal basis to all depository institutions, and further requires that the Federal Reserve charge both member and nonmember institutions for services provided. Because of these requirements, a new era has begun in the provision of Federal Reserve services.

This article provides an overview of Federal Reserve pricing, explains the rationale for pricing, and outlines some of the implications of the new era that the Federal Reserve is entering. The first section of the article briefly describes the various services offered by the Federal Reserve and provides data on the extent to which these services are used by Tenth District member banks. The background of DIDMCA and its pricing provisions are then presented, followed by a discussion of the Federal Reserve's pricing principles. The article then discusses the implementation of pricing of individual services and the economic case for pricing. Finally, the implications of Federal Reserve pricing are analyzed.

FEDERAL RESERVE SERVICES

The operations of the Federal Reserve System are conducted through 12 regional Federal Reserve Banks. The Banks help to provide an efficient nationwide payments system, act as the U.S. government's bank, or "fiscal agent," and provide several related securities services to member banks.[3]

[3] For a more detailed discussion of services provided by the Federal Reserve, see *Federal Reserve Services*, Federal Reserve Bank of Kansas City, September 1980. Regulations and operating letters of the Federal Reserve also provide extensive information on various specific services.

Payments System

The Federal Reserve Banks, along with their 25 branches and 11 regional check processing centers (RCPC's), play a major role in the payments mechanism through their operational and regulatory presence in check collection, automated clearing houses (ACH's), wire transfer of funds and securities, and the distribution of coin and currency. Since these services in the past have been directly provided only to member commercial banks, this role of the Federal Reserve has sometimes been referred to as being a "bankers' bank."

Check Collection. In 1980, 34 billion checks were written in the United States. Of this total, approximately 45 percent passed through at least one Federal Reserve office. After the deposit with the Federal Reserve of a cash letter, which is a group of checks deposited by one institution, a check is sorted to the institution on which it is drawn and then delivered to that institution or to its processor. Credit and payment for cash letters are done through accounts maintained at the Federal Reserve. An institution's own account or a correspondent's account may be used for these debits and credits.

The availability of credit for checks deposited with the Federal Reserve is predetermined by the location of the institution on which the check is drawn and the time of day the checks are received at the Federal Reserve. Later deadlines are available if the depositor does additional sorting prior to the deposit so that the Federal Reserve does minimal sorting.

Although all member banks are eligible to deposit items, many choose not to, preferring instead to deposit items with large correspondent banks. Generally, the larger the institution, the more likely it is to deposit. Only about one-fourth of Tenth District member banks directly deposit cash letters. Of this group of about 200 banks, one-fifth take advantage of a "mixed" or "unsorted" cash letter program, which allows them to deposit all checks, regardless of availability, in one cash letter. Only small banks—those with fewer than 5,000 items each day—are eligible for this program.[4] Other institutions deposit sorted cash letters, which separate items by the location of the institution on which the check is drawn.

ACH. Electronic exchanges provide a small, but rapidly growing, means of payment that can substitute for checks. In 1980, more than 227 million ACH items were processed by the Federal Reserve System. While U.S. government payments account for the bulk of all items, privately originated items furnish a rising proportion of the total. Currently, all institutions that are members of either the Federal Reserve or their regional automated clearing house associations are eligible to send items. ACH associations set rules of operation, but the Federal Reserve processes items, delivers them, and debits and credits accounts for payment.

Funds Transfer. An electronic communications network linking all Reserve Banks and many depository institutions provides for wire transfer of funds from one Federal Reserve account to another. Forty-three million transfers with an average value of $1.8 million were sent in 1980. Wire transfers are used primarily for transactions in federal funds and repurchase agreements and for transfers of corporate funds. Institutions not directly linked to the communications network may call the Federal Reserve to request transfers and may receive telephone notification of receipt of a funds transfer to their account.

Funds transfers are one of the most extensively used Federal Reserve services. In one week in May 1980, 84 percent of Tenth District member banks sent at least one wire, and 91 percent received at least one. Banks with under $10 million in total deposits generally make only limited use of many Federal Reserve services; however, even two-thirds of these smaller banks use funds transfer services. Direct access to the funds transfer network through an in-house terminal encourages funds transfer use, and about one-quarter of all Tenth District member banks have such a terminal.

Net Settlement. The net settlement service provides a mechanism for posting to a number of accounts at the Federal Reserve a series of debits and credits that settle many underlying transactions. For example, a local check clearing house may process many transactions for its members. At the end of a day, the clearing house nets out all transactions and the Federal Reserve posts only one debit or credit for each clearing house member.

Currency and Coin. The Federal Reserve distributes currency and coin to commercial banks by armored carrier or mail. In addition, the Federal Reserve examines returned currency, destroys unfit currency, and prepares fit currency for redistribution. Most coin is delivered loose in bags, although some Federal Reserve offices provide wrapped coin at an additional charge.

Delivery of currency and coin is a widely used Federal Reserve service. In 1979, 95 percent of all Tenth District member banks received shipments. Frequency of service depends on both the size and the location of an institution. Large banks in Federal Reserve cities generally receive currency and coin daily, while small banks outside Federal Reserve cities might receive shipments only once every two weeks.

Fiscal Agent

The Federal Reserve is responsible for the initial sale of all U.S. government and most government agency debt instruments and for the subsequent payment of interest and principal on these securities. The Federal Reserve

[4] In the Tenth District, the deposit limit has been raised to 10,000 items, effective August 1, 1981.

also moves government funds initially deposited in Treasury Tax and Loan accounts or other Treasury accounts at depository institutions to Treasury accounts at the Reserve Banks. As fiscal agent, the Federal Reserve deals with depository institutions, businesses, and individuals rather than limiting its services to member banks. Since the Reserve Banks are reimbursed by the Treasury for services they perform as fiscal agents, these services will not be priced.

Related Securities Services

As an offshoot of its role as issuer of U.S. government securities, the Federal Reserve holds securities in safekeeping for member banks. Banks have a number of reasons to keep the securities they own outside their own vaults. Easier access to national money markets, increased security, and pledging requirements have induced most member banks to store securities with the Federal Reserve.

Book-Entry Safekeeping. Marketable government securities are issued in both book-entry form (a record stored in a computer) and in definitive (paper) form. All Treasury and most agency securities owned or held by member banks may be stored at the Federal Reserve in book-entry form for safekeeping.[5] Banks may open separate accounts for various activities or may hold securities in a general account.

Book-entry form facilitates transfers between separate accounts of the same institution and between institutions. Transfers of book-entry securities from one institution to another, sometimes known as CPD (Commissioner of the Public Debt) transfers, are made through the same communications network used for wire transfer of funds.

Definitive Safekeeping. In addition to the Treasury and agency securities held in book-entry form for member banks, the Federal Reserve also holds, in definitive form, municipal and corporate securities owned by certain member banks. Some securities held in safekeeping are pledged as collateral for Treasury deposits at the member bank, for other public funds, or for borrowings from the Federal Reserve, but many other securities are unpledged.

Purchase and Sale. Most Reserve Banks, as a service to member banks outside Federal Reserve cities, will buy and sell Treasury and agency securities in the secondary market. This service is a very limited one, and investment advice is not included.

Noncash Collection

Items such as matured municipal and corporate coupons, matured municipal and corporate securities, and bankers' acceptances may be presented for collection to the Federal Reserve by member banks. Items are then presented to the paying agent for that security by the Federal Reserve. Coupons and matured securities held in definitive safekeeping at the Federal Reserve are also collected.

PRICING AND THE MONETARY CONTROL ACT

The Federal Reserve first announced its intent to consider pricing its services in 1975, although it later stated that pricing would not begin until the issue of declining Federal Reserve membership had been resolved. A specific schedule of check and ACH prices was

[5] Definitive securities deposited with the Federal Reserve are converted to book-entry form if possible. Agency securities not eligible for book-entry form include short-term instruments of the Federal Home Loan Bank System and the Farm Credit System, and mortgage participation certificates issued by the Government National Mortgage Association, the Federal Home Loan Mortgage Corporation, and the Farmers Home Administration.

published for comment in 1978,[6] along with a brief discussion of the objectives of pricing and of the cost methodology employed. However, no further work on pricing was made public until the passage of the 1980 Act.

The 1980 Legislation

The passage of the DIDMCA on March 31, 1980, marked the culmination of efforts by Congress and the financial community to reform the financial structure of the United States. As such, it represents the single most important piece of financial legislation since the banking legislation of the 1930s.[7]

Long-standing pressures for reform of the financial structure had resulted in the establishment of a number of study groups. The Commission on Money and Credit (1964), the Hunt Commission (1972), and the Financial Institutions and the Nation's Economy study (1975) all proposed major changes. The specific thrust for passage of a package of financial reforms was provided by the U.S. Court of Appeals in April 1979. Federal regulators had previously authorized automatic transfer accounts at banks and share draft accounts at credit unions. The Appeals Court ruled that regulators did not have the power to take those actions and that Congressional approval for such accounts would have to be obtained if the accounts were to continue after December 31, 1979. A temporary authorization by Congress extended the deadline to March 31, 1980. The high level of interest rates in early 1980 was an additional spur to the passage of the legislation. Since market rates were well above the usury and deposit ceiling rates, a number of distortions occurred in financial flows. In response, a sweeping legislative package that dealt with most of the important issues was passed by Congress.

Title I—The Monetary Control Act of 1980—authorized the Federal Reserve to collect financial information relevant to monetary policy from all depository institutions, to require reserves against specific types of deposits, and to price Federal Reserve services and provide equal access to those services.

Other areas of the legislation removed ceilings on interest rates or made them more responsive to market changes. Regulation Q, which limits interest rates paid at banks and savings and loan associations, is to be gradually phased out. Also, state mortgage rate ceilings have been eliminated temporarily, and the ceiling on small business and agricultural loans has been tied to a market-based rate.

Permanent authority was granted for automatic transfer accounts and share drafts, and NOW account authority (formerly limited to New England, New York, and New Jersey) was extended to all 50 states. Also, savings and loans were granted new powers in the areas of consumer loans, credit cards, and trust activities. The final sections of the Act simplified some provisions of Regulation Z (Truth in Lending), made minor revisions in national banking laws, urged regulatory simplification, and provided a temporary moratorium on foreign acqusition of U.S. financial organizations.

MCA and Pricing

The Monetary Control Act (MCA) gave the Federal Reserve new powers and responsibilities in pricing its services by adding a new section to the Federal Reserve Act. This amendment required that the Board of Governors publish for comment a set of pricing principles and a fee schedule by September 1, 1980, and

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6 See Press Release from the Board of Governors of the Federal Reserve System, "Proposal for Pricing of Federal Reserve Check Collection and Automated Clearing and Settlement Services," Washington, D.C., November 17, 1978.

7 For a more detailed discussion of the Act, see "The Depository Institutions Deregulation and Monetary Control Act of 1980," *Economic Perspectives*, Federal Reserve Bank of Chicago, September/October 1980.

further required that pricing and access begin by September 1, 1981. Specific services to be priced and some principles to be used in setting prices were listed in the Act. Finally, the Act provided that reductions in the volume of operations at the Reserve Banks were to be followed by commensurate budget cuts.

FEDERAL RESERVE PRICING PRINCIPLES

The Federal Reserve has adopted seven pricing principles to promote the goals of economic efficiency, innovation, and equity among providers and users of Federal Reserve services. Four of these principles were mandated by Congress in the MCA—explicit pricing, equal access, full recovery of costs, and charging for float. The remaining three principles were added by the Board of Governors and include recovery of costs within a service area, flexible administration, and incentive pricing.[8]

Explicit Pricing

To foster economic efficiency and competition, Congress mandated that charges for services be explicit. Alternatively, services might have been made available as an implicit return for holding balances with the Federal Reserve. Since the early years of the Federal Reserve System, services have been offered at no explicit charge to member banks as an inducement to membership. Similarly, in the correspondent banking industry, respondent institutions hold balances with their correspondent to meet state reserve requirements and to compensate the correspondent for the services it provides. Critics have maintained, however, that a more efficient distribution of resources and greater price competition would result from the setting of explicit fees, as relative costs could then be more easily compared.

Equal Access

To ensure equity among users of services, Congress required that availability and pricing of services be the same for both member and nonmember depository institutions. Some discussions, underway when the membership question was still unresolved and reserve requirements were unequal, had suggested that lower prices be charged to member banks as a partial offset to their higher reserve levels.

Full Recovery of Costs

To ensure equity among providers of services, Congress required the Federal Reserve to recover all costs of producing services, including a markup equivalent to a profit margin for a private firm.[9] This principle encourages the Federal Reserve to act as a private, profit-maximizing firm would act. Pricing below its full costs would give the Federal Reserve an unfair competitive advantage over private sector competitors, while pricing above full costs would take advantage of the Federal Reserve's near-monopoly in some services. Costs are required to be recovered only "in the long run" so that large volume shifts or development costs will not unduly affect price changes. However, with the exception of ACH services, prices are initially based on current average costs.

The Federal Reserve, as a quasi-govern-

8 See Press Release from the Board of Governors of the Federal Reserve System, "Fee Schedules and Pricing Principles for Federal Reserve Bank Services," Washington, D.C., December 31, 1980.

9 The private sector adjustment factor "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" and is currently set at 16 percent. This factor, which will be used to mark up all costs except transportation and ACH costs, is a substantial increase over the 12 percent markup proposed in September 1980.

For a further discussion of the private sector adjustment factor, see Appendix I, "Fee Schedules and Pricing Principles for Federal Reserve Bank Services."

mental entity, has public responsibilities that will sometimes prevent it from acting as its private competitors would. Therefore, this principle allows the Federal Reserve an exception to full-cost recovery in two special cases that are reiterated in the principles added by the Board of Governors. The exceptions are "due regard to competitive factors" and "provision of an adequate level of such services nationwide."

Interest on Float

Float arises when credit is given to some institutions before payment is obtained from others. Increased Federal Reserve float, all else equal, will decrease Treasury revenues since the Federal Reserve securities portfolio must be reduced to offset the effect on reserves of increased float. Congress has added this principle to ensure that the Federal Reserve either eliminate float or recover its cost. Either action would have the effect of increasing Treasury revenues.

Recovery of Costs in Each Service Area

Congress required that the total revenues for all priced services match costs of all services. The Board of Governors narrowed that principle and required that revenues cover costs in each service area. Therefore, as an example, revenues from wire transfer services cannot be used to cover a portion of check collection costs. An exception to full-cost recovery is made for abrupt volume shifts that temporarily put short-run costs above long-run costs. Also, this principle reiterates that providing a minimum level of services nationwide might require subsidization of some services.

Flexible Administration

Service levels and accompanying fees will be changed in the future in response to changes to market demand or in the costs of providing services. For example, pricing may well reduce the demand for secondary market purchase and sale of securities, in which case the service could be dropped. Alternatively, some other services that complement existing services might be added. Current plans call for a review of prices at least annually.

Incentive Pricing

Special prices may be set to encourage efficient utilization of resources. First, the Federal Reserve might assess lower charges for work done outside of peak hours. For example, deposit of checks and sending of wire transfers early in the day would allow better distribution of workload. Second, incentive pricing such as that used for ACH services can be used to induce long-run improvements in the payments mechanism. The use of long-run ACH costs that are estimated to be substantially lower than short-run costs will encourage ACH and discourage growth in check volume.

IMPLEMENTATION OF PRICING

The implementation of service pricing required decisions on the schedule for beginning the pricing of each service, on the level at which prices would be set, and on clearing balances and billing procedures. These decisions were made by the Board of Governors and are standard throughout the Federal Reserve System.

Schedule

As noted earlier, the Monetary Control Act requires the Federal Reserve to begin to put its schedule of fees into effect by September 1, 1981. To allow both the System and users of Federal Reserve services a gradual adjustment, the services will be priced, and access given to nonmembers, in stages (Table 1). Basic wire transfer and net settlement charges began on January 29, 1981. Check collection charges, which account for about 70 percent of the dollar cost of all Federal Reserve priced services, are scheduled to begin August 1, 1981, along with charges for ACH service. Securities services and noncash collection pricing begins in October 1981, while currency and coin transportation charges will begin in January 1982.

Level of Pricing

As previously discussed, prices are being set to recover costs plus a private sector adjustment factor, or markup. For those services that are uniform and capital-intensive—such as wire transfer and ACH—a single national price has been set to recover all national costs. For labor-intensive services such as securities services, varying labor costs among Federal Reserve Districts led to pricing at the District level. In the cases of check collection and currency and coin services, where transportation costs are an important factor in cost variance, smaller geographic areas were used to match costs and revenues.

Clearing Balances and Billing

The pricing principle requiring equal access for member and nonmember institutions states that special requirements, such as a reserve balance sufficient for clearing purposes, may be imposed on certain institutions. In the early years of the nonmember phaseup to full reserve requirements, few of these institutions would have reserve balances large enough to clear a significant volume of transactions. Later, when reserve requirements for member banks are reduced to their new levels, many members will have inadequate balances. An additional "clearing balance" requirement can be imposed on any institution with inadequate required reserve balances in order to prevent overdrafts to its account.[10]

To compensate institutions for holding such balances, earnings credits will be accrued that can offset charges for the use of services. Each month, a bill showing total charges and any earnings credits will be sent to institutions using services, and charges in excess of earnings credits will be assessed against the reserve or clearing account. As an alternative to clearing balances, institutions can elect to have debits, credits, and service charges flow through a correspondent's account.

Table 1
PRICED SERVICES

Service	Date	Pricing Level
Wire Transfer	January 29, 1981*	National
Net Settlement	January 29, 1981†	National
Check Collection	August 1, 1981	District/Office
ACH	August 1, 1981	National
Securities‡	October 1, 1981	District§
Noncash Collection	October 1, 1981	District
Cash Transportation	January 1982	Route

*Immediate advice charges delayed to March 26, 1981.
†Clearing houses associated with Reserve Banks exempted in 1981.
‡Fiscal agent services are not priced.
§National price for on-line securities transfers. Office pricing in one Federal Reserve district.

THE CASE FOR PRICING

The pricing provisions of the MCA outlined above have a certain basic rationale that are discussed in this section.

Economic Efficiency

The primary rationale for pricing Federal Reserve services is the promotion of economic efficiency. Economic efficiency has two characteristics that are important for Federal Reserve pricing. First, it requires that the consumers of goods and services cannot be made better off by changing the mix of goods and services produced with a given quantity of

10 See Press Release from the Board of Governors of the Federal Reserve System, "Procedures for Administration of Clearing Balances, Service Charges and Interim Price and Service Changes," Washington, D.C., February 27, 1981.

resources. Second, it requires that a given quantity of goods and services be produced using the least costly combination of resources that is possible.[11] Providing Federal Reserve services free of charge will, in general, lead to inefficiency in the sense that consumers could be made better off with a somewhat different mix of goods and services. Services produced by the Federal Reserve will be used because they are free, even though the resources used to produce the service might be used to produce goods that are more highly valued by consumers. Providing services free may also lead to inefficiency in the sense that a given quantity of goods and services may not be produced in the least costly fashion.

In a market economy, efficiency requires that goods be priced so that the price of each good is equal to the marginal, or incremental, cost of producing that good. If this condition is met, consumption decisions can be made on the basis of the cost of the resources used in producing each good or service. Goods and services that would cost more to produce than consumers are willing to pay will not be produced. If this condition is not met and some good is sold below the marginal cost of producing it, consumers will consume "too much" of that good. That is, the consumer satisfaction produced by a given amount of resources used to produce the "underpriced" good will be less than could be realized if the resources were used to produce other goods.

For example, the provision by the Federal Reserve of check collection services without charge has tended to lead to a higher than optimal number of checks being written, since free Federal Reserve check processing has led to lower service charges for consumers. If Federal Reserve charges for check collection services are passed on to the users of these services, it would tend to result in fewer resources being devoted to check collection and more resources being devoted to other, more highly desired activities.[12]

Providing Federal Reserve services without charge may also have led to services being produced at a higher cost than would be the case if the services were priced. In a market economy, goods and services tend to be produced by the least-cost producer because that producer will offer them at the lowest price. It may be that some of the services currently produced by the Federal Reserve could be produced at a lower cost by the private sector. However, the fact that the Federal Reserve has offered these services without charge has meant that it would continue to produce the services, even if private firms could do so at a lower cost. Pricing of Federal Reserve services can thus be expected to improve economic efficiency, since a lower cost producer may be able to take business away from the Federal Reserve, freeing resources for other uses.

Equity

The pricing provisions of the Monetary Control Act were also framed with equity considerations in mind. It was believed that it was unfair to potential private producers of financial services to have a quasi-governmental institution, the Federal Reserve, providing financial services without charging for them, since it is extremely difficult to compete with an entity that provides services free. To make competition between the Federal Reserve and the private sector as equitable as possible, the MCA

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11 For a general discussion of economic efficiency, see Tibor Scitovsky, *Welfare and Competition,* rev. ed., Homewood, Ill.: Richard D. Irwin, Inc., 1971.

12 However, if, as is currently the case, regulation restricts interest payments on checking accounts, it is likely that many depository institutions will absorb all or part of the charges levied by the Federal Reserve rather than pass them on fully to their customers.

provided that the Federal Reserve mark up its costs to take account of certain costs borne by the private sector, but not by the Federal Reserve.[13]

There was also a recognition that it would be inequitable to continue to provide services only to member banks in a regime where all depository institutions face the same reserve requirements. For this reason, the MCA granted all depository institutions equal access to Federal Reserve services.

Treasury Revenue

Reserve requirements for Federal Reserve member banks were mandated by the Federal Reserve Act as they had been in the National Banking Act. It has long been recognized that these reserve requirements have an impact similar to that of a tax. Institutions subject to the Federal Reserve's reserve requirements must hold a proportion of their assets in the noninterest-bearing liabilities of the Federal Reserve (either currency or deposits). Reserve requirements reduce the earnings of institutions subject to them since, in their absence, at least a portion of the funds held in noninterest-bearing reserves could be placed in interest-bearing assets. Reserve requirements produce revenue for the U.S. Treasury, since their existence leads to a higher level of Federal Reserve liabilities and, hence, assets and, in turn, to a higher level of earnings on the Federal Reserve's security portfolio. Virtually 100 percent of any increase or decrease in Federal Reserve earnings is an increase or decrease in Treasury revenues.

The MCA imposed reserve requirements on nonmember depository institutions for the first time, but the reductions in the reserve requirements of member banks were so large that the overall level of reserves held with the Federal Reserve will be reduced. As a result, there could be a reduction in Federal Reserve revenue and, hence, Treasury revenue. The recognition of this fact led to a desire on the part of Congress to see Federal Reserve services priced in order to offset much of the revenue loss.[14]

Pricing Exceptions

It should be recognized that some of the services provided by the Federal Reserve are basic central bank functions and as such should not be priced. For example, while the MCA lists coin and currency services as an area for pricing, only transportation costs will be recovered through pricing. The legislative history of the Act makes clear that Congress did not intend for the Federal Reserve to charge for all coin and currency services. Senator Proxmire, in his explanation of the bill, noted that,

> No charges are required for services of a governmental nature, such as the disbursement and receipt of new or fit coin and currency. Although the Federal Reserve will be required to charge for its coin and currency services, this provision will not interfere with the Federal Reserve's responsibility to provide the nation with currency and coin of a high quality nor with the Federal Reserve's ability to expand or contract the amount of currency and coin in response to the public's demand.[15]

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[13] These costs are corporate income taxes and the cost of capital funds.

[14] The revenue estimates provided to Congress suggested that, in the long run, the loss from lower reserve requirements would exceed the income from pricing by about $179 million.

[15] See U.S. Congress, Senate, remarks of Senator William Proxmire, 96th Cong., 2d sess., March 27, 1980, *Congressional Record* (daily ed.), p. S3168.

Similarly, the Federal Reserve does not intend to charge for the safekeeping of securities that are held at the Federal Reserve as collateral for either U.S. Treasury deposits or borrowing from the Federal Reserve.

While these exceptions to pricing are relatively straightforward, another exception contained in the MCA is likely to prove more difficult to apply. The MCA states that "over the long run, fees shall be established on the basis of all direct and indirect costs . . .*except that the pricing principles shall give due regard to competitive factors and the provision of an adequate level of such services nationwide* (emphasis added)."

It is not clear what the reference to competitive factors refers to, but one possibility is that it is intended to give the Federal Reserve leeway to respond to predatory pricing.[16] The reference to "the provision of an adequate level of such services nationwide" is only slightly more precise, but appears to reflect the view of Congress that it might be desirable to have the Federal Reserve subsidize certain services to certain areas. For example, it might provide services to geographically remote institutions at prices below the cost of providing the services.

In general, it will not be possible for the Federal Reserve to provide service to one group below cost while making up the loss by charging another group a price above cost. If such a tactic were attempted, competitors would likely provide service to the "overcharged" group at a lower price and take the business away from the Federal Reserve. Thus, the only viable way to provide subsidized services is to do so at the expense of the Federal Reserve and thus ultimately at the expense of Treasury revenue. In practice, it will be extremely difficult to determine whether a particular situation merits a subsidy.

IMPLICATIONS OF PRICING

Pricing of Federal Reserve services will affect the relationship between correspondent banks and their respondents as well as the role of the Federal Reserve in the payments mechanism. These changes should, in the long run, promote the efficiency of the payments mechanism, although the speed and magnitude of these changes are uncertain.

One immediate effect of pricing on correspondent banking will be a marked increase in the cost of providing services to respondent institutions. Any increase in costs not passed on to respondents must, of course, be absorbed by the correspondent. For some member correspondents, these initial increases in costs may outweigh the positive effect of reduced reserve requirements, and the net income impact of the Monetary Control Act will be negative for a short period. In later years, when member bank reserve requirements have been fully phased down to new levels, the net impact on earnings should be positive for virtually all member banks.

A longer run effect of pricing will be a greater shift toward explicit pricing of correspondent services rather than an account analysis-based pricing schedule. (Account analysis compares revenue generated by compensating balances held by a respondent with costs for a limited number of standard services.) Additionally, the proportion of income generated by fees relative to balances should grow further. Correspondent balances have long been a useful way to compensate for services. Correspondents consider the balances to be a dependable, low-cost source of loanable funds. For respondent banks, the balances serve two purposes. Besides compensating the correspondent for services provided, the balances also can be used to meet state reserve

16 The term "predatory pricing" is used to describe temporarily pricing below cost in order to drive competition out of business.

requirements. However, since the Monetary Control Act imposed Federal Reserve reserve requirements on all depository institutions, many states have eliminated separate reserve requirements for nonmember banks. Correspondent balances may not be used to meet Federal Reserve reserve requirements; therefore, one purpose of the compensating balance has been eliminated. Respondents will be examining their correspondents' balance requirements more closely. Explicit fees for all services are likely results of this closer scrutiny, as they permit easier price comparison between alternative suppliers of correspondent services.

A major effect of pricing on the Federal Reserve will stem from its new role as a competitor in supplying priced correspondent services. In the past, Federal Reserve operations have been conducted with the goal of minimizing expense. In the future, however, operating with a focus on net revenues will require many procedural and structural changes. The number of potential customers also has been expanded, from 5,500 member banks to 40,000 depository institutions.

Pricing also will affect the menu of services offered by the Federal Reserve. Changes in services are likely to be more frequent, and variations between Districts may be greater than they are today because of varying market conditions. Some Reserve Banks may provide new or expanded services because demand exists in their market areas. Others may reduce service levels or take a passive position in the marketplace because the private sector adequately meets respondent needs.

The Federal Reserve's commitment to providing a minimum level of service nationwide might lead it to become a "supplier of last resort" for small or remote institutions. If private sector competitors choose to withdraw from serving particular segments of the market and if the full cost of serving those less profitable institutions is included in Federal Reserve prices, those charges will exceed correspondent charges. The Federal Reserve's volume would then be reduced in more profitable areas, and its effectiveness as an operator in the payments mechanism would be lessened. If, instead, the Federal Reserve subsidizes such institutions, economic efficiency could be reduced and Treasury revenue would be lessened.

New methods of operation in the payments system will undoubtedly arise because of the pricing of Federal Reserve services. Establishment of local check clearing house associations, greater use of direct check exchanges between large banks, and local exchange of currency and coin are all logical reactions to pricing and will promote a more efficient payments system. In the past, however, the major operational presence of the Federal Reserve enabled it to set standards for the industry. For example, machine-readable encoding of checks was encouraged by the requirement that checks deposited with the Federal Reserve be encoded. A greatly diminished market share for the Federal Reserve could lead to development of regulations that are less responsive to varying or changing conditions than are current Federal Reserve guidelines.

Willingness to accept major innovations in the payments system could also be reduced by pricing of Federal Reserve services. The System has been a major supporter of past efforts to speed the payments system. Reserve Banks have provided financial support for ACH operations by furnishing processing and transportation, and subsidization of ACH prices is scheduled to continue until the mid-1980s. In the future, innovations that require subsidization by the Federal Reserve will be subject to greater public scrutiny. The pricing principles require that notice must be given of subsidization, and progress toward matching costs and revenues must be monitored. If opposition to continued subsidization of projects develops, the speed of technological progress in the payments system could be slowed.

SUMMARY AND CONCLUSION

The Monetary Control Act has dramatically altered the relationship between depository institutions and the Federal Reserve. Nearly all such institutions are now subject to Federal Reserve reporting and reserve requirements, and all institutions now have access to Federal Reserve services. The Act's requirement that the Federal Reserve begin pricing services subjects it to the disciplines of the marketplace for the first time and makes it a major competitor in the market for correspondent banking services.

The economic goals underlying the pricing provisions of the Monetary Control Act include greater efficiency and innovation in the payments mechanism as well as equity toward private suppliers of correspondent banking services. The principles specified by Congress and the Board of Governors provide a framework for achieving these goals and should help to promote desirable changes in the payments systems. Major innovations, if they require subsidization, will be more closely scrutinized and could be more difficult to encourage. Changes in methods could result in lower volumes of operations at the Federal Reserve as depository institutions seek to avoid charges for services that had been free. However, the vast experience of the Federal Reserve, along with its public responsibilities, will probably give it a significant role in most areas of the payments system for the foreseeable future.