

# FEDERAL RESERVE BANK OF ST. LOUIS

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# The Recent U.S. Trade Deficit

## —No Cause for Panic

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**A**LARM has been mounting about the size of the U.S. trade deficit in 1977 and what seems in prospect for the deficit in 1978. The 1977 deficit has been described as the "largest in the Nation's history."<sup>1</sup> It has been implied that the trade surpluses of other countries, which are the counterpart of the U.S. deficits, are in some way harmful.

There is no reason to believe that this pattern of accumulating surpluses for the oil exporters and chronic deficits for the oil importers will be reversed in the near future. The grim conclusion . . . is that the OPEC countries will continue to pile up excess reserves . . . accumulating some \$250-\$300 billion in financial assets by 1980.<sup>2</sup>

It has been claimed that the deficit has "produced a loss in jobs."<sup>3</sup>

Perhaps as a consequence of these fears, policy has increasingly come to focus on reducing one component of the trade deficit as a means of halting the decline of the dollar.

But the balance of trade is only one aspect of a country's international economic relations, and there are circumstances when a trade deficit is highly desirable. Further, the fear that a trade deficit will aggravate national unemployment is erroneous. In terms of national economic policy, the recommendation to reduce one component of the deficit so as to strengthen the dollar would not be helpful.

<sup>1</sup>Youssef M. Ibrahim, "\$26.7 Billion Trade Deficit, Fed by Oil Imports, Is Nation's Biggest," *New York Times*, January 31, 1978. The revised figure for the 1977 U.S. merchandise trade deficit is \$31.2 billion.

<sup>2</sup>U.S. Congress, Senate Committee on Foreign Relations, Subcommittee on Foreign Economic Policy, "International Debt, the Banks, and U.S. Foreign Policy," 95th Congress, 1st session, August 1977, p. 33.

<sup>3</sup>U.S. Congress, Joint Economic Committee, Subcommittee on International Economics, "Living With the Trade Deficit," 95th Congress, 1st session, November 18, 1977, p. 5.

### *The Balance of Merchandise Trade, the Balance of Trade, and the Balance of Payments*

A country's exchange rate — that is, the value of its currency in terms of other currencies — will stay unchanged if the quantity of the currency supplied just equals the quantity demanded at the prevailing exchange rate. The exchange rate will rise when the quantity demanded exceeds quantity supplied and will fall when the quantity supplied exceeds quantity demanded.

Broadly speaking, the quantity of U.S. dollars supplied to foreign exchange markets in any year is made up of the dollars spent on imports, plus the amount of funds U.S. residents wish to invest outside the United States.<sup>4</sup> The demand for U.S. dollars arises from the reverse of these transactions. Both exports by U.S. residents and the demand by foreigners to invest in the United States require that foreigners acquire dollars to spend in the United States.

Exports and imports comprise both goods (tangible items such as automobiles and wheat) and services (such as banking, insurance, transportation, and investment income). An export of services generates demand for dollars by foreigners just as does an export of goods, and the actual quantities involved in trade in services are very substantial. Net exports of these "invisibles" (as internationally traded services are known) in 1977 were \$15.8 billion, having grown fairly steadily from \$0.7 billion in 1966.

As shown in Table I, net exports of services by the United States have, over the past few years, turned

<sup>4</sup>U.S. importers supply dollars so as to purchase foreign currency to pay for imports, while investment abroad by U.S. residents creates demand for foreign currency because the foreign capital assets purchased — factories, stocks, government bonds, etc. — must be paid for in foreign currency.

Table I

**U.S. BALANCE OF TRADE**  
(Millions of Dollars)

	Merchandise Trade Balance	Services Trade Balance	Balance on Goods and Services
1966	\$ 3,817	\$ 697	\$ 4,514
1967	3,800	595	4,395
1968	635	986	1,621
1969	607	395	1,002
1970	2,603	309	2,912
1971	- 2,260	1,920	- 340
1972	- 6,416	328	- 6,088
1973	911	2,609	3,520
1974	- 5,367	7,527	2,160
1975	9,045	7,119	16,164
1976	- 9,320	12,916	3,596
1977	-31,241	15,827	-15,414

Source: U.S. Department of Commerce

several deficits in trade in tangible goods into surpluses on total U.S. trade. Further, discussions of the 1977 trade deficit often are in terms of merchandise trade; when invisible trade is taken into account, the total trade deficit is much smaller.

Inflows of foreign funds are required to offset a trade deficit if the foreign exchange value of the dollar is to remain unchanged.<sup>5</sup> It is useful to write that out in the form of an equation, where both exports and imports refer to *total* trade—that is, visibles plus invisibles—and private sector refers to the private sector in *both* the United States and abroad.

$$\text{Exports} + \text{Capital Inflows} = \text{Imports} + \text{Capital Outflows} \quad (1)$$

The left hand side of equation (1) is the private sec-

<sup>5</sup>An inflow of funds into a country for the purpose of investing there, whether the funds are for investment in bank deposits, securities, or even land, is described as an inflow of capital. An inflow of capital, to the extent that the capital is invested in financial assets, can be thought of as an export of securities. The term "capital inflow" *does not* refer to an inflow of capital goods, although the U.S. resident to whom the funds are lent can of course use them to buy capital goods abroad.

It may appear surprising that an inflow of funds, which can be spent on either consumption or capital goods, is described as an "inflow of capital." But an individual's capital is what can be spent in excess of current income; even if it has been lent to him, the capital is available for current expenditures. An inflow of funds into the United States is the result of foreigners deciding to lend to the United States, and their doing so lets the United States spend more than its current income, just as when an individual is lent funds he has acquired capital which enables him to spend in excess of current income.

tor demand for dollars; the right hand side is the private sector supply.

Equation (1) can be rearranged in a number of ways; the most useful for the present purpose is as follows:

$$\text{Exports} - \text{Imports} = \text{Capital Outflows} - \text{Capital Inflows} \quad (2)$$

This rearrangement of the equation helps one to see that a trade deficit must, as a matter of arithmetic, be accompanied by a net importation of investment funds, that is, a "capital inflow" in the terminology of balance of payments accounting. *There cannot be one without the other; the United States cannot import funds without running a trade deficit.* The balance of payments must always be in balance.

In the absence of government transactions undertaken with the aim of changing the exchange rate, the exchange rate will adjust until the private sector's supply of U.S. dollars on the exchange market equals the quantity of dollars demanded by the private sector in that market.<sup>6</sup>

The fact that a trade deficit (with an unchanged exchange rate) implies a net capital inflow is vital in seeing the economic significance of the current trade deficit.

### *Trade Deficits — the Historical Record*

The United States ran a trade deficit for a substantial part of the 19th century. Table II shows ten-year annual averages of U.S. trade deficits, as percentages of Net National Product, for the years 1869 to 1908, and for the years 1967 to 1977 on an annual basis.<sup>7</sup>

A noteworthy feature is that, taken as a percentage of Net National Product, last year's deficit was not markedly large by 19th century standards. Another

<sup>6</sup>For a discussion of official transactions and a distinction between when they are intended to influence the exchange rate and when they are not, see Douglas R. Mudd, "International Reserves and the Role of Special Drawing Rights," this *Review* (January 1978), pp. 10-11.

<sup>7</sup>NNP is used in this comparison as this figure shows much better than GNP (which contains replacement investment) what is happening to national income after maintaining the nation's stock of real capital. Comparing the deficits to NNP, therefore, relates the deficits to what the nation can spend without depleting its accumulated stock of capital goods. (For the purpose of comparison, it may be useful to note that the 1977 deficit, 0.9 percent of NNP, is 0.8 percent of GNP.) Taking deficits as a percentage of NNP both compensates for inflation and relates the deficit to the income which is available to service the change in indebtedness which a deficit implies. Comparisons of deficits as percentages of NNP are therefore the most appropriate form of comparison over long time periods.

Table II

U.S. BALANCE OF TRADE RELATIVE TO  
NET NATIONAL PRODUCT

Period	Balance on Goods & Services* (Millions of Dollars)	Net National Product* (NNP) (Millions of Dollars)	Balance as Percent of NNP
1869-1878	\$- 62	\$ 7,667	-0.8%
1879-1888	- 12	10,601	-0.1
1889-1898	4	12,049	0.03
1899-1908	353	20,540	1.7
1967	4,395	729,300	0.6
1968	1,621	794,700	0.2
1969	1,002	853,100	0.1
1970	2,912	891,600	0.3
1971	- 340	964,700	-0.04
1972	- 6,088	1,065,800	-0.6
1973	3,520	1,188,900	0.3
1974	2,160	1,275,200	0.2
1975	16,164	1,366,300	1.2
1976	3,596	1,527,400	0.2
1977	-15,414	1,693,100	-0.9

\*Figures for the years 1869-1908 are ten-year averages.

Sources: National Bureau of Economic Research and U.S. Department of Commerce

notable feature of the data in Table II is the shift to a trade surplus that occurred as the century progressed. This implies that the United States was moving from being a substantial net importer of investment funds to being a net exporter.<sup>8</sup> A major reason for this is that in the earlier part of the period, the United States was expanding westwards at a very rapid rate. That created a demand for investment to construct transportation facilities, develop farmlands, and so forth. The rate of return that could be earned on capital in the United States was significantly higher than that which could be earned in the rest of the world. The economy thereby became more industrialized and agriculture more mechanized. Only as the United States became relatively abundant in capital, towards the end of the 19th century, did the situation change and the United States become a capital exporter.

### The Deficit and Inflows of Funds

As Table II shows, the United States reverted to the position of a net importer of investment funds in

<sup>8</sup>These investment funds were, it should be noted, actually used in large part to buy capital goods from abroad in the 19th century.

1977. The large increase in oil prices of recent years has provided some oil exporting countries with enormous ability to save out of current incomes. Naturally, they wish to invest these savings. That same increase in oil prices reduced spending power in the United States; people had to spend a larger portion of their incomes on oil, and had therefore less left for other purposes.

This means that it is quite rational for the United States to import investment funds at the present time; in other words, to attempt to borrow funds to pay for the increased imports. These funds allow U.S. consumers to adjust their consumption more smoothly — they are not forced to make a sharp change, which is always unpleasant and can be inefficient since it forces cuts in what is easiest, rather than most desirable.<sup>9</sup>

Further, and ultimately more important, the inflow of funds can make it easier for U.S. firms to invest. The inflow of funds represents an increase in the demand for U.S. securities. Unless the supply of these securities rises by at least the same amount as the increase in demand, the price of U.S. securities is bolstered by this inflow of investment funds, and U.S. interest rates are lower than they would otherwise have been.<sup>10</sup> This increased ease in obtaining funds helps firms to invest, and thus encourages long-run growth in output, which is the only way the decline in U.S. living standards caused by the oil price increase can ultimately be reversed. Without the inflow of funds from the oil exporting countries, living standards would be lower and prospects of raising them bleaker than with the inflow.

### The Deficit and Unemployment

*Imports do not cause unemployment.* Many imports into the United States are themselves used in U.S. exports. An example is imported steel. Steel can be obtained more cheaply abroad than in the United States, and the prices of U.S. exports which use steel reflect the lower input price. Restrictions designed to raise import prices would also raise U.S. export (and domestic) prices for those goods, as well as directing

<sup>9</sup>An example is a family which bought a new automobile just before the oil price increase. The family might want to change to one which used less gas, but initially would be stuck with the car and have to cut back on, say, clothing.

<sup>10</sup>It should be emphasized that there is not necessarily a net increase in investment as compared to what would have happened without the oil price increase. There is an increased incentive to invest, as compared to the hypothetical situation where oil prices had increased *but there had been no inflow of funds from abroad.*

to the production of steel resources which would more profitably be used elsewhere. The increase in U.S. export prices relative to world market prices would reduce U.S. exports and, hence, U.S. export production and U.S. employment in some exporting industries.

Imports into the United States also create income abroad. If imports were suddenly restricted, U.S. exporters would experience an associated drop in demand. Agriculture, an industry currently eager to export so as to boost income, is an example of an industry highly sensitive to foreign demand for its products.

Hence, imports create some job opportunities as part of the very process by which they reduce others. But, even if the United States used more labor in producing every good than any other country in the world, it would still be possible for the United States to participate in foreign trade, to gain from that trade, and not to suffer unemployment as a result.

That proposition is by no means new. It was demonstrated first in 1817 by the economist and stockbroker David Ricardo. Briefly, the reason why trade cannot permanently cause unemployment is that when workers are displaced from one job by competition from elsewhere, they can move on to another job. It does not matter whether the competition is at home or abroad. If some goods are being produced and sold more cheaply than before, consumers, and also producers of these goods, have increased income and thereby increased demand for other products.<sup>11</sup>

That is not of course to say that engaging in international trade cannot cause a temporary fluctuation in unemployment. There can be temporary unemployment as workers move around while some industries expand and others decline.<sup>12</sup> But if trade is restricted to eliminate that type of unemployment, the economy is frozen in a wasteful pattern of production, just as if, when the automobile started to displace the horse

and carriage, automobile production had been made illegal to protect the carriage-making industry.<sup>13</sup>

Accordingly, a trade deficit cannot permanently cause unemployment, *if there are no domestic restrictions on labor mobility*. A trade deficit can be accompanied by temporary unemployment as workers move from one job to another, but protecting the old jobs is both unnecessary and harmful to national prosperity. (It is most certainly understandable that workers resist having to move from one job to another; such moving can be expensive and inconvenient. But it is in no one's interest for them not to move.)

### *The Trade Deficit and the Dollar*

Eliminating any one part of U.S. imports, even one equal to the deficit, would not do much to prevent the fall in the dollar's foreign exchange value. For example, if the United States suddenly stopped importing oil, it would lose a nearly equivalent dollar inflow from the oil-producing countries, and there would be little net effect on the balance of supply and demand for dollars on the foreign exchange markets.<sup>14</sup>

As a further example, if the United States suddenly stopped importing foreign automobiles, there would be increased demand for domestic automobiles. Thus, resources would be diverted from the production of exports, and income would also of course be reduced abroad, thereby reducing the *demand* for U.S. exports. Again the overall effect on the foreign exchange market is unlikely to be large. Nor would the United

<sup>13</sup>There are very special circumstances when it may be advisable to provide assistance to smooth the decline of an industry; but that assistance should never take the form of trade restriction, and should never aim to actually *prevent* the decline. The arguments for this can be found in Geoffrey E. Wood, "Senile Industry Protection: Comment," *Southern Economic Journal* (January 1975), pp. 535-37.

<sup>14</sup>At the end of 1977, U.S. banks reported liabilities of about \$9 billion to Middle East oil exporting countries. These countries also made net purchases of U.S. corporate stocks and bonds and marketable U.S. Treasury bonds and notes totalling about \$7.5 billion during 1977. Further, since these figures omit purchases of land and buildings, they understate the capital inflow. Another large part of OPEC revenue from the United States (some 34 percent) is spent on U.S. goods. (As noted by Clifton B. Luttrell, "Free Trade: A Major Factor in U.S. Farm Income," this *Review* (March 1977), p. 23, agricultural exports rose considerably as a result of OPEC price rises.) Total OPEC spending in the United States is also understated by the amount of U.S. net exports of services to the oil exporting countries. There is good reason for thinking this understatement to be substantial in view of the large jump in U.S. net exports of services after the first major oil price increase. Thus, the simple arithmetic does not support the claim that U.S. imports of oil have produced on foreign exchange markets all the excess supply of dollars which has caused the decline of the dollar's foreign exchange value.

<sup>11</sup>A more detailed demonstration is contained in the screened insert accompanying this article. The demonstration given there is essentially Ricardo's. As his proof considers only the labor which is involved in production, it is particularly well-suited to show the effect of trade on employment. See David Ricardo, *The Principles of Political Economy and Taxation* (London: J. M. Dent & Sons, Ltd., reprinted 1948), pp. 77-93.

<sup>12</sup>Workers would also have to move around if a country pegged its exchange rate despite having a higher rate of inflation than its trading partners. They would have to do so because pegging the exchange rate would depress both exporting and import-competing industries. Pegging the exchange rate can therefore cause unemployment, but this, too, would be temporary.

## Labor Mobility, The Benefits from Trade, and Employment

For the sake of exposition, we can assume that there are only two countries, the United States and the "rest of the world," and, for simplicity, that there are only two goods, wheat and cloth. In the presence of competition, the price of wheat relative to the price of cloth will be equal to their relative production costs. Suppose that production of a unit of cloth requires the labor of 120 workers for one year in the United States, and that a unit of cloth can be produced in the "rest of the world" with the labor of 80 workers for one year. Production of a given quantity of wheat in the United States requires the labor of 100 workers for a year, while the same quantity of wheat could be produced in the "rest of the world" with the labor of 90 workers for a year. Thus, the production of both cloth and wheat requires a smaller expenditure of labor in the "rest of the world" than in the United States.

With labor being the only cost of production and with competitive markets, in the absence of trade the relative price ratio of wheat to cloth in the United States would be equal to the ratio of labor inputs—that is, it would be  $100/120$  ( $= 5/6$ ). The corresponding price ratio in the "rest of the world" would be  $90/80$  ( $= 9/8$ ).

If trade between the United States and the "rest of the world" opens up, the United States will import cloth and export wheat. The reason is as follows. At the "rest of the world's" price ratio,  $9/8$ , the United States could exchange one unit of wheat for  $9/8$  units of cloth. Hence, the United States could employ 100 workers to produce a unit of wheat and exchange the wheat for a quantity of cloth which would have required the labor of 135 workers to produce domestically. Further, the "rest of the world" could employ 80 workers to produce a unit of cloth and exchange it,

at U.S. prices, for  $6/5$  units of wheat. Thus, the "rest of the world" could obtain an amount of wheat, which would have required the labor of 108 workers to produce domestically, for one unit of cloth which it produced by the labor of 80 workers.<sup>1</sup>

As production of wheat in the United States rises (and production of cloth declines), workers move out of the U.S. cloth industry and into the wheat industry. Workers in the "rest of the world" on the other hand, move out of the wheat industry and into the cloth industry. As a result of trade both the United States and the "rest of the world" gain in that both countries obtain a unit of each good for a smaller resource expenditure than would be required to produce the same amount of goods in the absence of trade, and can therefore consume (or invest) more. Although the "rest of the world" has been assumed to use less resources in producing every good than does the United States, it still benefits from buying goods produced in the United States.

The example shows that in the absence of restrictions on labor moving from one industry to another within a country, all who want to work will find employment, even in a country where production costs are higher than those in the rest of the world. Further, it also shows that as a consequence of trade they will be better off than they would be without trade. This arises because they specialize according to whatever they can best do. This, of course, is what individuals who wish to maximize their income do on their own initiative.

<sup>1</sup>For the sake of brevity, the example speaks of numbers of workers. If wages are higher in one country than in another, this is dealt with by specifying the example in terms of "value-equivalent" labor units. The same result holds.

States have "gained jobs". There would be an increase in the number of jobs in automobile production, but reduced job opportunities in those industries where foreign demand had fallen. Further, such trade restrictions will divert U.S. resources to activities more productively carried out abroad. Piecemeal attacks on the trade deficit will not achieve an improvement in the balance of payments on any significant scale.

### Summary and Conclusions

Present concern about the U.S. trade deficit is much greater than the facts justify. When all trade, and not just merchandise trade, is examined, the deficit is, by historical standards, not outstandingly large. Furthermore, the deficit has a most desirable feature. It allows the United States to import investment funds. At the

moment this is desirable from the point of view of both the United States and the countries which are supplying those funds.

The deficit has at most a transitory effect on the overall level of employment in the United States. Jobs will be lost in some industries, but gained in others. So long as resources, including labor, can move fairly freely, a trade deficit does not reduce the overall level of employment. Analysis which points to particular activities which are eliminated as a result of engaging in foreign trade, and then concludes that trade has led to a loss of jobs, implicitly assumes that once resources are in place they can never again move. There are instances when artificial barriers restrict these movements, but the problems that arise are due to these barriers and not to the deficit.

Finally, and perhaps most important, measures aimed at eliminating some particular component of the trade deficit would produce wasteful uses of resources, have little effect on the balance of payments,

and therefore make little contribution to arresting the slide in the dollar's foreign exchange value. Panic attacks on individual components of the trade deficit will do much harm and little good.

## APPENDIX

### Merchandise Trade Balance:

Exports of goods less imports of goods. Exported agricultural products accounted for about 20 percent of total U.S. merchandise exports in 1977. Imported petroleum accounted for about 30 percent of total U.S. merchandise imports in 1977.

### Goods and Services Balance:

Merchandise trade balance plus net exports of services. Internationally "traded" services include banking, insurance, transportation, tourism, military purchases and sales, and receipts of earnings on investments abroad. United States exports of services have exceeded imports for the past 16 years.

### Current Account Balance:

Goods and services balance less unilateral transfers. Unilateral transfers include private gifts to foreigners and government foreign assistance grants but exclude military grants. U.S. unilateral transfers to foreigners have averaged about \$4.5 billion per year since 1970.

### Capital Account:

Includes changes in U.S. investment abroad and changes in for-

### Capital Account:

ign investment in the United States. Purchases of foreign (U.S.) government securities and corporate bonds and stocks are examples of U.S. (foreign) investment abroad (in the United States). An increase in U.S. investment abroad represents a capital outflow (entered into balance-of-payments accounts as a negative item). An increase in foreign investment in the United States represents a capital inflow (entered as a positive item). Since changes in U.S. investment abroad, and foreign investment in the United States, include changes in official reserve assets (such as purchases of U.S. Treasury securities by foreign central banks), the capital account and current account must offset each other (a balancing category, "statistical discrepancy," is required to produce an exact offset in the reported data). Thus, with a current account deficit of \$20.2 billion in 1977, the United States recorded a net capital inflow of \$23.2 billion (and hence a "statistical discrepancy" figure of \$-3.0 billion).



# Have Multibank Holding Companies Affected Commercial Bank Performance?

NORMAN N. BOWSHER

**S**INCE the late 1960s there has been a rapid expansion of multibank holding companies which has had far-reaching impacts on the structure of banking in the nation. These multibank holding companies (MBHCs) were established as alternatives to branching systems in a number of states where branch banking was prohibited or severely limited.<sup>1</sup> The holding company device for controlling and managing banks is not new — having been used since about the turn of the century — but its importance has increased dramatically in the last decade. MBHCs' control of commercial bank deposits increased from 8 percent at the end of 1965, to 16 percent at the end of 1970, and to 34 percent at yearend 1976.

The rapid expansion of MBHCs in recent years and the changes in banking structures and practices brought about by this development have generated much controversy regarding the merits and desirability of holding companies. This article reviews evidence on some major issues raised by the emergence of MBHCs.

## COMPETITION AND CONCENTRATION

There has been a longstanding public concern in this country over the possibilities for excessive concentration in banking. Many have feared that increased concentration would place resource allocation in the hands of a relatively small number of banking organizations in the financial centers. Reflecting these attitudes and policies based on them, the structure of American banking has been unique in the world, with its numerous independent banking institutions. At the same time, because of limits on bank entry and branching, maximum interest rates on deposits, and other regulations, competition has been limited and individual banks, particularly in some smaller communities, have attained some degree of monopoly power.

<sup>1</sup>MBHCs have been established in various branch banking states. Organization as an MBHC can have advantages over that of a branch banking system. For instance, a holding company system can often maintain lower aggregate reserves than the same-sized branch network.

A chief issue which has emerged with MBHC development has been the effects that these holding companies have had on concentration and competition in banking. With entry into banking limited by prevailing government regulations, acquisitions by holding companies could increase concentration by reducing or eliminating competition, and permit the remaining firms in the market to obtain monopolistic profits by raising prices and lowering services. Since there are no widely agreed upon measures of concentration and competition, and since in some ways increased concentration could be consistent with more, not less, competition, evaluations have not been uniform.<sup>2</sup>

## Concentration Nationally

From a review of banking developments since the mid-1960s, it does not appear that national concentration has been a crucial problem. Although numerous acquisitions did affect concentration from what it would likely have been otherwise, given all other factors, concentration has changed only slightly during the period of rapid holding company expansion.

Concentration, as measured by total domestic deposits held by the 100 largest banking organizations in the country, changed little in the period 1957 to 1968 when holding company activity was relatively dormant. From a level of 48.2 percent in 1957, concentration rose slightly to 49 percent in 1968. However, despite an acceleration in holding company acquisitions after 1968, many of which were made by the 100 largest banking organizations, nationwide

<sup>2</sup>Evidence has been advanced which supports both the hypothesis that increased market concentration results from efficiency of large organizations and the hypothesis that increased concentration facilitates collusion among firms. The relationship between efficiency and concentration, by itself, implies that customers gain as a result of higher concentration, but the relationship between collusion and concentration, by itself, implies that customers lose as a result of higher concentration. Since fewer restrictions on holding companies are associated with higher concentration, there are both potential benefits and costs for bank customers from such lessened restrictions. Gerald P. Dwyer, Jr. and William C. Niblack, "Branching, Holding Companies, and Banking Concentration in the Eighth District," this *Review* (July 1974), pp. 11-18.

concentration by these firms decreased from 49 percent of domestic deposits to 47 percent in 1973.<sup>3</sup>

More recent calculations find that between 1968 and mid-1977 the 10 largest banking organizations' share of domestic deposits declined from 20.4 to 18.3 percent while the share of the top 25 dropped from 31.9 to 28 percent. The 100 largest organizations' share declined from 49.7 to 45 percent over this period.<sup>4</sup>

The apparent reason for this somewhat surprising result is that growth of domestic deposits (as distinct from foreign) was slower at the larger banking offices during the 1968-77 period than deposit growth at smaller banking offices. Also, there was a constraining influence on the larger organizations from antitrust laws and policies. Although over one-half of the 100 largest bank holding companies acquired other banks through the holding company device, a large portion of those acquired were *de novo* or small "foothold" acquisitions.

Nevertheless, acquisitions by the 100 largest banking organizations between 1968 and 1973 did maintain nationwide concentration of domestic deposits above what otherwise would have prevailed. If the quantitative impact of these acquisitions is subtracted from the 1973 actual ratio of concentration, the resultant *adjusted* nationwide concentration ratio for 1973 would have been 44.7 percent. Since the actual ratio was 47 percent, holding company acquisitions in the 1968-73 period, everything else equal, increased concentration by 2.3 percentage points above the level that would have existed in the absence of such acquisitions. Thus, the pronounced increase in the share of total deposits of banks in MBHCs, mentioned in the introduction, reflected primarily the largest banks in the nation forming MBHCs and not acquisitions by the large banking organizations.

### Concentration Statewide

There is justification for measuring concentration in an area smaller than the nation since the market for most banks is considerably less than the entire country. Since the state is the largest area within which banks can legally branch and form holding companies,

and hence attempt to gain monopoly power, some feel that states are the relevant areas for measuring concentration.<sup>5</sup> Also, interbank rivalry may be dependent not only on local market concentration, but also on the degree to which a few large banking organizations in a state, each of which has banking offices in several common local markets, agree not to engage in competitive behavior in any such local markets.<sup>6</sup>

Available evidence indicates that trends in statewide concentration in banking have varied markedly from state to state, with average changes remaining small. Between 1960 and 1976, there was no overall trend toward increased concentration of the three largest banking organizations in each state. Calculations of averages of changes indicate that states which allowed statewide branching experienced a very small increase in the proportion of domestic deposits held by the three largest banking organizations: 0.2 percentage point. Limited branching states and unit banking states experienced average decreases of 1.7 and 2.9 percentage points, respectively. Among statewide branching states, those with the highest concentration in 1960 exhibited the greatest decline in concentration, while those with the lowest concentration exhibited the greatest increase.<sup>7</sup>

Among the five largest banking institutions in each state, an increase in concentration occurred in 28 states, a decline in 22 states, with one unchanged in the 1968-73 period (the District of Columbia was treated as a state). The median increase for all states

<sup>5</sup>It might be noted, however, that the Justice Department has failed to win a banking case on the grounds of statewide concentration alone or the closely related grounds of potential competition statewide. See Aubrey B. Willacy and Hazel M. Willacy, "Conglomerate Bank Mergers and Clayton 7: Is Potential Competition the Answer?" *Banking Law Journal* (February 1976), pp. 148-195. Nevertheless, the legal issue of whether states are appropriate areas for administering antitrust policies is not settled since legislatures in a few states prohibit expansion by merger or acquisition beyond some statewide concentration level. See Katharine Gibson and Steven J. Weiss, "State-Imposed Limitations on Multibank Holding Company Growth," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, 1976, pp. 208-209. Also, Senate Bill S 72, the "Competition in Banking Act of 1977," would prohibit bank mergers or holding company acquisitions if the resulting banking institution would control more than 20 percent of the banking assets within the state.

<sup>6</sup>See Elinor Harris Solomon, "Bank Merger Policy and Problems: A Linkage Theory of Oligopoly," *Journal of Money, Credit and Banking* (August 1970), pp. 323-336.

<sup>7</sup>Statement by Philip E. Coldwell, member of Board of Governors of the Federal Reserve System, before the Committee on Banking, Housing and Urban Affairs, United States Senate, March 7, 1978. See also Manfred O. Peterson, "Aggregate Bank Concentration and the Competition in Banking Act of 1975," *Issues in Bank Regulation* (Park Ridge, Illinois: Bank Administration Institute, 1977), pp. 37-41.

<sup>3</sup>Samuel H. Talley, "The Impact of Holding Company Acquisitions on Aggregate Concentration in Banking," *Staff Economic Studies* (80), Board of Governors of the Federal Reserve System, 1974.

<sup>4</sup>Statement by Philip E. Coldwell, member of the Board of Governors of the Federal Reserve System, before the Committee on Banking, Housing and Urban Affairs, United States Senate, March 7, 1978.

was only 0.7 percentage point. In the 38 states permitting MBHCs, concentration tended to increase during the period, while in the 13 states which prohibited them, concentration tended to decline. Nevertheless, the impact of MBHC acquisitions on statewide concentration was limited almost entirely to states with low or moderate concentration.<sup>8</sup>

It might have been expected that holding company activity would have its greatest impact on concentration at the state level, since holding companies are prohibited from operating in broader regions and since legal actions designed to prevent monopolistic formations are usually focused on smaller banking markets. Yet, what would appear to represent a significant increase in aggregate concentration in some states sometimes does not, in fact, represent any meaningful change in structure. The increases in concentration often involved acquisitions of banks which had formerly operated as members of a banking group unified through common owners and directors and interlocking management.<sup>9</sup>

### Concentration in Local Markets

Concentration in local markets is more crucial from a competitive point of view than is concentration nationally or statewide.<sup>10</sup> In a local market, banks and their customers are in sufficiently close proximity for competitive interaction to occur, and both information and transaction costs tend to rise for many types of services as the distance between the bank and customer increases, reducing the threat of effective outside competition.<sup>11</sup> Local markets characterized by a structure with relatively few firms and high barriers to entry will facilitate pricing conduct that is aimed at achieving joint profit maximization through collusion, price leadership, or other tacit pricing arrangements.<sup>12</sup> Nevertheless, greater publicity is given to

trends in concentration in the nation or at the state level than at the local level. This probably reflects the difficulty of defining a local market, but also reflects a popular misconception that "bigness" alone is a measure of monopoly power.

It appears that concentration has remained unchanged or has decreased in most local banking markets during the period of rapid holding company acquisitions. A study of 213 metropolitan areas and 233 country banking markets over the 1966-75 period concluded that most banking markets became less concentrated in that period. Also, the procompetitive changes in banking market concentration occurred with greatest frequencies and in the largest magnitudes in those markets which had a relatively high concentration ratio in 1966.<sup>13</sup> In addition, local areas experiencing MBHC activity generally had lower initial concentration than areas where no MBHC acquisitions occurred.<sup>14</sup> Also, MBHCs tend to acquire banks in markets characterized by relatively fast growth in terms of banking offices, and relatively favorable ratios of deposits per banking office.<sup>15</sup>

One positive influence on local competition may be stringent standards for approval of holding company acquisitions by the Board of Governors of the Federal Reserve System. Before approval is given to a holding company to acquire a bank, the Board analyzes the effects of the proposal on competition in the local banking markets. An application is denied if its effects would be to reduce materially competition in a local market, unless there are other strong mitigating factors.<sup>16</sup> Managements of relatively large holding companies generally assume that proposed acquisitions of relatively large independent banks in an

<sup>8</sup>Samuel H. Talley, "The Impact of Holding Company Acquisitions."

<sup>9</sup>See Nancy M. Goodman, "Holding Company Developments in Michigan," Federal Reserve Bank of Chicago *Business Conditions*, (October 1975), pp. 10-15.

<sup>10</sup>This view has been adopted by the U.S. Supreme Court in evaluating competition. See *U.S. v. Philadelphia National Bank* in 1963; and *U.S. v. Marine Bancorporation* in 1974.

<sup>11</sup>One study concluded that distance dominates all other factors in determining the selection of a banking office. Lorman L. Lundstein and Lewis Mandell, "Consumer Selection of Banking Office—Effects of Distance, Services and Interest Rate Differentials," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, April 1977, pp. 260-286.

<sup>12</sup>See Stephen A. Rhoades, "Structure-Performance Studies in Banking: A Summary and Evaluation," *Staff Economic Studies* (92), Board of Governors of the Federal Reserve System, 1977.

<sup>13</sup>Samuel H. Talley, "Recent Trends in Local Banking Market Structure," *Staff Economic Studies* (89), Board of Governors of the Federal Reserve System, 1977.

<sup>14</sup>Jack S. Light, "Bank Holding Companies—Concentration Levels in Three District States," Federal Reserve Bank of Chicago *Business Conditions* (June 1975), pp. 10-15. See also, Stephen A. Rhoades, "Characteristics of Banking Markets Entered by Foothold Acquisition," *Journal of Monetary Economics* (July 1976), pp. 399-408, which concluded that the procompetitive effects of holding companies are less than they might otherwise be.

<sup>15</sup>Gregory E. Boczar, "Market Characteristics and Multibank Holding Company Acquisitions," *Journal of Finance* (March 1977), pp. 131-146.

<sup>16</sup>In administering the Bank Holding Company Act, the Board of Governors of the Federal Reserve System has been adamant not only in denying applications by holding companies to acquire existing banks with which they compete, but in addition, the Board has stood ready to deny applications on the basis of potential competition and probable future competition. See Harvey Rosenblum, "Bank Holding Companies—Part II," Federal Reserve Bank of Chicago *Business Conditions* (April 1975), pp. 13-15.

area where the MBHC has a subsidiary would be denied, and few such applications are even submitted.

In analyzing the growth of MBHC subsidiaries after acquisitions, no significant effects in the market share of affiliated banks *vis-a-vis* banks remaining independent were found in four studies.<sup>17</sup> This probably reflects offsetting effects of MBHC affiliation. On the one hand, subsidiaries of MBHCs enjoy greater financial strength and ability to offer a wider range of services. On the other hand, the independent banks, on balance, can probably give more personalized service and adapt more quickly to changing local conditions. Indeed, the independent bank's response to MBHCs in their area has probably intensified competition.

### BANK SERVICES

A related issue raised by the MBHC development is the effect of holding company affiliation on the availability and cost of bank services. The evidence available on bank performance is mostly indirect, such as changes in bank operating ratios; hence, most conclusions are tentative.

It has been argued that holding companies are able to offer more and better banking services to the customers of their affiliates than are independents because of their larger size and superior management. This assertion cannot be tested directly, but a reasonable proxy variable for the general quality of banking services is the rate of growth of a bank's deposits. Presumably, banks providing more and better services grow faster than other banks. However, as noted in the previous section, growth of affiliates has not been significantly different on average than growth of competing independent institutions.

Federal Reserve System application of the Holding Company Act probably has some influence on fostering better and broadened service by MBHC affiliates. To promote public interest, the Federal Reserve System evaluates the effects of a bank holding company acquisition on the basis of convenience and needs of

the community to be served.<sup>18</sup> Every MBHC application to acquire a bank must include a description of changes, if any, the holding company plans to initiate in either availability or prices of services and how these changes will benefit the public. Proposals frequently include establishment of a trust or foreign banking service, raising interest rates on time and savings deposits to Regulation Q maxima, reducing rates on credit insurance premiums, providing data processing services, expanding certain types of loans, and providing more customer facilities, such as parking lots. Convenience and needs factors alone are seldom the decisive factor in ruling on a case but these pledges can be crucial in determining whether the proposal is approved when it appears that other factors are marginal.<sup>19</sup> In one study in which stated intentions of MBHC applications were compared with actual implementation, no instances were found in which promised actions were not subsequently taken. In a number of cases, however, intentions were not fully realized.<sup>20</sup>

Even though many MBHCs have implemented promised services and/or reduced prices, the differences between services offered by MBHC banks and other banks have been marginal. Statistical analyses show that bank branching and size are stronger determinants of most bank behavior ratios than MBHC affiliation.<sup>21</sup> Affiliated banks tend to reduce cash and low-risk securities and increase loans, suggesting greater credit availability by MBHCs.<sup>22</sup> Much of the gain, however, reflects the acquisition of a number of formerly ultraconservative banks. The ratio of time and savings deposit interest to total time and savings

<sup>18</sup>U.S.C., title 12, section 1843, as amended by Acts of July 1, 1966 (80 Stat. 238) and December 31, 1970 (84 Stat. 1763).

<sup>19</sup>See Michael A. Jessee and Steven A. Seelig, "An Analysis of the Public Benefits Test of the Bank Holding Company Act," Federal Reserve Bank of New York *Monthly Review* (June 1974), pp. 157-167.

<sup>20</sup>Joseph E. Rossman and B. Frank King, "Multibank Holding Companies: Convenience and Needs," Federal Reserve Bank of Atlanta *Economic Review* (July/August 1977), pp. 83-91. This study, however, had basic limitations. For example, the results were based primarily on a survey of MBHCs, taking the company's word for what was done.

<sup>21</sup>William Jackson, "Multibank Holding Companies and Bank Behavior," *Working Paper* 75-1, Federal Reserve Bank of Richmond, July 1975.

<sup>22</sup>See Lucille S. Mayne, "A Comparative Study of Bank Holding Company Affiliates and Independent Banks, 1969-1972," *Journal of Finance* (March 1977), pp. 147-158. Another study, however, found that within county changes in bank structure in Ohio by holding company acquisition did not materially alter the supply of credit. Richard L. Gady, "Performance of Rural Banks and Changes in Bank Structure in Ohio," Federal Reserve Bank of Cleveland *Economic Review* (November-December 1971), pp. 3-14.

<sup>17</sup>Lawrence G. Goldberg, "Bank Holding Company Acquisitions and Their Impact on Market Shares," *Journal of Money, Credit and Banking* (February 1976), pp. 127-130; Stuart Hoffman, "The Impact of Holding Company Affiliation on Bank Performance: A Case Study of Two Florida Multibank Holding Companies," *Working Paper Series*, Federal Reserve Bank of Atlanta, January 1976; David D. Whitehead and B. Frank King, "Multibank Holding Companies and Local Market Concentration," Federal Reserve Bank of Atlanta *Monthly Review*, (April 1976), pp. 34-43; and Jerome C. Darnell and Howard Keen, Jr., "Small Bank Survival: Is the Wolf at the Door?" Federal Reserve Bank of Philadelphia *Business Review* (November 1974), pp. 16-23.

deposits at MBHC affiliates increased relative to those of independent banks, but the change was not statistically significant.<sup>23</sup> The ratio of trust revenue to total revenue tends to be higher for affiliates than for independents, from which some analysts conclude that MBHCs offer more trust services. However, empirical evidence indicates that trust revenue of banks in counties in which one or more banks are affiliated with holding companies was neither higher nor lower than in other counties, holding other factors constant.<sup>24</sup>

In short, most MBHC banks resemble non-MBHC banks.<sup>25</sup> The impact of MBHC management upon the behavior of affiliated banks is best analyzed on an individual bank basis. MBHC acquisition of a "problem bank" or an ultraconservative bank could serve the public interest, whereas an MBHC acquisition of a well-managed independent bank would apparently offer few public benefits.

A study of the effects of 43 acquisitions of rural community banks in Ohio compared with 101 comparable independent banks in the same communities found several interesting impacts of the MBHCs. The affiliates showed a greater preference for consumer lending, but some lack of interest in real estate and farm lending. Affiliate banks charged higher rates of interest on loans, but they required somewhat lower downpayments and extended credit over slightly longer periods. Independent banks generally provided more auxiliary services with special emphasis on farm management consulting and general tax and financial advice. Holding companies introduced a number of services for the acquired banks, such as data processing, marketing, and loan participation arrangements. Some independent banks responded by joining consortia and relying heavily on correspondents in order to obtain comparable services.<sup>26</sup>

The available evidence suggests that MBHC affiliation has produced a slight enlargement in the availability of banking services. Holding companies have

had only a slight net effect on prices of affiliated banks relative to those of the remaining independents. In short, as one might expect in a competitive environment, availability and prices of services have been little different at banks, regardless of corporate form.

## OPERATING EFFICIENCY AND PROFITABILITY

Although it has frequently been contended that one advantage of joining an MBHC is improved operating efficiency for the acquired bank, empirical evidence does not indicate any such clear improvement of efficiency of affiliates over independents. The impact of affiliation on operating efficiency and profits is difficult to assess from financial statements since MBHCs may attempt to shift reported profits to the consolidated holding company rather than report them for each affiliate. This may be particularly true where the holding company does not completely own the affiliate. One study found no significant change in operating costs when an MBHC acquired a unit bank and an increase in such costs when it acquired a bank with branches.<sup>27</sup>

MBHC affiliates, as components of banking organizations larger than most independent banks, probably experience some economies of scale.<sup>28</sup> MBHCs are able to consolidate risks by generally having a larger asset base and serving a wider geographical area than most independent banks, reducing cash and capital requirements. Other operating efficiencies for affiliates include better access to capital markets,<sup>29</sup> advertising, data processing, specialized lending, and trust and foreign banking services.

Although ratios of total revenues to total assets have been higher for affiliates than for independent banks, total operating expenses to total assets have also been higher.<sup>30</sup> In particular, MBHCs incur larger employee

<sup>23</sup>Samuel H. Talley, "The Effect of Holding Company Acquisitions on Bank Performance," *Staff Economic Studies* (69), Board of Governors of the Federal Reserve System, 1972.

<sup>24</sup>R. Alton Gilbert, "Trust Revenue of Commercial Banks: The Influence of Bank Holding Companies," this *Review* (June 1974), pp. 8-15.

<sup>25</sup>See Robert F. Ware, "Characteristics of Banks Acquired by Multibank Holding Companies in Ohio," *Federal Reserve Bank of Cleveland Economic Review* (August 1971), pp. 19-27.

<sup>26</sup>Warren F. Lee and Alan K. Reichert, "Effects of Multibank Holding Company Acquisitions of Rural Community Banks," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-2, 1975, pp. 217-225.

<sup>27</sup>Donald J. Mullineaux, "Branch Versus Unit Banking: An Analysis of Relative Costs," *Changing Pennsylvania's Branching Laws: An Economic Analysis*, Technical Paper, Federal Reserve Bank of Philadelphia, 1973, pp. 175-227.

<sup>28</sup>See Ernst Baltensperger, "Economies of Scale, Firm Size, and Concentration in Banking," *Journal of Money, Credit and Banking* (August 1972), pp. 467-88; and Ernst Baltensperger, "Costs of Banking Activities — Interactions Between Risks and Operating Costs," *Journal of Money, Credit and Banking* (August 1972), pp. 595-611.

<sup>29</sup>Cost of raising capital tends to be lower for large firms than for smaller enterprise. See Roger D. Blair and Yoram Peles, "The Advantage of Size in the Capital Market: Empirical Evidence and Policy Implications," *Working Paper 24*, Center for the Study of American Business, Washington University, St. Louis, December 1977.

<sup>30</sup>See Rodney D. Johnson and David R. Meinster, "The Performance of Bank Holding Company Acquisitions: A Multi-

benefit costs and greater "other expenses" than independent banks.<sup>31</sup> Because MBHCs are usually the larger banking organizations, one would intuitively expect them to have employee benefit plans which would tend to be extended to subsidiaries. The "other expenses" category includes many diverse bank expenses, and the actual reasons for the higher "other expenses" for holding company banks is not known. One could speculate that costs relating to the holding company structure and included in this category, such as management or legal fees, could conceivably drain some "profits" from the subsidiary banks.

Nevertheless, holding company acquisitions have probably had only moderate effects on prices, expenses, profitability, or performance of acquired banks.<sup>32</sup> Since MBHCs have slightly higher operating costs than independent banks, it has been contended that affiliation with a holding company entails net *diseconomies* of scale rather than economies.<sup>33</sup> Using a different line of reasoning, a study of Alabama banks over the period 1968 to 1973 found that, on balance, technical and operational efficiency improved for both independent and affiliate banks. Since this was a period in which the dominant change in the state's banking industry was the emergence of an aggressive MBHC movement, the findings were tentatively attributed to that activity.<sup>34</sup>

Since there are significant differences between individual holding companies, it is probably misleading to group them in some average. Many of the performance measures indicate that operations of banks affiliated with particular holding companies differed significantly from both independent banks and banks

variate Analysis," *Journal of Business* (April 1975), pp. 204-212, and Robert J. Lawrence, *The Performance of Bank Holding Companies*, Board of Governors of the Federal Reserve System, 1967.

<sup>31</sup>Jack S. Light, "Effects of Holding Company Affiliation on De Novo Banks," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, 1976, pp. 83-106.

<sup>32</sup>Samuel H. Talley, "The Effect of Holding Company Acquisition on Bank Performance," *Staff Economic Studies* (69), Board of Governors of the Federal Reserve System, 1972. Also, Lucille S. Mayne, "Management Policies of Bank Holding Companies and Bank Performance," *Journal of Bank Research* (Spring 1976), pp. 37-48.

<sup>33</sup>Dale S. Drum, "MBHCs: Evidence After Two Decades of Regulation," Federal Reserve Bank of Chicago *Business Conditions*, (December 1976), pp. 3-15. See also, George J. Benston and Gerald A. Hanweck, "A Summary Report on Bank Holding Company Affiliation and Economies of Scale," *Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago (April 1977) pp. 158-168.

<sup>34</sup>Terrence F. Martell and Donald L. Hooks, "Holding Company Affiliation and Economies of Scale," *Journal of the Midwest Finance Association* (1975), pp. 59-71.

affiliated with other holding companies. It was possible in a number of instances to reject the hypothesis that holding-company-affiliated banks can be treated as elements of a single group as far as performance is concerned.<sup>35</sup>

Examining the profitability of MBHC banks compared with independent banks through the use of performance ratios has not produced uniform results. In one study, MBHC affiliation was found to have a negative impact on the ratios of net income to total assets and on net income to equity.<sup>36</sup> Another inquiry found no significant difference in holding company performance on net income to equity from that of independent banks.<sup>37</sup>

Two studies by John Mingo, taken together, hint at a third view of the profitability of MBHC affiliates. The first study found that holding companies tend to purchase banks with earnings to capital ratios below those of other banks.<sup>38</sup> The second found that holding company banks, after acquisition, tend to have higher net earnings to capital ratios than do independent banks.<sup>39</sup> A conclusion that MBHCs improved the profitability of acquired banks, however, may not be warranted in view of the changed samples.

The evidence on the profitability of MBHC affiliates is mixed, and the issue is not likely to be settled soon. In a number of cases, subsidiaries have been less profitable than independents of similar size in the same general area. However, the holding company may be attempting to maximize profits of the system rather than for each subsidiary. Also, many acquisitions have been of banks with below average profitability, and it may take more time to get a fair evaluation of their performance within the holding company. To date, only a few MBHC affiliates have been liquidated, sold, or spun off, indicating that any drag on the system's profitability has not been intolerable.

<sup>35</sup>Arthur G. Fraas, "The Performance of Individual Bank Holding Companies," *Staff Economic Study* (84), Board of Governors of the Federal Reserve System, 1974.

<sup>36</sup>Jack S. Light, "Effects of Holding Company Affiliation on De Novo Banks," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1976, pp. 83-106.

<sup>37</sup>William Jackson, "Multibank Holding Companies and Bank Behavior," *Working Paper* 75-1, Federal Reserve Bank of Richmond, July 1975.

<sup>38</sup>John J. Mingo, "Capital Management and Profitability of Prospective Holding Company Banks," *Journal of Financial and Quantitative Analysis* (June 1975), pp. 191-203.

<sup>39</sup>John J. Mingo, "Managerial Motives, Market Structure and the Performance of Holding Company Banks," *Economic Inquiry* (September 1976), pp. 411-424.

## BANK SOUNDNESS

Holding companies claim that they strengthen acquired banks in a number of ways. At times, they provide additional capital, personnel training, or skilled management. They diversify risks and lower the costs of providing certain specialized services. Resources of the entire system can be mobilized to solve a local bank's problems. Yet, most analyses have indicated that the alleged benefits of MBHCs on bank soundness are exaggerated. It is still not clear whether the holding company movement has, on balance, increased or reduced the soundness of banks.

The Board of Governors of the Federal Reserve System denies applications of proposed holding company acquisitions if the payments necessary to retire debt incurred in buying the bank's stock would be likely to drain its retained earnings. In addition, capital has been supplied by the parent holding companies to a number of subsidiaries. Nevertheless, the capital positions of a number of acquired banks have been relatively low. The average ratio of capital to total assets or deposits is generally lower for affiliated banks than for independent counterparts.<sup>40</sup> However, it has been found that holding company affiliation caused only a small decline in the capital to deposits ratio, one which was not statistically significant.<sup>41</sup>

MBHC banks, on average, are leveraged to a greater extent than independent banks (as measured by lower capital/asset ratios), and hold greater proportions of higher-yielding (presumably more risky) assets than do comparable independents. Also, as market concentration increases, capital to asset ratios rise for independent banks as a class but decline for holding company banks. Such observations suggest that independent banks take most benefits of greater market power in the form of reduced risk, while MBHC banks are less risk-averse.<sup>42</sup> Although affiliation tends to increase the payout ratio (dividends to net income) for affiliated banks,<sup>43</sup> the funds may still be retained within the MBHC organization.

Through the use of the holding company, some organizations have engaged in "double leveraging" — that is, raising funds through parent debt issues and "downstreaming" equity capital to bank subsidiaries. This practice allows the subsidiaries to increase reported capital ratios, while increasing the leverage of the holding company as a whole.<sup>44</sup>

A conclusion that affiliated companies hold less capital to assets or deposits than their independent counterparts does not necessarily indicate that they are undercapitalized or less stable.<sup>45</sup> The risks of banking are usually more diversified by having a larger asset base, by engaging in more activities and by operating over a wider region in an MBHC arrangement than for an individual bank. Since such diversification reduces the lead bank's risk, the MBHC might assume a somewhat greater risk in each of its subsidiaries than otherwise without increasing the exposure of the system.<sup>46</sup> Hence, even though an individual affiliate has less capital cushion, this might be matched by help it could reasonably expect from its parent should adversity arise.<sup>47</sup>

## SUMMARY AND CONCLUSIONS

Despite a tremendous expansion of MBHCs during the last decade, commercial banking has changed only moderately as a result of these activities.<sup>48</sup> Recognizing that it is too early to appraise adequately all the ramifications, the weight of the evidence so far seems to indicate that the net effects of the holding company

<sup>44</sup>See Federal Reserve *Bulletin* (February 1976), p. 115.

<sup>45</sup>See "Bank Holding Company Financial Developments in 1976," Federal Reserve *Bulletin*, Board of Governors of the Federal Reserve System (April 1977), pp. 337-340.

<sup>46</sup>Leverage was found to be statistically significant in explaining market risk premium on long-term debt when bank issues alone were examined, but was statistically insignificant when issues of bank holding companies alone were analyzed. Anne S. Weaver and Chayim Herzig-Marx, "A Comparative Study of the Effect of Leverage on Risk Premiums for Debt Issues of Banks and Bank Holding Companies," Staff Memoranda, Federal Reserve Bank of Chicago, 1978.

<sup>47</sup>Nevertheless, the potential benefits from diversification in MBHC organizations has been found to be limited due to the relatively homogeneous nature of holding company acquisitions of banks. See Peter S. Rose, "The Pattern of Bank Holding Company Acquisitions," *Journal of Bank Research* (Autumn 1976), pp. 236-240.

<sup>48</sup>See Stephen A. Rhoades, "Structure and Performance Studies in Banking: A Summary and Evaluation," *Staff Economic Studies* (92), Board of Governors of the Federal Reserve System, December 1977, p. 45. Based on a review of 39 studies of market structure and performance published since 1959, it was concluded that the changed market structure has had only a small quantitative effect on price or profit performance in banking.

<sup>40</sup>See Arthur G. Fraas, "The Performance of Individual Bank Holding Companies," *Staff Economic Study* (84), Board of Governors of the Federal Reserve System, 1974, and William Jackson, "Multibank Holding Companies and Bank Behavior," *Working Paper* 75-1, Federal Reserve Bank of Richmond, July 1975.

<sup>41</sup>Talley, "The Effect of Holding Company Acquisitions on Bank Performance."

<sup>42</sup>John J. Mingo, "Managerial Motives, Market Structures, and the Performance of Holding Company Banks."

<sup>43</sup>Jackson, "Multibank Holding Companies and Bank Behavior."

movement have been favorable for the general public. The fear that commercial banking would become less competitive if holding companies were permitted has not been substantiated. In many local markets, affiliates of MBHCs have increased competition, and the independent bank's response to the introduction of a holding company competitor has frequently also been to intensify competition.

On balance, MBHCs have offered a slightly wider range of banking services and have increased credit extended to consumers and small businesses over what

otherwise would have been likely. As a result, revenues of affiliates have been higher than at independent banks, but costs have also been greater.

Affiliates of MBHCs are not as well capitalized as their independent counterparts, but risk is reduced through greater diversification. Independent banks do not seem to have been harmed by the introduction of a holding company operation in their market area, having grown at roughly the same rate as similar-sized MBHC affiliates. Evidence on profitability of affiliates versus independent banks is still mixed.



# Operations of the Federal Reserve Bank of St. Louis—1977

PAUL A. WATKINS, JR.

**A**S the central bank of the United States, the Federal Reserve performs three basic functions. It conducts monetary policy, supervises and regulates member banks, and provides various services to the public, the Treasury, and commercial banks.

These functions are performed by the Federal Reserve System's Board of Governors in Washington, the 12 regional Reserve Banks located in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco, and the 25 branches of the regional banks.

The Eighth Federal Reserve District is served by the head office in St. Louis and branches in Little Rock, Louisville and Memphis. The district encompasses Arkansas and parts of Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee.

This article reviews the operations of the Federal Reserve Bank of St. Louis during 1977.

## *Bank Supervision and Regulation*

The Federal Reserve Bank of St. Louis, together with the state banking authorities, has responsibility for the supervision of the 79 state chartered banks in the Eighth District which have elected to become members of the Federal Reserve System. An annual examination is made of state member banks in order to evaluate their assets, liabilities, capital accounts, liquidity, operations, and management. Attention is also focused on compliance with applicable laws and regulations.

Information gathered from such examinations is utilized by banking authorities to direct attention to potential problems or unsatisfactory conditions of the banks. Supervision seeks to foster an effective banking system in which the public interest is safeguarded.

Although they have authority to examine all member banks, Federal Reserve Banks generally do not examine national banks, all of which are required to be members of the Federal Reserve System. Primary responsibility for examination and supervision of national banks, which number 340 in the Eighth District, lies with the office of the Comptroller of the Currency. The Federal Deposit Insurance Corporation (FDIC), along with respective state banking authorities, examines state nonmember banks that are insured by the FDIC. Noninsured banks are examined only by state authorities.

Federal Reserve Banks also supervise bank holding companies. At the end of 1977, the Federal Reserve Bank of St. Louis had jurisdiction over 20 multibank and 88 one-bank holding companies. Prior approval must be obtained from the Federal Reserve System for bank holding company formations and for acquisitions of additional banks and permissible nonbank subsidiaries. Applications for holding company formations and for acquisitions of additional subsidiaries are analyzed by the Bank Supervision and Regulation Department along with the Legal and Research Departments. These departments consider the history, financial condition, and prospects of the institutions, and evaluate the quality of management. They also assess the legal aspects of the proposal and its likely effects on banking and nonbanking competition. During 1977, the Federal Reserve Bank of St. Louis received 14 applications to form one-bank or multibank holding companies and 24 applications from holding companies to acquire additional subsidiaries, engage *de novo* in nonbank activities, or establish new locations.

After formation, bank holding companies are required to register and file annual reports with Federal Reserve Banks. These annual reports are analyzed by the staff of the Bank Supervision and Regulation Department to verify accuracy and completeness, to

ascertain the current financial condition of the holding company and its subsidiaries, and to determine compliance with applicable laws and regulations. Examination reports prepared by the primary Federal supervisory agency of the respective bank subsidiaries are also analyzed by the Federal Reserve Bank to determine the overall condition of such subsidiaries. In addition, discretionary on-site inspections of bank holding companies and their nonbank subsidiaries are conducted by Supervision and Regulation personnel. The purpose of these inspections is similar to that of examinations of banks.

### Check Collection

The collection and clearing of checks drawn on member and nonmember banks is a service provided by the Federal Reserve System and is a major activity at this Bank. Payment for the items cleared is accomplished on the day of presentment by a charge to the reserve account of the member bank or to the reserve account of a member correspondent. Checks drawn on nonmember banks are also paid for on the day of presentment by a charge to the account of a specified member correspondent.

During 1977 the four Federal Reserve offices in the Eighth District cleared 693 million checks totaling \$289 billion. This reflects increases of almost 4 percent in the number of checks cleared and more than 14 percent in dollar value when compared with 1976 check clearing activity. Although growth in the volume of items cleared has slowed somewhat over the past year, the dollar value of these items continued to increase at about the same rate as in past years.

A major goal of the Federal Reserve System is to provide a speedy check payments mechanism. To this end a Regional Check Processing Center (RCPC) program was implemented during the early 1970s to

increase the speed of the check payment process and to facilitate the return of dishonored items. The RCPCs that have been in operation in the Eighth Federal Reserve District since 1972 continue to enable the overnight collection of items drawn on banks in the RCPC area, thereby permitting prompt credit and payment for these checks.

### Electronic Transfer of Funds

Wire transfers have been used for many years to facilitate transfers of balances between banks. The Federal Reserve and its member banks utilize a computer network for transferring funds nationwide. Using this system, many member banks are able to render more efficient service to their customers and effect payment for the purchase and sale of Fed funds. Nonmember banks benefit from this service indirectly through correspondent member banks.

Settlement for such transfers is made by debits and credits to reserve accounts. Generally, transfers through this network are for large amounts, with no charge levied for transfers of \$1,000 or more. Member banks also utilize these facilities to transfer marketable government securities. All four Federal Reserve offices and 22 commercial banks in the Eighth District with a significant volume of transfers are currently on-line. Several other banks are considering the installation of terminals. Over 360 member banks nationwide have installed on-line terminals connected to their Federal Reserve District computers. Member banks not having on-line terminals may telephone their transfers to their local Federal Reserve office where the transfers are entered into the wire transfer system over Federal Reserve Bank terminals.

Terminal installations at the banks are connected to the computer at the St. Louis Federal Reserve office which is the switching center for the Eighth

Table 1

#### VOLUME OF OPERATIONS<sup>1</sup>

	Number (thousands)		Percent Change	Dollar Amount (millions)		Percent Change
	1977	1976		1977	1976	
Checks handled <sup>2</sup> . . . . .	692,723	667,678	3.8%	\$ 288,929	\$254,357	13.6%
Transfers of funds . . . . .	1,141	974	17.1	1,035,000	871,000	18.8
Currency received and counted . . . . .	318,000	281,000	13.2	2,900	2,800	3.6
Government securities issued, serviced, and redeemed	13,300	13,226	.6	36,388	69,050	-47.3
U.S. Government coupons paid . . . . .	400	592	-32.4	185	266	-30.5
Food Stamps received and counted . . . . .	120,000	133,000	-10.5	504	556	- 9.5

<sup>1</sup>Total for the St. Louis, Little Rock, Louisville and Memphis offices.

<sup>2</sup>Excludes U.S. Government checks and postal money orders.

District. Operators of the terminals in the commercial banks can initiate transfers directly from their banks, at which time the transfers are processed automatically through the computer at the St. Louis office and directed through a central switching computer at Culpeper, Virginia, to another Federal Reserve District for the account of the receiving commercial bank. Transfers of funds may also be made between member banks in the same District. If the receiving bank is on-line, transfers are switched automatically to that bank's terminal through its Federal Reserve District computer.

By transferring funds electronically, all necessary information for completing the transfer is obtained. Third-party information may be entered to identify the originator and/or the recipient of the funds. Member bank reserve accounts are debited and credited automatically, and banks with on-line terminals receive an immediate record of each transaction at its conclusion. The use of electronic equipment for transfers of funds has reduced the time required for completion of a typical transaction from almost an hour to a matter of only a few minutes.

With the installation of on-line terminals at the 22 District commercial banks, about 3,900 transactions per day are sent and received by electronic means, and thus do not require manual processing by Eighth District personnel. This represents 82 percent of total transfers processed.

Volume and dollar amounts of transfers processed by the Eighth District continues to increase. During 1977, more than 1.1 million transfers amounting to \$1,035 billion were completed by the Federal Reserve Bank of St. Louis and its branches. This is an 18 percent increase in number and a 13 percent increase in value over the previous year.

### *Federal Recurring Payments*

The Bank has been processing the payroll for Air Force installations in the Eighth Federal Reserve District by electronic means since August 1975.

A number of other Federal recurring payments are also settled through the electronic funds transfer system (EFTS). Social Security payments comprise the largest category with a monthly volume of 280,000 payments. Monthly volumes for other categories are 11,700 Civil Service Annuity payments, 8,500 railroad retirement payments, 12,000 Veterans Administration payments, and 5 CIA retirement payments. In addition, 2,000 revenue sharing payments are processed quarterly.

### *Automated Clearing Houses*

An automated clearing house (ACH) provides for the exchange of payments on magnetic tape. Traditional clearing houses, by contrast, provide for the exchange of payments with batches of paper checks.

The St. Louis Reserve Bank and each of its branches operate automated clearing houses. The Arkansas Automated Clearing House, operated by the Little Rock Branch, began operations in October 1977. The Kentuckiana Automated Clearing House, operated by the Louisville Branch, began operating in April 1976. The Mid-America Payments Exchange, operated by the Bank's head office in St. Louis, has been operational since July 1976. In addition, the Mid-South Automated Clearing House, operated by the Memphis Branch, began operations in February 1977. The District's four ACH's process about 42,000 commercial debit and credit items monthly.

### *Coin and Currency*

Coin and currency, comprising approximately 26.1 percent of the money stock, are more widely used than demand deposits in consummating small transactions, primarily because of convenience. Personal checks generally are used for transactions of larger amounts. The Federal Reserve Banks supply, through the commercial banking system, virtually all of the coin and currency in circulation, and excess coin and currency is returned to Federal Reserve Banks through the commercial banking system.

Approximately 318 million pieces of currency valued at \$2.9 billion were received and verified at the four Federal Reserve offices in the Eighth District during 1977. This was an increase of about 13 percent in number of pieces, and a 4 percent increase in dollar volume from 1976. The number and value of coins received and verified showed a decline from 1976 levels. Combined sorting, counting, and wrapping of coin and currency at the four offices averaged almost 6.4 million pieces per working day in 1977, up slightly from 1976.

In sorting currency at the Reserve Banks, that which is no longer usable is removed from circulation and destroyed. During 1977, the Federal Reserve Bank of St. Louis and its branches verified and destroyed currency totaling \$771 million.

### *Lending*

Three types of credit are made available to member banks in the Eighth Federal Reserve District: short-

term adjustment, seasonal, and emergency credit. Member banks may make temporary adjustments in their reserve positions due to deposit losses, unexpected or unusual requests for loans, or other changes they encounter. Member banks which have highly seasonal loan demands may apply to this Bank for seasonal credit. Such loan demands are due primarily to a recurring pattern of change in deposits and loans. Under seasonal credit, member banks are permitted to maintain a portion of their liquid assets in the form of Federal funds (loans of excess reserves to other banks), so long as such holdings conform to the bank's normal operating experience. Arrangements for this type of credit should be made in advance. Credit for longer periods is also available to member banks to meet emergency conditions which may result from unusual local, regional, or national financial situations, or adverse circumstances where member banks are involved.

The discount rate is the rate of interest charged by the Federal Reserve Bank on loans to member banks. The level of the discount rate, in relation to other short-term market rates, has an influence on the volume of credit extended by the Federal Reserve Bank. When the discount rate is higher than other market interest rates, member banks usually choose to obtain funds from other sources to make temporary reserve adjustments. When the discount rate is low in relation to other market rates, member banks tend to rely more heavily on the Federal Reserve for funds.

At the start of 1977, the discount rate was 5.25 percent. The rate was increased twice during the year, and at yearend it was 6 percent. However, throughout the last half of 1977, the discount rate was below other short-term interest rates. As a result of this difference in rates, member bank borrowings in the Eighth District were relatively high. The daily average of loans outstanding amounted to \$23.7 million in 1977, more than ten times the \$2.2 million for 1976. There were 860 loans amounting to \$5.0 billion made to 63 Eighth District member banks by the Federal Reserve Bank of St. Louis during 1977. This is an increase from 1976 when 231 loans totaling \$428.9 million were made to 32 member banks.

### **Fiscal Agency**

As a fiscal agent of the Federal Government, the Federal Reserve Bank performs many services. The U.S. Treasury makes payments for various types of Government spending through accounts maintained

in the System. Funds received by the Treasury are deposited into its account at the Federal Reserve Banks or into tax and loan accounts at designated commercial banks. These funds represent mainly receipts from payment of taxes and collections from the sale of Government securities to the public. Balances in the tax and loan accounts are transferred upon call to the account of the Treasury of the United States at Federal Reserve Banks in order for the Treasury Department to have use of the funds.

The Federal Reserve Banks also act on behalf of the Government in marketing Treasury securities. When the Treasury offers new securities, the Reserve Banks prepare and distribute applications and official offering circulars, receive subscriptions from those who wish to buy, allot the securities among the subscribers according to the terms of the offering, collect payment, and make delivery to the purchasers. With funds from the Treasury's account, Federal Reserve Banks pay interest on securities and redeem them at maturity. Reserve Banks also pay interest on and redeem securities of most Government-sponsored corporations.

The Federal Reserve Banks will, as fiscal agents, hold in safekeeping securities pledged to secure Government deposits in tax and loan accounts at commercial banks. Federal Reserve Banks will also hold securities of member banks in safekeeping. U.S. Treasury and most government agency securities are held in book-entry form by the Reserve Banks.

Securities of the U.S. Government and various government agencies are issued, serviced, and redeemed by Federal Reserve Banks. In 1977, 13.3 million securities totaling \$36.4 billion were handled by the Federal Reserve Bank of St. Louis and its branches. Also during 1977, coupons of U.S. Treasury and agency securities totaling 400,000 pieces amounting to \$185 million were paid by Eighth District offices.

U.S. Government food stamps are also redeemed by Federal Reserve Banks. A total of 120 million food stamps amounting to \$504 million were received and counted by the Federal Reserve Bank of St. Louis and branch offices during 1977.

### **Research**

The Federal Reserve System, while working closely with other policymaking agencies in the Government, has the primary responsibility for the formulation and implementation of monetary policy. Through representation on the Federal Open Market Committee,

## DIRECTORS

### St. Louis

#### *Chairman of the Board and Federal Reserve Agent*

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RALPH C. BAIN, Vice President, Wabash Plastics, Inc., Evansville, Indiana

DONALD N. BRANDIN, Chairman of the Board and President, The Boatmen's National Bank of St. Louis, St. Louis, Missouri

RAYMOND C. BURROUGHS, President and Chief Executive Officer, The City National Bank of Murphysboro, Murphysboro, Illinois

TOM K. SMITH, JR., Senior Vice President, Monsanto Company, St. Louis, Missouri

WILLIAM H. STROUBE, Associate Dean, College of Science and Technology, Western Kentucky University, Bowling Green, Kentucky

WILLIAM B. WALTON, Vice Chairman of the Board, Holiday Inns, Inc., Memphis, Tennessee

WM. E. WEIGEL, Executive Vice President and Chief Executive Officer, First National Bank and Trust Company, Centralia, Illinois

### Little Rock Branch

#### *Chairman of the Board*

G. LARRY KELLEY, President  
Pickens-Bond Construction Co., Little Rock, Arkansas

RONALD W. BAILEY, Executive Vice President and General Manager, Producers Rice Mill, Inc., Stuttgart, Arkansas

THOMAS E. HAYS, JR., President and Chief Executive Officer, The First National Bank of Hope, Hope, Arkansas

E. RAY KEMP, JR., Vice Chairman of the Board and Chief Administrative Officer, Dillard Department Stores, Inc., Little Rock, Arkansas

B. FINLEY VINSON, Chairman of the Board, The First National Bank in Little Rock, Little Rock, Arkansas

T. G. VINSON, President, The Citizens Bank, Batesville, Arkansas

FIELD WASSON, President, First National Bank, Siloam Springs, Arkansas

### Louisville Branch

#### *Chairman of the Board*

JAMES H. DAVIS, Chairman and Chief Executive Officer  
Porter Paint Co., Louisville, Kentucky

HOWARD BRENNER, Vice Chairman of the Board, Tell City National Bank, Tell City, Indiana

RICHARD O. DONEGAN, Vice President and Group Executive, General Electric Company, Louisville, Kentucky

J. DAVID GRISSOM, Chairman and Chief Executive Officer, Citizens Fidelity Bank and Trust Company, Louisville, Kentucky

FRED B. ONEY, President, The First National Bank of Carrollton, Carrollton, Kentucky

JAMES F. THOMPSON, Professor of Economics, Murray State University, Murray, Kentucky

TOM G. VOSS, President, The Seymour National Bank, Seymour, Indiana

### Memphis Branch

#### *Chairman of the Board*

JEANNE L. HOLLEY, Associate Professor of Business Education and Office Administration, University of Mississippi, University, Mississippi

W. M. CAMPBELL, Chairman of the Board and Chief Executive Officer, First National Bank of Eastern Arkansas, Forrest City, Arkansas

ROBERT E. HEALY, Partner-In-Charge, Price Waterhouse & Co., Memphis, Tennessee

FRANK A. JONES, JR., President, Cook Industries, Inc., Memphis, Tennessee

STALLINGS LIPFORD, President, First-Citizens National Bank of Dyersburg, Dyersburg, Tennessee

WILLIAM WOOTEN MITCHELL, Chairman, First Tennessee Bank N.A., Memphis, Tennessee

CHARLES S. YOUNGBLOOD, President and Chief Executive Officer, First Columbus National Bank, Columbus, Mississippi

## Member, Federal Advisory Council

CLARENCE C. BARKSDALE, Chairman of the Board and Chief Executive Officer  
First National Bank in St. Louis, St. Louis, Missouri

# OFFICERS

## St. Louis

LAWRENCE K. ROOS, President

DONALD W. MORIARTY, JR., First Vice President

ANATOL B. BALBACH, *Senior Vice President*

JOSEPH P. GARBARINI, *Senior Vice President  
& Controller*

LEONALL C. ANDERSEN, *Economic Adviser*

RUTH A. BRYANT, *Vice President*

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JAMES R. KENNEDY, *Vice President*

JOHN F. OTTING, *Vice President*

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A. MELVIN CARR, *Assistant Vice President*

CAROL B. CLAYPOOL, *Assistant Vice President*

JOAN P. CRONIN, *Assistant General Counsel & Assistant  
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RICHARD O. KALEY, *Assistant Vice President*

W. MICHAEL LINDHORST, *Assistant General Auditor*

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PAUL SALZMAN, *Assistant Vice President*

LESLIE F. SCHMEDING, *Assistant Vice President*

EDWARD R. SCHOTT, *Assistant Vice President*

WILLIAM J. SNEED, *Assistant Vice President*

ALAN C. WHEELER, *Assistant Vice President*

## Little Rock Branch

JOHN F. BREEN, *Vice President and Manager*

MICHAEL T. MORIARTY, *Assistant Vice President and Assistant Manager*

THOMAS R. CALLAWAY, *Assistant Vice President*

DAVID T. RENNIE, *Assistant Vice President*

## Louisville Branch

DONALD L. HENRY, *Senior Vice President and Manager*

JAMES E. CONRAD, *Assistant Vice President and Assistant Manager*

GEORGE E. REITER, JR., *Assistant Vice President*

THOMAS J. WILSON, *Assistant Vice President*

## Memphis Branch

L. TERRY BRITT, *Vice President and Manager*

PAUL I. BLACK, JR., *Assistant Vice President and Assistant Manager*

A. C. CREMERIUS, JR., *Assistant Vice President*

C. L. EPPERSON, JR., *Assistant Vice President*

Table II

**COMBINED COMPARATIVE STATEMENT  
OF CONDITION**  
(in thousands of dollars)

ASSETS		
	December 31, 1977	December 31, 1976
U.S. Government Securities:		
Bills . . . . .	\$1,763,667	\$1,572,649
Certificates . . . . .	—	—
Notes . . . . .	2,148,021	1,955,859
Bonds . . . . .	370,930	274,192
<b>TOTAL U.S. GOVERNMENT     SECURITIES . . . . .</b>	<b>\$4,282,618</b>	<b>\$3,802,700</b>
Gold Certificate Reserves . . . . .	\$ 468,914	\$ 466,364
Special Drawing Rights Certificate Account . . . . .	53,000	50,000
Coin . . . . .	19,869	26,661
Loans and Securities:		
Discounts and Advances Secured by U.S. Government and Agency Obligations . . . . .	6,600	300
Other Discounts and Advances . . . . .	—	—
Federal Agency Obligations Bought Outright . . . . .	339,654	276,987
Cash Items in Process of Collection . . . . .	565,391	321,441
Bank Premises (net) . . . . .	12,833	12,668
Other Assets . . . . .	75,292	63,456
Interdistrict Settlement Account . . . . .	—	270,478
<b>TOTAL ASSETS . . . . .</b>	<b>\$5,824,171</b>	<b>\$5,291,055</b>
LIABILITIES		
Deposits:		
Member Bank — Reserve Accounts \$ 817,447	\$ 765,374	
U.S. Treasurer — General Account . 474,331	573,537	
Foreign . . . . . 9,098	7,778	
Other Deposits . . . . . 22,260	58,153	
<b>TOTAL DEPOSITS . . . . .</b>	<b>\$1,323,136</b>	<b>\$1,404,842</b>
Federal Reserve Notes (NET) . . . . .	\$3,912,126	\$3,535,992
Deferred Availability Cash Items . . . . .	362,632	249,108
Interdistrict Settlement Account . . . . .	114,545	—
Other Liabilities . . . . . 47,458	36,009	
<b>TOTAL LIABILITIES . . . . .</b>	<b>\$5,759,897</b>	<b>\$5,225,951</b>
CAPITAL ACCOUNTS		
Capital Paid In . . . . . \$ 32,137	\$ 32,552	
Surplus . . . . . 32,137	32,552	
<b>TOTAL CAPITAL ACCOUNTS . . . . .</b>	<b>\$ 64,274</b>	<b>\$ 65,104</b>
<b>TOTAL LIABILITIES AND     CAPITAL ACCOUNTS . . . . .</b>	<b>\$5,824,171</b>	<b>\$5,291,055</b>

Federal Reserve Banks play an important role in formulating System policy.<sup>1</sup> Also, the 12 Federal

<sup>1</sup>The Federal Open Market Committee (FOMC) consists of the seven members of the Federal Reserve's Board of Governors and the President of the Federal Reserve Bank of New York as permanent members, with four of the remaining eleven Reserve Bank Presidents serving on a rotating basis. The FOMC directs the purchase and sale of Treasury and Government agency securities on the open market.

Table III

**COMPARATIVE PROFIT AND LOSS STATEMENT**  
(Dollar Amounts in Thousands)

	1977	1976	Percent Change
Total earnings . . . . .	\$284,888	\$256,795	10.9%
Net expenses . . . . .	33,619	35,041	-4.1
Current net earnings . . . . .	\$251,269	\$221,754	13.3%
Net additions (+) or deductions (-) . . . . .	-5,829	+460	—
Assessments for expenses of Board of Governors . . . . .	-1,563	-1,403	11.4%
Net earnings before payments to U.S. Treasury . . . . .	\$243,877	\$220,811	10.4%
Distribution of Net Earnings:			
Dividends . . . . .	1,963	1,915	2.5%
Interest on Federal Reserve Notes . . . . .	242,329	217,582	11.4
Transferred to Surplus . . . . .	-415	1,314	-131.6
<b>TOTAL . . . . .</b>	<b>\$243,877</b>	<b>\$220,811</b>	<b>10.4%</b>

Reserve Banks contribute to System awareness of local and regional business conditions through the collection of business, monetary, and financial data. Information gathered is used by the President of this Bank in policy discussions during meetings of the Federal Open Market Committee.

Economic data and analysis of regional, national, and international conditions are made available to the public by the Research Department through its various releases. Comprehensive analysis of economic problems and conditions provide the basis of articles appearing in this *Review*. The *Review*, which is published monthly, has a circulation of about 43,000 copies and is distributed both nationally and internationally.

As mentioned above, the Research Department also assists in the bank regulatory function by reviewing the impact of bank mergers and holding company acquisitions on the communities to be served.

### *Bank Relations and Public Information*

The Bank Relations and Public Information Department endeavors to establish and maintain personal contact with all banks located in the Eighth Federal Reserve District through a structured visitation program and attendance at various banking functions. An effort is also made to increase public understanding of the functions, responsibilities, and policies of the Federal Reserve System by distributing films and publications, providing in-house tours, delivering

speeches, and conducting seminars. Emphasis is placed on maintaining contact with schools and colleges in this District.

The Functional Cost Analysis Program offered to member banks is administered by this department. This program provides participating member banks with bank operating costs by function and permits comparison with banks of similar size. Technical assistance is furnished during the first year to banks desiring to participate in the program. Last year, 50 Eighth District member banks participated in the program.

In maintaining contact with the banking industry and the general public during 1977, the officers and staff members of the Federal Reserve Bank of St. Louis and its branches delivered 208 addresses before bankers, business groups, and educators. The Bank

was represented at 223 banker, 491 professional, and 200 miscellaneous meetings. Under the bank visitation program, 837 banks in the District were visited. During 1977, 355 groups requested films and 5,291 visitors toured the four Federal Reserve offices in the Eighth District.

### *Financial Statements*

The Bank's net expenses for 1977 were 4 percent lower than net expenses for 1976. While expenses declined, the Bank's payments to the Treasury increased by more than 11 percent, from \$218 million in 1976 to \$242 million in 1977.

The \$242 million paid to the Treasury was 85.1 percent of total earnings. In 1976, by comparison, 84.7 percent of total earnings was paid to the Treasury.

