

A BUSINESS AND FINANCIAL REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

November/December 1977

ECONOMIC

# PERSPECTIVES

Banking insights  
Business insights  
Treasury to invest surplus  
tax and loan balances



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**ECONOMIC PERSPECTIVES**

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# Business insights

## Big year for cars and trucks

In 1977, as in 1976, rising sales of motor vehicles have been a major factor in the general expansion of business activity. As a result, the economic health of industrial centers specializing in production of components and assembly of finished vehicles, especially in Michigan but also in other Midwestern states, has vastly improved from the low ebb of the 1974-75 recession. Some industry analysts are confident that further gains will occur in 1978.

Barring an unexpected setback in the final months of the year, deliveries of cars and trucks to consumers and businesses will approach 15 million in 1977, slightly exceeding the previous banner year of 1973. Passenger car sales are expected to reach 11.25 million—including over 2 million imports—which would fall short of the 11.45 million record set in 1973. Truck sales, at about 3.6 million, with about 300,000 small imports, are certain to establish a new high by a wide margin.

### Crowding the highways

About 100 million passenger cars and about 28 million trucks are in operation currently. This compares with a population 16 years and over of 160 million. Theoretically, four of every five Americans of driving age could be at the wheel of a motor vehicle simultaneously. To the harassed motorist caught in traffic congestion it sometimes appears that they are!

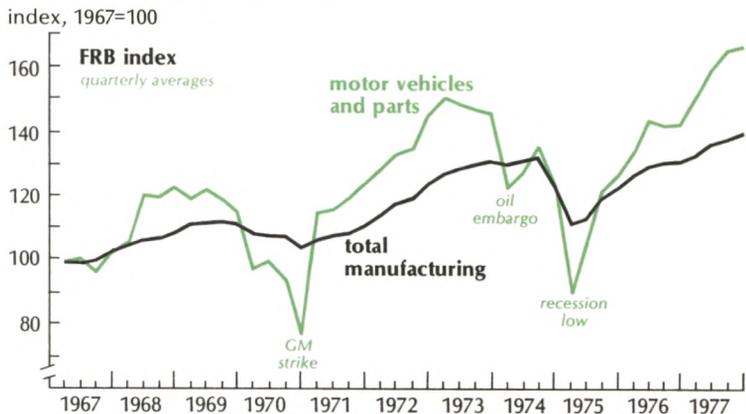
There is no clear evidence that the uptrend in the motor vehicle population will halt in the years ahead. Despite efforts to revive public passenger

transport, Americans use, and often need, personal transportation more than ever before. Moreover, the share of freight moved by truck continues to grow. The steady contraction of the population of the central cities and the sprawling growth of outlying areas encourage these trends. One consequence is the heavy deficit in the balance of payments associated with oil imports, now about 45 percent of our total supply. Motor gasoline and diesel fuel account for about 40 percent of all sales of petroleum products by physical volume.

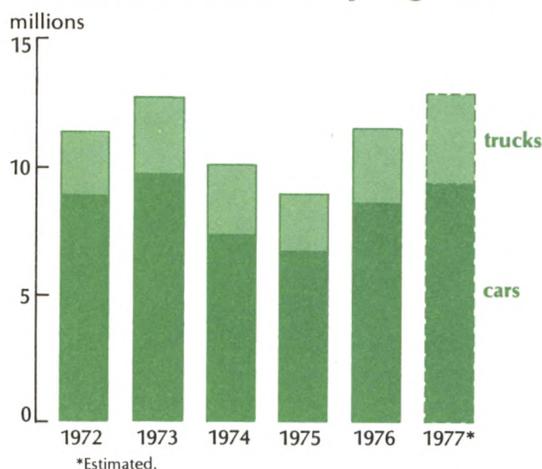
### Purchases and prices

In the January-October period retail sales were up 11 percent from last year. Sales of motor vehicle dealers were up 16 percent, while sales of nonautomotive stores were up 9 percent. Not all sales of automotive dealers are to consumers. About a fourth of new passenger cars are purchased by businesses, including auto rental companies. On the other hand, households are increasingly important buyers of trucks. The Department of Commerce estimates that households buy 20

## Auto industry has led expansion of total manufacturing



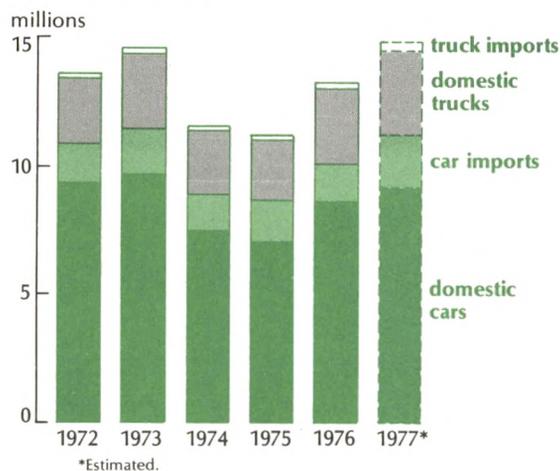
## Trucks lead vehicle output growth



percent of all trucks by value and 40 percent by number. These are almost all light trucks, including over a half million vans and many campers and motor homes.

Prices of motor vehicles have increased rapidly in recent years, and most operating costs—fuel, repairs, insurance, etc.—have increased even more rapidly. A recent estimate by the Hertz Corporation places the cost of operating the average 1977 model passenger car, including depreciation, at 30 cents a mile or \$3,000 a year.

## Imports take a larger share of the market



At midyear the Consumer Price Index (CPI) showed prices of new cars up 5.4 percent from a year ago, and up 27 percent in five years. The entire index was up 6.9 percent from a year ago, and up 45 percent in five years. Average prices actually paid for new cars have increased much more rapidly than this comparison indicates, however, partly because the CPI compilers assume that safety and pollution controls mandated by government add value to the vehicle and, therefore, these costs should not be counted as price increases. According to data from major auto finance companies, the average sales price of new cars in mid-1977 was \$5,700. This was up 10 percent from a year ago, and up 59 percent in five years, more than the rise in the total CPI.

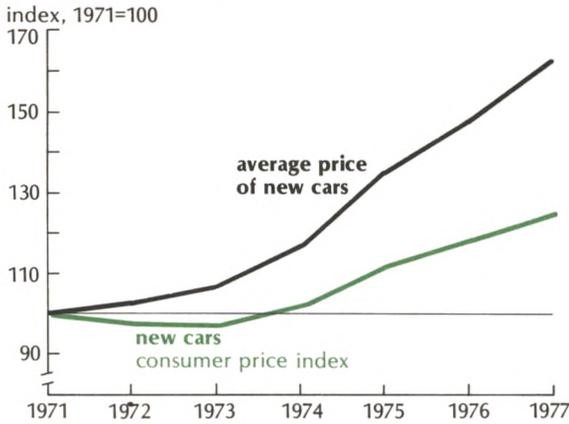
## Credit use expands

In 1976 households spent \$142 billion to purchase and operate motor vehicles—13 percent of total consumer expenditures. This outlay was divided about 50-50 between purchases of new or used vehicles and operating costs.

About two-thirds of all new cars are financed through the use of instalment credit contracts with the car serving as collateral. (Other purchases are known to be financed through other types of credit.) Last year \$63 billion was extended on auto loans, including finance charges—one-third of all instalment credit extended. Almost 60 percent of all auto loans are made by commercial banks, the rest mainly by credit unions and the “captive” finance companies operated by the auto companies. In the first eight months of 1977, auto credit extensions were up 15 percent from the same period of 1976. At the end of September, outstanding auto credit was \$77.2 billion, up from \$64.6 billion a year earlier.

For many years the typical new car loan has been equal to the wholesale cost of the car—about 87 to 88 percent of the implied retail price. Delinquencies and write-offs have been relatively low, even in recessions. Delinquency rates are typically under 2 percent, and repossessions under 1 percent of all con-

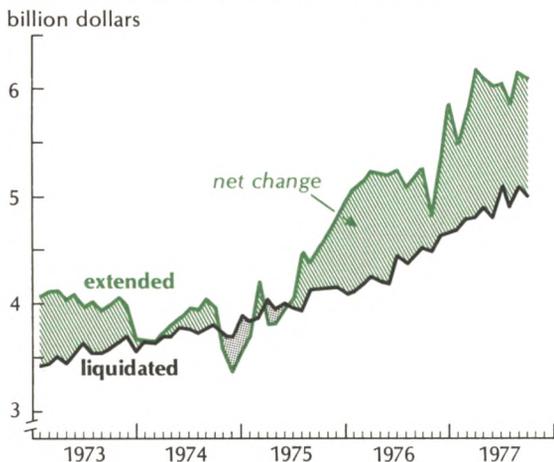
## Average price paid for cars has outpaced car price index



tracts, significantly less than on other installment loans. Most families will cut back on other outlays, including food, to maintain payments on a car which, if not a necessity, is a highly prized possession. Monthly payments have been eased, however, by lengthening maturities.

In 1974 and earlier years the average maturity on new car loans by major finance companies averaged 35 months with 36 months typical. Starting in 1974 more loans were made for 42 months and even 48 months. In August 1977 the average maturity on these loans was 41 months, and 30 percent

## Rapid rise in instalment credit has financed auto sales boom



of new loans were for over 42 months. Finance company experience with 48-month loans has been excellent, partly because credit standards are higher for longer loans, and partly because used car prices have been strong. However, some lenders have been cautious in joining this trend. Longer-term auto loans probably will be associated with more loans being liquidated before maturity as cars are traded before loans are paid off.

## Import share rises

Imports, almost all small cars, may account for over 18 percent of all car sales this calendar year. This would be up from 15 percent in 1976 and about equal to the record proportion reached in 1975. In the five years prior to 1975, imports had accounted for 15 percent of the total, up from 6 percent in the mid-1960s. Imports do not include about 300,000 "domestics" shipped from Canada in excess of cars shipped to Canada under the United States-Canadian Auto Trade Agreement.

In the first nine months of 1977, 68 percent of all imports were from Japan, 21 percent from Germany, and 11 percent from other countries. The Japanese have continued to expand their penetration of the U.S. market in recent years with several popular makes, apparently at the expense of small U.S. and European cars.

Despite new models and heavy promotions, U.S.-made small cars have not been able to stave off imports. Neither have they displaced large domestic cars. According to Ward's Automotive Reports, intermediate and full-sized domestic cars accounted for 52 percent of the total car market in the 1977 model year, up from 50 percent in the 1976 model year. The share of market going to imports rose from 14 percent in the 1976 model year to 18 percent in 1977. The losing group was domestic small cars (compacts and sub-compacts), whose share dropped from 36 to 30 percent.

## The consumer rules

The strong market for new cars has not been a boon for all models or all producers.

Successive shutdowns of assembly lines for various domestic small cars have occurred in the past year as inventories bulged. Meanwhile, preferred models, especially larger domestic cars, have been in short supply. On November 1 the 1.6 million inventory of domestic cars represented a manageable 49 days' sales, but the range for particular cars was from 30 to over 100 days. Inventories of imports dropped from over 600,000 in mid-1976 to 300,000 in recent months—probably too low for maximum sales efforts.

U.S. car producers are under government order to improve the average miles per gallon on the average car sold by each company from about 18 on 1978 models to 27.5 in 1985. To some extent this can be accomplished by designing more efficient components, using diesel engines, and including some captive imports in the company mix. For the most part, however, better gas mileage means smaller cars, substitution of lighter materials for steel, and reduced engine size.

The auto industry is engaged in a massive capital expenditure program to “downsize” all classes of cars. While total plant and equipment expenditures by all business is expected to be up 13 percent this year, the auto companies are increasing outlays to \$3.67 billion, up 56 percent from 1976, and up 42 percent from the previous high set in 1974. Most of the money spent by the auto companies will be for machine tools and other equipment, but new buildings also are being constructed and existing buildings are being expanded.

## **Managing the mix**

Auto executives frequently make news with forecasts of the industry's total sales of cars and trucks for the current and/or coming year. They are well aware, however, that both total sales and sales of particular models depend on the sovereign consumer. Production schedules are never firm more than a month or two in advance. A weakening of consumer confidence, or growing disfavor toward particular models, can soon create costly inventory gluts with acres of unsold cars if output is not adjusted promptly.

In early 1974 auto firms took drastic steps to divert the production mix toward small cars. The gas shortage associated with the Arab oil embargo seemed to have created an insatiable market for small cars with high gas mileage. By the late spring, as gasoline supplies returned to normal, demand for domestic small cars collapsed almost as suddenly as it had expanded in the previous winter.

Many American households clearly are not satisfied with small cars. They are ready to pay substantially higher prices for fuel rather than sacrifice carrying capacity, engine power, and, perhaps, prestige. Managing the mix of production and distribution to satisfy consumers on the one hand, and government regulators on the other, presents a challenge unique in the history of the auto industry.

*George W. Cloos*

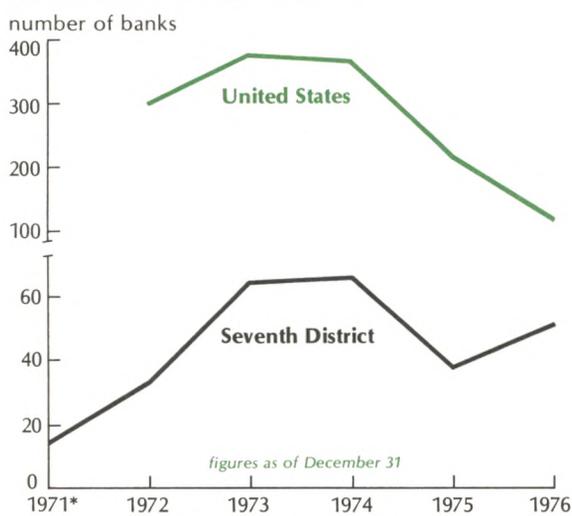
# Banking insights

## District holding company acquisitions on the rise

Holding company acquisitions of commercial banks in the states comprising the Seventh Federal Reserve District returned to an upward trend during 1976. The renewed activity followed a peak in 1974 and a slowdown in 1975. Nationwide, holding companies did not follow the District trend, as the absolute number of commercial banks acquired by holding companies during 1976 shrank for the third consecutive year.

Although nearly 44 percent of all banks acquired by holding companies in 1976 were located in the Seventh District, the District accounted for less than its share of banks affiliated with holding companies at year end. Holding companies controlled approximately 26 percent of all commercial banks across the nation by the end of 1976, but only 22 percent within the five District states.

### Holding company acquisitions in the District rebounded, but continued downward in the nation



### Multibank holding companies

Multibank holding companies are becoming increasingly important in the structure of District banking. In Michigan, after only five years of rapid expansion, bank subsidiaries of these companies control nearly two-thirds of the state's commercial bank deposits.<sup>1</sup> Multibank holding companies have been legal in Wisconsin for many years and are on the verge of holding more than half of the state's deposits. Multibank holding companies and one-bank holding companies are of about equal importance in Iowa, with multibank holding companies controlling approximately 25 percent of the state's deposits and one-bank companies controlling about 23 percent. Although Illinois and Indiana banking laws prohibit the formation of multibank holding companies, one "grandfathered" multibank holding company and 40 *de facto* multibank holding companies operate in Illinois.<sup>2</sup>

### Nonbanking activities

Almost 40 percent of the District holding company organizations were engaged in nonbanking activities at year-end 1976. Under the regulations of the Bank Holding Company Act, a bank holding company can engage in certain nonbanking activities that are closely related to banking, such as leasing, insurance, and real estate; certain activities—such as advertising, exterminating, and issuing

<sup>1</sup>Michigan law prohibited Michigan corporations from owning bank stock until April 1971.

<sup>2</sup>For a discussion of *de facto* multibank holding company activity in the District, see Joseph T. Keating, "Chain banking in the District," *Economic Perspectives*, September/October 1977.

### Bank holding companies in the Seventh District

(December 31, 1976)

	<b>Multibank holding companies</b>				
	<b>Number of MBHCs*</b>	<b>Number of subsidiary banks</b>	<b>Total MBHC deposits</b>	<b>Share of total banks</b>	<b>Share of total deposits</b>
			(millions)	(percent)	(percent)
Illinois	1	3	\$ 151.1	0.2	0.2
Indiana	—	—	—	—	—
Iowa	10	65	\$ 3,272.3	9.9	25.1
Michigan	24	108	\$ 20,480.2	30.0	64.5
Wisconsin	19	121	\$ 6,679.8	19.3	40.4
Five-state total	54	297	\$ 30,583.4	9.0	21.2
United States	298	2,295	\$286,514.0	15.6	34.2

	<b>One-bank holding companies</b>				
	<b>Number of OBHCs*</b>	<b>Number of subsidiary banks</b>	<b>Total OBHC deposits</b>	<b>Share of total banks</b>	<b>Share of total deposits</b>
			(millions)	(percent)	(percent)
Illinois	171	171	\$ 34,796.5	13.7	55.1
Indiana	30	30	\$ 6,393.8	7.3	32.3
Iowa	146	146	\$ 2,955.4	22.2	22.6
Michigan	20	20	\$ 2,405.2	5.6	7.6
Wisconsin	47	47	\$ 1,143.4	7.5	6.9
Five-state total	414	414	\$ 47,694.3	12.5	33.1
United States	1,504	1,496	\$267,135.0	10.2	31.9

\*Holding companies that were subsidiaries of other holding companies were eliminated, but holding companies whose bank subsidiary was also a subsidiary of another totally unrelated holding company were included.

NOTE: Data for entire state, not only the portion within the Seventh Federal Reserve District.

### Distribution by deposit size of District banks affiliated with OBHCs and MBHCs

(December 31, 1976)

<b>Bank deposit size</b>	<b>OBHCs</b>	<b>MBHCs</b>	<b>Total commercial banks in five District states</b>
	<b>Number of subsidiary banks</b>	<b>Number of subsidiary banks</b>	
(million dollars)			
Under \$9.9	78	49	1,026
\$10 to \$24.9	136	94	1,179
\$25 to \$49.9	87	69	607
\$50 to \$199.9	86	63	427
\$200 to \$499.9	17	12	43
\$500 to \$999.9	3	5	10
\$1,000 to \$2,999.9	4	4	8
\$3,000 or more	3	1	4
All size banks	414	297	3,304

NOTE: Data for all banks in the five District states, not only the portion within the Seventh Federal Reserve District.

trading stamps—are permitted if the holding company had been engaged in them prior to 1968. The District's multibank holding companies have been much more active in the nonbanking fields than have their one-bank counterparts. Eighty-five percent of the District's multibank holding companies and 34 percent of the District's one-bank holding companies had diversified and expanded their operations to nonbanking activities by the end of 1976.

### Prospects for future holding company developments

Iowa, Michigan, and Wisconsin allow multibank holding companies and the share of total banks affiliated with holding companies in these three states is very close to or above the national average. Yet these states contain over 1,100 commercial banks that remained unaffiliated with a holding company at the beginning of 1977. As a potential source of expansion, these banks could be acquired by one-bank holding companies to form multibank holding companies.

In Illinois and Indiana the share of banks controlled by holding companies is far below the national average. Increasing these proportions would seem to depend on changing Illinois and Indiana banking laws to allow multibank holding companies to operate within these two District states. Although several proposals to permit multibank holding companies have been introduced in both states in recent years, they have fallen far short of attracting the support needed for adoption.

Another prospect for holding

**Nonbanking activities of Seventh District and U.S. bank holding companies**  
(December 31, 1976)

<u>Industry Group Title</u>	<u>Seventh District</u>			<u>United States</u>
	<u>Number of OBHCs</u>	<u>Number of MBHCs</u>	<u>Share of all bank holding companies</u>	<u>Share of all bank holding companies</u>
Leasing activities	66	29	21.3	23.7
Insurance underwriting and service	83	12	21.3	25.7
Real estate	37	11	10.7	13.4
Commercial credit institutions	32	13	10.1	16.7
Establishments performing functions closely related to banking	32	5	8.3	5.7
Data processing	22	11	7.4	12.2
Mortgage banking	17	14	6.9	14.1
Miscellaneous business services	26	5	6.9	7.4
Consumer credit institutions	16	3	4.3	7.7
Trust services	9	4	2.9	2.2
Investment advisors	5	6	2.5	4.2
Loan servicing	5	3	1.8	1.8
Investment companies	6	1	1.6	4.0
Holding companies—except bank holding companies	4	1	1.1	3.9
Securities underwriting and exchange services	2	3	1.1	2.6
Management consulting	3	—	0.7	3.2
Savings and loan associations	2	—	0.4	0.8
Credit card services	1	1	0.4	0.7
Industrial banks	—	1	0.2	1.0
Economic advisors	1	—	0.2	0.5
Courier services	1	—	0.2	0.3

NOTE: This data includes all direct and indirect subsidiaries of bank holding companies, and Seventh District data pertains only to banks and holding companies operating within the Seventh Federal Reserve District.

company activity depends largely upon the intentions of the over 250 one-bank holding companies in the District that have not exer-

cised options to diversify into the permissible nonbanking fields.

*Joseph T. Keating*

## Deposit service charges

Service charges collected on average demand deposits have increased over the past few years. According to the Reports of Condition and Income, service charges collected relative to average demand deposits of individuals and businesses generally reached a low during 1972 and 1973 both nationally and in the Seventh District. The reason for the recent increase is not precisely known. Lower earnings rates on loans and securities have no doubt reduced the portfolio income earned by commercial banks. At the same time higher processing costs may have generated pressure for the recovery of additional check administration costs. Discussion of more explicit pricing for services may have already stimulated implementation of more specific charges.

Service charges recover only a small portion of the costs of administering checking accounts. The difference between the amounts collected and the actual costs is an implicit return to the account holder. Proposals to permit commercial banks to pay interest on demand deposits or to offer interest-bearing negotiable order of withdrawal (NOW) accounts for transaction purposes would allow for the substitution of an explicit interest payment for all or most of the present implicit return. Banks would probably find it necessary to unbundle packages of services available to depositors and to price each of these services more in accordance with its costs. Total service charges could be expected to generally increase, although the amount would vary among banks.

Comparison of aggregative data for various structural groupings of banks shows that the ratio of total service charges to average demand deposits varies significantly.<sup>1</sup>

<sup>1</sup>The ratios used in this article are based on service charges (Report of Income: Ald) ÷ Average IPC demand deposits (Report of Condition: F(A)1c).

An important factor that may affect all such comparisons is the proportion of deposits in personal accounts. The service charge ratio is higher at banks with deposits less than \$500 million than at those with deposits above this amount, no doubt reflecting the larger proportion of consumer demand deposits at the smaller banks. Within the same size groupings, total service charge income was lower in relation to total deposits at banks that are members of the Federal Reserve System than at nonmembers and lower at Seventh District banks than nationally.

### Personal vs. business accounts

Service charges are substantially higher on personal checking accounts than on commercial checking accounts. According to data submitted by participants in the Functional Cost Analysis (FCA) program run by the Federal Reserve System, service charges as a percent of demand deposit balances, nationally, were five times larger for personal checking accounts than for business accounts at banks with deposits below \$200 million. At bigger banks they were eight times larger.

The higher service charges on consumer demand deposits reflect the higher administrative expenses per dollar volume associated with individual checking accounts than with business checking accounts. Most of the difference is attributable to the much smaller average size of the personal checking account. In 1976 the average commercial checking account was eight times larger than the average personal checking account of \$874 at banks with less than \$50 million in deposits and up to 13 times larger than the average personal checking account of \$947 at banks with deposits of \$200 million or more.

The multi-service relationship of banks with business helps to explain the larger

average size for commercial checking accounts. Larger minimum balances may be required for transaction services, and compensating balances are frequently required for business loans. These balances are to a large extent in lieu of service charges.

Despite the higher service charges on personal checking accounts, according to FCA studies, service charges recover only about one-fifth to one-fourth of administrative expenses of the accounts. For business accounts the proportion ranges from one-eighth to one-fifth. Generally, smaller banks recover a larger proportion of the total expense in service charges for each type of account.

The difference between the expense to the bank of a checking account and service charges is implicit interest on the deposit for the account owner. Because of the substantially higher administrative costs for personal checking accounts, the implicit interest is also much higher than for business checking accounts. Businesses may, however, receive other benefits, especially where some of the business demand deposits represents the compensating balance for a loan at a lower rate than would be required without a compensating balance. Because business balances pay for so many other bank services, the connection between business checking costs and deposit service charges is more variable for business accounts.

### **Large vs. small banks**

The ratio of total service charges to average demand deposits varies significantly by bank size. Nationally, in 1976 the ratio ranged from a low of .56 percent for banks with \$500 million and over in deposits up to .92 percent for banks with \$25 million to \$50 million in deposits.

Most of the variation in service charges relative to demand deposits probably reflects the lower proportion of consumer demand deposits at the larger banks than at the smaller banks. According to the FCA data, participating banks with \$500 million and over in deposits in 1976 reported only 25 percent of

demand deposits in personal accounts, while banks with less than \$50 million in deposits had 41 percent.

Federal Reserve Board surveys of demand deposit ownership confirm the smaller proportion of demand deposits owned by consumers at the large banks. As of the June 1977 survey, 22 percent of demand deposits for the large bank reporting panel were in consumer accounts compared with 41 percent at the smaller banks.

### **Member vs. nonmember**

Total service charges relative to average demand deposits were lower for banks that were members of the Federal Reserve System than for banks that were not. This was true both nationally and in the Seventh District. Only for small banks with deposits of less than \$10 million in 1976 is the comparison ambiguous.

Cost information that might indicate the reason for relatively lower service charges at member banks is not available since nonmember banks have not participated in the FCA studies. Ownership of demand deposits probably does not vary significantly between member and nonmember banks of similar size.

The difference in service charges is more pronounced for banks with \$100 million or more in deposits than for smaller banks. A possible explanation is that member banks, for whom the Federal Reserve provides check processing, are passing the savings on to consumers through lower service charges.

A recent survey by the Federal Reserve Bank of St. Louis indicated that small member banks make relatively little use of Federal Reserve check clearing services.<sup>2</sup> This may explain the absence of a significant difference in service charges between small member and nonmember banks.

Previous studies that have compared service charge income relative to demand

<sup>2</sup>Gilbert, R. Alton, "Utilization of Federal Reserve Bank Services by Member Banks: Implications for the Costs and Benefits of Membership," *Review*, 59: 2-15, August, 1977, Federal Reserve Bank of St. Louis.

**Service charge income relative to checking balances varies . . .**

**. . . by size and membership status**

<u>Deposit size</u>	<u>United States</u>		<u>Seventh District</u>	
	<u>Member</u>	<u>Nonmember</u>	<u>Member</u>	<u>Nonmember</u>
Less than \$5 million	.88	.72	.42	.43
\$5-10 million	.89	.89	.64	.56
\$10-25 million	.85	.94	.66	.70
\$25-50 million	.83	1.01	.75	.78
\$50-100 million	.79	.87	.71	.74
\$100-500 million	.69	.87	.59	.79
\$500 million and over	.55	.64	.45	—

**. . . by state**

<u>Deposit size</u>	<u>Member banks in 1976</u>				
	<u>Illinois</u>	<u>Indiana</u>	<u>Iowa</u>	<u>Michigan</u>	<u>Wisconsin</u>
Less than \$5 million	.30	.28	.45	1.34	.59
\$5-10 million	.42	.35	.45	.87	1.04
\$10-25 million	.46	.58	.54	1.00	.77
\$25-50 million	.70	.50	.74	.91	.55
\$50-100 million	.62	.75	.64	1.10	.49
\$100-500 million	.46	.73	.33	.99	.36
\$500 million and over	.24	.86	—	.71	.38

**. . . and over time**

<u>Year</u>	<u>U.S. member banks</u>						
	<u>Deposit size</u>						
	<u>Less than \$5 million</u>	<u>\$5-10 million</u>	<u>\$10-25 million</u>	<u>\$25-50 million</u>	<u>\$50-100 million</u>	<u>\$100-500 million</u>	<u>\$500 million and over</u>
1970	.72	.91	.95	.91	.79	.71	.48
1971	.66	.91	.94	.89	.78	.69	.49
1972	.65	.81	.87	.83	.76	.65	.47
1973	.61	.72	.82	.81	.75	.64	.49
1974	.73	.74	.82	.81	.76	.68	.51
1975	.94	.80	.85	.85	.77	.68	.53
1976	.88	.89	.85	.83	.79	.69	.55

SOURCES: Report of Condition and Report of Income.

deposits for member vs. nonmember banks have analyzed data for the small banks, primarily those with less than \$10 million in deposits.<sup>3</sup> The comparisons presented here suggest a need for further analysis of the data for larger banks, especially those with deposits of over \$100 million that make extensive use of the Federal Reserve check processing services available to members.

### Variation within the District

Among Seventh District states the ratios of service charges to demand deposits for member banks are significantly higher in Michigan than in the other states. This may reflect either fewer banks with more branches, a higher proportion of consumer accounts, or more explicit pricing of checking account services.

Results in other states are mixed, although Illinois member banks, Indiana banks with less than \$50 million in deposits, and Wisconsin banks with over \$50 million in deposits do appear generally to have lower relative service charges. The largest Illinois member banks, which includes the big Chicago banks with a high proportion of business accounts, have the lowest aggregate ratio.

### Trend reversed

In the current decade service charges relative to demand deposits reached a low in 1973 for banks with total deposits of less than \$500 million and in 1972 for larger banks. The overall trend does not appear much affected by changes in the distribution of demand deposits between personal and business accounts. At the large banks that report in the demand deposit ownership survey the proportion of demand deposits owned by

consumers increased slightly over the past four years and the fraction owned by non-financial businesses changed little. At smaller banks the proportions were essentially unchanged.

Strong business loan demand during 1972 and 1973 led commercial banks to compete aggressively for deposits as a source of loanable funds. For many banks this entailed the reduction of service charges and offers of "free" checking. Service charges were primarily to control excessive use of checking services.

Service charges have risen again since 1973. Declining interest rates, reduced demand for business credits, and rising provisions for loan losses necessitated closer control of expenses. As the return on loans declined, a larger portion of the checking account costs has had to be recovered through service charges to maintain net earnings.

### New competitive strategy

The marketing strategy of commercial banks to obtain demand deposits has been to emphasize low or nonexistent service charges for checking convenience. The Banking Act of 1933 prohibited banks from paying interest on demand deposits. Rising interest rates permitted a larger portion of check processing costs to be absorbed by portfolio earnings. Service charges were primarily to provide an incentive to customers to economize on the use of checking account services.

It seems likely that the payment of explicit interest on demand-type deposits would shift emphasis to interest rates offered and competitive prices for services. Depositors could select on a more rational basis the services needed combined with the highest interest rate available on a required minimum deposit. The net result could be an increase in the amount of demand deposits and reduced utilization of checking services. Service charges would doubtless increase but probably not to the present cost of service as depositors economize on costly services that are currently "free."

Eleanor Erdevig

<sup>3</sup>Fraser, D.R., Rose, P.S., and Schugart, G.L., "Federal Reserve Membership and Bank Performance: The Evidence from Texas," *Journal of Finance*, May 1975, 641-658; Gilbert, G.G., and Peterson, M.O., "The Impact of Changes in Federal Reserve Membership on Commercial Bank Performance," *Journal of Finance*, June 1975, 713-719, and Varvel, W.A., "The Cost of Membership in the Federal Reserve System," Working Paper No. 77-1, Federal Reserve Bank of Richmond, March 1977.

# Treasury to invest surplus tax and loan balances

Legislation signed by the President on October 28, 1977, will allow the Treasury Department to earn a direct return on temporary cash surpluses. The new law authorizes the Secretary of the Treasury to invest any portion of the Treasury's operating cash for periods up to 90 days in (1) open-end obligations of depositories maintaining Treasury tax and loan accounts secured by a pledge of acceptable collateral and (2) obligations of the United States and its agencies. Besides commercial banks and mutual savings banks, qualifying savings and loan associations and credit unions will be authorized to act as Treasury depositories, to receive federal taxes upon opening Treasury tax and loan accounts, and to issue interest-bearing obligations to the Treasury. In lieu of noninterest balances, the Treasury will pay fees to depositories for their services in handling tax and loan accounts and savings bond transactions.

The implementation of this program not only will have a significant impact on the availability of funds to individual financial institutions involved but also should reduce monetary control problems that have been associated with recent Treasury cash management policies. These benefits, in turn, can be expected to reduce temporary shifts in supply-demand forces in money markets that aggravate investor uncertainties. Just what the impact will be, however, depends mainly on the choice by depositories of the options offered them.

## Two kinds of deposits

The federal government—like individuals and corporations—must maintain a

working balance to cover its current expenditures. Because receipts (including the proceeds of debt issues) never precisely match disbursements in timing and amount, total funds at the Treasury's disposal vary widely over short periods, especially around tax and financing dates. The Treasury Department holds its cash balances in two types of accounts—demand deposit balances at Federal Reserve Banks and Treasury tax and loan (TT&L) accounts at commercial banks. All Treasury checks are paid through Federal Reserve Banks, which are the fiscal agents of the federal government. Through periodic "calls," the Treasury orders funds in TT&L accounts to be transferred to Reserve Bank balances.

The tax and loan accounts are maintained at about 13,000 commercial banks that qualify as special depositories. Banks can qualify by applying through a Federal Reserve Bank and posting collateral to cover funds in the accounts.<sup>1</sup> The system of tax and loan accounts was devised during World War I to facilitate the sale of bonds necessary to finance the war. Under the terms of the First Liberty Loan Act of 1917, Congress authorized the use of tax and loan accounts for the deposit of proceeds from the sales of new Treasury securities. The

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<sup>1</sup>Although U.S. Government securities constitute the principal collateral for these deposits, a variety of other types of securities and paper have been pronounced "eligible" by the Treasury (although not all at book value), including obligations of U.S. Government agencies, state bonds, and high-grade corporate and municipal bonds, certain commercial and agricultural paper, bankers' acceptances, and notes representing loans guaranteed by certain U.S. Government departments and bureaus.

value of those deposits helped induce commercial banks to distribute new issues at no direct commission costs to the government. Later, after World War II, Congress broadened the use of these special accounts to include deposits of payroll taxes and certain excise taxes. Today, balances in tax and loan accounts come mostly from tax collections.

The depositaries are divided into three groups—A, B, and C. Calls on Group A depositaries, the smallest banks, are generally made once a week for previous week balances. B bank balances are generally called each day, as of three days earlier; and C bank balances at the end of each day are called on the following day. In addition, Group C depositaries, the largest banks, are subject to special calls (or redeposits) for same-day payment. These special orders are used to withdraw additional funds from the commercial banking system, to cancel part or all of a previous call, or to allow the Treasury to move funds back to commercial banks from Federal Reserve Banks. Special calls give the Treasury better control and more flexibility in managing its deposits at the Federal Reserve in response to short-run changes in the timing of expenditures and receipts.

### Why distribution matters

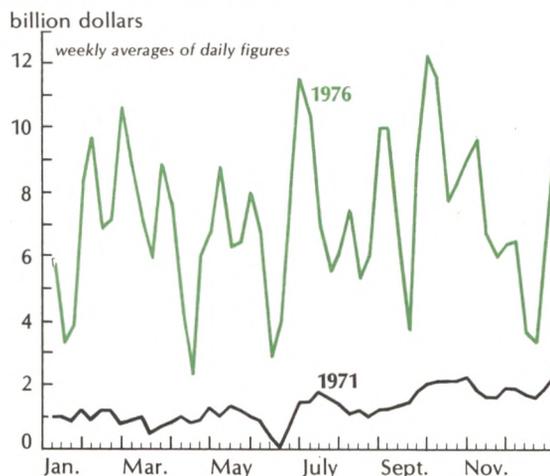
The distribution of the Treasury's operating cash between deposits at Federal Reserve Banks and tax and loan deposits at commercial banks affects the availability of funds to the private sector and may impact on money market conditions. When taxes are collected, deposits are shifted from the public to the Treasury. If these funds are retained in the tax and loan accounts, they remain a source of loanable funds in the commercial banking system, although the money supply, which is defined to exclude Treasury deposits, is reduced by tax payment. If, on the other hand, the funds are shifted to the Federal Reserve Banks, aggregate commercial bank deposits decline. The Federal Reserve transfers the funds by crediting the Treasury's account and debiting the reserve accounts

member banks maintain at Federal Reserve Banks.<sup>2</sup>

Because member bank deposits are not only working balances but also comprise the legal reserves held against commercial bank deposit liabilities, this shift absorbs part of the reserve base of the banking system as a whole and can reduce by some multiple the volume of commercial bank deposits and, hence, the money supply. In the absence of offsetting Federal Reserve action, such transfers would force banks to liquidate earning assets in order to bring about the shrinkage of private deposits necessary to restore their reserve-to-deposit ratios to required levels and would exert upward pressure on market interest

<sup>2</sup>A member bank must maintain deposits in its district Federal Reserve Bank to satisfy legal reserve requirements in excess of its vault cash. Upon receipt of instructions from the Secretary of the Treasury, the Federal Reserve Banks send notices of withdrawal to each depositary covered by such calls. Payment for the amount of withdrawal is handled as follows: For member bank depositaries the bank's reserve account is charged. For nonmember bank depositaries the reserve account of the member bank, designated in the agreement between such bank and the depositary, is charged. Where no such agreement has been executed, nonmember banks are required to return the remittance advice with payment in immediately available funds to the Federal Reserve Banks no later than the day payment is due.

### In contrast to 1971, Treasury deposits at Federal Reserve Banks have been more volatile



SOURCE: Board of Governors, Federal Reserve System

rates.<sup>3</sup> Of course, the Federal Reserve can offset these effects by supplying reserves to the banking system through open market operations, but only at the expense of vastly expanding and complicating the operations necessary for monetary control.

In recognition of this problem, the Treasury for a long time sought to minimize the reserve impact of variation in its overall balances by holding its deposits at Federal Reserve Banks at a low and fairly constant level. From 1964 until 1974 the Treasury's policy was to keep deposits at Federal Reserve Banks at minimum efficient operating levels. Receipts in excess of immediate disbursements were allowed to accumulate in tax and loan accounts at commercial banks. And the Treasury quickly redeposited in tax and loan accounts any surplus in operating balances at Federal Reserve Banks. Although this strategy sometimes resulted in a large buildup of noninterest-bearing balances in the banks, it was believed that the earning value of the tax and loan funds to banks was a rough offset to the cost banks incurred in providing services to the federal government and its agencies. Between 1964 and 1974 the

Treasury's balances at the Federal Reserve remained relatively stable around \$1 billion, in contrast with the great volatility of balances in tax and loan accounts at commercial banks. After 1974 the size of the Treasury balances at Federal Reserve Banks increased substantially, as did their volatility, because the Treasury reversed its policy and began keeping minimal balances in tax and loan accounts.

### Recent Treasury policy

A 1974 Treasury study of tax and loan accounts concluded that the value of the balances to depositaries exceeded the value of the services provided.<sup>4</sup> These conclusions reflected both an increase in average balances and higher investment interest rates. The study recommended that, for reasons of monetary management, the tax and loan account system be retained, but that means be developed for (1) employing a portion of the funds in ways that would provide adequate returns to the Treasury and (2) compensating banks from appropriated funds for a limited number of services performed.

Three potential methods by which the

<sup>3</sup>Suppose a Treasury call, payable by a member bank, amounts to \$100. The following "T" accounts illustrate the effects of this transfer on member bank reserves and government deposits at both member bank and Reserve Bank:

Commercial Bank		Federal Reserve Bank	
Assets	Liabilities	Assets	Liabilities
Reserves with F.R. Bank	U.S. Government deposits (TT&L)	Member bank reserves deposits	U.S. Government deposits
-100	-100	-100	+100
Required Deficit			
-15 85			

Reserves and government deposits of the member bank are reduced. On the books of the Reserve Bank member bank reserves decline and government deposits rise. Under a 15 percent reserve requirement system and assuming nothing else is changed, this withdrawal of Treasury funds will cause a reserve deficiency of \$100 immediately and a net of \$85 when account is taken of the reserve released by the decline in government deposits at commercial banks. To eliminate the reserve deficiency the bank's reserve manager could, among other things, sell short-term securities, thereby depressing asset prices and raising interest rates. But unlike checks deposited in other banks, this shift does not increase deposits and reserves of other banks and thus results in a reserve shortage for the banking system as a whole. The opposite occurs as the Treasury's deposits at the Reserve Banks decline.

<sup>4</sup>Report on a Study of Tax and Loan Accounts, Department of the Treasury, June 1974.

The most commonly performed services are (1) issuing and redeeming U.S. savings bonds, (2) promoting new offerings of and handling subscriptions to U.S. securities, (3) handling matured government obligations, (4) cashing government checks, and (5) handling "depository receipts" relating to withheld income and other Internal Revenue taxes.

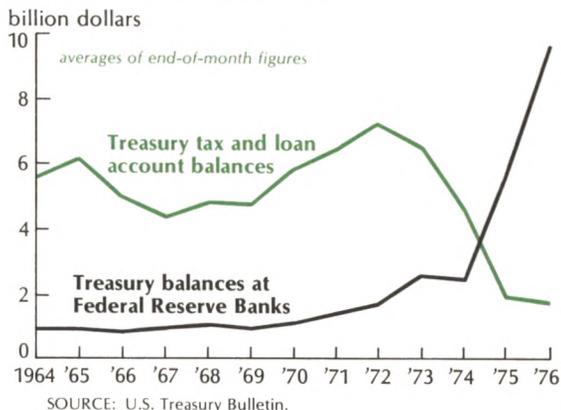
Treasury could realize a greater return on its tax and loan balances were examined in the 1974 report. One method, and the most direct, would be for commercial banks to pay interest directly on tax and loan balances. Under present federal statutes that prohibit payment of interest on demand deposits, this option is not open. Moreover, for the Treasury to seek new legislation to remove the prohibition solely for government deposits can be opposed on grounds that it would place the government in a privileged position relative to other bank depositors.

A second method would be for the Treasury to place some of its balances in interest-bearing time deposits at commercial banks. The constraint here is the Federal Reserve regulation defining time deposits as obligations with maturities of 30 days or longer. Because of the large short-run fluctuations in tax and loan account balances, only a limited part of the balances could be placed on deposit for as long as 30 days. At best, the earnings would fall short of the full earning potential of the balances.

A third method, and one that was favored in the report, would be for the Treasury to invest its temporary surplus balances in short-term money-market instruments, preferably obligations of the tax and loan depository institutions. If the Treasury were to make loans on a secured basis to each institution maintaining a tax and loan account, the funds would remain in the private sector. However, the Treasury did not have the authority to invest its idle funds in short-term earning assets.

Lacking the authority to invest its surplus cash balances, the Treasury shifted to a policy of transferring to its balances at Federal Reserve Banks all but about \$1.5 billion it estimated would compensate depositories for the services performed. This resulted in a drastic change in the distribution of cash between the Treasury's tax and loan accounts at commercial banks and the Treasury accounts at Federal Reserve Banks (see chart). Before 1974 an average of about 80 percent of Treasury operating cash was held in tax and loan accounts, and 20 percent was held in Federal Reserve Banks. Since 1974 the propor-

## Since 1974 the bulk of the Treasury's operating cash has been held at Federal Reserve Banks



tion has just about reversed.

By keeping larger deposits at Federal Reserve Banks, the Treasury avoided implicitly subsidizing commercial banks with public funds and increased its own receipts via payments from Federal Reserve Bank earnings. In conducting its operations to implement monetary policy, the Federal Reserve attempts to offset disturbances to the money market and credit availability caused by other factors affecting bank reserves, including changes in gold and foreign currency holdings, Federal Reserve float, currency in the hands of the public, and Treasury balances at Federal Reserve Banks. By increasing their holdings of Government securities in order to offset the drain on bank reserves resulting from the shift of Treasury deposits from the commercial banks, the Federal Reserve Banks have increased their earnings on securities which, after expenses, are paid back to the Treasury.

However, the transfers of funds to Federal Reserve Banks have complicated the task of monetary management in another way. This is because the minimization of funds in tax and loan accounts has caused the Treasury balances at Federal Reserve Banks to become not only larger but more volatile, reflecting changes in total Treasury operating balances. In each planning period the

manager of the Federal Reserve's open market operations must estimate the change in Treasury deposits at Federal Reserve Banks and how much of this variation might be offset by other factors outside Federal Reserve control that affect bank reserves. If the Treasury deposits were expected to rise, this would, *ceteris paribus*, reduce reserves of the banking system. To the extent that this variation was inconsistent with monetary objectives and was not offset by other independent factors, the manager of the Federal Reserve's open market account would plan to offset the resulting reserve drain by providing reserves. Similarly, if deposits were expected to decline, the manager would plan to absorb reserves. The complications are of two kinds: (1) errors in estimates of the amount and timing of changes in these deposits and (2) problems in effecting purchases or sales of securities in the volume necessary to offset the effects on bank reserves.

Federal Reserve open market operations have grown enormously since the Treasury changed its cash management policy and a much larger part of this activity is attributable to efforts to insulate monetary objectives from the effects of swings in the Treasury's balances (see chart). In 1971, before the

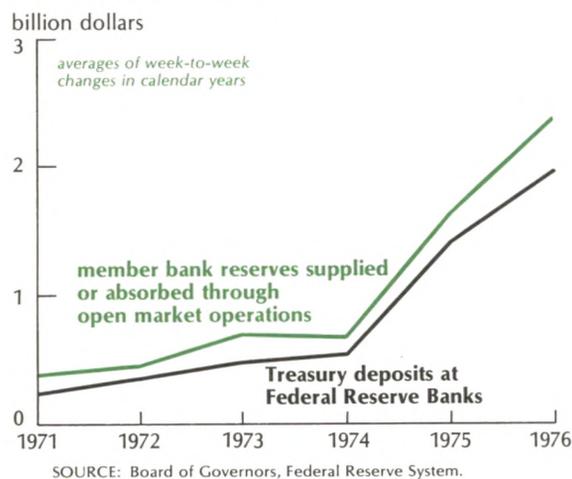
Treasury began to alter its cash management techniques, the average weekly change in Treasury deposits at Reserve Banks was \$227 million, while the average weekly provision or absorption of reserves through open market operations was \$351 million. In 1976 the corresponding numbers were \$1,968 million and \$2,344 million, respectively. Authority for the Treasury to invest tax and loan funds is expected to allow the Treasury to stabilize the size of its deposits at the Federal Reserve. With the return to more stable Treasury balances at the Federal Reserve, the System could substantially reduce its defensive open market operations with their attendant effects on the money markets and on investor uncertainty about policy intent.

### Tax and loan system under investment authority

The enactment of the investment authority will enable the Treasury to realize more fully the value of its funds held in tax and loan depositaries. The amount of this return will depend on the extent to which the depositaries choose to participate and the rate of interest they will be required to pay. Depositaries, on the other hand, will choose their options on the basis of how they expect their earnings to be affected and this will differ among depositaries depending on a number of factors. These include need for funds, rate of interest paid to Treasury, cost of alternative sources, customer demand for tax deposit services, cost of providing those services relative to Treasury's fee schedule, and ability to meet remittance schedules.

Under the investment program, the proposed plan, as published for comment, is to require each tax and loan depository to select one of the following options: (1) to maintain a tax and loan open-ended note or (2) to deliver to the Federal Reserve Bank advices of credits processed to the tax and loan accounts no later than one business day after receipt of such deposits. After selection of an option category, a depository is subject to the rules applicable to that option. A depository will be permitted to switch from one option to

### Recent Treasury policy caused increased defensive operations by Federal Reserve



the other after having provided the Federal Reserve Bank of its district a notice of at least 28 days.

Under the note option, loans to depositaries will bear a rate of interest determined by the Treasury Department, effective one day after the date of the tax deposit. It is expected that the interest rate paid on tax and loan borrowing will be set so as to reflect market rates applicable to other collateralized borrowing by banks. The Treasury's stated intention is to base the rate paid on each week's average "note balances" on the average rate the Federal Reserve Bank of New York charged banks and nonbank Government securities dealers on repurchase agreements in Government securities. Given that rate of interest, the quantity borrowed will be determined by the rate of flow of deposits through the tax and loan accounts of those institutions that have chosen the note option. Depositaries cannot issue notes to the Treasury in excess of their own TT&L balances. Calls for withdrawals of funds invested in the obligations of tax and loan depositaries will be based on the present A, B, and C bank groupings.

The effects of tax and loan borrowings on depositary earnings will depend on the cost of such funds and the opportunities to invest them at returns over those costs. Unless depositaries can invest the funds in higher-yield assets the appeal of such borrowings will be low.

Depositaries not willing to sell obligations to the Treasury will be required to arrange delivery of advice of credit to the Federal Reserve Bank of their district on the first business day following the date they receive the tax and loan deposits from their customers. A depositary whose advices of credits are delivered to the Federal Reserve Bank later than the specified time for processing such deposits will be assessed either an interest charge or analysis fee, depending on the volume of deposits credited to its tax and loan account. If advices of credits frequently arrive at the Federal Reserve Bank late, the depositary will be permitted to continue to accept tax and loan deposits if (a) its volume

of such deposits is less than a specified amount or (b) if the volume is in excess of such amount, the depositary will be required to select the note option. Depositaries administering their TT&L accounts under the remittance option will be able to retain the funds for one business day. The depositaries can thereby earn one day's revenue from these deposits without paying interest on them to the Treasury.

While depositaries will receive direct compensation for services performed for the Treasury Department, customer demand for tax deposit services and the cost of providing those services relative to the Treasury's fee schedule will, in part, determine the participation rate of eligible financial institutions in the TT&L system. The plan for the Treasury to pay explicitly for services rendered by depositaries might be advantageous to some institutions.

Reimbursable services are those deemed specifically for the benefit of the government. Processing of Federal Tax Deposits (FTDs) and issuing savings bonds are the type of services for which a depositary had charged explicit fees. The Treasury's stated intention is to base the fees paid for services on estimated depositary costs. In the 1974 study of the tax and loan account system, processing of FTDs was found to cost approximately \$0.50 per deposit; and issuing and redeeming savings bonds were estimated to cost \$0.70 and \$0.30 per bond, respectively.<sup>5</sup> The fee method of reimbursement for such services should produce much more equitable cost/benefit trade-offs than the present system of payment via balances that are not related to the volume of services.

The most efficient institutions might receive some additional benefits from being able to perform the services at a lower cost

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<sup>5</sup>These cost estimates were based simply on cost data reported by the banks surveyed. The units costs varied widely among reporting banks. For example, the cost reported for FTDs ranged from a low of 1½ cents per transaction to a high of \$3.10. Similar ranges occurred for issuing and redeeming savings bonds. These cost estimates also differ from Federal Reserve Functional Cost Analysis numbers.

than other institutions, but for some depositaries the service fees will be below cost. Those depositaries may nevertheless choose to accommodate the customer demand for tax deposit services and related transactions because of the importance of the customer as a source of deposits as well as other business. Such provision of tax related services below cost can be viewed as a systematic, rational attempt by depositaries to maximize long-run profits under existing institutional arrangements when viewed from the perspective of the customer relationship.

The net impact on income to tax and loan depositaries will be the result of (1) revenue from investment of the tax and loan deposits and note balances, plus (2) fees paid for services, less (3) total interest payable on the note balances, less (4) interest charges or analysis fees.

While enactment of the investment program has the potential to reduce significantly both the need for defensive open market operations and related uncertainty in financial markets, monetary control problems may still be substantial, depending on the choice by depositaries of the options offered them. If eligible depositaries choose to take the note option, the amount and timing of Treasury calls can be arranged to

minimize the impact on bank reserves and thus reduce monetary control problems. If, on the other hand, depositaries choose not to take the note option, the amount of transfers of funds into the Treasury's account at Federal Reserve Banks will depend on the rate of flow of deposits through the tax and loan accounts, and this could be an additional source of uncertainty for the Federal Reserve. Inasmuch as the amount of such transfers could be large as well as volatile, the Federal Reserve must worry, as at the present time, about movements of tax and loan funds from depositaries to the Treasury's account at the Federal Reserve Banks. Most of the large banks that handle the bulk of the dollar volume of tax deposits are expected to choose the note option, but some uncertainty will remain a problem for monetary control.

Congress has also authorized the Secretary of the Treasury to invest excess operating cash directly in federal Government securities. The availability of this authority will add another dimension of flexibility to the Treasury's cash management. However, there is no indication that it will be used in connection with the TT&L investment program.

*Elijah Brewer*

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