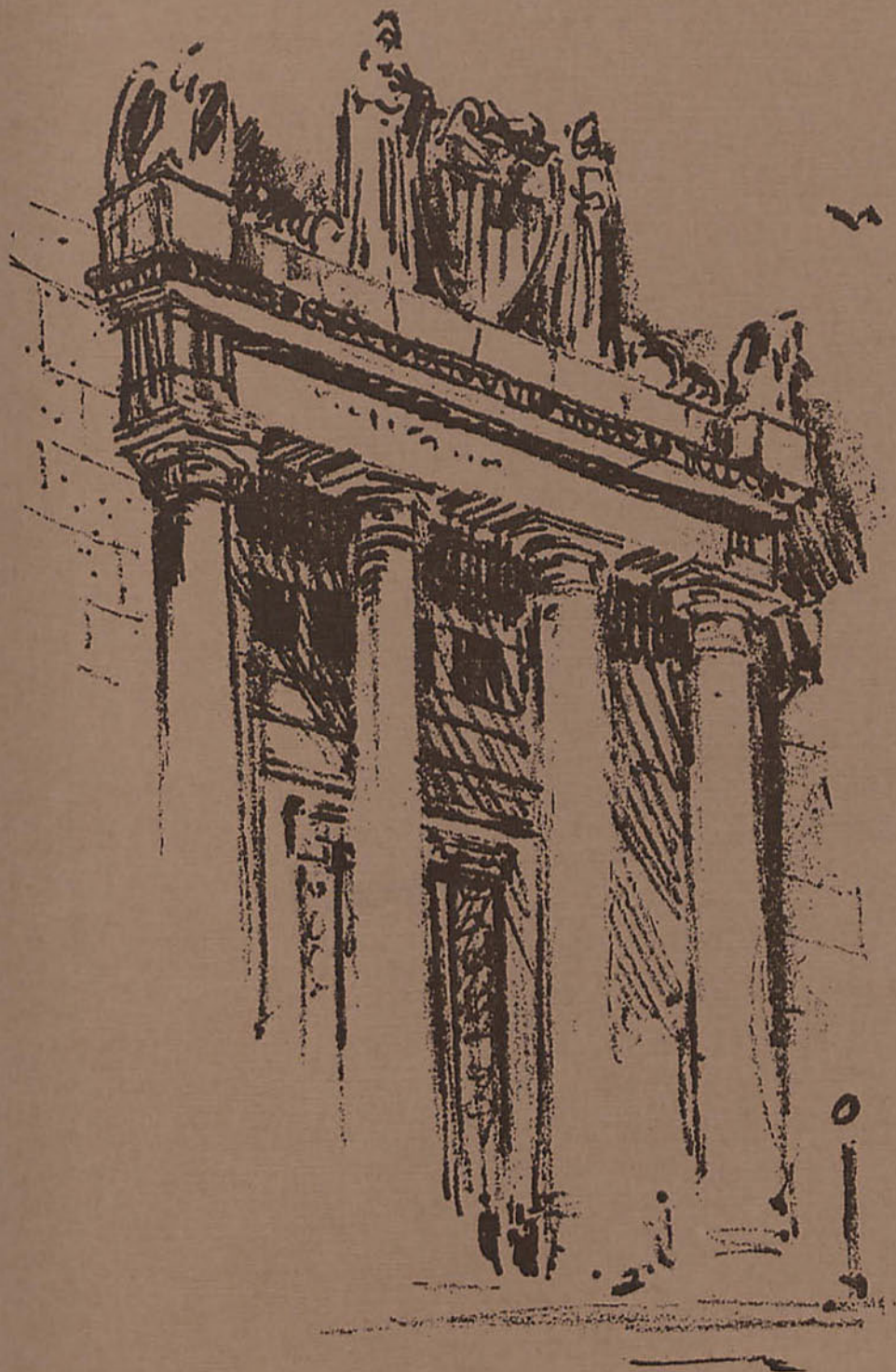Federal Reserve Bank of Dallas

Business Review

International Finance—

Recurrent Crises Plague
World Monetary System
Part I

Functional Cost Analysis—

A New System Approach
To Gauging Profitability

August 1971

Recurrent Crises Plague World Monetary System

PART I: MECHANICS AND PROBLEMS

The international monetary crisis earlier this year was only one of several since the start of the 1960's. Speculation hit the German mark in 1961, 1968, 1969, and 1971; the French franc in 1968 and 1969; the Italian lira in 1963; the British pound in 1961, 1964, 1967, and 1968; and the U.S. dollar in 1960, 1968, and 1971.

Although the international monetary system was able to withstand these onslaughts, the German mark was revalued in 1961 and 1969, and earlier this year the German central bank abandoned support of the mark, allowing it to float in the exchange market. The British pound was devalued in 1967, and the French franc in 1969.

As a result of these and other developments in world finance, proposals for facilitating the international adjustment process have been discussed–officially and unofficially–for more than a decade. This first-part article describes the current system and some of the problems encountered. Next month, Part II will discuss some of the proposals for reform.

The current system

The international monetary system consists of various arrangements for the settlement of imbalances in payments (deficits or surpluses) between countries and for the adjustment of imbalances. The bases of this system are the *Articles of Agreement* of the International Monetary Fund, which were formulated at the Bretton Woods Conference in 1944. Representing an effort to set standards of behavior in international finance, the articles establishing the IMF

have since been supplemented by a variety of treaties, financial institutions, and special arrangements for handling particular situations. The establishment of the Gold Pool in 1962 and the two-tier gold system in 1968 represents two of these supplemental efforts.

But in addition, a general agreement to borrow was added to the articles in 1961, allowing the IMF to borrow from member countries. A new international reserve asset–SDR's (special drawing rights)–was established and used in 1970. And central banks have established an elaborate system of reciprocal credits.

The international monetary system has also been influenced by institutional elements. One of these has been the role of central importance of the U.S. dollar in international finance. Another has been the development of the Eurodollar market.

Exchange rates in theory

Under the current system, countries try to adjust their balance-of-payments positions without changing fixed parities, which set a country's currency in relation to gold or the dollar. To ensure that countries will not raise or lower their exchange rates merely to match the revaluation or devaluation of other currencies, members of the IMF, having once established the parities of their currencies with gold (or the dollar), are committed to a specific exchange rate that, except in rare instances, they must maintain within 1 percent of parity. They are absolved of this responsibility only when a country faces a

severe and persistent imbalance. In this case, a deficit country can devalue its currency or a surplus country can revalue.

As an illustration of how imbalances in the international accounts are corrected under a system of fixed exchange rates, assume that imports to a country increase more than its exports, while the capital account and other components of the international accounts remain unchanged. With more goods coming in than going out, the country develops a deficit in its balance of payments. Initially, the country can draw on its reserves, such as gold, reserves of the currencies of other countries, and SDR's. Or it can borrow from other countries or from the IMF.

Theoretically, the deficit itself will set in motion a self-correcting mechanism that would ordinarily be expected to adjust the imbalance, at least partially. It is generally reasonable to assume that a relative increase in imports will cause income in the deficit country to contract. And the contraction in income causes imports to fall. Also, the deficit can cause the country to lose international reserves. If, as a result, monetary authorities allow the domestic money supply to decline, interest rates will tend to rise, further contracting not only income but also investment. With the country no longer able to buy as much abroad as before, imports and the payments deficit are reduced.

In practice, however, labor and many other costs are fairly rigid. Because these costs in most countries cannot be lowered easily, there is often not enough decline in prices to eliminate a deficit in the balance of payments. Often the

decline in imports (and possibly the increase in exports) is not enough to restore equilibrium to the balance of payments.

Unless a country can maintain a fairly close equilibrium in its balance of payments, its currency tends to depreciate relative to the value of other currencies. To keep depreciation within the 1-percent margin agreed upon, monetary authorities intervene in the exchange market to buy their currency with reserves. If the deficit is merely the temporary result of random or cyclical variations or if other offsetting disturbances reestablish equilibrium, no deliberate adjustment policy is needed. The country can finance its short-run deficit by borrowing or falling back on reserves.

But if the deficit persists, the country will eventually have to adopt policy measures designed to restore equilibrium. The appropriate policies may include more restrictive monetary and fiscal measures than those of surplus countries. However, a country may also impose controls on the flow of trade or capital, although the former is not recognized as appropriate under IMF rules. If the situation is one of severe and persistent imbalance, the deficit country can devalue its currency. Conversely, surplus countries can revalue their currencies upward.

Role of the dollar

The importance of the U.S. dollar in the international monetary system results from its performance of three functions. Because many countries hold the dollar as an international reserve asset, it serves as a major *reserve currency*. Because many countries use dollar balances to support the value of their own currencies in the foreign exchange market, the dollar is a *key currency*. And because the

dollar is widely used as a unit of account and means of payment in transactions not involving the United States, it serves as a *vehicle currency*.[1]

The dollar serves the international monetary system as the principal medium for making payments. Not only is it the single most important currency in the invoicing of foreign trade, but with the growing importance of the Eurodollar and European dollar bond markets, still more of the world's transactions involve the dollar.

The reason for the vehicle role is clear. The key-currency position of the dollar under current institutional arrangements implies a lower potential range of exchange fluctuations in terms of the dollar than any other currency. Currency pegged to the dollar can fluctuate about 1.5 percent in terms of the dollar, which means a possible 3-percent margin in terms of each other. The dollar, therefore, provides a potentially better short-run store of purchasing power than other currencies.

Although the dollar is the cornerstone of the international monetary system, its relative dominance has tended to diminish over the years. A series of virtually uninterrupted deficits in the U.S. balance of payments has, from time to time, caused some to question the continued ability of the dollar to fulfill its important international functions—at least, unassisted. Partially as a result, serious international currency crises have erupted. These crises, which have tended to become more frequent in recent years, continue to reflect developments that began in the early 1950's.

Until the 1950's, the United States went unchallenged as the world's leading postwar economy. With its main prewar competitors—

Europe and Japan—all but knocked out and its own productive machinery still turning out goods at wartime capacities, this country exported to markets throughout the world. And a large dollar shortage developed abroad.

From 1950 to 1956, the United States had moderate deficits in its balance of payments—averaging a little over $1 billion a year on the liquidity basis. And these deficits were welcomed because they allowed European countries to replenish their war-depleted reserves with dollars. In 1957, the year after the Suez crisis, the United States had a small balance-of-payments surplus—one of only two between 1950 and the present. The following year, a large deficit of $3.4 billion appeared. And in 1959 and 1960, even larger deficits of about $3.9 billion appeared.
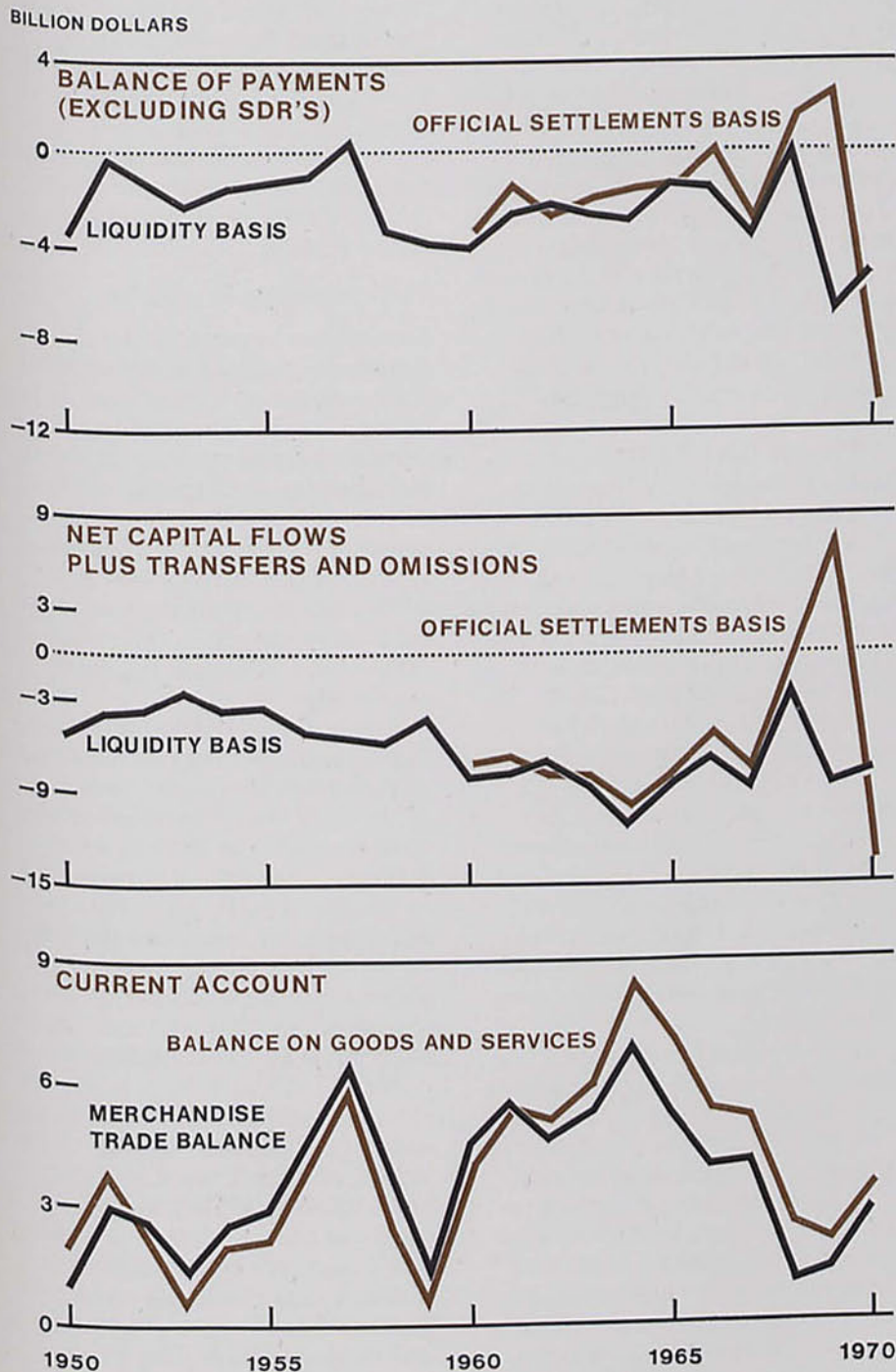
By the start of the 1960's, the U.S. deficit was beginning to be viewed with some concern. Until then, the country's international reserve assets had exceeded its liquid liabilities to foreigners. But in 1960, liquid liabilities to foreigners rose above the level of U.S. gold stock and other reserve assets, resulting in speculation about the ability of the United States to continue making good its policy of selling gold to foreign monetary authorities at the rate of $35 an ounce.

This uncertainty culminated in a confidence crisis in 1960, popularly referred to as "the Gold Rush of 1960." The speculative wave of gold buying in anticipation of an increase in the official price of gold was turned aside through the coordinated efforts of the United States and principal European countries. But the uneasiness in international markets persisted.

Beginning early in the decade, the U.S. Government undertook

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1. Vehicle currency is a foreign currency meeting three general criteria: (1) dealers in foreign exchange hold significant working balances in the currency; (2) dealers take temporary positions in that currency; and (3) the currency is one through which a nonvehicle currency can be exchanged for another. A vehicle currency, therefore, is more than a means of exchange.

Net U.S. capital outflows accelerate as trade balance declines

BILLION DOLLARS

BALANCE OF PAYMENTS
(EXCLUDING SDR'S)

OFFICIAL SETTLEMENTS BASIS

LIQUIDITY BASIS

NET CAPITAL FLOWS
PLUS TRANSFERS AND OMISSIONS

OFFICIAL SETTLEMENTS BASIS

LIQUIDITY BASIS

CURRENT ACCOUNT

BALANCE ON GOODS AND SERVICES

MERCHANDISE
TRADE BALANCE

1950   1955   1960   1965   1970

1970 figures preliminary except merchandise trade balance
SOURCE: U.S. Department of Commerce

several programs to correct the balance-of-payments deficit. Measures were enacted to slow the flow of funds abroad, and monetary and fiscal policies were directed toward improvement of the balance of payments. Where, on the liquidity basis, the deficit had reached $3.9 billion in 1959 and 1960, it fell to $1.4 billion in 1966. But the next year it rose again, increasing sharply to $3.5 billion.

With increasing reluctance, central banks in Europe continued absorbing the surplus dollars flowing into their national markets. After the sterling crisis in 1967, stronger steps were taken to eliminate the U.S. balance-of-payments deficit. And the next year, the United States achieved its second surplus since 1950. On the liquidity basis, the surplus was very small, however, reflecting mainly a massive inflow of capital and an unusually large volume of special Government transactions that were only slightly more than needed to offset a sharp drop in the U.S. trade balance.

A severe deterioration in the country's balance-of-payments position was partially avoided in 1969 by a sharp tightening of domestic monetary conditions. In an effort to accommodate strong loan demand in the face of domestic deposit shortages, banks in this country began borrowing dollars abroad.

As a result, on the official transaction basis, the United States recorded a surplus year as foreign central banks lost reserves in meeting the heavy demand for dollars. On the liquidity basis, however, the balance of payments was essentially unaffected by Eurodollar borrowings. On this basis, the deficit jumped to $7.0 billion as the balance on goods and services dropped again in response to rising domestic demand and accelerating price increases.

As monetary conditions in the United States eased in 1970 and

early 1971, U.S. banks began repaying their Eurodollar borrowings, and at an increasing rate. Superimposed on the underlying deficit, this flow greatly increased the supply of dollars in the hands of foreigners, raising the nation's deficit, on the official transaction basis, to a record $10.7 billion for 1970 and $5.7 billion for the first quarter of 1971, excluding SDR's.

Searching for a profitable return on these accumulating balances, foreign holders of dollars turned to the markets offering the highest return on short-term investments. The money markets in countries where authorities were maintaining tight monetary policies in their bout with domestic inflation were primary candidates. Large volumes of dollars began to be exchanged for foreign currencies in these markets, and central banks tended to absorb the surplus supply. Reserves of central banks rose sharply, particularly in Germany, giving rise to speculation that these countries might undertake to stem further inflows by revaluing their currencies. And this prompted still more inflows.

These conditions culminated in the closing of foreign exchange markets in Germany, Switzerland, the Netherlands, Belgium, and Austria in early May. When the markets reopened, the German mark and the Dutch guilder were floating, and the Swiss franc and Austrian shilling had been revalued.

Three main problems

Three distinct but related problems have developed under the system established at Bretton Woods. These involve international liquidity, payments adjustments, and confidence. In addition, other complicating problems have arisen from the rapid development of the Eurodollar market.

The problem of liquidity relates principally to the inadequacy of official international reserves in supporting the full potential for growth in world trade over the long run. It does not relate to the adequacy of the reserves of any one country. Any national inadequacy may reflect, of course, the depletion of a country's international reserves as a result of persistent deficits in its balance of payments. The institution of the special drawing rights program was largely a result of the general recognition of the need for consistent growth of reserves under the arrangements adopted at the Bretton Woods Conference (and, subsequently, amended).

The problem of adjustment relates to the system of restoring balance to a country's international accounts. Adjustment programs to correct payments deficits by creating enough unemployment to reduce demand for imports have been generally unacceptable in all countries since World War II. An adjustment for the sake of a country's balance of payments is considered satisfactory only if the deficit country can reduce its domestic prices and income with minimum sacrifice of growth and output. Since this is a difficult criterion, the adjustment mechanism of the Bretton Woods system is not permitted, in practice, to work fully.

The problem of confidence relates to the transfer of funds from one country to another. In essence, this problem affects the stability of the whole international system. The system has been subject to confidence crises increasingly in recent years as individuals and businesses have come to think a particular parity was about to change. There have been large speculative flows, for example, from sterling to dollars that placed the Bank of England under great pressure. There have also been massive transfers of funds from dollars into German marks.

In both cases, massive infusions of funds were needed to defend against these speculative attacks. In the case of Britain, the devaluation of the pound in 1967 may have been forced by heavy flows of speculative capital. In the case of Germany, large conversions into marks were an important cause of the revaluation of that currency in 1969. Similar pressures in 1971 caused Germany to resort to a floating mark.

Exchange rates in practice

In response to needs for liquidity, confidence, and adjustment, the international monetary system has undergone significant change several times in recent years—with the acceptance of special agreements, new institutional arrangements, and formal modifications. Although the introduction of SDR's has no doubt been the most innovative change in the system, others have also been extremely important.

To cope with shortages of credit available to members with balance-of-payments problems, resources of the IMF were expanded more than $6 billion in 1961 by establishment of a general agreement to borrow. The Bretton Woods agreement provides that the IMF can borrow from members willing to lend. But under this additional agreement of 1961, ten members were formally committed to support the IMF with large loans in their currencies. The United States committed itself to loans up to $2 billion, and the United Kingdom to loans up to $1 billion. So far, the fund has borrowed around $2 billion under this general agreement.

Many changes in the system have been made to deal with special circumstances. The Federal Reserve System entered into reciprocal credit arrangements with other central banks in 1961 to provide *swaps* of currencies. On March 10, 1971, the Federal Reserve System's reciprocal currency arrangements included swap agreements amounting to $11.2 billion.

Under an arrangement with the Bank of England, the Federal Reserve System can obtain up to $2 billion in sterling. Similarly, the Bank of England can obtain up to $2 billion in dollars. All told, 15 central banks were involved in the swap arrangements in March.

In 1961, the U.S. Treasury began issuing securities to foreign central banks denominated in their currencies. In addition to these instruments–known as Roosa bonds–the Treasury began selling nonmarketable bonds payable in dollars. At the end of March 1971, outstandings amounted to more than $1 billion in foreign-denominated bonds and more than $2.5 billion in dollar-denominated bonds. With these instruments, the United States financed part of its deficit without selling gold to foreign central banks not wanting to add further to their dollar holdings.

Changes in international arrangements for gold transactions with individuals began with the establishment of the Gold Pool in 1962. The pool acted as the agent for seven countries–the United States, the United Kingdom, France, Germany, Switzerland, Belgium, and the Netherlands–in buying and selling gold in the London market. Participants agreed not to deal in gold directly. As the pool sold gold to keep the price from rising, it exhausted its own holdings and sold gold belonging to the members.

In 1968, when private demand for gold again threatened the system, some members of the pool hesitated in supplying more gold. Rather than dissipate monetary reserves to hold the market price of gold at $35 an ounce, the members devised a two-tier gold system that marked the end of operations of the pool.

Under the two-tier system, members agreed to deal in gold with each other at $35 an ounce. They also agreed not to supply the free market with gold at a higher price. The result was a two-tier system, with the price of monetary gold stabilized at the level on which exchange rates are based and the price of gold in the open market free to vary with demand.

Because South Africa, the world's largest producer of gold, was not a party to the agreement, there was some uncertainty for a while. For the first year or so after the agreement, the market price of gold stayed well above the official price, largely because South Africa was able to withhold supplies from the market but also because uncertainties in the value of currencies helped sustain demand.

Conditions changed abruptly in 1969, however, as South Africa suddenly moved from a position of surplus in external payments to one of deficit and was forced to sell gold not only from its current production but also from its reserves. With most of these sales in the open market and world exchange conditions improved, the market price of gold eased back to the official price. Also contributing to this easing was a sharp increase in interest rates that raised the cost of holding gold.

In these circumstances, it became possible in late 1969 to reach a formal agreement on the marketing of South Africa's gold. South Africa agreed to sell its current production on the free market only when the market price is higher than $35. Such sales were to be orderly and limited to the country's current payments needs. In addition, South Africa would make gold available to the IMF.

For its part, the IMF agreed to buy South African gold out of current production to the extent needed to meet that country's current exchange needs. Purchases would be at the official rate, regardless of the market rate. The arrangement effectively provided a floor of $35 an ounce to the price South Africa gets for its gold.

These changes in the monetary system–a network of swap agreements, sales of Roosa bonds, borrowing arrangements, and provisions for dealings in the gold market–strengthened the system against the instability resulting from lack of confidence in currencies. These changes also altered the mechanics of the exchange-rate system–a system greatly influenced by still another institutional development.

The Eurodollar market

Growth of the Eurodollar market has greatly complicated the operation of the international monetary system, impacting directly on interest rates and the availability of funds in different countries. Banks in almost any country can accept dollar-denominated deposits from the market, convert them into local currency, and make loans to domestic borrowers. Banks and corporations can also liquidate dollar deposits in the Eurodollar market–in much the same way they would liquidate short-term investments to provide funds for expansion.

During periods of tight credit in the United States, such as in 1966, 1969, and early 1970, banks in this country have relied heavily on the Eurodollar market as a source of loanable funds that could not be borrowed readily in the domestic market. Similarly, in periods of expansionary monetary policy, banks and companies have absorbed liquidity by investing in the Eurodollar market. Such placements of dollars may tend to counteract somewhat central bank efforts to increase liquidity at home.

The Eurodollar market has not only increased the problems of domestic monetary management but also complicated the monetary management of foreign central banks. Because of the general sensitivity of international finance to changes in interest rates, the Eurodollar market has come to function as a transmission belt

linking money markets in the United States and Europe.

From 1969 through the first half of 1971, changes in the volume of Eurodollars used by banks in the United States were crucial in the transmission of U.S. monetary influence to Europe. When the Federal Reserve System adopted a restrictive policy in 1969, banks in the United States increased their Eurodollar borrowings by $7 billion. Eurodollar rates rose steeply, and funds flowed out of European banking systems into the Eurodollar market.

The drop in short-term rates in the United States during the period of expansionary policy in 1970 and early 1971, together with the return flow of Eurodollars released by U.S. banks, depressed Eurodollar rates, creating an incentive for companies in Europe to borrow Eurodollars. Throughout this period, interest rates were generally higher in Europe than in the United States and currency was generally tighter. The resulting inflow of funds to Europe hampered monetary efforts to cope with inflation there. This was especially true in Germany.

Development of the Eurodollar market has also led to other complications. Some reports suggest that during recent attacks on the dollar, low margin requirements for financing gold purchases were apparently met by Eurodollar credit. Since the collateral was of the highest grade, Eurodollars became readily available for speculation. Moreover, there is some indication that the Eurodollar market has also been used as a vehicle for speculating in foreign currency.

As a result of these problems, central banks in several countries have imposed controls intended to keep banks and corporations from pursuing practices inconsistent with domestic monetary objectives. By 1969, banks in Austria, France, Italy, Belgium, the Netherlands, and the United Kingdom were operating under various types of regulations intended to limit lending in the Eurocurrency market.

Also that year, the Board of Governors of the Federal Reserve System moved to influence use of Eurodollars by U.S. banks. To slow the flow of Eurodollars into the United States during a period of restrictive monetary policy, the

board placed marginal reserve requirements on Eurodollar borrowings.

Then in late 1970, as monetary policy in the United States eased and the difference in interest rates in the United States and Europe widened—causing large U.S. banks to repay their Eurodollar borrowings—the board moved to slow the consequent deepening in the official settlements deficit by slowing the return flow of Eurodollars. To enhance the value of a bank's reserve-free base, the board raised the reserve ratio required on marginal Eurodollar borrowings from 10 percent to 20 percent.

–Lacy H. Hunt, II

New member bank

The Village Bank (National Association), Dallas, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business June 30, 1971, as a member of the Federal Reserve System. The new member bank has capital of $200,000, surplus of $200,000, and undivided profits of $100,000. The officers are: Charles M. Steele, President; Cam F. Dowell, III, Vice President; Don O. Monroe, Vice President and Cashier; and A. T. Webb, Assistant Cashier.

Functional Cost Analysis–

A New System Approach
To Gauging Profitability

The complexity of bank operations has greatly increased with the development of full-service banking, adding further to the difficulties of analyzing bank profits. Income and operating costs have always been hard to identify by function. With the growth of various functions and their increase in number, the profitability of individual functions has become even harder to determine.

In response to these complexities, the Federal Reserve System has developed a program of functional cost analysis to help member banks analyze the profitability of various operations. Designed to provide individual banks with information on the income, expenses, and current earnings of their specific functions, the program also provides data for use in comparing their operations with averages drawn from a group of banks in the same deposit size and with functions of about the same size. Data are reported for banks of three groups:

- Small–total deposits up to $50 million
- Medium–total deposits from $50 million to $200 million
- Large–total deposits over $200 million

This article describes the functional cost analysis program–what it is, the information it provides, and its uses and limitations. A later article will present a detailed analysis of data collected under the program from 1966 through 1970. The analysis will be on both Eleventh District and national bases. Aggregate data will show differences in specific functions according to bank size, as well as differences in the relative profitability of various functions.

An expanding program

The program is of fairly recent origin. Pioneering work in functional cost analysis was first undertaken by the Federal Reserve banks of Boston and New York in the late 1950's. The Federal Reserve Bank of Philadelphia joined the effort in 1964, followed the next year by the Reserve banks of Chicago, Cleveland, Minneapolis, St. Louis, and San Francisco. In 1966, the Reserve banks of Atlanta, Richmond, and Dallas joined the program. And in 1970, the Federal Reserve Bank of Kansas City joined, making the program available to member banks in all 12 Federal Reserve districts.

Participation in Each District (1970)
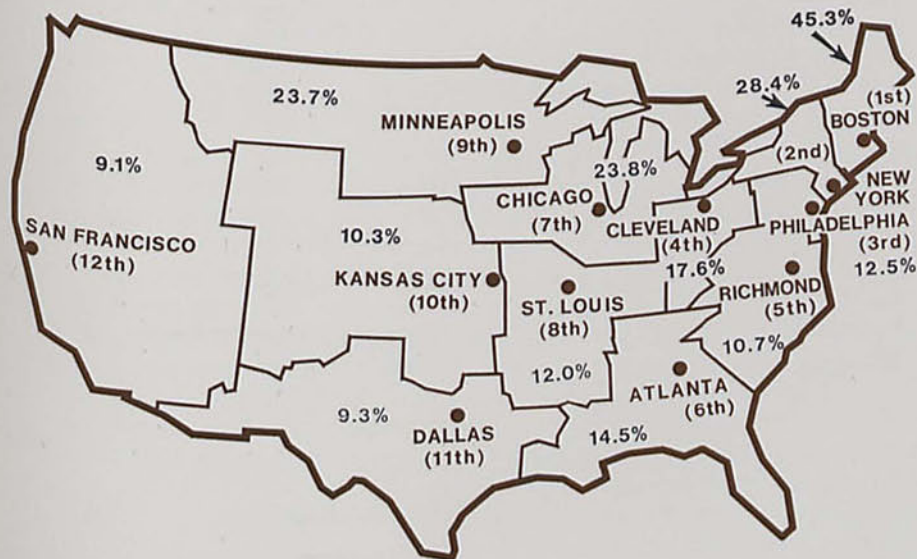
SOURCE: Federal Reserve Bank of New York

There is no charge for participation. Member banks need only provide the data required as input to the program. The Federal Reserve bank of each district provides the work sheets needed and compiles and processes the data. Banks participating in the program receive individual reports on their operations for the most recent full-calendar year. If the information is available, they also receive figures for their operations in the previous year.

In addition, the Federal Reserve publishes a national report showing average operating costs and earnings for all participating banks, as well as district reports showing regional averages. There is also a national report, available through Federal Reserve banks, entitled *Performance Characteristics of High Earning Banks*. This report includes functional cost data on the top 25 percent of the nation's banks participating in the program.

Bank participation

Over 16 percent of the more than 5,700 member banks participated in the program last year. Of those, 59 were in the Eleventh Federal Reserve District.

One reason for the limited participation could be the uniform reporting procedure used in the program. Because banks must report data according to a specified format, they may have to allocate additional personnel time to the preparation of reports. This is especially true for banks that are not computerized. Another reason could be that many large banks already maintain their own cost programs.

Many banks, however, probably do not participate in the program because they are not aware of its potential advantages. Improvements in operational efficiency help everyone concerned. As banks become aware of excessive costs or unnecessary expenses, they are

better able to improve their competitive positions, passing on some of the benefits to the public in the form of higher savings rates, lower lending rates, or more efficient service.

The functional approach

Banks taking a functional approach to cost accounting are in a position to evaluate the costs of specific services with considerable thoroughness. They can compare costs and profits of different functions in their bank or those of a single function over time. They can also compare the performance of functions at their bank with those at other banks of similar size.

Income and expense data are developed for 12 functions, allowing comparisons to be made for both the asset and liability sides of the balance sheet. Data are included for–

- Three fund-supplying functions–demand deposits, time deposits, and nondeposit funds
- Five fund-using functions–real estate mortgage loans, instalment loans, commercial and agricultural loans, investments, and credit-card operations (Collection of data on credit-card operations is due to start with the report for 1971. Previously, only four fund-using functions have been analyzed.)
- Four departmental functions–computer services, trust operations, safe deposits, and such nonbanking departments as insurance and real estate agencies, travel bureaus, farm management departments, and holding companies

Bank earnings and expenses are allocated according to function. In the determination of the net earnings of a function, portfolio income is assigned to each fund-supplying function. For example, if a bank had a portfolio income of $5,000 and 40 percent of its funds came from demand deposits, the demand deposit function would

have gross earnings of $2,000 in portfolio income, plus some additional income from service charges.

In the computation of the profit of various fund-using functions, earnings, expenses, and the "cost of money" (or the cost of acquiring and processing funds) are assigned to each function. A "pool of funds" approach is used, rather than any effort to match specific sources of funds on the liability side with specific uses on the asset side.

With this approach, the "cost of money" is figured as the cost of acquiring and processing demand deposits, time deposits, and nondeposit funds, minus any service charge or fee income. For example, if a bank had $100,000 in demand deposits, $100,000 in time deposits, and $50,000 in net capital funds and if the cost of obtaining these funds were 2 percent, 4 percent, and 1 percent, respectively, the cost of money for this bank would be $6,500, or 2.6 percent of the funds available to it.

With a figure for the cost of money, the cost of a function can be found by multiplying the bank's average percentage cost by the amount of funds a function used. For example, if the average money cost of a bank's funds were 2.6 percent, the cost of a $50,000 instalment loan portfolio would be $1,300.

This method is especially helpful in comparing costs between banks. Since accounting procedures vary widely, cost comparisons would have little value were it not for the uniform procedure used in functional cost analysis. Although all banks cannot be forced into a common mold, some loss of flexibility may be justified in the interest of allowing comparisons between banks.

The loan function

For the sake of the analysis of loans, portfolios are broken down not only into the three main functions (mortgage loans, instalment

loans, and commercial and agricultural loans) but also into subsets for each of these functions. They include—
- Volume of loans made
- Income received
- Net earnings after the cost of money
- Number of loans made
- Average size of outstanding loans
- Number and volume of loans serviced per employee

Banks participating regularly in the functional cost analysis program can compare the profitability of their loan operations over the years, profitability of various types of loans in a single year, or profitability of their loans compared with those of other institutions of comparable size and with functions of similar volume. The comparisons can be either national or regional. By allowing banks to identify functions with earnings that fall substantially below average, such information can be very useful in the structuring of loan portfolios.
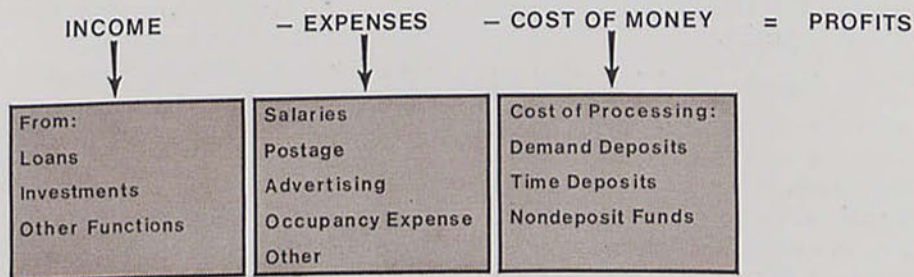
The *Functional Cost Analysis* report includes a special table for each bank, showing the break-even point on its consumer instalment loans. This table, by showing the smallest loan that can be granted at various interest rates and maturities to generate enough income to cover the average cost of the loan, provides a rough guide to the interest charges needed for a profitable lending program.

The investment function

The investment function includes all interest-bearing assets of a bank that are not included in the loan function. Investments are broken down into—
- Long-term and short-term Government securities
- Tax-exempt securities and loans (which, for purposes of the analysis, are converted to a taxable basis so that uniform comparisons can be made)

The Functional Cost Equation

INCOME — EXPENSES — COST OF MONEY = PROFITS

From:	Salaries	Cost of Processing:
Loans	Postage	Demand Deposits
Investments	Advertising	Time Deposits
Other Functions	Occupancy Expense	Nondeposit Funds
	Other	

- Other security investments
- Liquidity loans—which include such fund-using items as Federal funds sold, purchased commercial paper, bankers' acceptances, purchased certificates of deposit, and Commodity Credit certificates of interest

By grouping banks according to the size of their deposits, the functional cost study allows an individual bank to focus on average investment earnings of banks of similar size and to compare earnings of different investments according to types and maturities. Moreover, the study provides data that allow a bank to compare the performance of each of its functions with the average performance of the ten banks with the closest volume in that function. The internal data furnished for each bank also allow comparison of the profitability of various investments relative to other investments and loans.

The deposit functions

Since the cost of money is necessary in gauging the profitability of a bank, the relative costs of different types of deposits are highly important. In trying to hold down their costs of money, bankers may want to make internal, as well as external, comparisons.

Demand deposits are broken down in functional cost analysis, on the source side, by the type of deposit—regular checking accounts, special checking accounts, and other demand deposits—and on the use side, into the portion invested in the portfolio and the portion in "cash and due from banks." (Beginning with the 1971 report, demand deposits will be broken down for analysis by type, such as commercial, personal, and minimum balance-no service charge.) Because it does not earn a return, bankers are interested in holding the "cash and due from banks" item as low as possible without foregoing the liquidity required for sound management.

Income from demand deposits is mainly portfolio income. The income from service charges is comparatively small. Special checking accounts (those for which a depositor is charged a specific amount for each check) make up only a small part of the total volume of demand deposits—substantially less than regular checking accounts.

Time deposits—which have accounted for more than half the volume of total deposits at the banks in the program in recent years—are broken down into regular savings accounts, club accounts, school savings accounts, and CD's and other time deposits. Of these, regular savings accounts and CD's and other time deposits, of course, make up most savings at banks.

With time deposits, most of the income is provided by the portfolio. Interest is the major expense in maintaining such deposits. Because of high interest costs, net

earnings on time deposits are usually less than earnings on demand deposits.

Other departmental functions

Most banks also have departments that are not fund-using in a banking sense. When occupancy costs or other expenses, such as advertising, are allocated to computer services, for example, the function may show a net loss.

A net loss, however, does not necessarily mean a function should be discontinued. On the contrary, for banks trying to portray a full-service image, these auxiliary departments may actually add to the overall profitability of the bank. A bank could overestimate expenses of a function–which would partially account for its poor performance. Allocation of costs to functions could, on the other hand, show that such charges as service fees and safe-deposit rents are lower than they should be and that the bank could improve its net profitability by increasing its charges for these services.

Limits of interpretation

Functional cost analysis–while providing a measure of the profitability of bank operations–must, nevertheless, be used with caution.

Because participation is voluntary, banks included in the study do not constitute a random sample of either commercial banks or member banks.

As with most statistical information, the usefulness of the data generated by functional cost analysis depends primarily on their intelligent interpretation. After final data are released each year, Federal Reserve banks hold meetings with representatives of participating banks in their districts to help interpret the results.

The program deals with comparisons of average earnings and expenses. It does not give marginal measures. A bank might do well, for example, to continue with a function that has greater fixed costs than earnings. To recover even some of the cost could be better than to abandon the function and recoup nothing.

The table of break-even points on instalment loans provides another example of the need for careful interpretation. The figures in this table are not intended to suggest that smaller loans are necessarily unprofitable. In making a new loan, a bank must give consideration to the incremental costs of the loan. Because many costs are fixed, they are not changed by additional loan activity.

All banks differ in some respect. Bankers looking at average figures must realize that each of their institutions is, in some sense, unique–in location, seasonality of deposits, managerial goals, quality of assets, local conditions (including competition), and needs of the community–and evaluate its performance in light of these unique characteristics.

An operation entailing a high initial fixed cost may show little, if any, net profit in the first few years. In terms of long-range growth and overall profitability, however, a bank may need to sacrifice short-term profits. For that

Flows of Bank Funds

SOURCES

USES

DEMAND DEPOSITS

TIME DEPOSITS

NONDEPOSIT FUNDS

CASH

REAL ESTATE LOANS

INSTALMENT LOANS

COMMERCIAL AND AGRICULTURAL LOANS

INVESTMENTS
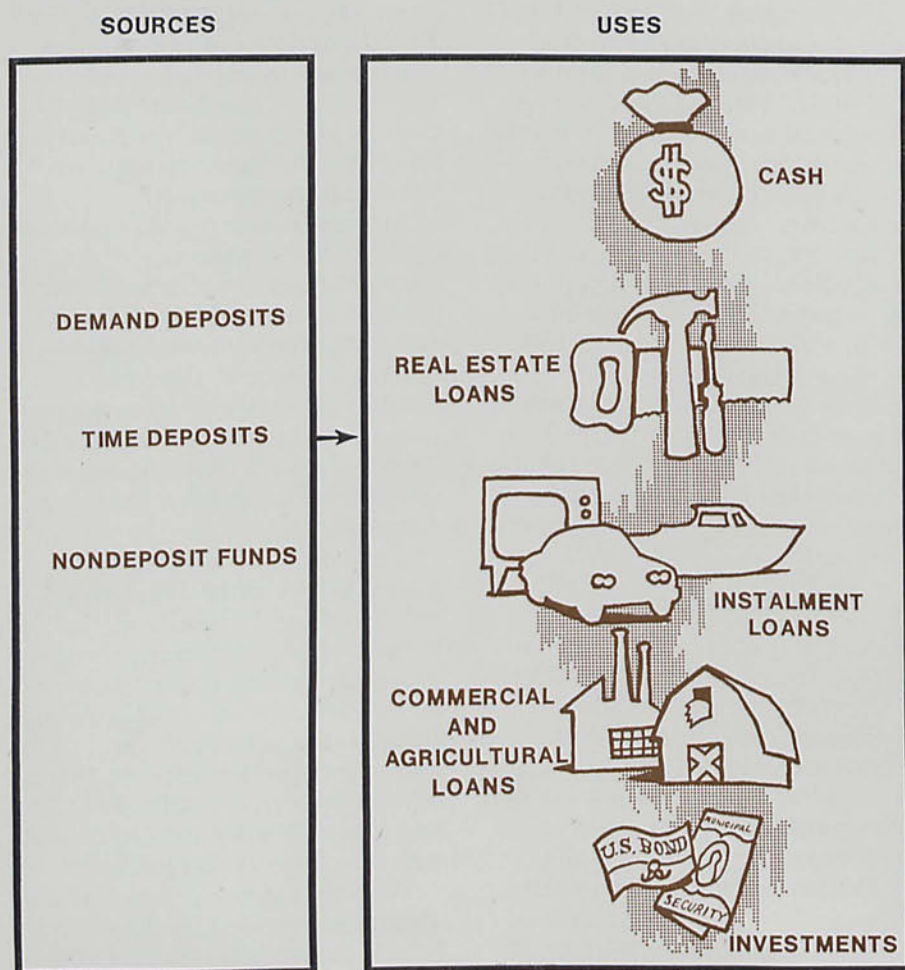
reason, in evaluating specific functions, it is best to focus always on the bank's overall performance.

As long as decisions regarding income and cost allocations are subjective, biases will be reflected in any program of profit analysis. Moreover, because many bank functions are interrelated, it is hard to allocate costs directly to specific functions. But the program does have the very real advantage of offering uniform reporting of cost and income. And this uniformity allows a series of comparative figures.

Overall–a useful program

Functional cost analysis–despite some data and other limitations–provides a valuable tool of bank management. Internal cost, expense, and earnings data allow a bank to compare the profitability of its various operations and define those of greatest profitability. If the bank finds some of its charges are out of line with functional expenses, it can begin making adjustments. Likewise, comparison of data over time allows the bank to pinpoint improvements as it changes operating policies.

Information on the average costs and profits of other banks provides management with guidelines for the operations of its own bank. By comparing its operations with those of other institutions of similar size, management can find areas to improve profitability by making better use of the bank's resources.

The profitability of any business depends on its ability to increase income and hold down costs. By giving banks the means of evaluating the performance of their various functions in terms of costs and earnings, functional cost analysis provides a tool for measuring profitability.

–Carla M. Warberg

New par banks

The Southeast Bank, Houston, Texas, an insured nonmember bank located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, was added to the Par List on its opening date, June 21, 1971. The officers are: W. Merriman Morton, President, and Louis A. Hartman, Jr., Cashier.

The Webster Bank and Trust Company, Minden, Louisiana, an insured nonmember bank located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, was added to the Par List on its opening date, July 19, 1971. The officers are: J. H. Cox, Jr., President, and Robert H. Davis, Vice President and Cashier.

Statistical Supplement to the Business Review

Total nonagricultural wage and salary employment in the five southwestern states continued its modest rise in June, reaching a level 0.2 percent higher than both a month before and a year before. Month-to-month employment gains were made in both manufacturing and nonmanufacturing. Most of the increase was accounted for by manufacturing, which offered 0.6 percent more jobs than in May. However, even with this increase, manufacturing employment was 4.6 percent less than a year before. Employment in nonmanufacturing categories rose only 0.1 percent.

Although the increase in jobs outside manufacturing was small, almost all categories of nonmanufacturing employment showed gains over May. The only exception was in government employment, which was off 2.2 percent–probably due largely to the start of school vacations. The largest increase was in transportation and public utilities, which employed 2.1 percent more workers than in May. Construction followed closely with an increase of 1.9 percent. Although showing gains over the previous month, levels of employment in mining, construction, and transportation and public utilities still lagged behind those of a year before. Employment levels in trade, finance, service, and government were only slightly higher than a year before.

Credit at weekly reporting commercial banks in the Eleventh District declined contraseasonally in the four weeks ended July 21. The contraction, in line with a sizable fall in deposits, was accounted for by significant reductions in total loans and in bank holdings of securities other than U.S. Government issues.

The decrease in loans resulted mainly from a marked decline in business loans–which may have partly reflected the cessation of financing needs associated with the buildup of automobile and steel inventories. But with the increase in construction activity, the demand for real estate loans was still strong.

Total security holdings were reduced slightly, despite significant acquisitions of Treasury notes and U.S. Government bonds maturing in one to five years. Holdings of other securities declined sharply after expanding substantially in recent months.

The fall in bank deposits was due primarily to a contraseasonal decline in demand deposits. A net increase in sales of large CD's more than offset a reduction in other time and savings deposits. On balance, reporting banks reduced their borrowings in the Eurodollar market.

The oil allowable in Texas for August was dropped to 66.2 percent of maximum efficient production, marking the fourth reduction in as many months. The level in April, before the slide began, was 82.1 percent. Other producing states in the Eleventh District held their August allowables unchanged from July rates.

Texas production will probably not decline as much as the 2.5-percent drop in allowables from July might indicate. This is because production has not been able to reach the levels implied by the higher allowables of recent months, particularly in some older fields.

The Government has set up an interagency committee in Dallas to coordinate emergency drouth-help programs and adjustments in regular agricultural programs made necessary by the drouth in the Southwest. In addition, the Department of Agriculture has stepped up payments of more than $1.1 billion to wheat, feed grain, and cotton farmers having complied with 1971 set-aside programs.

Drouth has cut the planting of cotton in South and West Texas by about 20 percent. Despite this cutback, plantings in the Panhandle and North Texas place the state's total cotton acreage 2 percent over last year.

The wheat harvest is turning out better than expected in Oklahoma. At about 70 million bushels, the forecast on July 1 was 15 percent higher than on June 1. The crop this year also has a higher protein content than last year.

Poor range conditions and continued shortages of water still encourage the rapid placement of cattle in feedlots. A record 1.7 million head were on feed in Texas on June 1–30 percent more than a year earlier and 7 percent more than a month earlier. In Arizona, the number of cattle on feed was up 11 percent over a year before.

Although unchanged from a month earlier, agricultural prices on June 15 averaged 6 percent higher than a year earlier. Most of this rise was offset, however, by a 5-percent rise in the average prices farmers paid.

Registrations of new passenger automobiles in the four major reporting areas of Texas were 21 percent higher in June than in

CONDITION STATISTICS OF WEEKLY REPORTING COMMERCIAL BANKS

Eleventh Federal Reserve District

(Thousand dollars)

ASSETS	July 21, 1971	June 23, 1971	July 22, 1970
Federal funds sold and securities purchased under agreements to resell.................	556,426	631,408	543,600
Other loans and discounts, gross................	6,863,616	6,950,763	6,072,709
Commercial and industrial loans..............	3,127,936	3,310,580	2,915,868
Agricultural loans, excluding CCC certificates of interest......................	123,915	125,244r	102,624
Loans to brokers and dealers for purchasing or carrying:			
U.S. Government securities.................	556	500	515
Other securities......................	55,482	57,056	33,765
Other loans for purchasing or carrying:			
U.S. Government securities.................	4,838	5,195	813
Other securities......................	428,984	426,271r	379,779
Loans to nonbank financial institutions:			
Sales finance, personal finance, factors, and other business credit companies.......	195,164	183,807	208,772
Other......................................	490,565	519,999	363,055
Real estate loans..........................	816,842	716,075r	611,988
Loans to domestic commercial banks...........	13,137	15,475	5,685
Loans to foreign banks......................	22,022	24,798	9,826
Consumer instalment loans...................	771,892	764,315	724,563
Loans to foreign governments, official institutions, central banks, and international institutions.................................	0	0	0
Other loans...............................	812,283	801,448r	715,456
Total investments..........................	3,187,288	3,191,450	2,567,146
Total U.S. Government securities..............	1,051,110	995,507	865,765
Treasury bills.............................	132,960	119,476r	36,639
Treasury certificates of indebtedness........	0	0	0
Treasury notes and U.S. Government bonds maturing:			
Within 1 year.........................	194,807	185,510r	123,875
1 year to 5 years......................	577,905	544,996	615,268
After 5 years.........................	145,438	145,525	89,983
Obligations of states and political subdivisions:			
Tax warrants and short-term notes and bills...	63,663	94,507	24,824
All other..............................	1,845,143	1,871,874	1,501,275
Other bonds, corporate stocks, and securities:			
Certificates representing participations in Federal agency loans.....................	81,163	93,883	108,437
All other (including corporate stocks)........	146,209	135,679	66,845
Cash items in process of collection..............	1,256,149	1,264,067	1,121,630
Reserves with Federal Reserve Bank............	975,402	926,983	724,546
Currency and coin..........................	93,394	91,689	89,193
Balances with banks in the United States........	483,967	510,028	444,104
Balances with banks in foreign countries.........	8,955	8,756	8,899
Other assets (including investments in subsidiaries not consolidated).............................	471,401	471,829	489,090
TOTAL ASSETS..........................	13,896,598	14,046,973	12,060,917

r — Revised

LIABILITIES	July 21, 1971	June 23, 1971	July 22, 1970
Total deposits.................................	10,914,638	10,963,856	9,270,163
Total demand deposits......................	6,270,594	6,331,266	5,752,944
Individuals, partnerships, and corporations....	4,101,381	4,319,119	3,951,730
States and political subdivisions.............	564,186	413,375	264,729
U.S. Government.........................	195,678	142,387	156,415
Banks in the United States..................	1,288,135	1,312,356	1,257,613
Foreign:			
Governments, official institutions, central banks, and international institutions......	3,405	2,321	4,782
Commercial banks......................	32,020	34,603	24,883
Certified and officers' checks, etc.............	85,789	107,105	92,792
Total time and savings deposits................	4,644,044	4,632,590	3,517,219
Individuals, partnerships, and corporations:			
Savings deposits........................	1,060,371	1,072,127	922,341
Other time deposits.....................	2,444,995	2,459,623	1,803,172
States and political subdivisions	1,034,785	996,813	735,797
U.S. Government (including postal savings)....	24,296	20,096	22,633
Banks in the United States..................	59,697	64,346	17,791
Foreign:			
Governments, official institutions, central banks, and international institutions......	18,800	18,485	14,385
Commercial banks......................	1,100	1,100	1,100
Federal funds purchased and securities sold under agreements to repurchase..............	1,386,283	1,420,126	1,090,382
Other liabilities for borrowed money.............	64,591	91,116	180,630
Other liabilities.............................	320,805	369,782	375,732
Reserves on loans............................	131,554	130,137	130,679
Reserves on securities........................	21,342	20,753	14,807
Total capital accounts........................	1,057,385	1,051,203	998,524
TOTAL LIABILITIES, RESERVES, AND CAPITAL ACCOUNTS..................	13,896,598	14,046,973	12,060,917

CONDITION STATISTICS OF ALL MEMBER BANKS

Eleventh Federal Reserve District

(Million dollars)

Item	June 30, 1971	May 26, 1971	June 24, 1970
ASSETS			
Loans and discounts, gross................	13,612	13,152	11,853
U.S. Government obligations...............	2,401	2,330	1,989
Other securities..........................	4,255	4,160	3,297
Reserves with Federal Reserve Bank.........	1,334	1,458	1,209
Cash in vault............................	271	276	267
Balances with banks in the United States.....	1,438	1,333	1,171
Balances with banks in foreign countries e....	11	10	10
Cash items in process of collection...........	1,570	1,397	1,271
Other assets e...........................	995	919	989
TOTAL ASSETS e......................	25,887	25,035	22,056
LIABILITIES AND CAPITAL ACCOUNTS			
Demand deposits of banks................	1,907	1,660	1,539
Other demand deposits...................	9,889	9,568	8,689
Time deposits...........................	10,123	9,545	7,382
Total deposits.........................	21,919	20,773	17,610
Borrowings..............................	1,536	1,292	1,325
Other liabilities e........................	563	1,102	1,358
Total capital accounts e..................	1,869	1,868	1,763
TOTAL LIABILITIES AND CAPITAL ACCOUNTS e......................	25,887	25,035	22,056

e — Estimated

RESERVE POSITIONS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. Thousand dollars)

Item	5 weeks ended July 7, 1971	4 weeks ended June 2, 1971	4 weeks ended July 1, 1970
RESERVE CITY BANKS			
Total reserves held.............	826,530	816,747	740,727
With Federal Reserve Bank....	772,530	761,206	687,270
Currency and coin...........	54,000	55,541	53,457
Required reserves..............	831,257	825,994	749,434
Excess reserves................	—4,727	—9,247	—8,707
Borrowings....................	8,908	1,928	51,775
Free reserves..................	—13,635	—11,175	—60,482
COUNTRY BANKS			
Total reserves held.............	866,588	875,439	769,558
With Federal Reserve Bank....	674,020	682,960	585,326
Currency and coin...........	192,568	192,479	184,232
Required reserves..............	846,858	844,281	749,665
Excess reserves................	19,730	31,158	19,893
Borrowings....................	3,954	48	8,658
Free reserves..................	15,776	31,110	11,235
ALL MEMBER BANKS			
Total reserves held.............	1,693,118	1,692,186	1,510,285
With Federal Reserve Bank....	1,446,550	1,444,166	1,272,596
Currency and coin...........	246,568	248,020	237,689
Required reserves..............	1,678,115	1,670,275	1,499,099
Excess reserves................	15,003	21,911	11,186
Borrowings....................	12,862	1,976	60,433
Free reserves..................	2,141	19,935	—49,247

CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(Thousand dollars)

Item	July 21, 1971	June 23, 1971	July 22, 1970
Total gold certificate reserves................	379,718	454,714	428,663
Discounts for member banks.................	80,598	14,700	54,350
Other discounts and advances................	0	0	2,240
U.S. Government securities...................	3,056,498	2,940,793	2,501,403
Total earning assets.........................	3,137,096	2,955,493	2,557,993
Member bank reserve deposits..............	1,584,807	1,532,168	1,269,332
Federal Reserve notes in actual circulation.....	2,076,682	2,029,833	1,810,632

BANK DEBITS, END-OF-MONTH DEPOSITS, AND DEPOSIT TURNOVER

SMSA's in Eleventh Federal Reserve District

(Dollar amounts in thousands, seasonally adjusted)

Standard metropolitan statistical area	DEBITS TO DEMAND DEPOSIT ACCOUNTS[1] June 1971 (Annual-rate basis)	Percent change June 1971 from May 1971	Percent change June 1971 from June 1970	6 months, 1971 from 1970	DEMAND DEPOSITS[1] June 30, 1971	Annual rate of turnover June 1971	Annual rate of turnover May 1971	Annual rate of turnover June 1970
ARIZONA: Tucson................................	$ 7,343,208	−5%	15%	23%	$ 281,893	27.0	29.4	26.5
LOUISIANA: Monroe...............................	3,246,732	−7	16	19	93,527	35.0	37.6	33.1
Shreveport........................	11,823,444	10	23	16	274,416	43.6	41.0	39.1
NEW MEXICO: Roswell[2]........................	973,824	0	8	3	40,748	24.5	24.9	25.1
TEXAS: Abilene..................................	2,260,464	−4	6	8	105,011	21.3	21.8	21.5
Amarillo...................................	5,969,196	−7	5	8	165,600	36.2	38.8	35.0
Austin.....................................	12,244,212	13	27	18	341,431	32.5	26.8	29.6
Beaumont-Port Arthur-Orange...............	6,751,980	1	7	8	250,528	26.8	26.4	26.8
Brownsville-Harlingen-San Benito...........	2,187,144	4	17	16	86,094	25.2	24.8	25.0
Corpus Christi.............................	6,232,128	−9	27	27	276,487	22.4	24.3	23.8
Corsicana[2]...............................	540,792	14	23	15	33,357	16.2	14.1	14.3
Dallas.....................................	137,143,644	6	10	12	2,395,660	57.9	54.8	56.9
El Paso....................................	9,104,076	8	23	17	248,621	36.3	33.4	31.7
Fort Worth.................................	28,649,628	−3	35	20	704,789	40.9	42.2	31.2
Galveston-Texas City.......................	2,903,436	0	1	5	115,455	25.9	26.3	25.4
Houston....................................	111,738,816	1	13	11	2,802,680	40.3	41.0	39.5
Laredo.....................................	1,104,900	10	16	14	44,993	25.1	23.5	25.3
Lubbock....................................	5,580,192	7	17	16	177,835	32.0	30.6	29.2
McAllen-Pharr-Edinburg.....................	1,886,652	−8	12	14	108,115	17.4	18.8	16.8
Midland....................................	2,025,408	0	9	5	140,090	14.6	14.6	14.0
Odessa.....................................	1,768,188	9	14	2	99,840	17.9	16.9	16.9
San Angelo.................................	1,451,748	0	15	19	76,168	19.1	19.6	17.8
San Antonio................................	20,958,156	5	20	19	726,452	29.1	28.0	27.5
Sherman-Denison............................	1,260,360	8	12	7	69,433	18.3	17.0	17.7
Texarkana (Texas-Arkansas).................	1,658,256	4	6	7	74,009	21.7	21.2	21.8
Tyler......................................	2,383,032	3	3	6	107,924	22.1	22.3	25.1
Waco.......................................	3,608,100	12	7	7	135,216	27.0	25.0	28.2
Wichita Falls..............................	2,326,044	−11	11	14	119,973	18.9	21.4	18.5
Total—28 centers...............................	$395,123,760	3%	14%	13%	$10,096,345	39.3	38.5	37.8

[1] Deposits of individuals, partnerships, and corporations and of states and political subdivisions
[2] County basis

BUILDING PERMITS

Area	NUMBER June 1971	NUMBER 6 mos. 1971	VALUATION (Dollar amounts in thousands) June 1971	VALUATION 6 mos. 1971	Percent change June 1971 from May 1971	Percent change June 1971 from June 1970	6 months, 1971 from 1970
ARIZONA							
Tucson.......	614	4,324	$ 10,990	$ 52,949	6%	130%	105%
LOUISIANA							
Monroe-West Monroe.....	152	647	2,596	11,537	111	313	56
Shreveport....	572	3,229	5,599	28,852	−4	31	74
TEXAS							
Abilene.......	61	311	2,852	6,796	26	1,083	80
Amarillo......	152	829	1,461	14,296	−37	37	−35
Austin........	591	3,156	15,127	77,418	58	143	38
Beaumont.....	188	958	1,586	6,252	96	11	8
Brownsville....	145	594	376	3,210	−1	−71	25
Corpus Christi..	965	5,197	5,142	33,908	−44	128	127
Dallas........	1,902	11,412	22,397	142,983	−15	−24	−23
Denison.......	20	205	90	1,789	−49	−88	−28
El Paso.......	564	2,959	10,699	60,665	−6	42	29
Fort Worth....	456	2,548	15,990	65,912	−42	2	39
Galveston.....	99	438	493	7,566	−48	67	123
Houston.......	3,679	23,017	82,009	345,677	49	88	52
Laredo........	58	304	696	4,706	−38	72	12
Lubbock.......	169	1,308	12,813	45,225	275	172	71
Midland.......	82	426	712	6,960	−26	29	192
Odessa........	97	542	618	4,231	−36	−23	−25
Port Arthur....	88	444	314	3,219	−76	−94	−49
San Angelo....	73	402	1,145	5,648	62	19	−4
San Antonio...	2,281	9,324	14,209	61,404	119	39	21
Sherman......	41	386	202	3,700	−49	−89	−49
Texarkana....	61	259	591	5,642	45	−41	9
Waco.........	428	1,736	2,903	14,682	53	−33	−37
Wichita Falls...	81	486	813	11,191	−64	40	86
Total—26 cities...	13,619	75,441	$212,423	$1,026,418	16%	41%	26%

TOTAL OIL WELLS DRILLED

Area	Third quarter 1970	Second quarter 1970	Percent change	1970 cumulative	Percent change from 1969 cumulative
FOUR SOUTHWESTERN STATES.............	1,730	1,619	6.9%	3,349	−10.8%
Louisiana............	302	251	20.3	553	7.2
Offshore..........	75	111	−32.4	186	31.0
Onshore..........	227	140	62.1	367	−1.9
New Mexico........	82	97	−15.5	179	−57.3
Oklahoma...........	315	351	−10.3	666	−6.5
Texas..............	1,031	920	12.1	1,951	−7.3
Offshore..........	0	3	—	3	50.0
Onshore..........	1,031	917	12.4	1,948	−7.4
UNITED STATES.......	3,314	3,140	5.5%	6,454	−6.5%

SOURCE: American Petroleum Institute

GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. Million dollars)

Date	GROSS DEMAND DEPOSITS Total	Reserve city banks	Country banks	TIME DEPOSITS Total	Reserve city banks	Country banks
1969: June......	10,209	4,758	5,451	7,634	2,925	4,709
1970: June......	10,265	4,748	5,517	7,391	2,651	4,740
1971: January....	11,532	5,236	6,296	9,038	3,635	5,403
February...	11,272	5,118	6,154	9,299	3,689	5,610
March.....	11,219	5,117	6,102	9,548	3,788	5,760
April......	11,555	5,274	6,281	9,575	3,736	5,839
May.......	11,348	5,216	6,132	9,516	3,688	5,828
June......	11,354	5,224	6,130	9,573	3,691	5,882

VALUE OF CONSTRUCTION CONTRACTS

(Million dollars)

Area and type	June 1971	May 1971	April 1971	January—June 1971	January—June 1970r
FIVE SOUTHWESTERN STATES1................	922	713	864	4,352	4,091
Residential building.......	464	387	400	2,153	1,404
Nonresidential building....	276	193	312	1,428	1,290
Nonbuilding construction....	182	134	153	771	1,397
UNITED STATES............	8,077	7,555	7,743	38,993	34,603
Residential building.......	3,485	3,310	3,168	16,131	11,648
Nonresidential building....	2,800	2,264	2,080	12,666	12,455
Nonbuilding construction....	1,792	1,981	2,495	10,196	10,500

1 Arizona, Louisiana, New Mexico, Oklahoma, and Texas
r — Revised
NOTE. — Details may not add to totals because of rounding.
SOURCE: F. W. Dodge, McGraw-Hill, Inc.

NONAGRICULTURAL EMPLOYMENT

Five Southwestern States1

Type of employment	Number of persons			Percent change June 1971 from	
	June 1971p	May 1971	June 1970r	May 1971	June 1970
Total nonagricultural wage and salary workers..	6,334,900	6,323,000	6,321,400	0.2%	0.2%
Manufacturing...........	1,123,200	1,116,200	1,177,700	.6	—4.6
Nonmanufacturing........	5,211,700	5,206,800	5,143,700	.1	1.3
Mining................	232,600	228,300	236,200	1.9	—1.5
Construction...........	391,200	383,100	403,300	2.1	—3.0
Transportation and public utilities........	452,200	448,900	453,200	.7	—.2
Trade................	1,489,100	1,483,300	1,458,200	.4	2.1
Finance...............	333,000	328,100	323,400	1.5	3.0
Service...............	1,028,000	1,020,600	1,012,500	.7	1.5
Government...........	1,285,600	1,314,500	1,256,900	—2.2%	2.3%

1 Arizona, Louisiana, New Mexico, Oklahoma, and Texas
p — Preliminary
r — Revised
SOURCE: State employment agencies

INDUSTRIAL PRODUCTION

(Seasonally adjusted indexes, 1957-59 = 100)

Area and type of index	June 1971p	May 1971	April 1971	June 1970
TEXAS				
Total industrial production......	180.1	181.3	179.0r	174.9r
Manufacturing.................	199.5	199.3	196.4r	196.5
Durable....................	196.0	197.4	196.5	208.2
Nondurable.................	201.8	200.6	196.3r	188.7r
Mining......................	135.8	139.4	137.6r	128.6r
Utilities.....................	270.5	270.5	270.5r	257.1r
UNITED STATES				
Total industrial production......	167.9	167.3	166.2	168.8
Manufacturing..............	165.9	165.2	163.9	168.0r
Durable....................	159.7	159.3	157.4	167.3
Nondurable.................	173.5	172.7	172.0	168.9r
Mining......................	137.4	136.4	138.8	135.5r
Utilities.....................	248.0	247.3	246.0	235.4r

p — Preliminary
r — Revised
SOURCES: Board of Governors of the Federal Reserve System
Federal Reserve Bank of Dallas

DAILY AVERAGE PRODUCTION OF CRUDE OIL

(Thousand barrels)

Area	June 1971	May 1971	June 1970r	Percent change from	
				May 1971	June 1970
FOUR SOUTHWESTERN STATES.................	6,989.9	7,070.4	6,571.9	—1.1%	6.4%
Louisiana...............	2,592.6	2,643.2	2,380.2	—1.9	8.9
New Mexico.............	339.0	338.5	350.9	.1	—3.4
Oklahoma..............	606.0	603.9	622.4	.3	—2.6
Texas..................	3,452.3	3,484.8	3,218.4	—.9	7.3
Gulf Coast.............	704.3	714.1	636.8	—1.4	10.6
West Texas.............	1,641.5	1,655.2	1,563.2	—.8	5.0
East Texas (proper).....	226.8	228.8	169.7	—.9	33.6
Panhandle.............	67.8	67.9	78.0	—.2	—13.1
Rest of state...........	811.9	818.8	770.7	—.9	5.3
UNITED STATES............	9,731.6	9,797.2	9,356.5	—.7%	4.0%

r — Revised
SOURCES: American Petroleum Institute
U.S. Bureau of Mines
Federal Reserve Bank of Dallas

May. Increases were 25 percent in San Antonio, 22 percent in Dallas, and 19 percent in both Houston and Fort Worth.

Total registrations were 17 percent greater than a year earlier. Cumulative registrations through June were 11 percent greater than in the first half of 1970.

Department store sales in the Eleventh District were 8 percent higher in the four weeks ended July 24 than in the corresponding period a year earlier. Cumulative sales through that date were 8 percent higher than a year before.

The seasonally adjusted Texas industrial production index eased slightly in June, dropping to 180.1 percent of its 1957-59 base. The drop–a decline of 0.7 percent from the record level reached in May–was due primarily to the abrupt cutback in production of crude oil. Total manufacturing output was unchanged, as was the output of utilities. And even with this drop in total production, the state was able to post a 3.0-percent gain over June 1970.

Manufacturing of durable goods fell 0.7 percent from the level in May, largely as a result of declines in the production of furniture and fixtures, electrical machinery, and transportation equipment. Production of transportation equipment, still the weakest category of durable manufacturing, has fallen 20.0 percent since June 1970.

The decline in production of durable goods was largely offset, however, by a continued rise in the output of nondurable goods. An advance of 0.6 percent over the previous month, the rise in nondurable production was accounted for largely by strong surges in the output of leather products and of the printing, publishing, and allied industries.

The important downturn was in mining, which fell 2.6 percent below the level of output in May. All this drop was due to reduced production of crude oil caused by cuts in the state's oil allowables. Despite this sharp month-to-month decline, mining still posted an increase of 5.6 percent over the output for a year before.