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Strong Credit Demands, But No “Crunch” in Early 1973

by ROGER W. SPENCER

IN RECENT months many observers in the financial community have been concerned about the potential emergence of a credit crunch. Last fall, economic forecasters indicated that the occurrence of such a crunch was a major potential blight on an otherwise optimistic outlook for 1973. In many respects the economic conditions anticipated in 1973 were viewed as being similar to those which prevailed in 1966 and 1969, two recent years of widespread financial stress. Strong real output growth, high levels of capacity utilization, and advancing price pressures were experienced in those years and were projected to reemerge in 1973.

In 1966 and 1969, the accelerating inflationary pressures led stabilization authorities to take restrictive measures in order to restrain the upward spiral of prices. A side effect of those efforts was the creation in 1966 and 1969 of conditions in the financial markets which became popularly characterized as a “credit crunch.”

This article reviews characteristics common to the two credit crunch periods, and then examines financial and business conditions in early 1973. The differences and similarities between the earlier periods and developments so far in 1973 are emphasized. Currently, there are strong credit demands in the economy, as there were in the 1966 and 1969 credit crunch periods. However, substantial differences between the present and earlier periods remain.

CHARACTERISTICS OF THE CREDIT CRUNCHES OF 1966 AND 1969

The term “crunch” is indicative of developments wherein rapidly changing supply and demand forces, in combination with non-market interest regulations, sharply alter the flow of credit away from normal channels. This distortion of normal credit flows was the clearest single element common to both the 1966 and 1969 credit crunches.¹ Credit seekers who were affected by the change in flows included business firms, governments, individuals, and financial institutions.

Sectors Most Adversely Affected

In the past two crunch periods, certain financial institutions were among the most publicized victims of the financial wrenching. Since financial intermediaries obtain funds from savers and extend loans to borrowers, they are particularly vulnerable to pronounced changes in credit flows. In both crunch situations, these institutions were “disintermediated” when the rates they were permitted to pay savers did not rise as rapidly as interest rates in the open market. For a while the intermediaries were able to meet a continued high demand for funds by liquidating short-term securities or by borrowing. Eventually, however,

¹Some of these distortions continued into the immediately succeeding years.

they were forced to curb loan extensions because of the inability to attract new funds.

Individuals and firms seeking to obtain funds from institutions whose borrowing rates were subject to legal ceilings probably found the available supply of credit allocated on a non-price basis — first come, first served, for example. In cases in which ceilings on interest rates did not exist or were ineffective, the price mechanism functioned to allocate the credit supply. Some borrowers likely found the prices they had to pay for credit were sufficiently high as to discourage them from borrowing *at that time*. If they anticipated the cost of credit would fall sometime later relative to their expected return (however measured), they simply postponed attempts to obtain funds. Such actions would tend to lower the immediate demand pressure on financial intermediaries.

Sources of funds to financial intermediaries at any time are strongly influenced by changes in the interest rates that the intermediaries are permitted to pay to attract deposits. The ability of one intermediary to attract deposits from another by an incremental increase in offering rates has probably been enhanced during periods of financial stress. High open market rates likely caused some disintermediation among all the thrift institutions. One result was increased borrowing on the part of the intermediaries.

Member banks increased borrowing from the Federal Reserve Banks, and savings and loan associations turned to the Federal Home Loan Bank Board. In some cases the Federal Reserve chose to restrict bank borrowing at the given discount rate, and the Federal Home Loan Bank Board encountered exceptionally high costs in marketing its own securities on the open market. These actions contributed to the crunch situation for those banks and savings and loans deprived of a large part of both their primary and secondary sources of funds.

The housing sector was also greatly influenced by these financial developments. With savings and loan associations, mutual savings banks, and commercial banks forced to curb the advance of housing loans, Federal or semi-Federal agencies such as the Federal National Mortgage Association (FNMA) and the Government National Mortgage Association (GNMA) attempted to make available to the housing sector funds that they had been able to attract on the open market. The agency support was particularly significant to the housing sector at times when the mortgage activity of life insurance companies had been curbed

because of the large volume of policy loans granted to policyholders. The relatively low interest charge set in the insurance contracts made this source of funds quite attractive to individuals and firms.

Most state and local governments are subject to substantial constraints on their capacity to obtain funds through bond issuance or tax increases. Like some financial intermediaries and high risk borrowers, many of these governments have curbed their operations during periods of financial stress. The Federal Government, on the other hand, is less limited in its ability to tax and/or issue bonds when it desires to obtain additional funds. In fact, this ability to borrow from the public at high interest rates (at least in the short-term market) at times has likely resulted in a shift of funds from financial intermediaries and state and local governments to the Federal Government.

Development of the Credit Crunches

Ironically, the origins of past credit crunch periods may be traced to stimulative monetary policy actions. Expansionary policies have been appropriately taken during recessionary periods to stimulate real economic activity. However, in periods when economic activity is already moving at a brisk pace, and resource utilization is very high, monetary stimulus may eventually precipitate a credit crunch.

The demand for funds in such periods has been sufficient to induce a rise in interest rates. Frequently, monetary authorities have resisted the rise in market interest rates by stepping up the pace at which they supplied reserves to the banking system. The increases in reserves have led to expanded flows of credit, increased growth in the money stock, and temporary reductions in or a leveling off of interest rates.

Increased growth in money, relative to the prevailing trend, has led to increases in the growth of total spending. The rise in the pace of spending has been accompanied by increases in the demand for credit, and, simultaneously, upward interest rate pressures. Advances in the growth of total spending that have occurred at relatively high levels of employment have been accompanied by greater inflationary pressures. To the extent that price increases come to be anticipated, lenders demand and borrowers are willing to pay still higher interest rates. Only when some outside source of funds, such as the Federal Reserve Banks, has continued to supply credit at an accelerating rate has financial stress been postponed. The cost of such postponement has been escalating inflation.

However, at some point in the inflation cycle, the monetary authorities have undertaken restrictive actions. These actions have been reflected in a slowing in the rate of growth of monetary aggregates and a temporary further rise in interest rates, both of which occurred in 1966 and 1969. Subsequently, as a result of the restrictive policy actions, credit extensions have fallen and interest rate declines have accompanied a slowing in the pace of total spending.

The credit crunch periods were significant not only because of the financial wrenchings which occurred at that time, but also because such periods were followed by a slowing in real economic activity. The credit crunch of 1966 was followed by the mini-recession of 1967, and the crunch of 1969 preceded the recession of 1970. Current business conditions and financial developments suggest some similarities with these earlier periods, but the differences are significant and notable.

COMPARISON OF BUSINESS AND FINANCIAL CONDITIONS

As in 1966 and 1969, total spending, output, and employment indicators currently reflect a rapid growth in economic activity. A brief slowing in certain monetary aggregates, and a rise in some interest rates resemble patterns observed in 1966 and 1969. However, important differences remain.

Spending, Output, and Prices

Rising prices and increased growth of real output are associated with growing credit demands. In the early recovery stage of the business cycle, output tends to rise rapidly while the inflation rate changes slowly. Thus, credit demands at this stage are associated primarily with output gains as businesses borrow to finance plant and equipment expansion and inventory building, and consumers borrow to finance increased purchases. In the latter stage of a recovery, further increases in output are more difficult to achieve because resources are more highly utilized. However, credit demands continue to rise as price advances tend to accelerate and anticipations of further inflation continue to build.

In early 1973, both real output and prices have risen rapidly. A deceleration in the rate of increase of many prices, which began in late 1970, was reversed late last year. At the same time, the sharp pickup in real output, which began at the end of 1971, has continued into early 1973. The associated gains in total

spending have been at rates above those which prevailed in the 1966 and 1969 credit crunch years.

A 13.1 percent annual rate of advance of total spending in the two-quarter period ending in March this year surpassed all other two-quarter gains since 1951. It is not clear, however, that the credit demand pressures created by such rapid price and output advances are any greater than those which prevailed in 1966 and 1969. Some observers argue that growth in credit demands is not based solely on the price and output movements in the present and immediate past, but also on those which have occurred over time.² The 1966 and 1969 credit experiences were preceded by longer periods of output and price build-ups than have developed since the rather sluggish recovery year of 1971.

Monetary Aggregates

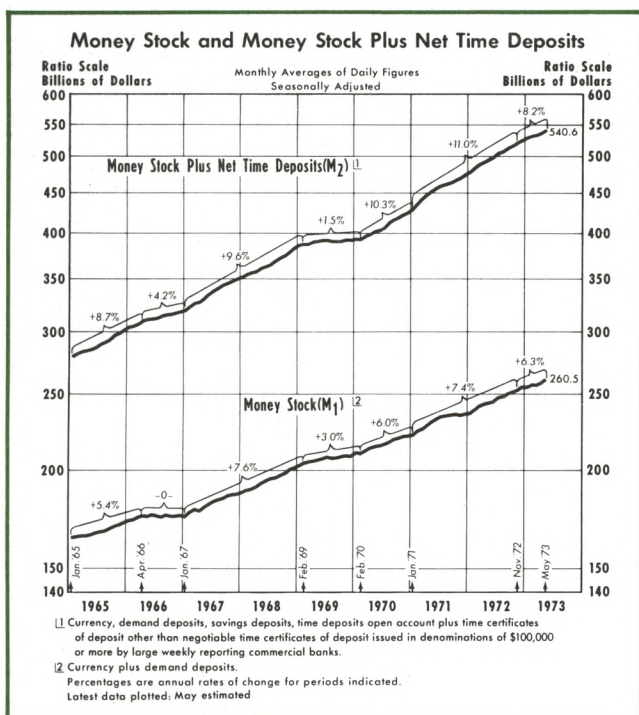
The fact that some interest rates recently have been rising while a slowing in the rate of growth of the money stock has also occurred has led some observers to conclude that the monetary authorities have adopted a highly restrictive policy stance. Other evidence indicates that such a conclusion might be premature.

The accompanying chart of the narrowly defined money stock (M_1) indicates that money stock growth slowed sharply from its earlier trend for extended periods of time in 1966 and 1969. In fact, the money supply did not increase at all from April 1966 to January 1967. In both cases the slowing lasted for at least nine months.

Money stock growth in early 1973 has decelerated from the 7.2 percent annual rate of increase from fourth quarter 1970 to fourth quarter 1972. During the six-month period from November last year to May 1973, the money stock rose at a 6.4 percent annual rate, only slightly less than the 1970-72 rate.³ The slowing which occurred in 1966 and 1969, by way of contrast with the recent period of deceleration, repre-

²The St. Louis Model, for example, features a short-term interest rate equation in which price and output changes are lagged over a ten-quarter period and a long-term interest rate equation in which price and output changes are lagged over a sixteen-quarter period. See Leonall C. Andersen and Keith M. Carlson, "A Monetarist Model for Economic Stabilization," this *Review* (April 1970), pp. 14-15.

³The money stock rose at an abnormally high 14.1 percent rate from November 1972 to December and declined at a 0.5 percent rate from December 1972 to January. The choice of November avoids the distortion introduced into rates of change calculations from abnormal base periods such as December or January.

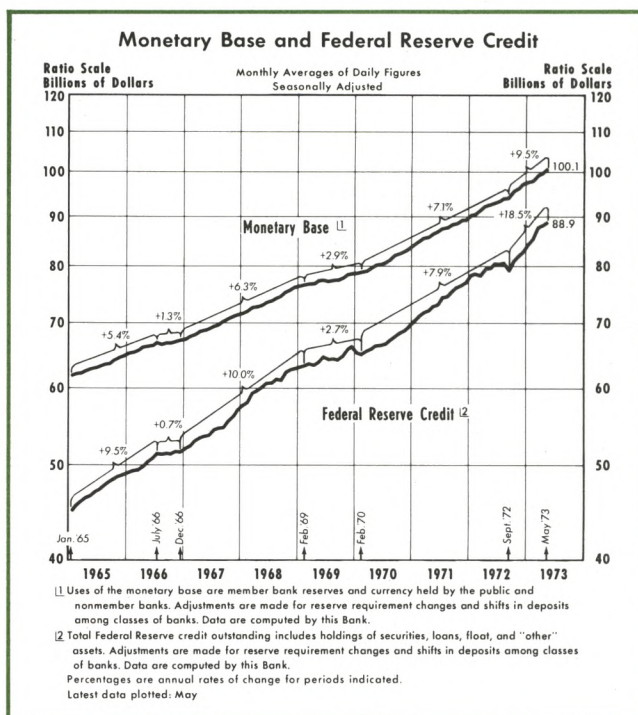


sented a sharp decline from the prevailing trend rates. Moreover, the slowing in the growth of money in 1973 has occurred over fewer months than in 1966 and 1969.

The accompanying chart also indicates that the movements of money stock plus net time deposits (M_2) have been similar to those of M_1 over approximately the same periods. A marked and sustained slowing in M_2 growth occurred in 1966 and 1969, but the slowing thus far in 1973 is neither so pronounced nor so prolonged. From an annual rate of increase of 11 percent in the 1970-72 period, M_2 growth slowed to an 8.6 percent rate of increase in the six months ending in May 1973.

The Federal Reserve does not exercise absolute control over either M_1 or M_2 in the short run. The behavior of the public, commercial banks, and the Treasury also affect monetary growth. Over a longer period, the growth of money is dominated by changes in the monetary base, the uses of which are bank reserves and currency in the hands of the public.⁴

The monetary base slowed markedly in 1966 and 1969 in a pattern roughly comparable with that of both M_1 and M_2 . From November 1972 to May 1973, however, growth of the monetary base did not slow.



The base increased at an 8 percent annual rate in the six-month period ending in May, compared with a 7.8 percent rate of increase in the preceding two years. Largely because of the continued increase in the monetary base in recent months, there is a strong possibility that the recent slowing in money growth was a temporary result of the irregular and unusual pattern of Treasury deposits, and the recent sharp rise in large negotiable certificates of deposit (CDs).⁵ Thus, changes in the rate of growth of the monetary base do not support the view that the monetary authorities have recently adopted a strongly restrictive stance.

⁵Unusual Treasury deposit flows accounted for much of the abnormal rise in the money stock in December 1972 and the subsequent slowing in the early months of this year. In December, the Treasury ran down its balances at commercial banks while making the initial revenue sharing payments to state and local governments. Demand deposit balances of the Federal Government, unlike the balances of state and local governments, are not counted as part of the money stock.

In early 1973, Treasury deposit balances at commercial banks rose more rapidly than usual because of continued overwithholding on the part of the public and the Treasury's relatively slow pace in meeting the large volume of tax refunds. Two other factors which contributed to a slowing in the rate of growth of the money stock, but which had no effect on the monetary base, were a rapid rise in the growth of commercial bank certificates of deposit and an increase in the demand for currency relative to demand deposits. The growth in CDs, which absorbs reserves otherwise available for private demand deposits, is attributable in part to the relatively low commercial bank prime loan rates compared to rates available to corporate borrowers in the commercial paper market. To meet the increased loan demand, banks bid aggressively for CD funds.

⁴See Leonall C. Andersen and Jerry L. Jordan, "The Monetary Base—Explanation and Analytical Use," this *Review* (August 1968), pp. 7-11.

Federal Reserve credit and reserves available to support private nonbank deposits, two additional measures of monetary actions, also have grown more rapidly this year than in the two preceding years. In 1966 and 1969 both measures slowed substantially from their prevailing trends.

Interest Rates

One significant characteristic of a credit crunch situation is the upward movement of various interest rates. The rise in open market interest rates above legal rate ceilings was one of the clearest common elements in the disintermediation of financial intermediaries in 1966 and 1969.

Market interest rates, which reflect demands for and supplies of credit, have risen sharply in recent months. Increases in interest rates since December 1972 have been particularly marked for short-term funds. In the first five months of this year, three-month Treasury bill rates have increased 129 basis points, four- to six-month commercial paper rates 182 basis points, and corporate Aaa bond rates 21 basis points.

The levels of the short-term rates are currently near the level of the long-term Aaa corporate bond rate. At 7.36 percent in the first week of June, the bond rate was 29 basis points above the Treasury bill rate and 47 basis points *below* the commercial paper rate.

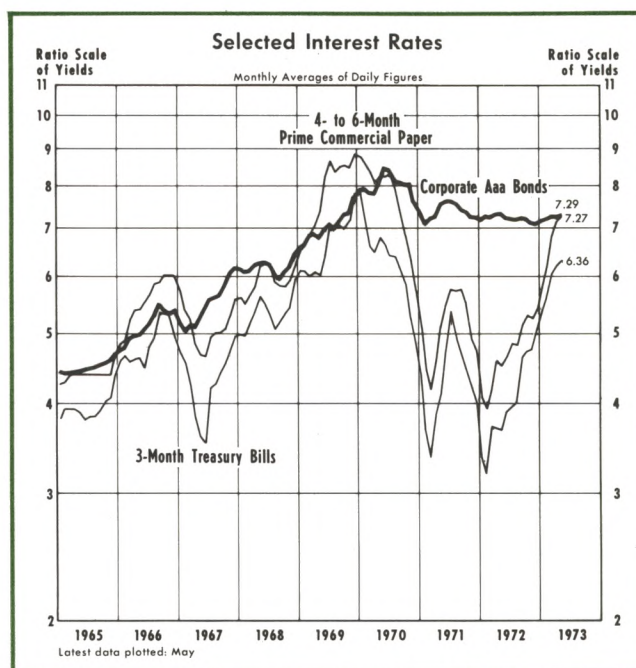
In only two instances in the 1960-72 period did the commercial paper rate rise above the long-term bond rate. The two periods spanned January 1966 through March 1967 and April 1969 through May 1970. The commercial paper rate rose well above the long-term rate on each of those occasions, reaching a peak of 65 basis points above the corporate bond rate in the first instance (November 1966) and 157 basis points in the second (July 1969). Thus, although the commercial paper rate in early June was high relative to the Aaa corporate bond rate, the differential was not as great as in the past credit crunch periods.

SECTORAL ACTIVITY

The sharp rise in open market short-term rates has begun to affect financial intermediaries whose administered rates have risen more slowly. Governmental and foreign influences on U.S. interest rates will be of particular significance over the next several months.

Financial Intermediaries

Commercial banks and other savings institutions are among the first to be affected by financial stress.

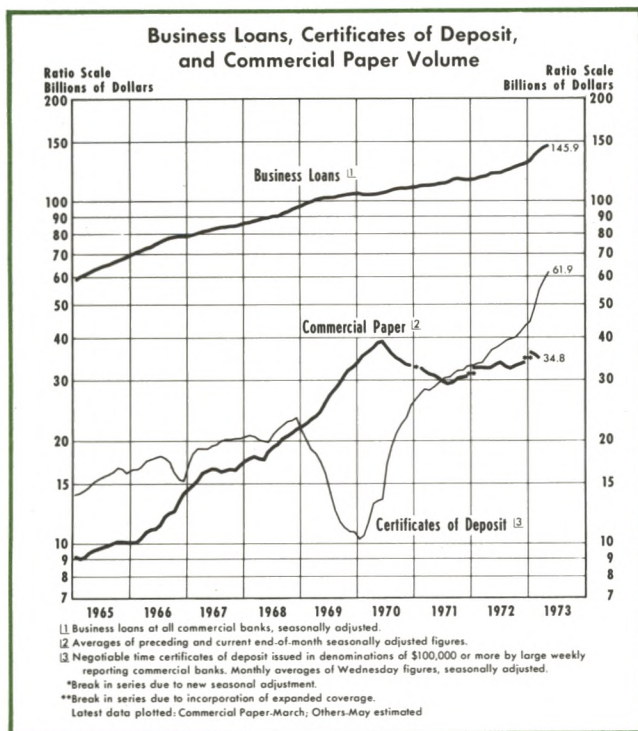


Changes in their asset-liability positions are transmitted rapidly to other areas, such as the housing market.

Commercial Banks — As the initial commercial institution through which monetary actions are reflected, commercial banks played an important role in the credit crunch periods. For the most part, recent commercial bank data suggest only minor similarities with developments in earlier periods of credit stress. For example, instead of slowing as in 1966 and 1969, large commercial bank certificates of deposit accelerated from a 32.3 percent increase in the 1970-72 period to a rate in excess of 100 percent in the first five months of 1973. The rapid rise in CDs in recent years was facilitated by the removal of interest ceilings on 30-89 day CDs in June 1970. Ceilings were removed from all CDs of \$100,000 or more in May 1973.

Bank credit, which consists of loans and investments, slowed markedly in 1966 and 1969. In the first five months of 1973, bank credit increased at a 16.9 percent rate, compared to a 14.7 percent rise in 1972.⁶

⁶Over time, bank credit and the money stock tend to move in a similar pattern. In some short periods, as in early 1973, this tendency has not been observed. When there is a rise in the interest rate that banks are permitted to pay on certificates of deposit, banks are able to extend additional credit even if bank reserves are held constant. A given amount of bank reserves supports far more certificates of deposit (CDs) than demand deposits because of the much lower reserve requirements for CDs. (A marginal reserve requirement of 8 percent on increased holdings of large CDs was recently imposed.) Large CDs, however, are rarely considered money. The rise in one component of bank liabilities (CDs) is ac-

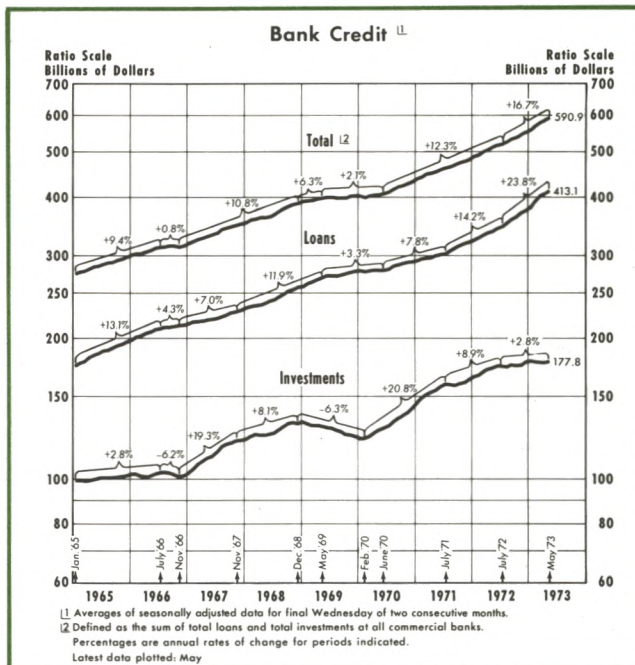


Most of the recent gains in bank credit have been in the form of loans, particularly business loans. Because prime business loan rates have been restrained somewhat by the Committee on Interest and Dividends, bank loans have been a relatively attractive source of funds to large business firms. In fact, in view of the difference in interest rates on bank loans to businesses and the yields available on large CDs, it is likely that large business firms increased both their outstanding loans from banks and their holdings of CDs.

The fact that most of the recent advances in bank credit have been accounted for by increases in loans, rather than securities, is in accord with 1966, 1969 developments.⁷ In 1966 and 1969 security holdings of banks declined for several months as banks sought to accommodate loan demand. In the five-month period ending in May 1973, bank security holdings remained unchanged, compared with a 9 percent rise in the preceding year.

accompanied by a fall in another (demand deposits or time deposits other than CDs). Thus, a short-term change in the mix of bank liabilities may result in a rise in bank credit and a decline in the money supply.

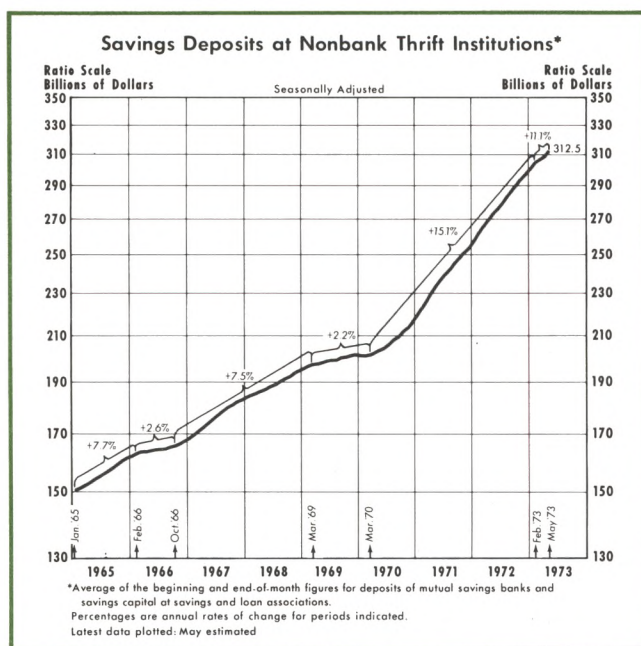
⁷Since the current period is not one of financial stress of the nature observed in 1966 and 1969, the rapid expansion of loans relative to securities reflects, in part, the relatively low prime bank loan rate of recent months. In early June 1973, a prime bank loan rate of 7.5 percent was about 33 basis points below the commercial paper rate, compared with an average of almost 50 basis points above in 1972.



Banks probably find it profitable in the long run to continue making loans to their better customers in times of financial stress rather than extending credit to other sectors such as the Government security market. In other words, rates of return on loans (measured to include long-run considerations) in high interest rate periods surpass the yields on securities. State and local government securities are at a particular disadvantage in such times because of the statutory ceilings on yields of their bond issues.

Business loans have accounted for much of the increase in bank loans in early 1973. These loans increased at a 34.4 percent annual rate in the first five months of this year, compared with about an 11 percent rise in the preceding twelve months. Real estate loans have slowed in early 1973 from their rapid rate of increase in 1972, while, consumer loan growth has picked up somewhat. Consumer debt of all sorts is currently quite high, perhaps reflecting an optimistic income and employment outlook and/or a desire to "beat" future inflation.

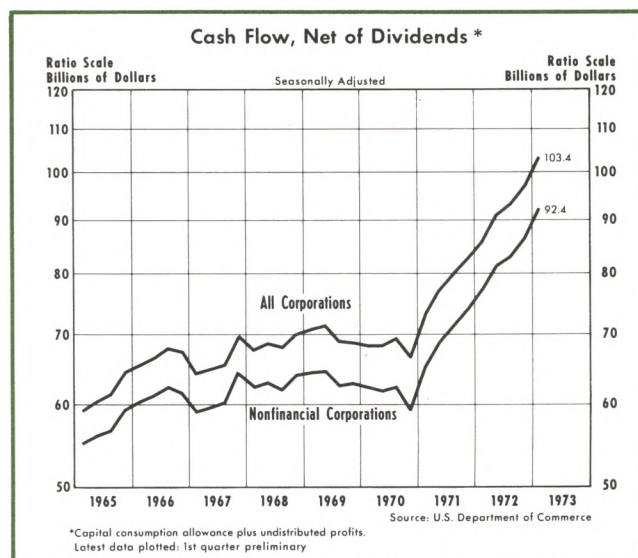
Nonbank Financial Institutions — After enjoying two excellent years in terms of deposit gains in 1971 and 1972, savings and loan associations and mutual savings banks appear to have experienced somewhat less success in early 1973. The recent rise in open market interest rates has probably contributed to the slowing in deposits at both institutions from a 17 percent increase in the year ending in December 1972 to a 12 percent annual rate of increase in the first five months of 1973.



In 1966 and 1969, the ability of the small saver to purchase a high-yielding Treasury bill by withdrawing as little as \$1,000 from a savings and loan or mutual savings bank account likely was associated with the marked slowing in deposits at nonbank thrift institutions in those two years (see chart). In March 1970, original Treasury security issues in less than \$10,000 denominations were discontinued. As a result, the small saver is now less likely to withdraw his institutional savings during high interest rate periods. More wealthy individuals and firms can still easily switch assets in accord with changing open market interest rates. The ability of the savings intermediaries to retain these accounts was enhanced in 1970 by the relaxation of interest rate ceilings on certain large deposits. In May 1973 interest restrictions on savings certificates of \$100,000 or more were removed for most savings and loan associations.

As an indication that the savings institutions are experiencing some changes in their savings flow positions, the withdrawal ratio (withdrawals relative to new savings) at savings and loan associations rose to an average of 74 percent in the first four months of 1973, compared with 64 percent over the same period in 1972. This ratio averaged 92 percent in both 1966 and 1969.

Savings and loan borrowings, primarily from the Federal Home Loan Bank Board (FHLBB), have also begun to increase, although not nearly as much as in 1966 or 1969. The FHLBB, in turn, may issue more of its own securities on the open market, as it did in the two earlier crunch years, in order to meet



the demand for funds by savings and loan associations. Desired borrowings by the associations depends, in part, on the demand for housing — a demand which probably has begun to slow.

Corporate Sector

As with the nonbank thrift institutions, business corporations are expected to require some increases in funds from credit markets this year. A June 1973 Commerce Department survey reported that businessmen expected to increase plant and equipment outlays in 1973 by 13.2 percent (compared with an 8.9 percent rise in 1972 and 1.9 percent in 1971). The spring survey of the McGraw-Hill Company found a planned increase in such outlays of 19 percent in 1973.

These sizable increases in the demand for plant and equipment are anticipated because of obsolescence of many of the older facilities, the current strength of the economy, and new environmental and safety control regulations. Under some circumstances, it might be expected that the resultant demands for corporate credit would generate considerable interest rate pressures, but many business firms are currently in a position to handle much of their planned new investment with internal funds.

Corporate cash flow, which includes undistributed profits and capital consumption allowances, has increased as a result of the recent changes in depreciation rules, the re-introduction of the investment tax credit, and the 4 percent ceiling on dividend increases, as well as the greater corporate income that has accompanied the current economic expansion. Corporate liquidity (liquid assets relative to current liabilities) is also relatively abundant.

Some upward pressure on short-term commercial paper interest rates may develop in 1973 if the prime bank loan rate is permitted to move to its market-determined level. With a substantial rise in bank interest rates, firms financing expected inventory gains would turn from bank borrowing to relatively greater issuance of commercial paper.

Governmental and Foreign Sectors

The governmental and foreign sectors provide the exogenous or "outside" influence on U.S. credit flows. These outside factors are probably more difficult to gauge than others because they are subject to more non-economic forces.

Federal Government—The Federal Government put considerably more pressure on the financial markets in calendar year 1966, when it had a \$3.8 billion deficit (unified budget basis), than in 1969, when it incurred a \$3.2 billion surplus. The 1966 deficit was financed largely by the sale of U.S. Government securities to the private sector.

At the time, the Federal Reserve was following restrictive policies and avoiding large Treasury security purchases. The apparent result of the Treasury and Federal Reserve actions was a "crowding out" of some private borrowers from the financial markets. In 1969 Federal Government pressures on financial markets were much less intense, despite restrictive actions by the Federal Reserve.

Earlier this year a number of analysts were projecting substantial pressures in the Treasury security market because of the large deficits anticipated in 1973. The issuance of a large volume of Treasury securities was expected if only to facilitate refunds of last year's tax overwithholding. It appears, however, that many individuals have yet to re-adjust their tax exemption schedules, resulting in a repetition of overwithholding in the current year. In addition, the growth of the economy has been more robust to date than many analysts projected. Large increases in personal and corporate incomes have resulted in greater-than-anticipated tax receipts.⁸ Deficit estimates were recently revised downward from \$24.8 billion in fiscal 1973 and \$12.7 billion in fiscal 1974 to \$17.8 billion and \$2.7 billion, respectively.⁹

⁸Sales of special securities to foreign governments around the time of the currency crisis in early 1973 also contributed to the Government's favorable cash position.

⁹Initial data are from the 1973 *Report of the Council of Economic Advisers*, and the revised estimates were taken from the "Mid-Session Review of the 1974 Budget," Office of Management and Budget, June 1, 1973.

State and Local Governments—There is considerable evidence that the ability of state and local governments to attract funds in 1966 and 1969 was adversely affected by the prevailing financial pressures.¹⁰ Bond issuance was postponed in a number of cases until interest rates returned to more normal levels. To the extent that these governments did not "drop out of the market," however, they themselves tended to aggravate interest rate pressures.

Since mid-1969, state and local governments in the aggregate have been incurring budget surpluses. The recent implementation of Federal revenue sharing and the strength of economic activity are currently bolstering these governments' financial positions. It is probable that some state and local governments have been using portions of their heavy inflow of funds to purchase Treasury bills, thereby keeping yields on Treasury securities below what they otherwise would be.

Foreign Sector—Under certain conditions in the past, such as an expanded balance-of-payments surplus which resulted in a rise in U.S. gold receipts and an associated increase in the monetary base (not otherwise offset), foreign sector developments unambiguously influenced the volume of U.S. credit flows. In many other cases the foreign influence is not so clear.

At present, for example, foreigners hold slightly less than 19 percent of U.S. Government securities outstanding (net of debt held by U.S. Government agencies and trust funds), much of which was accumulated by foreign central banks during the international monetary turmoil of the past two years. To the extent that foreign central banks sell a portion of their approximately \$63 billion of U.S. Treasury securities in the near future, the effect would add to upward pressure on interest yields of these securities.¹¹

A sale of this scope would not likely occur unless: 1) the interest rate on competing U.S. assets, such as certificates of deposit issued by commercial banks, rose well above the Treasury security rate; or 2) U.S. or foreign investors exchanged foreign currencies for

¹⁰See John E. Petersen and Paul F. McGouldrick, "Monetary Restraint, Borrowing and Capital Spending by Small Local Governments and State Colleges in 1966," *Federal Reserve Bulletin* (December 1968), pp. 953-982, and John E. Petersen, "Response of State and Local Governments to Varying Credit Conditions," *Federal Reserve Bulletin* (March 1971), pp. 209-232.

¹¹See Anatol Balbach, "Will Capital Reflows Induce Domestic Interest Rate Changes?," this *Review* (July 1972), pp. 2-5, and Jerry L. Jordan, "Interest Rates and Monetary Growth," this *Review* (January 1973), pp. 2-11.

dollars at the foreign central banks in order to invest in dollar-denominated assets such as U.S. private bonds and equities. In either case, upward pressures on Treasury security interest rates would be accompanied by an increased demand for other types of U.S. assets.

SUMMARY

Although some similarities with earlier credit crunch periods have been noted, the economic situation in the first five months of 1973 was far removed from the type of intense financial pressures of 1966 and 1969. Distortions in credit flows, the chief characteristic of the earlier crunch periods, have occurred. These distortions, however, have not been as marked as in 1966 and 1969. Modifications of interest ceilings have permitted financial intermediaries, such as banks and nonbank thrift institutions, to compete more effectively for funds than in other periods of high and rising interest rates.

The rise in interest rates last year and so far this year appears to have resulted largely from a growing demand for credit. The current strength of the econ-

omy and advancing price pressures underlie the expansion of credit demand. Some sectors, such as the various agencies supporting the thrift institutions and the mortgage market, may step up their credit demands in the ensuing months. Stronger agency support and the relaxation of some interest rate restrictions should make the housing industry less vulnerable to financial stress than in the past. The corporate and governmental sectors are not expected to foster significant financial pressures in the near future because of their reasonably favorable credit positions.

Key monetary aggregates, such as the monetary base, Federal Reserve credit, and commercial bank credit have increased rapidly in recent months, unlike the slowdowns observed in 1966 and 1969. A slowing in the money stock occurred for a few months in early 1973, but the slowing was not nearly as marked nor as enduring as that which occurred during the severe monetary restraint of 1966 and 1969. Consequently, despite strong credit demands and rising market interest rates, the considerable distortions in credit flows which marked the 1966 and 1969 periods were not observed in the early months of 1973.



The Problem of Re-Entry to a High-Employment Economy

An Address by DARRYL R. FRANCIS, President, Federal Reserve Bank of St. Louis,
at the Memphis State University Management Day Dinner,
Memphis, Tennessee, March 29, 1973*

IT IS GOOD to have this opportunity to discuss with you some of my views on the problems we face as the economy approaches a high-employment level of activity. With the tremendous expansion of economic activity last year following the lackluster period of 1971, there is little doubt that high employment is now at hand. Indicators of both current and future developments reflect a vigorous business expansion across a broad front.

Economic expansion cannot continue at the advanced pace of recent months, and most economists foresee some slowing later this year. I would interpret a slowing in the pace of economic activity as we reach a high-employment stage as a healthy sign. However, for various reasons, which I will discuss shortly, a slowing in the rate of increase of output may well be accompanied by an acceleration in the rate of increase of prices.

If these developments occur, I am greatly concerned that we may see a further expansion of the Government's role in economic stabilization. In the past, calls have been made for more Government spending to stimulate real economic growth on one hand, while on the other, price and wage controls have been used in attempts to arrest inflation. It is my view that the reemergence of such policies in the near future would be a serious mistake, even as we continue to feel the ill winds of earlier Government excesses. I continue to believe that appropriate structural and aggregate demand policies with proven credentials are standing by, ready for intelligent implementation, to ease the costs of the winding-down process. I will discuss them in some detail.

BUSINESS CONDITIONS

First, let me review the current business situation and recent policy actions. Signs of continuing expansion

are evident everywhere. Retail sales and personal income are well above year-earlier levels. Housing starts continue at a pace far more rapid than foreseen by most experts. Plant and equipment expenditures are projected by the Commerce Department to increase about 13 percent in 1973, compared to 9 percent last year and 2 percent in 1971.

Output gains have been exceptional. Industrial production in April was 9 percent above the year-earlier level. Real product increased about 7.5 percent in the year ending fourth quarter 1972, and has registered an 8 percent rate of growth in the first quarter of this year. By comparison, the trend growth rate of both industrial production and real product over the past twenty years has been approximately 4 percent per year.

The recent expansion of output has been accompanied by a significant decline in the unemployment rate from almost 6 percent in March of last year to the current rate of about 5 percent. Employment growth has been exceptionally rapid, but an equally exuberant expansion in the labor force has hampered further declines in the unemployment rate. Currently, the ratio of all employed workers to the population of working force age is higher than at any time in the twenty-year period preceding 1968, a period which includes several episodes of unemployment rates at or near the 4 percent level.

One interesting aspect of the current 5 percent unemployment rate in the face of a large increase in the number of employed individuals is the rapid rise in such relatively unskilled workers as teenagers, part time employees, and military veterans. The 5 percent overall unemployment rate is partially masking the fact that there are shortages of many skilled workers including plant electricians, machinists, and certain types of mechanics and engineers. Also, average weekly hours of work in the manufacturing sector are

*This presentation has been revised to take into account the most recent available data.

about as high as in 1969, a year when the unemployment rate averaged only 3.5 percent.

High rates of plant and equipment capacity utilization are being experienced in a number of important industries. The auto and rubber industries report that extensive overtime operations have pushed their capacity utilization rates above levels desired for maximum efficiency. For all manufacturing industries, the utilization rate is about 86 percent, not much different than the high-employment rate of the middle 1960s.

The fall in the unemployment rate in recent months has been accompanied, unfortunately, by an acceleration in the inflation rate. Consumer prices increased at a 6.6 percent rate in the six-month period ending in April, compared to a 3.7 percent rate of increase in the preceding six months. Wholesale prices accelerated to a 17.3 percent annual rate in the past six months, triple the rate of the preceding six-month period.

Adverse short-run supply conditions in the agricultural sector undoubtedly contributed to the recent price acceleration, but it will be some time before these conditions are effectively corrected. Phase II price and wage controls may have held down measured prices in some areas in 1972 (although this is uncertain), but Phase III will be marked by much stronger wage pressures as a result of more union bargaining than in 1972 and stronger demand pressures, as reflected in recent income and employment gains. Of greatest importance in contributing to these demand pressures has been the recent expansionary stance of monetary and fiscal policy actions.

STABILIZATION POLICY ACTIONS

Both monetary and fiscal actions were restrictive in 1969 in order to slow inflationary pressures, but since that time they have become considerably more stimulative. The rate of growth of the money supply increased in each succeeding year from 4.2 percent in 1969 to 7.4 percent in 1972. In comparison, the long-run trend rate of money supply growth, over the past two decades, has been only about 3 percent per year. The Federal deficit (on a national income accounts basis) expanded from \$1.3 billion in fiscal year 1970 to \$21.1 billion in fiscal year 1972.

Even if stabilization policies were to become moderately restrictive in 1973 — and evidence at this time is inconclusive — the lagged effects of earlier expansionary actions would likely contribute to a continued movement of the economy toward high employment

in the present year. Whether the so-called “magic” unemployment figure of 4 percent would be reached is another question.

You will notice that I have been talking about a “high” employment economy rather than one of “full” employment. The reason is that “full” employment is often taken to refer to some specific rate of unemployment, such as the 4 percent level. I believe that attempts to achieve numerical targets of this sort have probably led to as many problems as they have solved. The single-minded pursuit of virtually any goal often results in undesirable side effects. In this case, zealous pursuit of a target rate of unemployment, without adequate recognition of the lags in effect of monetary policy, has often been followed by inflationary pressures.

What is an acceptable target for unemployment? I agree with the Council of Economic Advisers that instead of a *number*, this “policy goal is a *condition* in which persons who want work and seek it realistically on reasonable terms can find employment.”¹

There is no doubt that some unemployment will exist even under these conditions as individuals seek the most “reasonable terms” compatible with their individual job skills. This period of search is heavily influenced by the availability of job information, the level of education and skill attained, and the extent of such job hindrances as the minimum wage, union non-price job discrimination, and excessive compensation for those remaining unemployed. Because the importance of these factors varies greatly over time, it is not possible to say that a feasible goal for the unemployment rate in 1973 is the same as was observed a decade or two ago.

Once these structural impediments to employment are considered, the “high-employment” unemployment rate which emerges is called the “normal” or “natural” rate of unemployment. The unique feature of the concept of a “natural” unemployment rate is that it is consistent with a stable rate of inflation. Unemployment rates above the natural rate are usually associated with price decelerations and unemployment rates below it are generally related to price accelerations. Clearly, if labor market constraints could be lessened so that demand price pressures would emerge at say, a 3 percent unemployment rate instead of a 5 percent rate, the whole economy would profit. Historically,

¹The Annual Report of the Council of Economic Advisers, 1973 (CEA Report), p. 74. Italics supplied.

however, the evidence suggests that this variable natural rate of unemployment has probably been closer to 5 percent than 3 percent.

Therein lies the problem. Past experience has taught us that expansionary monetary and fiscal policies can be used to reduce the unemployment rate for a period of time below the natural rate; however, experience has also shown that the cost of doing so has been accelerating inflation.

I want to be very clear in emphasizing this point. Socially and politically, an unemployment rate in the neighborhood of 5 percent has come to be viewed as unacceptable. Thus, there is great incentive to take action to reduce it. The types of actions that would reduce the natural rate of unemployment are very difficult to implement, and slow to take effect since they involve fundamental improvements in the structure of our labor markets.

In contrast, stimulative monetary actions are relatively easy to implement and operate with a fairly short and predictable lag. You can imagine the temptations and the pressures on monetary policymakers to take actions that would result in a near-term reduction in unemployment, even if it is fully recognized that the results of having done so will be an acceleration in the rate of inflation sometime in the future. My view of the lags in the effect of monetary actions on production, employment, and prices is such as to imply that it is necessary to begin reducing the amount of monetary stimulus well in advance of observing something approximating full employment and full utilization of capacity.

By analogy, I might characterize my view as being similar to the situation faced by astronauts returning to earth from a flight in space. You all are well aware that, as our spacemen begin to get closer to home, the earth's gravitational pull causes their speed to accelerate. Yet, they also begin to experience increased friction when they encounter the earth's atmosphere. Thus, it is necessary for them to fire their retro-rockets at a fairly early stage of the re-entry in order to avoid achieving too much speed and generating too much heat.

To a space scientist, as well as the general public, this seems to be a logical action to take at the time. But in the re-entry phase of economic stabilization, it seems much less obvious to most observers, including Government officials, that the monetary authorities should fire their retro-rockets, and begin to reduce the amount of monetary stimulus at a time when unemployment remains at a fairly high level.

This illustration is my way of expressing the view that the chief role of policymakers is to avoid plunging the economy sharply down one path and then correcting sharply in another direction. It is my belief that the economy is basically stable and, if given a chance, would not need the nimble talents required of an astronaut whose on-board computer has failed during the descent to earth. In other words, despite repeated calls for moderation, stop-and-go performance has been the effect of so-called "stabilization" policies for years.

Now let me turn to a few remarks regarding a constraint on the ability of monetary authorities to follow the approach I have suggested. A major factor influencing central bank operations at various times is changes in the Federal Government's budget position. When the Federal budget is in surplus there need not be much of a problem, but at times when deficits occur, as they have in 14 of the past 20 fiscal years, the monetary policymakers feel obligated to take this into consideration in arriving at their policy decisions.

The problem can be put quite simply: the short-run effect of the issuance of Government bonds to finance deficits is to increase market interest rates. Since interest rate movements have usually weighed heavily in the Federal Reserve decision-making process, this upward pressure on interest rates is met with resistance in the form of open market purchases for the accounts of Federal Reserve Banks. Often an undesired, but very important, side effect is the increase in the money supply generated by such actions.

Thus, the dilemma of the monetary policymaker in these deficit situations is deciding whether to risk more monetary expansion than is consistent with reasonable price stability, or accept a period of financial stress with its accompanying negative effects on the real sector. The enactment of realistic tax programs to cover burgeoning Government expenditures would first remove an unnecessary constraint on monetary stabilization actions, and second, focus the taxpayers' attention more clearly on the costs of Federal programs.

ALTERNATIVE APPROACHES

As re-entry into high employment occurs, as it inevitably must with an economy which has been expanding in real terms at a 7 percent rate relative to a 4 percent long-term potential, the questions arise as to *when*, and *how hard*, the retro-rockets should be fired. At least, these issues arise if you agree that very stimulative monetary and fiscal actions cannot be pursued indefinitely.

One of the best ways to insure that highly stimulative monetary actions will not be maintained too long would be to keep a lid on Government spending. In that way, the deficits which have indirectly influenced monetary expansion in recent years could be minimized. Independent of stabilization actions, the expanded role of Government spending in the U.S. economy is due for careful re-examination. Government spending on goods and services relative to the total economy doubled from 11 percent to 22 percent in the twenty-five year period ending in 1972.

Once the time for less expansive policy actions is identified, I see at least three approaches to "firing the rockets." One would be to adopt a very restrictive stance and hold it for an extended period of time. This has been done on previous occasions, with economic recession the usual consequence. However, in the present circumstances, I do not think such a severe policy reversal is yet required. There is still time to make a mid-course correction toward more moderate actions.

A second approach would be to move *gradually* in the direction of long-term fiscal and monetary stabilization targets consistent with long-run price stability and a high level of employment. A third alternative is to move *immediately* to the long-run target. At this time, the lag patterns associated with the current direction of the economy into the high-employment stage and the response of the economy to a proposed policy shift are under study. I can only say that I favor neither the extreme of maintaining accelerated policy stimulus, nor a policy which would slow the economy to the recession point.

I must point out that any permanent slowing of the rate of monetary expansion would be accompanied by temporary adjustment costs in the form of a slowing in the rate of growth of output and employment. The costs would be less now, however, than if the adjustment period were postponed.

Finally, I would like to conclude with the observation that monetary and fiscal actions need not "go it alone" as we re-enter the critical high-employment stage. There are numerous legislative actions which

could be taken to lower unemployment at the same time orthodox stabilization actions become less stimulative. Provisions for additional job training and less costly job information, modification of the minimum wage which tends to keep teenage unemployment so high, revision of our social welfare policies to create maximum incentives to work, and curbs on business and labor non-price job discrimination are some of the possible measures.

So far as inflation is concerned, the most appropriate structural measures for the current situation are those which increase the supply of goods and services. Some of the actions along this line which have already been taken include the temporary suspension of oil import quotas, meat import quotas, crop acreage allotments, and the release of Government stockpiles of certain goods. There exist far more supply restrictions which could be eliminated, thereby contributing significantly to the battle against inflation.

With regard to wage and price controls in a high employment economy, again I agree with the Council of Economic Advisers who noted in 1970 that

Experience with [direct wage and price measures] in other countries has been remarkably consistent. In some cases success in holding down wage settlements or price increases has been achieved in certain industries. There is usually a period in which these programs may have some overall deterrent effect, though evidence here is less certain. After an interval, however, there is a point at which accumulating pressures make the programs ineffective. American experience conformed to this pattern.²

In closing, I would like to stress that the current high-employment re-entry problem exists only because of earlier stop-and-go excesses. A continuation of *go* actions would bring about a replay of the rapidly accelerating prices of the late 1960s, except that the acceleration would occur at higher levels in the 1970s. The adoption of severe *stop* policies would produce another major recession. If we can adopt and maintain policies geared to long-run considerations, the high-employment re-entry problem could become only a memory of the past.

²1970 CEA Report, pp. 23-24.



The Response of the Mexican Economy to Policy Actions

by GILBERTO ESCOBEDO

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He has written extensively on the Mexican economy. While on sabbatical leave to the Federal Reserve Bank of St. Louis, he directed his attentions to the development of an econometric model of the Mexican economy. The following article serves as supportive material to this econometric study.

THE MEXICAN economy has experienced a remarkable evolution in the last decade. Compared to the western world, Mexico's rate of growth in this period was surpassed only by Japan, and the rate of inflation was low and steady. This is to mention only two of the many economic accomplishments of the nation that has been referred to as "The Mexican Miracle."

For some people, however, the days of the so-called "Mexican Miracle" seem to be ending, while for others only temporary difficulties have appeared. In 1971 the rate of growth of real gross domestic product (GDP) reached its lowest point since 1955 (3.7 percent) and prices showed a peak rate of increase of 5 percent.¹ The question now asked is whether this situation was just a temporary setback or a sign of things to come.

This article attempts to provide some insight into the complexities of the Mexican economy. It serves as background information to a larger study on the development of an econometric model of the Mexican economy.

Recent Developments

Gross Domestic Product — Mexico has experienced considerable economic growth in the last 15 years.

Gross domestic product has grown at an average annual rate of 11 percent, 7 percent in real terms and 4 percent in prices.² When considering the 3.2 percent rate of population growth, output per capita rose at a very respectable 3.8 percent rate.³

The composition of GDP has undergone a considerable change in the last 20 years. As a result of import substitution, manufacturing production has grown considerably in importance at the expense of agriculture. Over the same period services have grown and at present represent more than 40 percent of total GDP.

In spite of the rapid growth and shifts in the composition of production, an underlying problem of persistent maldistribution of income has shown no relative improvement in the past 15 years.⁴

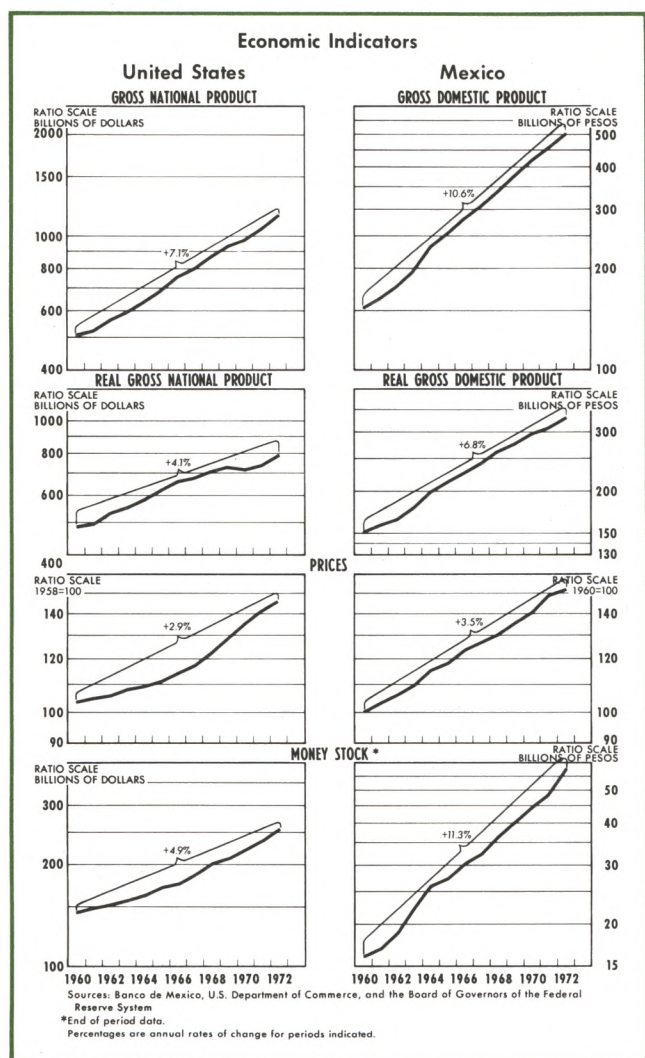
Prices and Unemployment — Over the last 15 years the 4 percent annual rate of growth in the implicit price deflator compares favorably with the 10 percent yearly average of the previous 15 years. Inflationary pressures in this earlier period primarily reflected a rapid growth in Federal expenditures relative to na-

²The data used throughout this section are from the following sources: Banco de Mexico S.A., Direccion General de Estadistica, and International Monetary Fund.

³Output per capita in terms of dollars has grown as follows: 1950 = \$183; 1960 = \$346; and 1970 = \$690.

⁴Ifigenia M. de Navarrate, *La Distribucion del Ingreso y el Desarrollo Economico de Mexico*, UNAM (1960).

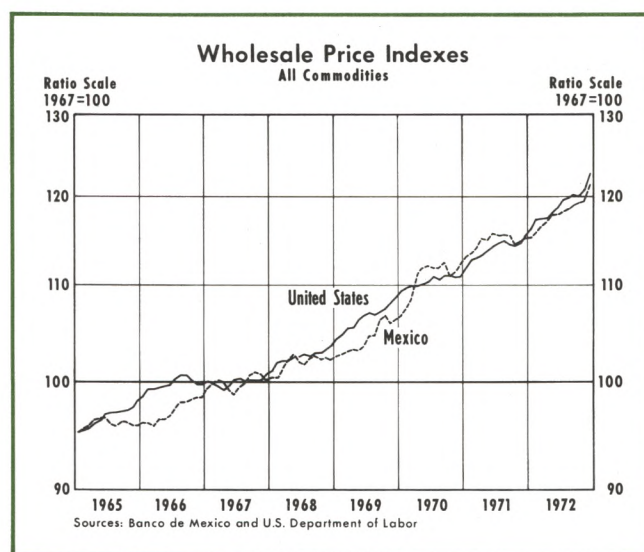
¹Gross domestic product is equal to gross national product minus factor payments to other countries.



tional output. These expenditures were financed by the creation of "new" money which grew at rates higher than real GDP.

Stability in the more recent period has been accomplished by maintaining balance between Federal expenditures and national output. Monetary authorities have contributed to this delicate balance by offsetting pressures emanating from excessive Government expenditures and an important external sector.

The rate of unemployment in Mexico is generally considered so high that sharp increases in aggregate demand are assumed not to affect prices, since they will be absorbed by greater levels of employment. This assumption can not be proved, however, since there is no reliable information concerning employment. As developed later, it will be shown that for certain instances, full-employment conditions appear even though a great proportion of the labor force is actually unemployed.



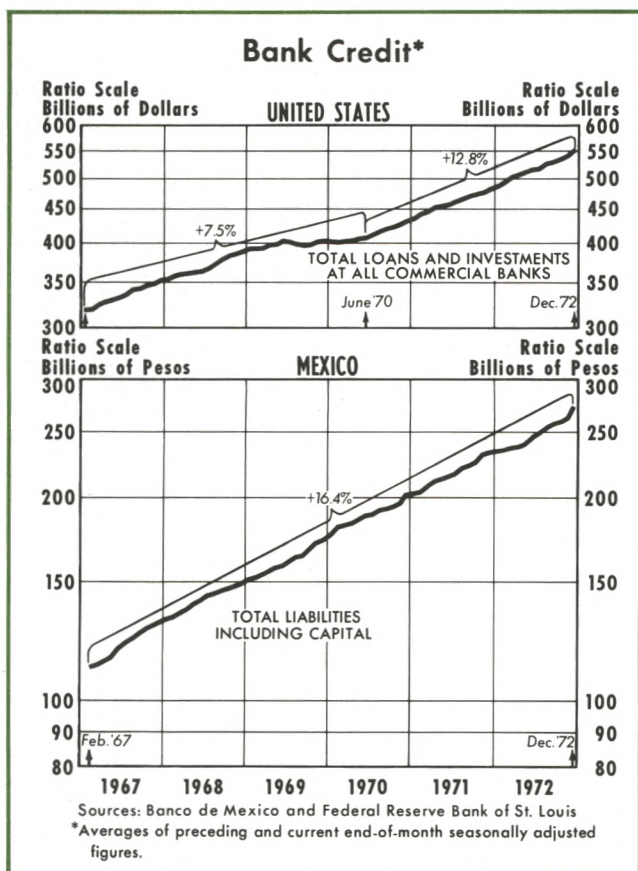
Investment — Real investment has been the main source of dynamism in the Mexican economy. Public as well as private capital formation have made it possible to achieve an average 17 percent annual rate of growth in real investment in the last 20 years. Over that period Government investment, directed mainly to the development of infrastructure (roads, dams, electricity, etc.), has comprised about 45 percent of total investment.

Public Finance — Throughout the past 10 years the annual rate of growth of total Government expenditures has been 13 percent. This growth is primarily the result of a public policy to accelerate infrastructure capital formation and promote social welfare. On the other hand, revenue has not grown at a rate sufficient to cover total expenditures. Consequently, the net budget position has been in deficit.

The relatively slow growth in revenue represents a direct effort by the Government to promote and sustain the growth of private investment, rather than increase Government revenue. Tax exemptions or reductions as well as increased transfer payments have been used widely to promote private investment, both domestic and foreign.

Savings — While Federal Government contributions to the growth of savings (budget surpluses) have been negligible, private as well as foreign savings have been growing at high and steady rates. Gross national savings grew from 4,735 million pesos in 1950 to 12,442 million in 1958, and to 52,000 million pesos in 1970.⁵ Savings represented 10 percent of GDP in 1950 and 17 percent in 1970.

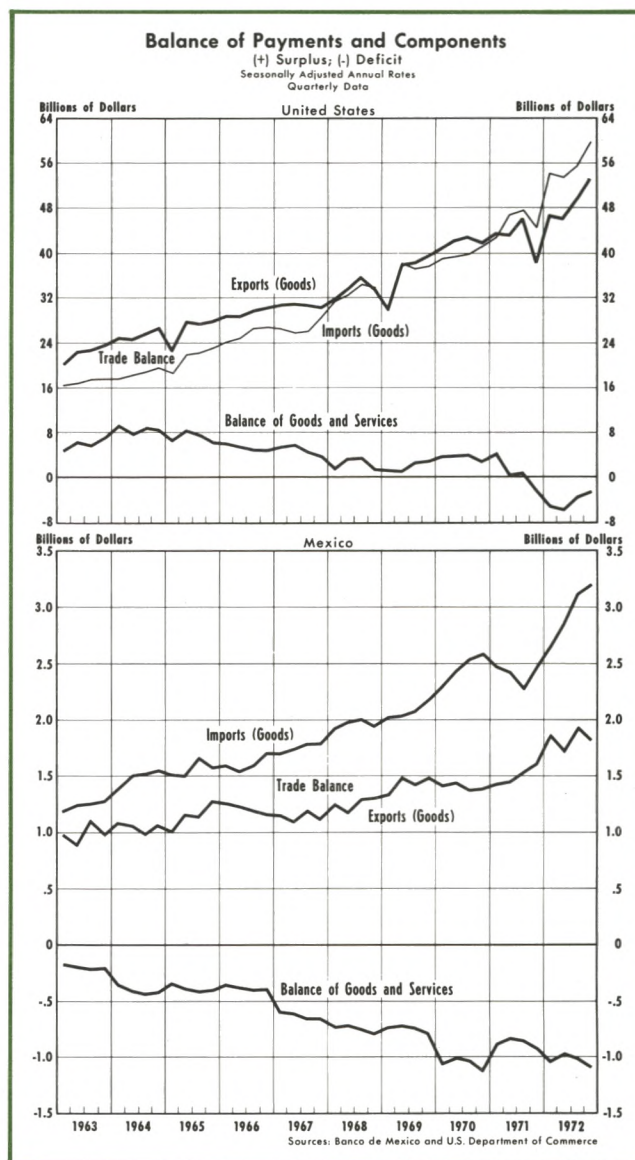
⁵One peso is equivalent to \$.08 in U.S. currency. One dollar is 12.50 pesos.



The Mexican banking system has been absorbing greater amounts of these savings in the last 15 years. Its liabilities have been growing at an average rate of 17 percent annually — a rate considerably higher than that of GDP. Increased monetization of both real and financial assets and growing domestic savings permitted this growth in banking liabilities. The favorable interest rates relative to foreign markets, and a competitive and efficient financial system produced attractive conditions for domestic as well as foreign investors.

The greater volume of savings received by the financial system, in turn, has allowed monetary authorities to reallocate private savings to finance Government deficits through the mechanism of required reserves, instead of issuing "new" money. (Growth of the money stock has been sustained at an average annual rate of 10 percent in the last 15 years, the same rate as nominal GDP.) Although this reallocation process has increased the amount of credit available to the Government, it also has made the Government more dependent on private banking.

External Sector — One of the great problems facing any developing nation, including Mexico, is financing the increased importation of required capital goods.



Mexico's imports, which currently represent 15 percent of GDP⁶, have increased at an average annual rate of 12 percent in the last decade. This rate is not only higher than that of GDP, but also exceeds export growth, which has been growing at an average annual rate of only 8 percent. As a result, the balance-of-payments deficit on current account has been increasing continuously, reaching a peak of \$900 million in 1970.

The increasing trade deficits have been offset by greater direct foreign investment and loans. Until now the amount of foreign credit has not only been sufficient to finance the current account deficit, but enough

⁶In the United States this proportion has been approximately 6 percent of GDP in the last three years. This proportion in Mexico seems high considering that the process of import substitution has practically come to an end.

external capital has been received to allow an expansion of the international reserves of the central bank.

Recognizing that the development process itself requires increasing amounts of imports, the only solution to a trade deficit problem for a developing nation is to promote exports. Exports of agricultural products do not provide the long-run solution for Mexico since they have only been growing at 4 percent annually — a situation that cannot be expected to change significantly given the technical disparity of agricultural production.⁷ It is understandable, then, that vigorous private and public efforts have been directed toward the promotion of exports of manufactured goods and to the promotion of tourism.

Economic Policy Objectives

Mexico, as any developing country, required substantial public capital formation in the early stages. As the private capital markets became more developed, provision for such capital goods has increasingly become the responsibility of the private sector, both foreign and domestic.

A public policy directed toward capital formation and better income distribution explains increased Government involvement in the economy. The important role of the Government in economic activity qualifies the Mexican system as a “mixed” or “national” capitalism. Nevertheless, this participation has not reached the proportions of other industrial or less developed countries.

Government intervention in the economic process through policy decisions has had a long tradition in Mexico. Policymakers always have been remarkably sensitive to political and economic forces. Even without sufficient technical knowledge, they adopted policies which allowed Mexico to sustain a continuous pattern of growth.

Recently more sophisticated techniques have been used. However, the natural impulse of the policymaker still has considerable weight in the final decisions, sometimes invalidating the technical advisors’ recommendations.

Development and Price Stability — It is understandable that economic development is, and has been for some time, the main economic policy objective. In

the past this goal was expressed in general terms, rather than specifically quantified. Presently it is expressed as a “desired” annual rate of growth in real GDP between 6 and 7 percent. When adjusted for population trends, this means a net growth of 3 to 4 percent in per capita terms.

Until 12 years ago no goal other than fulfillment of development was considered important. Then with the awareness that continued inflation and drainage of foreign exchange were inhibiting real growth and aggravating the problem of income distribution, the need for price stability became evident. Beginning in 1955 policymakers introduced price stability as an ultimate objective to accompany the development goal.

The price stabilization goal pertains to both domestic and international purchasing power; that is, the rate of growth of domestic prices should not deviate substantially from its long-run annual trend (3 percent) and the rate of exchange of Mexican currency should be maintained. According to policymakers, both goals should be accomplished under conditions of free internal markets and free convertibility of the peso.

Income Distribution — For a long period this goal remained of secondary importance. There was a wide belief that in the long run economic growth and increased savings would eventually raise general income, thereby increasing everyone’s welfare position.

Time has proven that even though the process of growth with stability has been relatively successful and the welfare position, on average, has improved, this actual distribution of income is no better than 15 years ago. One explanation is that promotional measures directed towards capital formation have implicitly encouraged the concentration of income. Promotion of savings and investment through tax exemptions and subsidies has favored higher over lower income groups. The unemployment problem also hindered income distribution as the extensive use of technology imported from developed countries reduced the domestic demand for Mexico’s most abundant productive factor — labor.

Therefore, the redistribution of income target has appeared explicitly in Mexican economic policy. It remains uncertain whether it is possible to make economic growth compatible with greater income equity and price and exchange rate stability. This problem is confronted later when the experience of 1971 is detailed.

⁷In Mexico, this problem is commonly referred to as the “dual agriculture” system — one segment utilizing modern farming techniques and another segment relying on relatively primitive techniques.

Employment — Until recently, this goal was never explicit in Mexican economic policy. In fact, one could say that for a long time it was neglected, although a wide consensus concerning the problem has existed and can be traced in Mexican economic literature. Employment now is probably the main concern regarding fulfillment of the income redistribution goal.

For many years labor market conditions aided in the goal of price stability. There was an abundant supply of labor at relatively low salaries. Union power was, to a certain extent, influenced by the Government. These conditions allowed wages to grow slower than productivity, thereby facilitating price stability.

The situation has changed somewhat since the mid-1960s because the unions have gained political power, increasing considerably not only workers' salaries but also social and "fringe" benefits. The higher salaries resulting from the bargaining process, however, have not been reflected entirely in prices since productivity has continued to grow at high rates. Moreover, the benefits of unions are only available to limited groups of workers, and the supply of unskilled labor is still large relative to demand.

Economic Policy Instruments

Fiscal and monetary policy have played an important role in attaining growth and stability in the last 15 years. The short-term policy instruments available to policymakers to fulfill these objectives are mainly taxes, Government expenditures, and changes in the supply of money and credit. Import controls could also be used for this purpose, but such controls would be rigid and subject to many bureaucratic processes that would render them extremely inefficient for short-run policy.

Fiscal Policy — Fiscal policy has contributed to both growth and price stability through different means. To prevent prices from rising to levels harmful to low-income groups, price ceilings have been established mainly on basic foods. When certain prices tend to rise above the level set by the controls, the Government will import such goods and allocate them in the domestic market, forcing observed prices to remain in check.⁸

In the early stages of development, high tariffs were enforced on imports of so-called "luxury" and domes-

tically-competing goods. The domestic producer was artificially protected so he could develop a product competitive in quality and price with that imported. Advances that were made in the import-substitution process have reduced the need for protective tariffs, which are unfavorable to domestic consumers anyway. The fiscal authorities have also given tax incentives to new industries by reducing, or in some cases eliminating, indirect or income taxes.

These measures have indeed promoted growth in domestic production. However, the main contribution of fiscal policy has been the pattern of Government expenditures, which essentially is an autonomous variable. Nevertheless, the approval of each ministry's budget is subject to close economic considerations, especially when it is an investment expenditure. The views of the Treasury and the central bank are considered before the budget is sent to Congress for final approval.

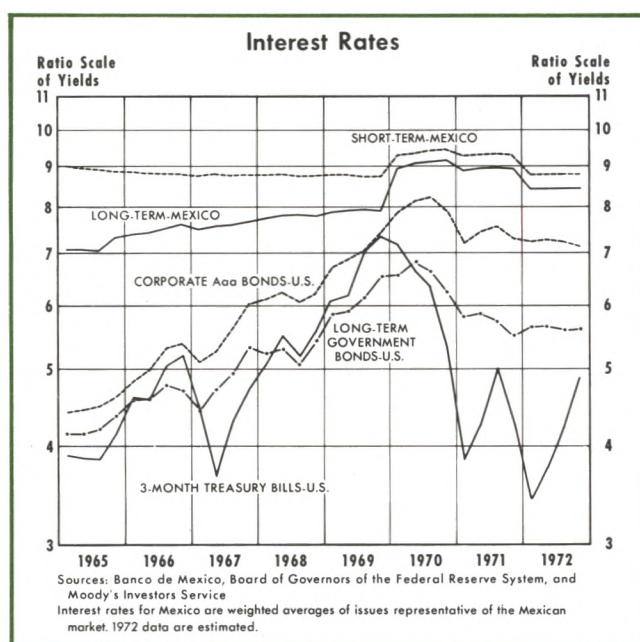
Monetary Policy — As mentioned earlier, the higher rate of growth of expenditures relative to revenue is annually reflected in Government deficits. Once the budget is approved the monetary authorities must decide what sources of funds will be used to finance the Government deficit. First, an estimate is made of how much credit will be available from foreign sources. After this is determined, the rest must be financed with domestic credit. The external funds take the form of either loans or foreign investment. The latter, not available for financing budget deficits, has been following a steadily growing trend in the last fifty years.⁹

Another important source of funds is foreign savings attracted to the Mexican banking system by the high rates of interest paid in comparison with international standards (see the accompanying chart). The interest rate differential together with the political and economic stability that Mexico has attained in its development process have acted as incentives for large amounts of savings (estimated growth is more than 3750 million pesos annually).¹⁰

⁹Sixty percent of this investment, on the average, comes from the United States. Although foreign investment is still growing in absolute terms, the rate of growth has slowed in the last two years, due mainly to the slower GDP growth experienced in 1971 and to the fact that fewer sectors remain for new, highly profitable investment. That is, corporate profit rates, in general, are not as great today as they were twenty-five years ago. Economic development has reduced returns on investment, but at the same time has made these returns less vulnerable to huge swings in either direction.

¹⁰See the screened insert to this article for a description of the Mexican banking system.

⁸Price ceilings, although quite ineffective in controlling real price increases, are a valuable political asset in terms of their effect upon public opinion.

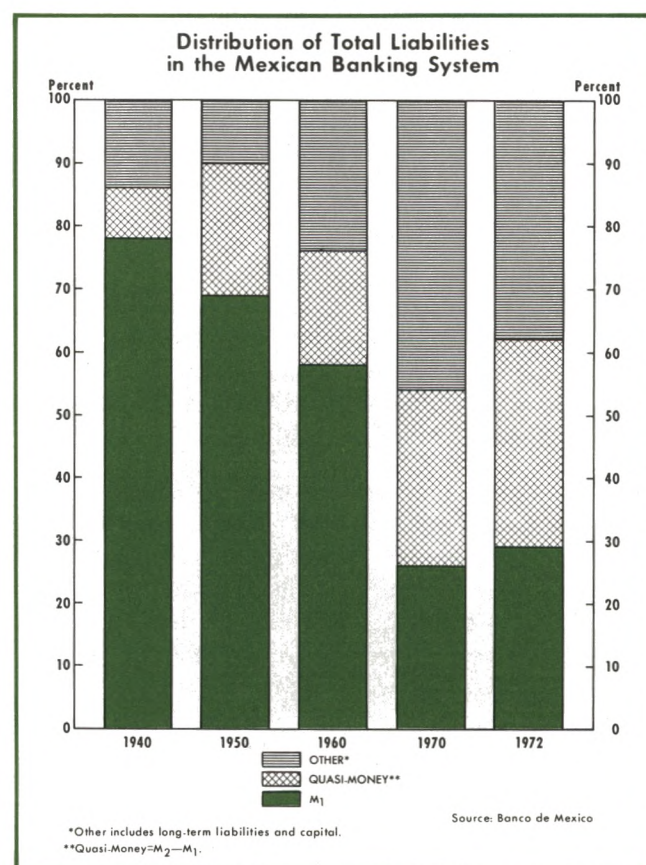


These foreign savings, besides helping to finance the current account deficit of the balance of payments, are used to finance budget deficits. Required reserves on commercial and investment banks must be invested in Government bonds or in selected sectors of the economy to meet the regulations that govern the Mexican banking system. Since these legal reserves are imposed on all the funds that banks receive, the funds are used for Government financing regardless of their origin.¹¹

Another channel through which foreign funds are obtained to finance Government and balance of payments deficits is short- or long-term loans. These funds are usually linked to specific Government investment projects.

If the amount of foreign plus domestic funds available were enough to finance the Government deficit, the central bank would be in a neutral position, neither expanding nor reducing international reserves. If all of these funds were not enough to finance the Government deficit, the central bank would have to consider direct credit to the Treasury, even at the risk of overstimulating total demand. If the threat of over-stimulation became very serious, the central bank would have to take compensatory action on private credit so that the nation's overall objectives would not be endangered. The central bank action would entail a reduction in bank credit to allow

¹¹Legal reserve requirements can be as high as the monetary authorities decide. On the average, they have been 18% for commercial banks and 35% for investment banks and non-monetary liabilities of commercial banks.



Mexico's stock of international reserves to remain unchanged, thus assuring the goals of stable exchange rates and free convertibility.

Summing up, one could conclude that Government expenditures are the main exogenous variable in the short term. Monetary authorities are left in a rather compromising situation — either reduce the amount of funds available to the private sector or lose foreign exchange.

Development, Foreign Exchange and Price Stability — Incompatible Goals?

The objectives described have an inherent tendency toward disequilibrium. The price stabilization and development objectives are, to a certain degree, opposed when one of these goals is pursued vigorously over the other.

The development goal requires that output grow at the highest annual rate possible. Government expenditures are therefore promoted so that increased total demand will act as an incentive for private investment. This level of expenditures promotes an increase in real output as long as the economy is not at full employment.

Present Structure of the Mexican Banking System

The Central Bank (Banco de Mexico) has been the focal point of the monetary system. On the one hand, it performs the traditional duties of a central bank, such as issuing currency, supervising the banking system and advising the Government on monetary and credit policy. In addition, it has assumed the non-traditional function of redirecting the flow of credit to specific sectors. Some activities, such as agriculture, have received this preferential treatment because their role in fulfilling the Government's goal of development is generally regarded as essential.

The most important reallocation of credit, however, is a result of the central bank's position in financing Government deficits. Through the mechanism of legal reserve requirements, the central bank allocates Government domestic debt in the banking system. The funds placed on deposit at the central bank for reserve requirement purposes are used to purchase high-yield Government bonds. In addition to commercial banks, the central bank extends the procedure to the reserves of investment banks also. As a result, funds available to the Government through reserve requirements represent about 25 to 30% of total liabilities of the financial system.¹

As is probably evident, the allocation and availability of credit is the primary concern of the central bank. Unlike monetary policy in the United States, the cost of credit is not given a great deal of attention in Mexico. As a result, the level of interest rates in Mexico is not a very reliable indicator of central bank activity.

The National Credit Institutions are those financial intermediaries either partly or wholly owned by the Government. Although considerably less important than they were 15 years ago, these institutions still play a fundamental role in the economy. They were originally established to give special priority in the allocation of domestic and foreign credit. Their funds have been directed mainly to agriculture, to "infant" industries, and for the promotion of Mexican exports.

These institutions compete with private commercial and investment banks for the savings of the public. In addition they are allowed to issue debt to the foreign public, for which there is Government assurance of payment. The funds received are allocated at lower interest rates and longer maturities than those prevailing in the market, which is generally reflected in a lower profitability for these banks. Losses incurred by these institutions are covered in the Government's budget.

Private Financial Intermediaries, which account for 70% of total banking liabilities, are divided into the following functional categories: a) deposit and savings banks, b) investment banks, c) mortgage loan banks, d) capitalization banks, and e) trustee institutions. All these institutions operate under the jurisdiction of the Ministry of Finance through the National Banking Commission. The Banco de Mexico is, however, the primary bank regulator.

a) The deposit and savings banks constitute the framework upon which the private banking system in Mexico rests. Their functions are similar to those of a commercial bank in the United States. Reflecting the demand for the relatively simple instruments which these institutions supplied, the deposit and savings banks experienced substantial growth between 1940 and 1955. Today the banking structure has changed and these banks have lost importance in relative terms. However, they still hold a high volume of savings in absolute terms.

b) During the last 10 years the investment banks, "financieras," have attained a spectacular growth. Originally the "financieras" issued long-term paper. But the strong preference of the public for liquid assets has resulted in the issuance of sight-payable bonds carrying an 8.5 percent interest rate. As public confidence grew, it was possible to issue paper with longer maturities and high yields, such as "certificados financieros." These instruments generally pay an interest rate of 10 percent annually with a 10 year maturity. This type of paper expanded rapidly from its introduction in 1966 until 1969.

The instability of the international monetary markets since 1969 has created a greater domestic demand for highly liquid paper with high yields. This development has pushed the "financieras" back on the money market, instead of the *capital market* for which they were originally intended.

c) The mortgage banks are similar in function to U.S. saving and loan associations. The main instruments employed by these banks are bonds and "cedulas hipotecarias." The latter are a form of mortgage secured not only by real estate, but also by the guarantee of issuing mortgage banks. These instruments offer a combination of high liquidity and a yield averaging around 8 percent.

d) The so-called capitalization banks, originally developed to act as savings banks, have been unable to compete effectively for funds. As a result, they have not grown in either number or total assets.

e) The Mexican banking system is supplemented by a number of financial institutions such as insurance companies, social security trust funds, and other auxiliary institutions. These institutions either issue financial claims or facilitate the flow of financial resources between the various sectors of the economy.

¹Nonbanking institutions are another source of funds for financing Government debt. Insurance companies and trust fund organizations, for example, are required by law to hold a certain portion of their financial assets in some form of public debt instrument.

It is generally assumed that Mexico has a high rate of unemployment. Consequently, increases in aggregate demand would not affect prices but would promote production of more real goods and services. This sometimes is not the case, however, because the typical unemployed individual is not sufficiently skilled as to be utilized when more output is desired. Therefore, price stability and high rates of growth can be conflicting goals. In order to finance the increased level of Government expenditures, the central bank must either create new money or reduce the amount of credit available to the private sector. If new money is created in excess of the prevailing trend, additional pressure is exerted on prices. Consequently, the central bank usually prefers to reallocate the sectoral mix of funds received by the banking system.

The reallocation of funds from the private sector to the Government reduces private investment and consumption expenditures on goods and services from what they otherwise would have been. This central bank action will not affect total spending since the funds taken from the private sector are spent by the public sector; only the sectoral mix between private and public expenditures is altered.¹²

Growth in real output and investment induced by increased Government expenditures will lead to a corresponding increase in the imports of capital and consumption goods,¹³ generating pressures on the current account of the balance of payments. Exports cannot respond rapidly in the short run since they are mainly agricultural and mining products whose low rates of growth leave a growing deficit that has to be financed with greater amounts of foreign capital inflows.

Therefore, the foreign exchange stability goal can only be accomplished in the short run by reducing imports. This implies sacrificing the development goal of economic policy.

Short-term economic policy in Mexico thus requires considerable "fine tuning" so that both the Government and balance-of-payments deficits do not fall out of a tolerable range, thus invalidating the economic policy goals.

¹²Total demand could be affected under these conditions only if the productivity of the Government's expenditure is considerably different from that of the private sector. In this case, the Mexican economy as a whole would be worse off after the sectoral reallocation.

¹³The marginal propensity to import is greater for the government than the private sector, and the import demand is inelastic.

The 1971 Experience

By the end of 1970, it was recognized that high rates of economic growth for more than a decade had built up a very important destabilizing force in the economy that could no longer be overlooked. The current account deficit in the balance of payments surpassed \$900 million — \$200 million more than the level considered consistent with the other economic policy objectives. Government deficits had also been growing constantly, absorbing larger shares of private bank savings and deteriorating the structure of the Government's foreign debt position with higher interest rates and shorter terms of maturity.

These pressures were endangering two of the overall goals of economic policy — that is, the stability of both domestic prices and the rate of exchange. It was argued also that the failure to attain these goals would jeopardize the future growth of the Mexican economy as well as the goals of full employment and more equitable income distribution.

Also, developments in world markets were exerting pressures on the Mexican economy. These included the international financial crisis, a reduction of domestic demand in some industrialized countries, and inflationary conditions prevailing in international markets.

Therefore, policymakers decided to stop the "overheating" of the economy through a restrictive program in 1971. Government expenditures were reduced drastically, especially investment expenditures; legal reserve requirements were raised; the rate of growth of money was reduced to an 8.6 percent annual rate from the average 11 percent of the preceding years; and more aggressive measures were taken to promote additional exports and reduce imports.

The results of these measures were felt promptly and the pressures that threatened the balance of payments and domestic prices were reduced. However, the effects on growth surpassed the policymakers' expectations as the rate of real GDP growth fell from 7.7 percent in 1970 to 3.7 percent in 1971 — a far more drastic contraction than was expected. The implicit price deflator growth rate was reduced from 5 percent in 1970 to only 4 percent by the end of 1971.

The slowing in economic activity permitted imports to grow only 0.6 percent during 1971 in comparison with 17.6 percent in 1970. As a result, the current account deficit was \$200 million smaller than that of 1970. Excess reserves of private banks increased by

more than two billion pesos during the year. The demand for credit was reduced at the prevailing level of interest rates due to apparent adverse expectations or increased uncertainty introduced by the "recession."

In 1972 less restrictive policy actions were adopted and the economy showed a well-defined move towards recovery. Prices began increasing moderately and the

outlook for the balance of payments and the Government deficit improved. It seems that the political price the Mexican policymakers had to pay for this change in the trend of the Mexican economy was worth the effort. The question remaining is whether the 1971 experience was a permanent setback or whether structural changes are required so that the goals of economic policy can be reconciled.



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