

FEDERAL RESERVE BANK OF ST. LOUIS

DECEMBER 1971



REVIEW



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Largely overlooked in the analysis of 1971 was the influence of trends of activity and stabilization actions taken in the immediately preceding years. These elements go a long way toward explaining the alleged failure of traditional stabilization actions to stimulate employment and reduce the pace of inflation. In this review of the year 1971, discussion is first devoted to these earlier developments. Particular emphasis is placed on the inflation problem since it had been developing for a relatively long period, and since both the underutilization of resources and the imposition of wage and price controls are related to attempts to resist this inflation. Finally, after examining economic developments of 1971, the outlook for 1972 is discussed.

The Problem: Inflation

A major economic problem of 1971 has been the persistence of a strong inflation. Inflation is a rise in the average level of prices of goods and services. As the prices of goods and services rise, the purchasing power of money, bonds, savings accounts and other money-denominated assets falls. An unanticipated change in relative values of money denominated assets and other assets causes unplanned wealth transfers.

The Wealth Transfer Effects of Inflation

Losses, and offsetting gains, caused by an unexpected change in prices can be illustrated by reviewing the experience of bond holders. A buyer of a typical 20-year highest grade corporate bond in early 1965 received a coupon yield of about 4.5 percent per year. Since overall prices had risen on average at less than 1.5 percent per year for about eight years previous to that time, the buyer of the bond could reasonably expect a 3 percent real return on his investment (4.5 percent coupon reduced by about a 1.5 percent rise in prices). Inflation, however, turned out to be much greater than buyers of bonds anticipated. Assuming the bond was sold after five years (that is, in early 1970), the experienced real return turned out to be a *negative* 4 percent per year. Not only did the returned principal and interest buy less in 1970 than in 1965, but because the market in 1970 was expecting a greater future inflation, the required higher nominal return to get the desired real return caused the dollar price of the bond to fall about 25 percent. The issuers of bonds, on the other hand, receive a great windfall when repayment is made in depreciated dollars.

An individual who retired on a pension or bought a life annuity in 1965 found that the income received in mid-1971 would buy only 77 percent as much as in 1965. Based on the 1958 to 1965 experience, he might

have expected in 1965 that the purchasing power would be about 91 percent in 1971. Elderly people dependent on pensions or annuity income are at a particular disadvantage during a period of accelerating inflation. Opportunities for them to hedge against the inflation are few, and those available may present additional financial risk.

The current inflation is likely to have redistribution effects on real income and wealth for a long time. Considerable experience is necessary to make relatively accurate forecasts of future inflation. For everyone to correctly anticipate inflation and make the proper hedge in all contracts and other dealings is virtually impossible.

Course and Causes of Inflation

From 1958 through 1964, there was little inflation in this country. After 1964, the rate of increase in prices gradually accelerated until late 1969 and early 1970, when overall price rises crested at a 5.8 percent annual rate. From the first to the fourth quarter of 1970 prices increased at a 5.4 percent rate, and in 1971, before the freeze, prices rose at a 4.7 percent rate. Since the freeze was announced in mid-August, prices have risen less rapidly than they did earlier in the year.

Market power. Some attribute the inflation to the ability of unions and other sellers of productive resources to make effective exorbitant demands. It is asserted that businesses, also with some power to administer prices, seem reluctant to resist such demands, passing on the rising costs with a mark-up in prices to the consumer. A spiral is generated as labor seeks still higher wages to compensate for rising living costs. This market power explanation of inflation appeals to many observers, although labor and management naturally disagree as to which group triggered the spiral.

To be consistent with recent inflationary experience, the market power explanation of the recent inflation assumes that resource owners gradually became more powerful from 1964 to early 1970, and have since become less powerful. This is unlikely, but in addition, market power as an explanation of a large overall price increase is incomplete. Admittedly, some unions and businesses have power to raise their wages or prices considerably above the competitive equilibrium levels. However, as long as total spending remains unchanged, the higher prices for some items indicates either offsetting lower prices for some others, or what is more likely in view of the downward rigidity of many prices, lower sales, production, and employment. Hence, market power or cost-push, unless accompanied by greater total spending, is a better explanation

tion of unemployment and idle plants than it is of inflation.

Demand-pull. Another explanation of inflation concentrates on excessive total spending; that is, "too many dollars chasing too few goods." Yet, do businessmen readily raise prices as soon as the demand for their products strengthens, as in the case when goods are auctioned? Most businesses will sell all the merchandise available at the going price. Mark-ups typically occur when wages are increased or when costs of goods sold rise. Critics of this view point out that if higher prices are a response to excessive demand, why has there been a continued rise in overall prices since early 1970 when some workers and factories have remained idle?

The demand-pull effect on prices from excessive spending is not immediate, however, as illustrated by examining pricing policies in a fictitious "widget" line. As consumers spend more on widgets, as well as on other goods and services, retailers are willing to reduce their inventories temporarily at going prices, since their knowledge of demand and supply schedules is imperfect and cannot be quickly improved at a reasonable cost. Orders are placed with wholesalers for more widgets, who in turn, reduce their stocks usually without a price markup. Wholesalers increase their orders with manufacturers, and more widgets are produced at going prices. However, once production orders rise to the point where the cost of resources is bid up in order to fill these requests, costs of producing widgets increase. These costs then are passed back up the line, not only directly in the form of higher widget prices, but also indirectly through the entire economy by bidding up the prices of labor, materials, and land.

This illustration of the inflation process, which treats excessive demand as the key determinant, may explain why many business firms believe inflation begins with a rise in costs. Also, since information on changes in production costs and demand schedules is imperfect and expensive to improve in the short run, the rate of price increase may accelerate only slowly at first, even under intense total demand and product shortages. Conversely, prices are likely to continue working up long after the excessive demand pressure is removed and slack develops in the production process. Time lags between changes in demand and in prices are, of course, lengthened with monopolistic power and long-term contracts. The phenomenon known as cost-push inflation is usually the latter stages of a demand-induced inflation. The time lag reflects the high costs of moving to equilibrium prices more rapidly.

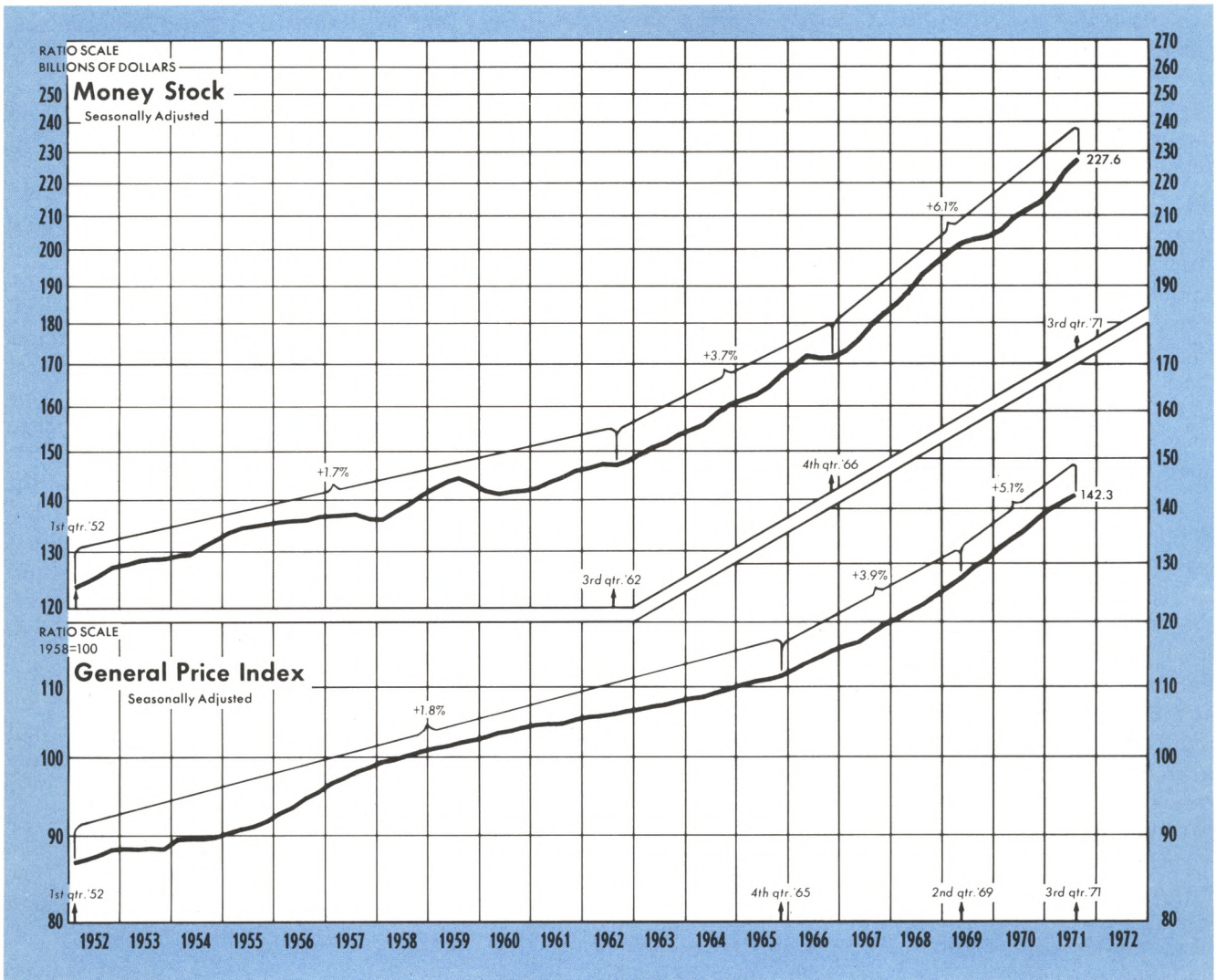
Contributions to Excessive Total Spending

Total spending on goods and services rose at a rate roughly double the pace of productive capacity from late 1964 to the fall of 1969. What caused spending to rise so rapidly in this period? In our free enterprise system, each household and business firm has the choice to spend or save the funds received. Hence, the rise in total spending might be viewed as a bunching of a great many expansionary decisions. More spending units made greater outlays than ever before.

What was the causal force behind the surge in spending in the 1964-69 period? Analysts generally focus on fiscal actions (taxing and spending decisions by the Federal Government) and monetary actions (managing the nation's money supply). These actions, which are believed to influence total spending, are under control of public policy and can be managed.

Fiscal actions. Fiscal actions of the Government may not have much enduring effect on changes in total spending. Empirical studies at this Bank using standard measures of fiscal actions have indicated little lasting influence of moderate changes in Government expenditures on the trends of total spending, but sharply accelerating Government outlays may have important short-run effects. Deficits created by cuts in tax rates or increases in Government outlays must be financed by an expansion in Government debt. Such borrowing has tended to cause offsetting movements in private spending (unless accompanied by a change in the money stock). Government fiscal actions may affect income distribution and real growth rates, but have a relatively minor effect on the time path of total spending. Fiscal actions were a factor, but they alone should not be credited for causing the large and prolonged burst of spending in the 1964-69 period.

Government outlays increased rapidly in 1965 and 1966 in response to both the build-up for Vietnam and an expansion in nondefense expenditures. The large spending for these activities may have had some direct effect on the initial rise in total spending in 1965 and 1966. The potency of Government spending in affecting total spending, however, was seriously questioned when in late 1966 and early 1967 total spending hesitated, even though fiscal actions were the most expansive in over a decade. A second test came in late 1968. As a result of the 10 percent surtax and cutbacks in the growth of Federal spending, a marked slowdown in total spending was forecast for late 1968 or early 1969. Yet, spending continued to rise rapidly, and the pace of inflation intensified.



Monetary actions. A marked variation in the rate of change in money from a previous trend which is sustained for several quarters, by contrast, has almost always been followed by a similar change in the growth of total spending.¹ The trend growth of money has apparently been a major force in the trend of overall prices.

Money stock rose at a 5.2 percent annual rate from mid-1964 to April 1966, after rising at a 2 percent trend rate from 1957 to 1964. The greater Treasury borrowing plus a reluctance to permit sharp upward movements in interest rates probably contributed

greatly to the faster money growth. After a brief time lag, total spending on goods and services also accelerated. Money remained on a plateau from April 1966 to early 1967, and with a similar lag, there was a brief pause in the upward thrust of total spending from late 1966 to mid-1967, called the mini-recession. From early 1967 to early 1969 money again rose at a very rapid 7.6 percent rate, and from mid-1967 to the fall of 1969 total spending rose correspondingly, and inflation intensified.

Stabilization Actions in 1969 and 1970

In an attempt to reduce the inflationary upsurge, both fiscal and monetary actions became less expansionary in 1969. Reflecting the effects of the Revenue and Expenditure Control Act of mid-1968, which included a 10 percent surtax and cuts in Federal spending, the high-employment budget moved from a deficit of \$7 billion in 1968 to a surplus of \$11 billion in 1969.

¹In "Money Supply and Time Deposits, 1914-69," this *Review* (March 1970), pp. 6-10, money growth rates and cyclical movements in economic activity, as determined by the National Bureau of Economic Research, were compared. The record clearly indicates that marked and sustained changes in the rates of growth of money were usually followed after a brief lag by cyclical movements in business activity in the same direction.

Growth in the money stock was slowed from the 7.6 percent rate of the previous two years to a 3 percent rate from early 1969 to early 1970, approximately equal to the trend since 1957. Control of monetary expansion was facilitated by the reduced financing demands of the Treasury.

Beginning in the fall of 1969, or about six months after the reduction in the growth rate of money, growth in total spending slowed from the excessive 8.3 percent rate to a more moderate 4.1 percent pace, a rate approximating the growth in productive capacity. Despite the moderation of total spending growth, the upward surge of prices continued to accelerate in 1969, probably as a lagged result of earlier excessive spending. Effective real demand slowed, and real production remained almost unchanged in late 1969.

Early in 1970 the traditional policies of economic stabilization became more expansive. Fiscal actions became slightly more stimulative as the Tax Reform Act of 1969 reduced personal tax liabilities on balance. The surplus in the high-employment budget declined from \$11 billion in 1969 to \$7 billion in 1970. From February 1970 to January 1971, the money stock rose at a 5.5 percent annual rate. Historically, this was a rapid rate. During the Fifties and early Sixties, such a growth of money, if long maintained, tended to cause accelerating inflation. However, with strong inflationary expectations in 1970, which could not be quickly eliminated, spending could be permitted to expand faster than the growth of productive capacity and still place some downward pressure on prices. By temporarily permitting a faster growth in total spending, transition costs in terms of unemployment and lost production were expected to be kept at more moderate levels.

Growth in total outlays on goods and services remained moderate during 1970. In the first half of the year, spending was probably greatly affected by the slower rate of monetary expansion in 1969. In the second half of 1970, expansive effects of the more rapid monetary expansion in the year were temporarily thwarted by cutbacks in the production of war goods and by a large strike in the automobile industry.

The peak of the inflation was reached in early 1970, and the rate of price advance began a very slow retreat. The moderate growth in spending and a continued rapid rate of price advance combined to cause some cutbacks in total real output. The period from late 1969 to late 1970 was labelled a recession, but even with interruptions to production induced by a large strike, it was one of the mildest on record. Late in 1970 activity began expanding, and as 1971 began,

the country was in the initial stage of an economic recovery.

Situation Prior to the Freeze

Business Conditions

Both fiscal and monetary developments had stimulative effects on business activity during the first seven and a half months of 1971. The high-employment budget, which measures discretionary fiscal actions, remained near the \$7 billion surplus rate of the previous year. However, because Government receipts and expenditures are also greatly affected by cyclical changes in the economy, the Government may have had expansive "automatic stabilizer" effects. Economic activity was depressed in late 1969 and early 1970, and tax revenue declined markedly. The deficit in the national income accounts budget went from \$14 billion in 1970 to nearly a \$20 billion rate in the first half of 1971. This larger deficit also increased Treasury financing demands, making control of the money stock more difficult, especially in the late spring and summer when market interest rates were rising.

Monetary developments also had an expansive impact on spending during the first seven and a half months of 1971. Since monetary actions have usually affected economic activity with a lag distributed over about five quarters, most of the monetary effect on business activity in early 1971 probably resulted from the moderately expansive actions taken in 1970. The rapid monetary expansion of early 1971 contributed further to spending decisions in that period.

In addition, spending in early 1971 was greatly bolstered by several special factors. During the automobile strike in late 1970 many outlays were delayed and after the strike a great rebound in spending occurred. Also, in early 1971 purchases of steel were reportedly increased in anticipation of a possible strike in the summer of 1971.

Total outlays on goods and services rose at about an 11 percent annual rate from late 1970 to mid-1971. By comparison, spending had risen at a 4.1 percent rate in the previous five quarters and at a 6.3 percent trend rate from 1957 to 1970. Retail sales rose at a 10.6 percent rate from December 1970 to July, after going up at a 2 percent rate in the previous two years. The rise in spending in early 1971 was sizable, but because of the non-recurring strike situations, the data exaggerate the strength of the underlying spending trend.

Despite the pronounced expansion in spending in the first half of 1971, economic activity seemed to be

sluggish and improving only slightly. The momentum of inflation eroded only gradually, and continued to absorb much of the rise in spending. Prices rose at a 4.7 percent rate in the first half of 1971, compared with 5.7 percent in 1970. Although this was the first marked decrease in the pace of inflation since the surge began in 1965, the continued inflation was a great disappointment to those expecting rapid improvement with the economic slack.

Then, too, the spending increases in early 1971 began from a very low level caused by both the recession and a major strike. Real output rose at a 6.4 percent annual rate in the first half of 1971, after declining slightly in the previous five quarters and increasing at a 3.7 percent trend rate from 1957 to 1970. As is usually the case after a period of depressed activity, the initial rise in output, although large, was accomplished primarily by more extensive use of the existing employed workers and facilities. Industrial production responded less to the rise in total spending than other types of output. During the summer there were reductions of steel inventories which were previously built-up as a hedge against a strike. Imports of goods from foreign producers increased rapidly in the first seven months of 1971, and accounted for a larger share of total sales.

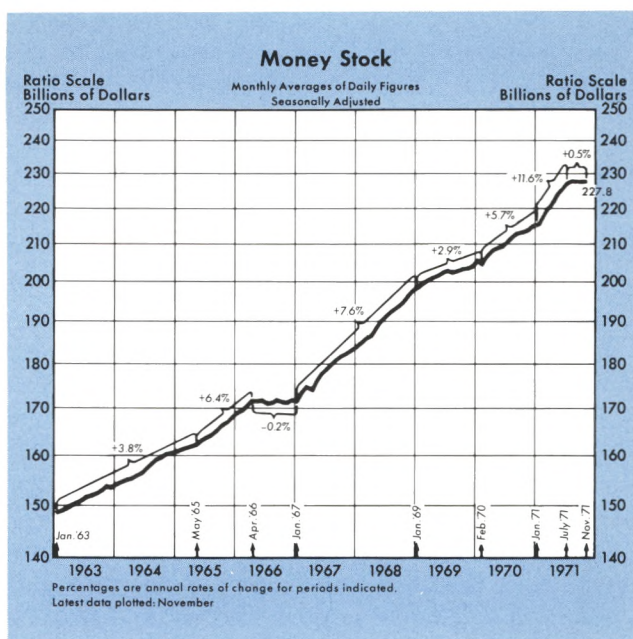
The volume of idle resources, which was relatively large, changed little during the pre-freeze period of 1971. Unemployment continued at about 6 percent of the labor force, although among married men it was only 3.2 percent.

Monetary Actions

Early in 1971 the rate of monetary expansion accelerated again. From January 1971 to July of this year the money stock increased at an 11.6 percent annual rate, the fastest six month increase since World War II. By comparison, money increased 5.4 percent in 1970.

Federal Reserve credit, the monetary base, and member bank reserves also rose rapidly during the first seven months of 1971. For example, Federal Reserve credit, which measures the direct monetary actions of the Federal Reserve System, rose at about a 15 percent annual rate from December 1970 to July 1971, or about twice the rate in 1970 and about four times the rate in 1969.

The rapid monetary expansion in the first six months of 1971 reflected a combination of factors. Money growth had slowed in late 1970, and a catch-up increase was desired in the first quarter of 1971. The



trend rise in velocity of money appeared to be decelerating, suggesting that a somewhat faster growth of money stock would be desirable. Additional economic stimulation also seemed appropriate. Even though the 1969-70 recession had been halted and total spending was expanding rapidly, economic commentators focused chiefly on the idle plant capacity, unemployment, and the apparent lack of progress in reducing them. Inflation seemed less of a constraint on monetary stimulation since many believed that it would dissipate relatively fast in view of the potential competition from excess productive capacity. Interest rates rose rapidly from mid-March to July, the three-month Treasury bill going from 3.30 percent to about 5.40 percent, and a fear developed that more restrictive credit conditions might abort the fragile recovery. Finally, some of the increase late in the period was probably accidental. Precise monetary control is impossible in the very short run given the present institutional structure, especially when money market conditions are used as the operating indicator.

The Freeze and the Period Following The Freeze

The imposition of a new economic stabilization program, commonly called the "freeze" occurred with a Presidential announcement on August 15, 1971. The time for action seemed appropriate. Concern over the persistent high level of unemployment and the lack of progress in reducing the stubborn inflation was intensified by projections of most econometric models that only moderate progress on either front would occur

during the next twelve months without dramatic action. Some felt that the power of strong unions and big businesses to administer prices had so changed the structure of the economy that traditional monetary and fiscal actions were ineffective, or at least operated too slowly.

Also, during the summer of 1971 business activity seemed to be in a lull, caused in part by strikes and reductions of excessive steel inventories, and some feared the economy might again move into a recession. Industrial production, which had risen at a 5.8 percent annual rate from December 1970 to May of this year, was unchanged in June and declined in both July and August. Payroll employment followed a similar pattern.

Timing of the announcement of the new program, however, was probably largely dictated by the international situation. The U.S. balance of payments with other nations had been deteriorating rapidly, and some prompt action became essential. The net liquidity deficit, which was about \$3.8 billion in 1970, rose to a \$10.2 billion annual rate in the first quarter of 1971, and further to a \$22.9 billion rate in the second quarter.

The economic program was a new, broad, and direct attack on the major economic ills facing the nation. Inflation was attacked by a 90-day freeze on wages and prices, followed by a less rigid program of controls in Phase II. Stimulus to the economy was to flow from proposed reductions in excise taxes on automobiles, increases in personal tax exemptions, and an investment tax credit. International problems were handled, at least temporarily, by "floating" the dollar and by imposition of a 10 percent surcharge on imports.

The new program relied heavily on direct controls over individual pricing decisions. This was a dramatic departure from the traditional approach of relying chiefly on monetary and fiscal actions for economic stabilization, which had left the terms of individual prices to market forces and the freedom to bargain by the parties involved. The imposition of controls caused distortions since some prices and wages had risen while others in similar circumstances had not. Lack of ability to pass on higher costs placed many firms in a squeeze, while some contracts for higher wages and prices were voided. Previous experience with controls had indicated that they misallocate resources, hamper economic growth, encourage quality deterioration, require increasing costs to administer, and may prove unenforceable, unless supported by sound fiscal and monetary actions.

Despite the known shortcomings of controls, they were welcomed by the general public. Consumers and

businesses, as well as the Government, sought quicker relief from the high level of unemployment and the continued rise in prices. The desire for a bold program that promised rapid improvement seemed to overwhelm the experience of previous control efforts. Most individuals were willing to give up some of their freedom as well as make personal financial sacrifices for the benefit of a better economy, as long as others were making similar sacrifices.

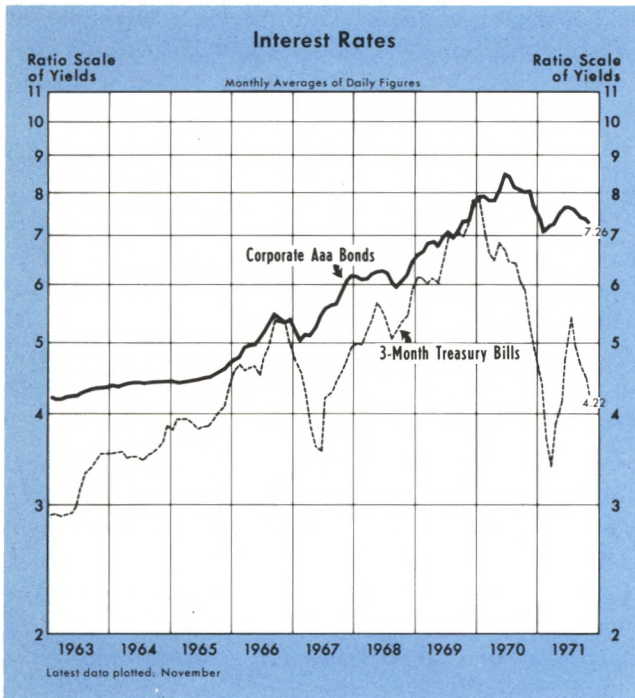
The current economic program has a better potential for success than most previous efforts at wage and price controls. Timing of imposition was much better than in previous efforts. Downward pressure on prices from excess capacity had existed for several years, and the rate of inflation was receding, although slowly. Unemployment was about to gradually erode in view of the recovery of spending and production. Also, with the relative slack, few shortages have developed, the usual cause of major problems in previous control efforts. In addition, recent monetary developments have aided the program by not adding to the underlying inflationary pressures.

Fiscal and monetary actions alone could have cured the inflation and unemployment problems, but, given the strong inflationary expectations, it might have taken several years. Controls may shorten the lags between sound stabilization actions and their effect on price expectations and employment. Also, Government controls could act as a countervailing power to some of the large monopolistic elements in society that tend to prolong the momentum of inflation and generate unemployment. To the extent that controls do slow price increases, more of the rise in spending will be focused on production and employment and less will be dissipated in higher prices.

Monetary Developments

Since the imposition of the freeze in mid-August the money stock has changed little. A temporary pause in money growth was probably desirable in view of the rapid spurt during the spring and early summer. For the past twelve months, money has grown about 6.5 percent. This has been a rapid pace compared with a 5.4 percent increase in 1970, and a 3.1 percent rise in 1969. Federal Reserve credit, member bank reserves and the monetary base, which are the source of money creation, have shown similar patterns of expansion.

Because of changed conditions in the credit markets the slowing of money growth after mid-August was accomplished at a time of gradual reduction in market interest rates. The three-month Treasury bill rate de-



clined from about 5.25 percent in the first half of August to 4.15 percent in early December. Yields on highest grade seasoned corporate bonds decreased from 7.70 percent to 7.30 percent over the same period.

Both supplies and demands for funds changed substantially after mid-August. To the extent that borrowers and lenders expected the new program to reduce future inflation from what it might have been otherwise, the interest rate premium for expected inflation was lowered. A sizable foreign demand for Government securities developed, reflecting the large outflow of dollars from this country before the dollar was floated. Also businessmen probably became more cautious in expansion plans and credit demands during the fall of the year. Uncertainty was great over what rules would be adopted under Phase II of the New Economic Program and how these rules would be applied.

Business Conditions

It is still too early to evaluate the impact of the freeze on economic activity. Few data are available since the imposition of the freeze, and the changed rules make interpretation more difficult than usual.

Apparently, total spending on goods and services has continued to expand at a relatively rapid rate since mid-August. Consumer outlays have been particularly strong, especially for automobiles, even though growth in income slowed with the freeze on wage increases. Business spending, which has been hampered by un-

certainties that the new program inevitably created, has probably continued to rise at a relatively moderate pace.

Production has also expanded since mid-August, but the rise has been less than the increase in sales. Industrial production rose at a 5.8 percent annual rate from the depressed August level to October. Reflecting the rise in output, payroll employment rose at a 2.2 percent rate from August to November.

Price developments since the imposition of the freeze have also been favorable. Prices of wholesale industrial commodities and wholesale farm products and processed foods and feeds declined from August to November, while consumer prices inched up at a much slower pace than earlier. However, the standard measures of prices probably overstate the amount of improvement, since they may not adequately reflect changes in quality or service.

Outlook

As 1971 ends, the pace of inflation is slowing, and growth rates of production and employment are accelerating. Based on the momentum of business developments and stabilization actions taken in 1971, the outlook for 1972 is for continued progress in reducing inflation and increasing real output and employment. Developments in 1972, especially later in the year, will also be affected by stabilization actions taken in 1972.

Traditional monetary and fiscal actions will have a major impact on the course of economic developments in 1972. Empirical studies at this Bank indicate that monetary developments will have stronger effects than fiscal decisions, but sound monetary actions are facilitated by prudent fiscal programs.

Controls on wages and prices, may contribute to a downward adjustment of inflationary expectations, shortening the lags between the traditional actions and their economic impact. However, controls should be treated as supplementary to sound monetary and fiscal policies, and because controls encroach on freedom and reduce efficiency, it is desirable that they be phased out as quickly as possible.

Progress toward price stability and full employment is likely to accelerate in 1972. However, it serves no purpose to pretend that there is a quick, easy and costless cure to the economic disarray. The adverse consequences of the monetary and fiscal actions taken in financing the Vietnam War and the enlarged Government welfare and other nondefense programs in the 1965-68 period continue to weigh heavily on the

nation. Inflationary expectations were built up gradually during this period, as time after time great losses were experienced by those who failed to anticipate the inflation in their economic decisions. These experiences are not quickly forgotten. Many of the other current economic problems are a result of the stubbornness of these inflationary expectations.

With moderate monetary expansion, the basic economic forces pushing the economy to potential equilibrium would probably be interfered with least, and experience indicates that progress toward reducing inflation and unemployment would be enhanced in 1972. Neither full employment nor price stability is likely during the coming year, but a basis would be established to reach these goals more quickly in the following years.

Conclusions

Inflation, which began in the mid-1960's, has been a serious problem in 1971. By the amount of attention devoted to the problem and the actions taken, it can probably be concluded that the public has underestimated the costs resulting from inflation and the problems of eliminating it.

The transition to a slower rate of price increase has involved costs. Total real product changed little from mid-1969 to the end of 1970, and has remained below capacity levels in 1971. Yet, given the strongly imbedded inflation, the costs of reducing it have been

moderate as compared with previous attempts at arresting inflation. The milder approach, with its continuing costs spread over a longer period, however, has increased public anxiety.

To hasten progress toward full employment and price stability, the country has adopted the New Economic Program, with direct controls over wages and prices. This approach may help speed up the downward adjustment of price expectations, but experience indicates that it involves risks. It is essential that care be taken to avoid those monetary and fiscal actions that are likely to reinforce the inflationary pressures.

More rapid solution to the problems of inflation and underutilization of resources could be accomplished by improving the market system. Such actions might include reducing subsidies, tariffs and import quotas, widening the range of anti-trust laws to cover more monopolistic practices, eliminating outdated building restrictions and other barriers to greater productivity, improving skills of workers and information on job openings, and modifying the minimum wage laws in the interest of improving job opportunities for the inexperienced and handicapped.

Progress has been made on the inflation problem. Transitional costs incurred in reducing inflation are also receding. As long as total spending continues to grow at a moderate rate, both the inflation and the capacity utilization problems will gradually be solved as the effects of past maladjustments recede.



Determinants of Commercial Bank Growth

With Special Reference To Large Banks in the Eighth Federal Reserve District

by SUSAN SCHMIDT BIES

The strength of the local economy and prevailing legal restrictions have an important influence on the growth of commercial banks. This article relates these factors to the growth of the largest commercial banks in the Eighth Federal Reserve District.

COMMERCIAL banks are an important factor in the economic development of an area. They are a major supplier of credit and the only source of demand deposit services which help facilitate business transactions. In recent years, commercial banks have introduced activities greatly diversified from their traditional loan and deposit services, including trust departments, travel agencies, insurance agencies, international banking services, credit card services, payroll accounting, and data processing. While banks of all sizes provide credit to individuals and smaller businesses, only large banks have sufficient capital to meet the credit demands of large corporations and operate at a scale where more specialized banking services can be provided efficiently.

In order to reduce the risk of their loan portfolio, banks diversify their loans with respect to borrower, purpose, and size of loan. Small banks, with their proportionately small loan and investment portfolio, thus limit their extensions of credit to relatively smaller and less specialized types of loans. The size of a loan a bank can make is further constrained by legal restrictions requiring a loan to any one customer to be less than a given percentage of the bank's capital, usually about 15 percent. Thus, customers requiring large amounts of credit generally utilize large banks.

The more populated an area, the greater the demands for more specialized ancillary banking services. Smaller banks compete efficiently in supplying basic banking services, but their limited scale of operations does not provide a sufficient return for them to employ the skilled personnel to introduce more special-

ized loan services, trust services, payroll accounting, and foreign banking services. Larger banks can efficiently provide these services, however, and thereby facilitate business activity.

This article analyzes the growth of the largest commercial banks in the Eighth Federal Reserve District over the past six years. Basic economic and legal factors determining the scale of bank operations are discussed first. The performance of large district banks is then examined to determine the impact of these factors on their growth.

Determinants of Bank Size and Growth

The scale of operations of a bank is determined in part by its resource supply and the demand for its services and in part by legal restrictions. The main financial resources of an individual bank are derived from deposits, and deposits of the entire banking system are limited by bank reserves. Banks facing a rising local demand for loans try to attract savings from outside the region, adding to their deposits and increasing the supply of loanable funds. These additional loans, in turn, help to generate further economic growth in the area.

Bank size is also affected by state and Federal bank structure laws and restrictions on bank operations. Laws which restrict bank operations to one location, interest rates paid on deposits, or rates charged for loans limit the ability of banks to compete for deposits and supply customer demands for banking services. These restrictions may place banks in one location at a competitive disadvantage with banks in other areas

and with other financial institutions. They may also tend to reduce the efficiency of banks in acquiring and investing resources.

Demands for Bank Services

Both the financial cost and the time involved in travel to a bank to transact business serve to effectively limit the geographic area over which customers shop for bank services. Since travel costs are not dependent upon the size of a deposit or loan, as the size of the transaction rises the per dollar travel cost of the service decreases. The geographic market of the customer is thus enlarged as the size of his transaction grows. Surveys indicate that convenience to home or place of work is one of the prime factors influencing the choice of a bank for households and small firms.¹ Thus, bank offices located in rapidly growing industrial and residential areas usually experience greater expansion than offices located in stable or declining areas.

While local economic factors are of prime importance to smaller banks, large banks are less influenced by conditions in their immediate area. Since legal restrictions and efforts to diversify the risk of loan portfolios limit the size of loans, the customers to whom small banks lend are those who use neighborhood banks. In contrast, large banks extend many loans to large corporations in distant locations who use the services of banks located in a wide geographic area. Thus, large banks may have customers throughout the nation and even in foreign countries, so that their growth is only partially determined by the strength of the local economy. With greater access to resources, such banks can realize advantages of large scale operation and provide more efficient financial service to local firms, thereby encouraging additional local employment and income.

Since large commercial banks supply the financial demands of customers in regional, national, and international money markets, conditions in these markets have a greater relative effect on large banks than

they do on small banks which do not service these markets. An example of this is the differing growth rates of time deposits at large and small banks during the 1969-1970 economic contraction. For all U.S. banks, negotiable certificates of deposit (CDs) over \$100,000 grew at an annual rate of 13.1 percent from January 1966 to December 1968, above the 11.6 percent growth of smaller time deposits. Large corporations, which hold CDs primarily at major commercial banks, withdrew many of these funds when market interest rates began to exceed Regulation Q ceilings in late 1968. Between December 1968 and February 1970, large negotiable CDs fell at a 48 percent annual rate, while smaller time deposits continued to grow, but at a very slow one percent rate. This sharp contraction of large CDs was a major factor contributing to the 12.8 percent rate of decline of time deposits at all large U.S. banks in this period.² Time deposits at smaller banks continued to increase, but by a smaller rate of expansion of 5.6 percent.

From February 1970 to June 1971 all types of time deposits again began to rise at faster rates, and both large and small commercial banks in the nation experienced more rapid growth. Households increased their savings to near record levels as small time deposits rose at a rate of 17.1 percent, and large CDs more than recovered from their previous decline, increasing at the exceptionally high rate of 101 percent. The ability of large banks to again attract their more traditional source of funds was partially due to the elimination of a ceiling rate on short-term CDs in June 1970 and the decline in other short-term interest rates.

Economies of Scale

Efficiencies induced by bank growth depend upon the initial size of the bank, since economies of scale vary over the range of possible sizes of bank operations.³ Increased scale of operation causes the greatest reduction in marginal costs in the range of production where economies of scale are the greatest.⁴ Avail-

¹See George Kaufman, *Business Firms and Households View Commercial Banks, and Customers View Bank Markets and Services: A Survey of Elkhart, Indiana*, Federal Reserve Bank of Chicago (1967). Theodore G. Flechsig, *Banking Market Structure and Performance in Metropolitan Areas*, Board of Governors of the Federal Reserve System (1965), found 90 percent of business loans in amounts of less than \$100,000 were from banks within the metropolitan area where the firm was located. Clifton B. Luttrell and William E. Pettigrew, "Banking Markets for Business Firms in the St. Louis Area," *this Review* (September 1966), pp. 9-12, surveyed business loans and found that 77 percent of loans to firms with net worth less than \$750,000 were made to firms located within 15 miles of the bank, while only 48 percent of loans to larger corporations were made within this distance.

²Data for large U.S. commercial banks include all weekly reporting banks.

³See Frederick W. Bell and Neil B. Murphy, *Costs in Commercial Banking*, Research Report No. 41, Federal Reserve Bank of Boston (1968); George J. Benston, "Economies of Scale and Marginal Costs in Banking Operations," *The National Banking Review* (June 1965), pp. 507-49; Lyle E. Gramley, *A Study of Scale Economies in Banking*, Federal Reserve Bank of Kansas City (1962); Stuart I. Greenbaum, "A Study of Bank Costs," *The National Banking Review* (June 1967), pp. 415-34.

⁴Economies of scale occur when total costs per unit of goods or services produced fall as the size of the firm, measured

able evidence indicates these larger cost reductions occur as banks grow to \$10 million in assets. In the intermediate size range (\$10 to \$200 million total assets), modest economies of scale are still evident, thereby encouraging banks to grow further to reduce unit costs and provide lower priced services to customers. Only for the largest banks (over \$200 million in assets) is there considerable disagreement over the extent of economies of scale. The existence of such a large size range, \$10-200 million in assets, where the rate of decline of marginal costs is relatively small permits both large and small banks to compete in the same market.

Legal Constraints

Although intended to protect the public, state and Federal regulation of bank entry and interest rates may prevent banks from realizing minimum operating costs per unit of output. The problem of measuring the efficiency of banking is a difficult one. But the wide variations from one community to another in rates paid on deposits, rates charged on loans, and prices of other bank services point to the possibility of inefficiencies in our banking system. Whether or not these constraints are the cause of such inefficiencies, measures of bank performance under different laws and regulations offer clues to improved operation of our banking system.

Bank entry. Entry into banking is restricted by state and Federal regulatory agencies, who frequently deny applications to establish a new bank or office. Bank charters are often denied on the basis that existing banks are meeting demands of customers in the area and prospective profits of an additional bank are poor. The review of an application to establish a new bank or branch office may take regulatory agencies a year. Thus, after a decision is made to organize a new bank, a long period of time may elapse before it is established. Until new banks open and increase competition in the market area, the existing banks continue to receive the benefits of a market with restricted entry.

Regulated entry also tends to protect inefficient banks, thereby increasing the costs of bank services to the community. In an industry where new firms may be established freely, new entrants increase the pressure on existing firms to operate at maximum efficiency. Those who cannot operate profitably are forced

out of the market. The restricted entry into banking, however, diminishes this impetus to efficiency.

Interest rate restrictions. Federal and state interest rate ceilings on deposits and usury laws also tend to reduce financial services provided by commercial banks and misallocate funds among possible uses.⁵ Federal interest rate restrictions, which are uniform across the nation, hinder the ability of banks to obtain deposits when customers can receive higher returns from their money elsewhere. Those large commercial and industrial firms able to obtain funds in central capital markets are benefited, while consumers, real estate purchasers, and small businesses which rely on local financial institutions are at a great disadvantage.

State usury laws impinge primarily on small, high risk borrowers. The dollar size of a loan has only a small effect on handling and processing costs. To cover this relatively constant cost, the interest rate on a small loan may be higher than on a large loan of equal risk. In addition, usury laws do not permit adjustments to higher rates to offset greater risks; therefore, as interest rates rise, risky and smaller loans are usually turned down first. Thus as market interest rates rise above usury rates, individuals and smaller business firms are often unable to obtain funds.

The growth potential of banks is also diminished in states where interest rate limitations are more restrictive than those which prevail in other states. When a state's interest ceilings on deposits and loans are below levels in adjacent states, its banks may have difficulty competing with banks in neighboring states which do not face such strict regulation.

Bank structure. The structure of commercial banking in the United States is primarily a result of both state and Federal legislation. Each state determines whether branch banks and bank holding companies will be permitted to operate. Federal legislation limits the acquisition of banks by holding companies in the absence of state restrictions and the type of activities in which nonbank subsidiaries of bank holding companies can engage. Approval of mergers and new branches is made by several agencies, depending upon whether the banks involved have a state or national charter and whether they are members of the Federal Reserve System and the Federal Deposit Insurance Corporation. Where a Federal agency has supervisory functions, state bank structure laws must still be followed.

⁵See Clifton B. Luttrell, "Interest Rate Controls—Perspective, Purpose, and Problems," this *Review* (September 1968), pp. 6-14, and Charlotte E. Ruebling, "The Administration of Regulation Q," this *Review* (February 1970), pp. 29-40.

by output, is increased. Marginal cost is the additional cost incurred for producing an additional unit of output.

Each state has jurisdiction over whether banks can establish additional offices, whether these offices can offer complete banking services or only perform limited functions, and the geographic area in which these offices can be located. Fifteen states prohibit the establishment of any full-service branches, but most of these states do allow the operation of at least one limited service facility. Sixteen states permit branches within the county or counties contiguous to where the home office is located, although some do not allow branches in cities where the home office of another bank is located. Only nineteen states permit statewide branching.⁶ Federal law permits a holding company to acquire banks in states where not explicitly prohibited by state law if other activities of the holding company are permissible and additional competitive restraints are met as determined by law and the decisions of the Federal Reserve Board.

Evidence as to which banking structure provides better performance is not conclusive. One problem is the lack of clearly defined measures of efficiency. Possible criteria could include prices of services, quality of service, number of offices per capita or per square mile to indicate convenience, and the range of services provided.

Prices of bank services do not show any marked difference with respect to bank structure.⁷ This is in part due to the large degree of nonprice competition in banking, especially in functions where other financial institutions do not compete with banks, such as checking accounts. The strong reliance on nonprice competition results in part from Federal and state restrictions on interest rates. The differing competitive positions and regulations applying to nonbank financial institutions also affect prices and quality of bank services, thereby influencing measures of bank performance even under the same bank structure laws.

Measures of convenience and cost also lead to inconclusive results concerning optimum bank structure. More bank offices per capita are in operation in metropolitan areas where branch banking prevails.⁸ In

rural areas, however, the evidence is not so clear. Towns of less than 5,000 population have an average of one bank office under all types of banking systems, with towns in unit banking states having an almost negligible advantage. In branching states, cities with 5,000 to 25,000 population have more bank offices than similar size cities in unit banking states and the margin of difference increases with town size. For a state as a whole, statewide branch systems provide more bank offices per capita than unit or limited branch systems. Population per bank office averages 6,029 in unit banking states, 5,569 in limited branching states, and 4,908 in statewide branching states.⁹

Branch banks, except for the largest size groups, tend to have slightly higher costs than unit banks of the same size.¹⁰ However, cost measures of banks do not reflect the costs paid by the customer in travel to a bank. To the extent that some banking structure systems operate fewer offices than others, thereby making them less convenient to customers, the additional time and travel costs of the customer should be considered in any comparative cost analysis.

The rapid expansion of multiple and one-bank holding companies in recent years is evidence that competition and new bank technology may be exerting increasing pressure on banks to extend their geographic market and scale of operations. Smaller banks which cannot afford to independently operate the new computer systems to increase efficiency in clearing checks and processing loan and deposit accounts are increasingly calling on larger banks to perform these operations. In some cases, small banks have affiliated with holding companies to more efficiently obtain these services. Through a holding company, banks are also able to operate in a wider geographic market and realize decreased total advertising costs. The number of multiple bank holding companies in the United States has increased from 47 in 1956 to 111 at the end of 1970, and these companies are most prevalent in unit and limited branching states.

The growth of one-bank holding companies in the last ten years prompted the passage of amendments to the Bank Holding Company Act in December 1970. These amendments brought an estimated 1,200 one-bank holding companies under regulation by the Federal Reserve Board for the first time. Many banks

⁶See "Recent Changes in the Structure of Commercial Banking," Federal Reserve *Bulletin* (March 1970), pp. 195-210, for description of state banking laws.

⁷See Franklin R. Edwards, "Concentration in Banking and its Effect on Business Loan Rates," *The Review of Economics and Statistics* (August 1964), pp. 294-300; Paul M. Horvitz and Bernard Shull, "The Impact of Branch Banking on Bank Performance," *The National Banking Review* (December 1964), pp. 143-88; Irving Schweiger and John S. McGee, "Chicago Banking," *The Journal of Business* (July 1961), pp. 203-366.

⁸Horvitz and Shull, "Branch Banking."

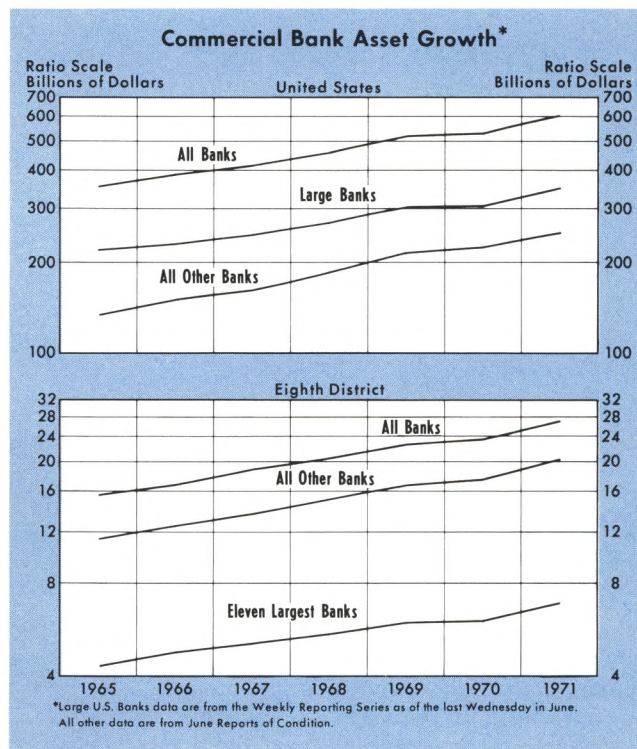
⁹Branches in operation on December 31, 1970, Federal Reserve *Bulletin* (April 1971), p. A95, and population data from U.S. Department of Commerce, Bureau of the Census, "1970 Census of Population - Final Population Counts."

¹⁰See Benston, "Economies of Scale," and Greenbaum, "Bank Costs."

Table I

LARGEST COMMERCIAL BANKS IN THE EIGHTH FEDERAL RESERVE DISTRICT

Rank	Bank	Total Assets, June 1971 (In thousands)
1	Mercantile Trust Company National Association St. Louis, Missouri	\$1,326,983
2	First National Bank in St. Louis St. Louis, Missouri	1,031,403
3	The First National Bank of Memphis Memphis, Tennessee	937,700
4	Union Planters National Bank of Memphis Memphis, Tennessee	869,940
5	Citizens Fidelity Bank & Trust Company Louisville, Kentucky	667,321
6	First National Bank of Louisville Louisville, Kentucky	568,322
7	The Boatmen's National Bank of St. Louis St. Louis, Missouri	357,094
8	Liberty National Bank and Trust Company Louisville, Kentucky	343,793
9	National Bank of Commerce Memphis, Tennessee	297,845
10	Bank of Louisville-Royal Bank and Trust Company Louisville, Kentucky	264,698
11	Worthen Bank and Trust Company Little Rock, Arkansas	254,877



adopted this form of organization with the expressed purpose of expanding the scope of both their financial and nonfinancial activities and to obtain efficiencies in the performance of traditional banking functions.¹¹

Growth of Large Eighth District Banks

The factors discussed above have had an important effect on the growth of large commercial banks in the Eighth Federal Reserve District. Three of the eleven largest Eighth District banks are located in St. Louis,

three in Memphis, four in Louisville, and one in Little Rock (see Table I).¹² Deposits, loans, and assets of these banks increased at rates comparable to those of large banks elsewhere in the country during the period from June 1965 to June 1971 (see Table II and accompanying chart). Total assets of the eleven banks combined increased at an average annual rate of 8.2 percent between June 1965 and June 1971, slightly above the 8.1 percent rise of all large commercial banks in the United States, yet significantly below the 9.9 percent increase in assets of other Eighth District banks. Thus, the share of district deposits held by the eleven large banks declined over the six year period.

¹¹While such inducements to expand banking organizations exist, proponents of a unit banking system argue that the government should prevent the expansion of banking concentration through branch banking and bank holding companies. The major arguments against branch banking and bank holding companies include the following:

- 1) Funds are exported from the local community.
- 2) Managers are not sympathetic to the demands of local customers.
- 3) Unnecessary delays arise between the time the application is made for a loan and its approval by the home office.
- 4) The local banking market is more likely to be monopolistic.
- 5) Mismanagement on a large scale can arise more easily than in an independent unit bank.
- 6) Multiple office banking tends toward monopolistic control of the nation's banking resources.

For a further discussion of these points see W. Ralph Lamb, *Group Banking* (New Brunswick, N.J.: Rutgers University Press, 1961).

On an individual basis, seven of the eleven banks maintained growth rates exceeding the combined growth for all large U.S. banks, one had a growth rate about equal to that of large U.S. banks, while the three St. Louis banks experienced significantly slower rates of growth. Annual growth of total assets of the three St. Louis banks averaged 5.6 percent between June 1965 and June 1971, about half the average rate of increase of large banks in each of the other three district cities. The rates of growth for the large banks in Memphis, Louisville, and Little Rock averaged 9.3, 11.1, and 11.9 percent, respectively. These varying

¹²The large banks described in this article are the eleven Eighth District banks reporting total deposits exceeding \$200 million on June 30, 1971.

Table II

COMPARATIVE ANNUAL GROWTH RATES OF COMMERCIAL BANKS

Size and Location	Total Assets		Total Loans*		Total Deposits	
	June 1965-1970	June 1970-1971	June 1965-1970	June 1970-1971	June 1965-1970	June 1970-1971
Large Commercial Banks						
U.S. Weekly Reporting Banks	6.8%	15.4%	7.3%	8.0%	3.8%	23.8%
Eleven Eighth District Banks	6.8	15.6	7.3	9.5	5.0	15.6
St. Louis	4.6	10.9	5.4	2.2	1.5	10.3
Memphis	6.8	22.6	5.8	16.6	5.7	24.8
Louisville	10.3	15.0	12.9	13.3	9.6	13.0
Little Rock	10.6	18.6	10.3	15.3	9.3	15.6
Other Commercial Banks						
United States	10.8	10.5	12.2	10.3	10.9	8.2
Eighth District	9.1	14.1	10.5	12.0	8.5	14.9

*Includes Federal funds sold.

rates of growth of the large district banks reflect the diverse economic conditions and legal restrictions prevailing among these metropolitan areas.

The rate of growth of the largest district banks fell during the general economic slowdown in 1969 and 1970. Between June 1970 and June 1971, however, the eleven banks resumed a more rapid growth rate. In the later period, assets rose at an average annual rate of 15.6 percent, close to the 15.4 percent increase of large U.S. commercial banks, above the 14.1 percent rise for all other district banks, and twice the average 6.8 percent rate of growth of these eleven banks from June 1965 to June 1970.

St. Louis

The growth rate of large St. Louis banks has been well below that of other large district banks in the last six years. Mercantile Trust Company National Association, First National Bank in St. Louis, and The Boatmen's National Bank of St. Louis rank first, second and seventh largest in the district, respectively, on the basis of total assets (see Table I). Their slower growth relative to other banks in the district and elsewhere in the country reflects several factors, among which are the comparatively slower growth of the St. Louis Standard Metropolitan Statistical Area (SMSA) and the unit banking structure of Missouri.

Between 1965 and 1970, payroll employment in the St. Louis SMSA increased at an annual rate of 2 percent, below the rates for the United States and the Little Rock SMSA, and only half that of the Louisville and Memphis SMSAs (see Table III). Population of

the St. Louis SMSA grew at a 1.2 percent annual rate from 1960 to 1970, somewhat slower than the nation and the Memphis and Louisville SMSAs, and well below the 1.7 percent annual growth of the Little Rock SMSA.

The large St. Louis banks are in the downtown area and, like other central cities in which large district banks are located, St. Louis has not kept pace with the rapid growth of its suburban areas. St. Louis had a net loss of manufacturing firms and retail stores and only a 2.4 percent increase of service establishments between 1963 and 1967, while in the portions of the St. Louis SMSA outside the city, manufacturing, retail, and service establishments increased by 7.9, 7.5, and 28.8 percent, respectively.¹³

Unlike banks in Memphis and Louisville, the unit banking restrictions in Missouri have prevented the large St. Louis banks from establishing branches in these expanding suburban areas.¹⁴ In an effort to serve customers in the more rapidly growing areas of the state, most large Missouri banks have recently formed multiple bank holding companies. Since September 1970, the three St. Louis banks have each formed such a holding company. In addition to their lead banks, these holding companies have received Federal Reserve Board approval to acquire a total of fourteen banks in suburban St. Louis and outlying areas of the state.

¹³U.S. Department of Commerce, Bureau of the Census, *Census of Manufacturers* and *Census of Business*, 1963 and 1967.

¹⁴The state constitution prevents Missouri banks from operating branches. They may, however, operate one limited service facility within 4,000 yards of the head office.

Table III

COMPARATIVE GROWTH OF THE UNITED STATES AND
LARGE EIGHTH DISTRICT METROPOLITAN AREAS

	Payroll Employment		Population		Total Deposits	
	1970 (In thousands)	Annual Rate of Change 1965-70	1970	Annual Rate of Change 1960-70	1970 (In thousands)	Annual Rate of Change 1965-70
United States	70,664	3.0%	203,184,772	1.3%	\$481,774,550	4.6%
Eighth District Metropolitan Areas						
St. Louis	899	2.0	2,363,017	1.2	6,063,427	5.6
Memphis	274	4.1	770,120	1.3	1,936,393	7.6
Louisville	331	4.1	826,553	1.3	1,957,025	9.0
Little Rock	122	2.7	323,296	1.7	662,170	6.5

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*; U.S. Department of Commerce, Bureau of the Census, "1970 Census of Population—Final Population Counts"; Reports of Condition, December 31, 1965 and December 31, 1970.

Memphis

The three largest Memphis banks are: The First National Bank of Memphis, the third largest bank in the district; Union Planters National Bank of Memphis, the fourth largest; and National Bank of Commerce, the ninth largest. Between June 1965 and June 1971, their combined assets increased at an annual rate of 9.3 percent, above the combined growth rate of all district banks and that of all large U.S. banks. The slower growth of these Memphis banks relative to some other large district banks from 1965 to 1970 can be largely attributed to excessive state restrictions on interest rates which prevailed during most of the period. Until mid-1969, interest rates paid savers were limited to 4 percent, and rates charged on loans were generally limited to 6 percent. From June 1965 to June 1970 combined assets of these Memphis banks increased at a rate of only 6.8 percent. In the year ending in June 1971, however, these banks increased their combined assets by 22.6 percent, far above the average rates of growth of large district banks in other cities. This exceptionally high rate of growth reflects both the strong economic position of the area and the relaxation of state interest rate ceilings which permitted the banks to compete more effectively for loans and deposits.

In late 1967, when money market rates began to rise substantially above the interest rate ceilings set for Tennessee banks, the Memphis banks could not compete effectively for deposits with other financial institutions and banks located in adjacent Mississippi and Arkansas. Between December 1968 and June 1969, time and savings deposits of individuals, part-

nerships, and corporations (IPC) at these banks fell at a 3.6 percent annual rate. From the time the state ceiling was removed in mid-1969 to December 1969, these deposits rose again to December 1968 levels. The ability to again compete for traditional sources of deposit funds enabled these banks to expand while total IPC time and savings deposits at all large commercial banks in the United States were falling.

Tennessee law permits the establishment of branches throughout the county where the home office is

located. Because of the faster growth of employment and population in the Memphis suburban areas, deposits at branch offices in these areas of Shelby County have expanded much more rapidly than at offices within the City of Memphis. Between June 1968 and June 1970, total deposits at Memphis offices of the three largest Memphis banks increased at a 3.1 percent annual rate, while deposits at their suburban branches increased at a rate of 17.1 percent. In June 1971 the number of branches and drive-in facilities of these banks totaled 81, an increase of 22 offices since 1965.

In addition to their ability to reach new customers through branches, two of the three Memphis banks are lead subsidiaries of bank holding companies. First Tennessee National Corporation, a one-bank holding company owning First National Bank of Memphis, has received Federal Reserve Board approval to acquire one bank in eastern and one bank in central Tennessee and has announced agreements to acquire three additional banks. In December 1970, National Bank of Commerce was approved as a subsidiary of United Tennessee Bancshares Corporation, which has three other bank subsidiaries and has announced plans to acquire one additional bank.

Louisville

The 11.1 percent average annual growth of assets of the four large Louisville banks from June 1965 to June 1971 exceeds that of the total of large U.S. commercial banks and the average growth of other district banks. Citizens Fidelity Bank and Trust Company, First National Bank of Louisville, and Liberty

National Bank and Trust Company are the fifth, sixth, and eighth largest banks, respectively, in the district. Bank of Louisville-Royal Bank and Trust Company, the tenth largest bank, had the highest rate of increase of assets of all large district banks during the last six years. Its 15.8 percent annual rate of increase in assets is almost twice the growth rate of large U.S. commercial banks.

The strong growth of the major Louisville banks reflects the absence of overly restrictive state interest rate ceilings, the ability of these banks to establish branches in the growing suburban areas, and the continued economic expansion of the Louisville metropolitan area. The unemployment rate in the Louisville SMSA was one percentage point below the national level until the spring of this year.

Like Tennessee, Kentucky law permits banks to establish branches within the county where the head office is located. The large Louisville banks have branched extensively throughout Jefferson County where industry and population are growing fastest. Between June 1968 and June 1970 deposits at suburban branches of these four banks increased at an annual rate of 18 percent, three times the 6 percent deposit growth at their offices in Louisville. As of June 30, 1971, these banks operated a total of 103 branch offices in Jefferson County, 21 of which have opened in the last six years. Kentucky law effectively prevents the operation of multiple bank holding companies by limiting the share of a bank's stock that a corporation can own to less than 50 percent.

Little Rock

Total assets of Worthen Bank and Trust Company, Little Rock, the largest bank in Arkansas, increased at an annual rate of 11.9 percent between June 1965 and June 1971. This growth is significantly greater than that of all large U.S. banks, and in contrast to most large district banks, Worthen Bank and Trust Company has maintained its share of total state deposits during this period. The ability of Worthen Bank and Trust Company to maintain a high rate of growth, while the large unit banks in St. Louis did not, results in part from the ability of Arkansas banks to establish limited service offices within the county of the head office and from the faster growth of the City of Little Rock.

The Little Rock SMSA has been attracting new business firms at a rate greatly exceeding that of other large district SMSAs and thereby kept its unemployment rate below four percent throughout the business

contraction of 1969-1970. The number of manufacturing, retail, and service firms in the Little Rock SMSA increased by 31.5 percent between 1963 and 1967, five times the average 6.4 percent increase of the three other large district SMSAs and the 5.9 percent rise for the United States.

In June 1971, Worthen Bank and Trust Company operated nine limited service "teller's window" offices in Little Rock, two of which have been opened since 1965. It has also expanded through the establishment of the only multiple bank holding company in Arkansas, First Arkansas Bancorporation, which has two other subsidiary banks. Within the last year, however, the Arkansas legislature passed a law prohibiting the establishment of additional multiple bank holding companies, thus preventing further expansion of banks through this means.

Conclusion

In the last six years, the combined resources of the large Eighth District banks increased at rates nearly equal to the average of large commercial banks elsewhere in the nation. On an individual basis, the large district banks experienced markedly different annual rates of growth, ranging from 4.6 to 15.8 percent. As a group, they did not grow as rapidly as smaller district banks even though they were probably able to realize greater cost economies. This slower growth probably reflects the fact that the larger banks were more affected by the restrictive national monetary policy which prevailed over part of this period.

The basis of the growth of large commercial banks is the economic strength of the geographic market area in which they operate. Those located in faster growing metropolitan areas experienced faster rates of growth. Growth was also higher for those banks that were able to open offices in the more rapidly growing suburban areas. Bank growth was hampered in states where interest rate ceilings on deposits and loans were below rates prevailing in adjoining states.

As in any industry, commercial banks operate best in a competitive market relatively free of regulatory constraints. The judgements which must be made by regulatory authorities to establish usury and deposit interest rate ceilings, and to determine the profitability of new banks, new bank offices, and the effect of mergers and holding company acquisitions are very difficult. These decisions are justified on the basis that they are in the "public interest." It is not altogether clear, however, that they are conducive to maximum competition and minimum cost of bank services to the public.

FEDERAL RESERVE SYSTEM ACTIONS DURING 1971

Selected Monetary Aggregates

	Percent Change	
	11/70 to 11/71	12/69 to 12/70
Federal Reserve Holdings of Government Securities	12.7%	7.3%
Federal Reserve Credit	11.2	4.8
Total Reserves of Member Banks	8.1	7.2
Monetary Base	7.7	6.2
Money Stock	6.6	5.4

Discount Rate

In effect January 1, 1971	5½%
January 8, 1971*	5¼
January 19, 1971*	5
February 13, 1971*	4¾
July 16, 1971*	5
November 11, 1971*	4¾
In effect December 13, 1971*	4½

Reserve Requirements**

	Percentage Required					
	Net Demand Deposits up to \$5 Million		Net Demand Deposits in Excess of \$5 Million		Time Deposits up to \$5 Million & Savings Deps.	Time Deposits in Excess of \$5 Million
	Reserve City Banks	Other Mem- ber Banks	Reserve City Banks	Other Mem- ber Banks		
In effect Jan. 1, 1971	17	12½	17½	13	3	5
In effect Dec. 13, 1971	17	12½	17½	13	3	5

Margin Requirements on Listed Stocks

In effect January 1, 1971	65%
December 6, 1971	55%
In effect December 13, 1971	55%

Maximum Interest Rates Payable on Time & Savings Deposits†

Type of Deposit	In Effect Jan. 1, 1971	In Effect Dec. 13, 1971
Savings Deposits	4½%	4½%
Other Time Deposits:		
Multiple maturity:		
30-89 days	4½	4½
90 days to 1 year	5	5
1 year to 2 years	5½	5½
2 years and over	5¾	5¾
Single maturity:		
Less than \$100,000		
30 days to 1 year	5	5
1 year to 2 years	5½	5½
2 years and over	5¾	5¾
\$100,000 and over:		
30-59 days	††	††
60-89 days	††	††
90-179 days	6¾	6¾
180 days to 1 year	7	7
1 year or more	7½	7½

*Signifies date that first Federal Reserve Bank adjusted discount rate.

**Beginning October 1, 1970, a member bank is required to maintain reserves against funds received as the result of issuance of obligations by affiliates of the bank, including obligations commonly described as commercial paper. The percentage required on such funds is the same as those on deposits of like maturity and size.

Since October 16, 1969 member banks have been required under Regulation M to maintain reserves against balances above a specified base due from domestic offices to their foreign branches. Effective January 7, 1971 the applicable reserve percentage was increased from the original 10 percent to 20 percent. Regulation D imposes a similar reserve requirement on borrowings above a specified base from foreign banks by domestic offices of a member bank.

†A member bank may not pay a rate in excess of the maximum rate payable by state banks or trust companies on like deposits under the laws of the state in which the member bank is located.

††Effective June 24, 1970, maximum interest rates on these maturities were suspended until further notice.

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