Business insights
Capital spending in broad uptrend 3

Banking insights
Behavior of the income velocity of money 8

The impact of NINOWs on deposits in Illinois 11
An analysis of noninterest-bearing negotiable orders of withdrawal (NINOW) accounts in Illinois provides insight into deposit shifts that might occur between financial institutions due to experimentation with new third-party instruments.

Chain banking in the District 15
Chain banking organizations provide a viable, virtually unregulated method of multi-office bank expansion in states that currently prohibit or limit multibank holding companies and branch banking.

Farm credit concerns rise 21
Recent surveys indicate District agricultural banks are experiencing slower loan repayment rates, increased loan renewals and extensions, reduced liquidity, and some deterioration in loan quality.

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Business insights

Capital spending in broad uptrend

Consumer spending on autos and other durables and residential construction have led the expansion that began in the spring of 1975. Business investments in inventories and capital goods have also increased, but not at a pace that compares with the boom of 1973-74.

Business profits and funds from depreciation have risen substantially in the past two years, balance sheet liquidity has improved, and credit has been generally available, both long and short term. Such conditions might be expected to foster a more rapid rise in capital spending. However, most industries have margins of unused capacity, and general expansion of productive facilities is not, therefore, a pressing need. Moreover, confidence of many business executives in future growth and prosperity has not been fully reestablished. This attitude is reflected in, and is reinforced by, the feeble performance of the stock market in the spring and summer. Business leaders are increasingly concerned with inflation, energy resources, government regulations, and foreign competition.

Further gains in capital spending are probable in 1978 if the general economy continues to expand as most forecasters expect. Strength in this sector is of vital importance to the Seventh District states of Illinois, Indiana, Iowa, Michigan, and Wisconsin, which manufacture about one-third of the nation’s producer equipment.

Second year of revival

Each quarter the Bureau of Economic Analysis surveys business firms on their plans for outlays on new plant and equipment. Its September estimates of total capital spending have proved to be quite accurate in recent years. The survey includes plant and equipment to be located in the United States. It excludes outlays by farmers, foreign investments by U.S. firms, and domestic outlays charged to current expense.

In 1977 plant and equipment spending is expected to total $136 billion, up 13 percent in current dollars and perhaps 8 percent in real terms after adjustment for inflation. Last year capital spending rose about 2 percent in real terms, following a decline of about 15 percent in 1975. After adjustment for inflation, capital spending this year probably will not regain the all-time peak reached in 1973-74.

Virtually all industry groups are participating in the expansion of capital spending. Exceptions are the steel companies, who expect a small decline, and operators of ocean vessels, whose outlays will drop sharply.

Gains in capital spending partly reflect inflation

- Estimated.
Various steel companies have recently announced curtailments in previously announced capital spending programs for 1977 and future years. Demand for steel has failed to match forecasts, and imports have captured a larger share of the domestic market. In the case of merchant shipping, the world tanker fleet, which represents the lion's share of all shipping, is believed to be operating at less than 75 percent of capacity.

The motor vehicle industry plans a 50 percent boost in capital spending to $3.7 billion this year, the largest proportional rise for any group. Much of this total represents retooling to produce the smaller, more efficient cars mandated by the government. In addition, capacity to produce trucks has been strained and is being enlarged. The airlines expect to increase spending 34 percent, mainly for more efficient models of aircraft, following four years of declining outlays. Electric utilities, always the largest category in total outlays, expect to invest $22 billion, up 16 percent. Other large gains, 15 percent or more, are seen for the oil, machinery, rubber, telephone, and gas utility industries.

Investment and GNP

In addition to the data on new plant and equipment expenditures, the Bureau of Economic Analysis prepares a broader measure of business investment, “Nonresidential Fixed Investment” (NRFI), which is a component of the gross national product (GNP). This measure includes the farm sector and outlays by the nonfarm sector that are not capitalized, but excludes investments abroad as does the survey of plant and equipment spending. The total is broken down by structures and equipment.

NRFI totaled $162 billion in 1976 and may exceed $185 billion this year. It will probably account for 9.8 percent of GNP. This proportion is up from 9.5 percent last year, but well below the 10.7 percent level reached in 1974, and a modern peak of 10.8 percent established in 1966. In the 10-year span 1965-74, the ratio was 10 percent or more each year except 1971, when the economy was in the first year of recovery from a recession. It averaged somewhat below 9.5 percent in the late 1950s and early 1960s, but then, as in the recent period, there were widespread complaints that the economy was operating below its potential.

Those who argue that capital spending is lagging desirable levels point to the rapid rise in costs of new construction and prices of some types of equipment in recent years. Also, a large share of outlays in recent years has been made to reduce air and water pollution, to improve health and safety, to conform to more restrictive regulations relating to the use of undeveloped land, and to economize in the use of energy. All of these purposes are characterized as “unproductive,” no matter how desirable they may be from a social standpoint. In the aggregate they may account for 9 or 10 percent of all capital spending.

Inflation and capital spending

In the past 10 years the general price level, measured by the GNP deflator, rose 79 percent. During the same period average prices of equipment rose 65 percent, somewhat less than the average for all prices. Construction costs, however, increased 122 percent! From 1957 to 1967 the picture was quite different. Then the general price level increased 22 percent, while prices of both equipment and construction rose only 12 percent. Relative “bargains” in capital investment purchases doubtless encouraged the long capital spending boom that began in 1965.

An accelerated rise in construction costs was noticeable in the late 1960s, and increases in the double-digit range prevailed in 1974 and 1975. Wage and benefit increases negotiated by the construction trade unions in this period far exceeded the increases obtained in other industries. Prices of materials and costs of land development also surged. Delays were caused frequently by regulatory requirements. Heavy interest charges were incurred during construction. All of these factors contributed to substantial cost overruns.
Construction cost increases have outstripped other prices

Index, 1972=100

<table>
<thead>
<tr>
<th>Year</th>
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</tr>
<tr>
<td>1977</td>
<td>260</td>
<td>270</td>
<td>260</td>
</tr>
</tbody>
</table>

Construction cost increases have outstripped other prices on many projects. Fixed price contracts frequently had to be renegotiated. More and more contractors protected themselves with escalator clauses.

Rising construction costs and other uncertainties have made boards of directors more reluctant to appropriate funds for large construction projects that take years to complete. Major "grass roots" expansions may take three, four, or more years.

Since 1975 the rise in construction costs has moderated. High unemployment in the construction industry has slowed the rise in worker compensation. Intense competition for available work has caused builders to bid more closely on new jobs, and many bids have been below estimates, in contrast to the experience of earlier years. In 1976 and 1977 the rise in construction costs has about matched the increase in the general price level. The slower rise in construction costs should encourage approval of additional structures.

Capital spending and the recovery

The second quarter of 1977 marked the ninth successive quarter of expanding business activity since the "trough" of the recession in the first quarter of 1975. Through this period the recovery in total activity measured by real GNP compared favorably with earlier expansions. The relative performance of business fixed investment appears much less favorable.

From the first quarter of 1975 through the second quarter of 1977 real GNP rose 14 percent. This exceeds the 12 percent average rise in real GNP in four previous recoveries since the Korean War ended in 1954. In contrast, real NRFI has increased only 8 percent in the current recovery, well below the average rise of 15 percent in four previous recoveries.

The speed of an expansion may be influenced by the sharpness of the preceding recession. Nine quarters after the trough in four previous business cycles real GNP averaged 9.5 percent higher than at the peak of the previous cycle. In the second quarter of 1977, real GNP was up 7 percent from the peak of the fourth quarter of 1973, less than the four-cycle average, but not seriously so. Putting real NRFI to the same test shows a significant shortfall. In four previous cycles real NRFI averaged 9 percent above the previous cycle peak at this stage, almost as much as real GNP. However, in the second quarter of 1977 real NRFI was still 5 percent below its level at the previous cyclical peak.

Structures vs. equipment

This year structures will account for about one-third of nonresidential fixed investment with the other two-thirds going for producer equipment. Structures had accounted for 38 percent of the total in 1970 and 1971, and as much as 40 percent in the late 1950s. When adjusted for inflation the decline in structures relative to equipment is even more striking—30 percent this year compared to a peak of 45 percent.

The smaller proportion of investment in structures partly reflects a shift toward modernization and renovation as opposed to expansion of capacity, especially in manufacturing. In the auto industry, for example, relatively little is being spent on "brick and mortar," in contrast to large outlays on metalworking machine tools and presses.

The slow pace of total nonresidential construction also reflects widespread overbuilding of office buildings, shopping...
Spending on equipment in constant dollars has outperformed nonresidential construction

billions of 1972 dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>Equipment</th>
<th>Structures</th>
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</thead>
<tbody>
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<td>1976</td>
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<td>75</td>
</tr>
<tr>
<td>1977</td>
<td>90</td>
<td>80</td>
</tr>
</tbody>
</table>

centers, and industrial parks in the early 1970s. Office building construction is reviving to a degree in certain large cities, including Chicago, but no new buildings of giant size (e.g., Sears Tower) are planned. Contracts for new stores and most other nonresidential groupings are still very slow.

Although equipment output in total has risen sharply and fairly steadily in the past two years, the degree of improvement has varied greatly. Among the strongest sectors are heavy trucks and trailers with output up 50 percent this year. Orders for railroad freight cars began to revive in the late spring from a depressed plateau. Farm equipment sales have been down in 1977 after a string of very good years. Smaller construction equipment associated with residential construction has done well, while demand for heavier units has lagged. A similar picture, relatively less strength in heavy units, is reported for most classes of industrial equipment. Production of equipment and instruments to regulate the use of energy and to provide fuel storage capacity have increased steadily.

In the second quarter outlays on producer equipment in real terms had virtually regained the peak rate of the second and third quarters of 1974. Probably this level was surpassed after midyear. The business equipment component of the industrial production index, a measure of physical output, reached a new high last spring.

While equipment outlays have performed fairly well in the aggregate, nonresidential construction activity in real terms has increased only moderately from the recession low. In the second quarter it was still 19 percent below the peak reached in the third quarter of 1973. Outlays on structures probably will increase further, as suggested by F.W. Dodge data on new contracts, but they probably will not approach a record level either this year or early in 1978.

**EPA and OSHA**

Starting in 1973 the Bureau of Economic Analysis has conducted special surveys to determine the cost of outlays made by business firms to meet environmental standards set by the Environmental Protection Agency and other agencies. Pollution abatement outlays appear to have been surprisingly stable relative to total plant and equipment spending in the past five years. These data do not reflect costs of operating the facilities, which may be substantial.

In 1977 business plans to spend $7.5 billion to improve the quality of air and water and to treat solid waste. This would be 5.6 percent of total plant and equipment spending. The ratio was about the same in 1975 and 1976 and about a half percentage point less in 1973 and 1974. Doubtless, a large portion of this spending would have occurred without new regulatory decrees.

Six industry groups account for 80 percent of all pollution abatement outlays. The ratio to total plant and equipment spending is 11 percent for electric utilities, 10 percent for the petroleum and chemical industries, 14 percent for paper, 17 percent for nonferrous metals, and 19 percent for steel.

A McGraw-Hill survey indicates that industry will spend $2.9 billion on employee health and safety facilities in part to comply with regulations of the Occupational Safety and Health Administration (OSHA). This would be up 21 percent from last year and would account for 2 percent of all capital expenses.
spending. Increases in OSHA-type outlays are expected to moderate in future years.

Financing available

Whatever may be hampering business capital spending, it is not a shortage of buying power. Internally generated funds have increased sharply, holdings of liquid assets are relatively ample, and substantial additional cash could be obtained by borrowing.

Business profits have a dual relationship to capital spending. First, rising profits signal that new investments may produce additional profits. Second, rising profits provide additional funds for investment, both directly through retained earnings, and, indirectly, by increasing the ability of business to obtain outside funds, both debt and equity.

Profits after taxes rose 25 percent in 1976, and are expected to be up 10 to 12 percent in 1977. Undistributed profits available for investment were up 40 percent last year, as dividends increased less rapidly than profits and rose further in 1977.

Depreciation of existing facilities is a noncash expense and, therefore, part of internally generated funds. In recent years book depreciation taken by corporations has been more than twice as large as undistributed profits. Total internally generated funds probably will exceed $140 billion in 1977, up 10 percent from last year's record total.

Corporate security issues, at $24 billion in the first half of 1977, were off $4 billion from the year-ago period, which, in turn, was $3 billion below the first half of 1975. Partly, this reflects a less receptive market for common stocks. Yields on high-grade bonds drifted down in the first half to about 8 percent, the lowest in over three years. The bond market clearly could absorb additional issues.

Most large corporations have reduced short-term debt since the recession and many have paid off long-term debt as well. Balance sheets generally show a significant improvement in liquidity. Commercial banks have been able and willing to accommodate additional business loan demand this year.

More investment ahead

Few business analysts would welcome a return to the extreme boom conditions of 1973-74. Until late 1974, virtually every type of capital equipment was back ordered, in most cases because of shortages of components. Orders were duplicated causing delivery times to lengthen further. Excessive exuberance led inevitably to a painful reaction in 1975.

Currently, very few equipment components are in short supply, partly because capacity to produce such items as engines and controls has been expanded. Although supplies of basic materials appear ample, a surge in orders could change the picture rapidly. Expansion of major industries in the next few years is essential if the return of shortages and an even heavier dependence on foreign suppliers are to be avoided.

Capital spending would rise more rapidly if some of the regulatory barriers were modified. Large new projects planned by the mining, gas, electric, oil, and chemical industries have been delayed or canceled because of problems in obtaining required permits, a much more complicated process than in the past. Methods to accelerate resolution of these problems would help assure future supplies of energy and other goods and services.

Some analysts have argued that the general economy will stagnate or slip back into a recession unless the capital spending sector gathers new momentum. This emphasis tends to ignore the fact that a faster rise in investment usually occurs only when final demand is sufficiently vigorous to reduce unused capacity. Clearly, consumer and business spending are complementary. Hopes for stable growth and moderation of inflation must depend on a coordinated advance in both consumption and investment.

George W. Cloos
Banking insights

Behavior of the income velocity of money

... consideration of the stock of money alone is not sufficient for assessment of the adequacy of the economy's liquidity. Money has a second dimension, namely, velocity, or—in common parlance—the intensity with which it is being used.1

Monetary policy decisions are based on the likely impact future money supply growth will have on the nation's economic activity. How much of an increase in the volume of money is needed to achieve the desired level of activity depends, however, on how intensively the stock of money is used—its velocity. If the rate of money use is expected to change from what it has been in the past, a different quantity of money will be needed to maintain the past level of economic activity. As each dollar is used more often, fewer dollars are needed to facilitate the same amount of transactions. As a first step in determining future velocity movements, it is useful to analyze the past.

Postwar behavior of velocity

Of the several measures of the velocity of money, the one most commonly used is the income velocity of M-1 (V-1) defined as the ratio of GNP to M-1.2 Since the end of World War II the income velocity of M-1 has been on a generally rising trend. Over the past 30 years V-1 has risen at a 3.5 percent average annual rate—from a ratio of 2.05 in the first quarter of 1947 to 5.82 in the second quarter of 1977.

Quarter-to-quarter rates of change in V-1, however, have been quite volatile. They have ranged, in compounded annual rates, from a 5.9 percent decline in the first quarter of 1949 to a 22.4 percent gain in the third quarter of 1950. Over the past decade quarter-to-quarter rates of change in V-1 ranged between extremes of -3.7 percent in the fourth quarter of 1970 to 11.5 percent in the third quarter of 1975.

During the postwar period movements in V-1 have had a discernible cyclical pattern. From the peak to the trough in the first five of the six postwar recessions, V-1 declined. In the 1973-75 recession the average annual rate of change in V-1 slowed to 1.5 percent from the 3.4 percent average gain in the 1971-73 expansion.

During the recovery phases of the six business expansions since 1947, V-1 has generally risen at a rapid rate. From the first quarter of 1975 to the first quarter of 1976, the first year of the current expansion, V-1 rose at a rate of 8.3 percent, faster than in any other first year of recovery since the 1950-53 expansion. As the economy moves from recovery to expansion, the rate of increase in V-1 tends to slow and then to pick up again as the expansion proceeds. In the second year of the current expansion, V-1 grew at a rate of 3.5 percent, somewhat above the 3.1 percent rate observed in the second year of both the 1961-69 and 1971-73 expansions but below the 4.0 percent average second-year pace of the five previous expansions.

The seemingly erratic short-term movements in measured velocity and its pro-

1Arthur F. Burns, Chairman, Board of Governors of the Federal Reserve System, statement before the Committee on Banking, Housing and Urban Affairs, U.S. Senate, May 3, 1977.

2GNP represents the current value of annual spending on final goods and services. M-1 is defined as currency and demand deposits held by the public. While the income velocity of M-1 is most commonly used, similar income velocity measures exist for other measures of income and/or money.
Velocity has been on a rising trend over the postwar period

A major economic factor influencing the postwar rise in velocity is the general rise in interest rates that has occurred. Individuals, businesses, and state and local governmental units hold checking account balances and currency primarily to facilitate expenditures. As interest rates rise, the opportunity cost of holding noninterest-earning M-1 balances increases. To the extent that highly liquid interest-earning investment alternatives are available, money-holders have an incentive to shift funds in excess of transactions needs out of M-1 balances into earning assets.

Over the postwar period investment alternatives have been greatly expanded. For example, the increased desire of corporations to reduce cash balances led to the expansion of existing market alternatives—such as commercial paper—and the development of new instruments—such as certificates of deposit. The introduction by thrift institutions of a wider variety of consumer-type time and savings accounts and the development of money market mutual funds enhanced individuals' access to interest-bearing substitutes for M-1 balances. More recently, regulatory changes permitting businesses and state and local governments to hold savings accounts at commercial banks and the development of NOW (negotiable orders of withdrawal) accounts in New England have induced smaller businesses, state and local governments, and individuals to shift additional funds out of M-1 balances.

An increase in the technical efficiency with which funds can be transferred is another factor tending to increase velocity. Thus, such developments as wider use of wire transfer of funds and, more recently,
Rates of change in velocity differ over the business cycle

<table>
<thead>
<tr>
<th>Period</th>
<th>Rate of change in V-1 (percent)</th>
<th>Period</th>
<th>Rate of change in V-1 (percent)</th>
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<tr>
<td>(Peak-to-trough)</td>
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<td>(Trough-to-peak)</td>
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<tr>
<td>48-IV to 49-IV</td>
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<td>49-IV to 53-III</td>
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<td>75-I to 77-II*</td>
<td>5.7*</td>
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</table>

Average annual rates of change in the income velocity of M-1 (V-1 = GNP/M-1).

*Current expansion continuing.

**Rate of change in V-1 in 77-II, the first quarter of the third year of expansion.


Telephonic transfer of funds between savings and checking accounts at commercial banks also help explain the postwar rise in velocity. Since M-1 balances are held primarily to facilitate expenditures, the increasing availability of overdraft facilities and the more widespread use of credit cards have probably reduced the average amount of M-1 needed for transactions purposes and thus influenced the rise in velocity.

Prospects for future velocity movements

These factors in different combinations affect velocity in a complex fashion. Over the first two years of the current expansion, rates of change in the income velocity of M-1, though unaccompanied by the rise in interest rates observed in previous expansions, have generally been consistent with past patterns. Technical and institutional factors, however, have increased the ability of individuals, businesses, and state and local governments to reduce M-1 balances without sacrificing liquidity. In addition, cash management techniques once implemented are likely to be continued even though interest rates fall.

History suggests that, as the economy proceeds through the third year of expansion, velocity will continue on an upward trend at perhaps a faster pace than observed in the second year of expansion. The expectation of continued real economic growth, together with the likelihood that interest rates may rise as credit demands strengthen later in 1977, tends to reinforce this conclusion.

Anne Marie Laporte
The impact of NINOWs on deposits in Illinois

The legal authority for thrift institutions to offer "check-like" services is being increasingly broadened. Historically, only commercial banks have been permitted to offer and provide third-party payments services (checking accounts). However, in recent years judicial interpretations and legislative changes have generally eased such restrictions. Negotiable order of withdrawal (NOW) accounts, developed by New England thrift institutions, and noninterest-bearing negotiable order of withdrawal (NINOW) accounts, issued by some state-chartered savings and loan associations (S&Ls) in Illinois, are important components of the current trend. Legislation currently under consideration by Congress, if enacted, would further this trend by permitting all depository institutions, nationwide, to offer some form of NOW accounts.

The NOW account is an interest-bearing savings account with check-like withdrawal privileges, providing the convenience of a checking account while paying interest like a savings account. The NINOW account is different from a NOW account in that no interest is paid on deposits. Thus, the NINOW is a very close substitute for the commercial bank check.

Because of the potential shift in deposits that might occur between financial institutions due to experimentation with new third-party instruments, all financial institutions, regulatory bodies, and Congress are viewing the NOW phenomenon with considerable interest. The experiences with NOWs in New England and the more recent adoption of NINOWs in Illinois provide insight into the possible deposit shifts that might occur.

NOWs in New England

For a long time thrifts have wanted to expand their depository powers to include third-party payments in order to compete with the one-stop service offered by commercial banks. An innovative mutual savings bank in Massachusetts in July 1970 submitted a plan to the state banking commissioner to issue NOW accounts, which the commissioner denied. However, in May 1972 the Massachusetts Supreme Judicial Court ruled unanimously that mutual savings banks could legally offer NOW accounts. Thereafter, many mutual savings banks in Massachusetts began offering the new service, and in September 1972 a savings bank in New Hampshire (whose law was judged similar to Massachusetts') began offering NOWs. The new interpretations of existing laws in the two states pertained only to state-chartered institutions; thrifts under federal regulatory jurisdiction could still not issue NOW accounts.

The resulting competitive imbalance led to federal legislation in August 1973, authorizing all depository institutions (except credit unions) in both states to offer NOW accounts. The debate over NOW accounts in New England continued, kindled in part by the results of formal studies which recommend-
ed major reform within the financial institutions industry. In March 1976 Congress expanded the NOW experiment to include all six of the New England states.

**Impact of NOWs in New England**

Although NOW funds are considered expensive liabilities, competition for NOW funds has, nevertheless, been very active between the depository institutions in New England. Although commercial banks have been effective in competing for NOW deposits, thrifts have made significant inroads into third-party payments, the provision of which had heretofore been the exclusive privilege of commercial banks. Nearly three-fourths (74 percent) of the savings banks and S&Ls in New England offer the NOW service. However, their aggregate NOW deposits are currently less than that of commercial banks. About 62 percent of New England commercial banks offer the NOW service, and they hold 63 percent of the total NOW deposits in New England.

About 1.5 million NOW accounts, totaling over $2 billion, were outstanding in New England as of April 1977. Massachusetts institutions are dominant, holding 80 percent of the NOW accounts and 70 percent of the NOW deposits. Commercial banks hold 57 percent of NOW deposits in Massachusetts, 66 percent in New Hampshire, 75 percent in Connecticut, 80 percent in Maine, 99 percent in Rhode Island, and 93 percent in Vermont.

While the NOW experience has exerted a measurable impact upon New England deposits, the impact has not severely affected the overall deposit structure of depository institutions in the six states. At year-end 1976 NOW balances in New England amounted to only about 2.8 percent of total aggregate deposits of commercial banks, mutual savings banks, and S&Ls in that area.

**NINOWs in Illinois**

Following the developments in New England, the Illinois legislature in October 1975 passed a law permitting Illinois state-chartered savings and loan associations to issue a modified NOW account—the NINOW. (Federally chartered S&Ls in Illinois may not offer any form of NOW or NINOW.)

From the standpoint of the user, the NINOW account is essentially the same as a commercial bank checking account—neither pays interest on deposits and both function as third-party payment instruments.

Other things being equal, the NINOW form of account—compared to the NOW—should cause a smaller transfer of funds out of commercial banks and into S&Ls. Because NINOW and checking accounts both provide essentially the same service, there appears to be little incentive for a consumer to substitute a new S&L NINOW account for his commercial bank checking account, except that such a move might result in improved convenience of location to some consumers. (Most banking studies show that convenience of location is one of the most important factors determining the choice of financial institution with which the customer does business.) Therefore, a shift in deposits to S&Ls, commensurate with the improvement in convenience, could be expected to occur.

The authority for state-chartered S&Ls to offer the new service appears to have had a negligible impact on the overall deposit structure in Illinois thus far. Of 413 savings and loan 3

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**New England NOW data**

(April 29, 1977)

<table>
<thead>
<tr>
<th>Number of institutions</th>
<th>Number of NOW accounts</th>
<th>NOW balances (million dollars)</th>
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<tr>
<td>Savings &amp; loan assoc.</td>
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<td>139</td>
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<tr>
<td>Total</td>
<td>943</td>
<td>654</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bank of Boston.

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Deposit structure of Illinois commercial banks and savings and loan associations
(December 31, 1976)

<table>
<thead>
<tr>
<th>Financial institutions</th>
<th>Number of firms</th>
<th>Demand (million dollars)</th>
<th>NINOWs (million dollars)</th>
<th>Time and savings (million dollars)</th>
<th>Total (million dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks</td>
<td>1,247</td>
<td>21,786</td>
<td>0</td>
<td>41,316</td>
<td>63,102</td>
</tr>
<tr>
<td>Savings and loan assoc.</td>
<td>413</td>
<td>0</td>
<td>12</td>
<td>25,040</td>
<td>25,052</td>
</tr>
<tr>
<td>Federally chartered</td>
<td>153</td>
<td>0</td>
<td>0</td>
<td>16,137</td>
<td>16,137</td>
</tr>
<tr>
<td>State-chartered</td>
<td>260</td>
<td>0</td>
<td>12</td>
<td>8,903</td>
<td>8,915</td>
</tr>
<tr>
<td>S&amp;Ls issuing NINOWs*</td>
<td>55</td>
<td>0</td>
<td>12</td>
<td>3,491</td>
<td>3,503</td>
</tr>
</tbody>
</table>

*As of July 1, 1977.

In an effort to ascertain the degree to which the public is using NINOW accounts, those S&Ls surveyed were asked to indicate the average number of items processed per account per month. The average for the 25 S&Ls was 14 items, while the range was from 6 to 22. As a general rule, there is a direct relationship between the age of the accounts and the number of items processed; as the customer becomes more familiar with his NINOW account, he uses it more.

Compared to total deposits of all Illinois banks and S&Ls, NINOW deposits are of negligible relative importance. Total NINOW deposits ($12.5 million) represent only about 0.01 percent of total bank and S&L deposits and are equal to only about 0.05 percent of total demand deposits of commercial banks. Viewed another way, the sum total of NINOW deposits is about the same as the deposit size of the 733rd largest commercial bank in Illinois.

However, the total impact of NINOW activity on deposit structure in the state is not limited to the $12.5 million in aggregate NINOW deposits. Almost all S&Ls offering the NINOW account require the customer to open a companion passbook account. The most common tie-in combination is a minimum balance of $0-20 in the NINOW account and $200-500 in a companion passbook account. If funds fall below one or both of the set minimums, service charges are usually made to the NINOW account.

Survey of NINOWs at 25 S&Ls

<table>
<thead>
<tr>
<th>Asset-size group (million dollars)</th>
<th>Number of S&amp;Ls in each group</th>
<th>Average asset size (million dollars)</th>
<th>Average no. of NINOW accounts</th>
<th>Average NINOW deposits per account</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-25</td>
<td>6</td>
<td>$16</td>
<td>367</td>
<td>$557</td>
</tr>
<tr>
<td>25-50</td>
<td>7</td>
<td>36</td>
<td>394</td>
<td>516</td>
</tr>
<tr>
<td>50-100</td>
<td>6</td>
<td>74</td>
<td>521</td>
<td>389</td>
</tr>
<tr>
<td>100+</td>
<td>6</td>
<td>183</td>
<td>1,114</td>
<td>533</td>
</tr>
<tr>
<td>Total sample</td>
<td>25</td>
<td>76</td>
<td>617</td>
<td>497</td>
</tr>
</tbody>
</table>

*Only two of the 25 surveyed S&Ls offer the NINOW without some provision for a tie-in passbook account.
It is not unusual for companion passbook deposits to range five times larger than NINOW account deposits. Consequently, the aggregate $12.5 million in NINOW accounts understates the total effect of the NINOW activity, and if both the NINOW and passbook accounts are taken into consideration, the full effect could be as great as $75 million.\(^5\) Nevertheless, even this combined amount is still a very small fraction (0.09 percent) of aggregate state deposits of S&Ls and commercial banks.

The failure of S&Ls offering NINOWs to penetrate effectively the market for commercial bank demand deposits can be attributed to several factors. First, offering the NINOW is a totally new experience to which the S&Ls apparently are adjusting slowly. Expertise in providing and marketing third-party instruments is not acquired readily. After nearly two years of the NINOW’s legal existence, only 55 of the 260 eligible S&Ls in Illinois are competing by offering the service. The small percentage is indicative of the cautious approach that S&Ls are taking. Obviously, if all eligible S&Ls in Illinois were offering the NINOW, the effect upon deposits could be significantly greater.

Secondly, S&Ls have been neither aggressive nor persistent in their promotion of the NINOW service to the general public and have concentrated their efforts primarily on their existing customer base. The usual promotional scheme consists of providing NINOW information in fliers sent to customers and advertising NINOWs in posters and pamphlets in S&L lobbies. However, there are some exceptions: a few S&Ls have resorted to limited local newspaper and radio advertising specifically designed to inform the public of the NINOW service.

Thirdly, the restructuring of liabilities to include NINOW deposits shortens the maturity of S&L liability portfolios. Managements of many S&Ls may not perceive the short-term nature of NINOW deposit liabilities as being consistent with the longstanding S&L policy of balancing long-term mortgage assets with long-term deposit liabilities.

Lastly, from the consumer’s point of view, the NINOW has little more to offer than a commercial bank checking account. While convenience of location has undoubtedly favored NINOW growth at some individual associations, the overall effect has been minimal because of the limited number of S&Ls offering NINOW accounts.

Summary and conclusions

Up to the present the inroads of S&L NINOW accounts into commercial bank deposits in Illinois have been inconsequential. Given the reluctance of eligible S&Ls to offer NINOWs and their passive approach to marketing the implemented NINOW service, it appears that the full potential of the NINOW has not been thoroughly exploited by the S&Ls in Illinois.

Proposed legislation to authorize NOWs nationwide could have a significant impact upon the third-party payments structure in Illinois. If passed, it would enable all S&Ls and commercial banks in Illinois (as well as the nation) to offer interest-paying NOW accounts. S&Ls with experience in issuing NINOWs could easily shift to the NOWs and have a competitive advantage over the S&Ls not issuing the NINOWs. Moreover, those S&Ls issuing the NINOWs would also be in a better position to compete effectively with the commercial bank NOW service.

Jack S. Light

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\(^5\)This amount is overstated because some of the companion passbook accounts were already in the S&Ls prior to the opening of the companion NINOW account.
Chain banking in the District

Chain banking is a pervasive, but seldom studied form of banking organization. Resembling in some respects other forms of multi-office banking—such as holding company or branch banking—it is, however, largely unrestricted by current federal and state banking regulations. Although a bank involved in a chain banking situation reports individually to its primary bank regulatory authority, there is usually little publicized recognition of its affiliation with a chain.

Chain banking is usually defined as the control of two or more commercial banks by the same individual or group of individuals. Chain banking organizations made their first appearance in the United States in the late nineteenth century. Most of the early development took place in the northwestern and southern agricultural states that prohibited branch banking. Chain of banks held together by the ownership of their common stock were a workable means of circumventing antibranching laws. In states that currently prohibit or limit multibank holding companies and branch banking, chain banking organizations provide a viable method of multi-office bank expansion.

The Bank Holding Company Act of 1956 (as amended) was designed explicitly to govern the expansion of ownership of banks by holding companies, taking into account various competitive, financial, and managerial aspects of bank holding company formations and acquisitions. When a multibank holding company proposes to acquire an additional bank, the competitive implications of the acquisition are examined by the Board of Governors of the Federal Reserve System. If the proposed acquisition is expected to produce adverse competitive effects, the Board may not approve the application unless the anticompetitive effects are clearly outweighed by convenience and needs considerations. Yet the principals of a chain banking organization, because they do not constitute a “company” within the meaning of the Bank Holding Company Act, can acquire control of any bank without submitting an application to the Board, thus avoiding public scrutiny of the competitive, and other, implications of the acquisition.

The major problem in studying chain banking is the lack of published information identifying banks that are involved in chain relationships. The identification of chain banking organizations would allow proper analysis of market competition and place the potentially anticompetitive nature of chain banking in a better perspective. The difficulty of correct identification is compounded by the constant turnover of bank stock and the fact that changes in the ownership of bank stock are reported to different bank regulatory authorities. As a result of this identification problem, the effects on concentration reported in this article can be considered the minimum effect, and the actual impact of chain banking on bank competition within the Seventh Federal Reserve District is probably understated.

Methodology

The effect of chain banking on the structure of Seventh District banking has been examined from three different points of view. First, the extent of chain banking was examined within the entire Seventh District, then within each Seventh District state, and finally, in those states which required more detailed analysis, within local banking markets.

To examine changes in local market concentration, each state must first be divided into local banking markets. The complexity of delineating such areas in a rigorous and economically meaningful manner is, however, beyond the scope of this study. As an alternative, counties have been used as approximations of banking markets. Experience

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1Gaines T. Cartinhour, Branch, Group and Chain Banking, September, 1931, pp. 82 ff.
suggests that in many, although not all, cases the county serves as a reasonable proxy for the actual geographic market.

With proxy banking markets defined, the effects of chain banking on the structure of local banking markets can be determined. One important aspect of market structure is the degree to which resources or sales tend to be controlled by a small number of independent firms or organizations. According to economic theory, there is an inverse relationship between concentration levels and competition. That is, as a fewer number of independent banking organizations control the banking resources within a given market (an increase in the concentration level of banking resources), the intensity of competition between banks in the market declines, resulting in poorer market performance—i.e., higher prices and a lesser quantity or quality of bank services.

A number of quantifiable measures are used by market analysts to determine the degree of concentration within a defined market area. One of these is the concentration ratio, e.g., the share of total commercial bank deposits controlled by the five largest banking organizations in a market. This study utilizes a concentration measure known as the Herfindahl index, which takes into account the market shares of all firms in the defined area. An increase in the Herfindahl index ("H" index) that is specifically the result of chain bank affiliations is defined herein as the "chain banking effect," an effect that reflects the ownership by a chain banking organization of two or more otherwise independent banks in the same banking market.

**Seventh District effects**

This study uncovered 86 chain banking organizations operating in the Seventh District (see Table 1). As of March 1, 1977, these 86 chains controlled 332 commercial banks, representing approximately $14 billion of commercial bank deposits (12.2 percent of the District's commercial banks and approximately 11.0 percent of commercial bank deposits in the District, respectively). Of these 332 banks, 115 were members of the Federal Reserve System. The average deposit size of chain organizations was $162.4 million, while the median figure was somewhat lower at $72.9 million, indicating that most chains are relatively small. Across the District there were, on average, nearly four banks (3.9) in each of the 86 chains, and each of these banks had an average deposit size of $42.1 million.

**State and local effects**

In three of the five Seventh District states—Indiana, Michigan, and Wisconsin—chain banking organizations were found to have an insignificant effect on the competitive structure of commercial banking. In Iowa and Illinois the amount of commercial banking being conducted within chain organizations appears at first sight to be significant enough to warrant close attention and analysis. A primary determinant of the extent of chain banking activity in each Seventh District state appears to be existing state banking laws.

**Michigan and Wisconsin** allow branch banking and multibank holding companies, and the existence of chain banking organizations was defined as two or more commercial banks with at least one or more stockholders in common from among the top 20 in each bank, provided that the stockholder was a director, an officer, or an owner of 5 percent or more of the outstanding shares of stock in each bank.

**Economic Perspectives**

http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis
zations in these two states is very limited. (See Table 1.) Michigan had four chains with average deposits of $310.3 million, and accounted for only 4.2 percent of Michigan's total commercial bank deposits. These four chains controlled only 3.6 percent of the total number of commercial banks in Michigan and increased the actual level of concentration of banking resources in only two of Michigan's 68 counties.\(^5\)

Wisconsin's eight chain banking organizations have average deposits of $72.0 million and accounted for only 4.3 percent of Wisconsin's total commercial bank deposits. These eight Wisconsin chains controlled 25 commercial banks (5 percent of Wisconsin's commercial banks) and increased the actual level of concentration of banking resources in only five of Wisconsin's 46 counties.

The combined deposits of chain banking organizations in Michigan and Wisconsin constitute only 13.0 percent of all commercial bank deposits held by Seventh District chains, although the two states collectively hold approximately 34.0 percent of all Seventh District commercial bank deposits. The relative insignificance of chain banking in Michigan and Wisconsin seems attributable to the permissibility of multibank holding companies in these two states. The corporate tax incentives of the holding company form of organization appear substantial enough to place chain banking in a minor role.

Indiana does not allow multibank holding companies but does allow countywide branching. Only four chain banking organizations were identified in the state. They contained 12 banks that accounted for $2.7 billion in commercial bank deposits. Chain banking increased the concentration of banking resources in only one of Indiana's 68 counties. The average deposits of Indiana chains were $667.0 million, and the median deposit figure was $602.1 million; both figures were the largest for any District state. The membership of a few large commercial banks in chains tends to exaggerate the significance of chain banking in the state. While Indiana chains controlled 16.9 percent of the state's commercial bank deposits, they controlled only 3.8 percent of all commercial banks in In-

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\(^5\)All county figures reported herein are only for the portion of the states within the Seventh Federal Reserve District.

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Table 1
Chain banking in the Seventh District
March 1, 1977

<table>
<thead>
<tr>
<th>Seventh District states</th>
<th>Number of chains</th>
<th>Seventh District commercial bank deposits (billion dollars)</th>
<th>Seventh District chain bank deposits (million dollars)</th>
<th>Seventh District commercial banks</th>
<th>Seventh District chain banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>40</td>
<td>56.0</td>
<td>8,233</td>
<td>942</td>
<td>197</td>
</tr>
<tr>
<td>Iowa</td>
<td>30</td>
<td>12.1</td>
<td>1,250</td>
<td>660</td>
<td>87</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>8</td>
<td>13.5</td>
<td>576</td>
<td>502</td>
<td>25</td>
</tr>
<tr>
<td>Indiana</td>
<td>4</td>
<td>15.8</td>
<td>2,668</td>
<td>312</td>
<td>12</td>
</tr>
<tr>
<td>Michigan</td>
<td>4</td>
<td>29.8</td>
<td>1,241</td>
<td>308</td>
<td>11</td>
</tr>
<tr>
<td>Totals</td>
<td>86</td>
<td>127.2</td>
<td>13,968</td>
<td>2,724</td>
<td>332</td>
</tr>
</tbody>
</table>

Note: With the exception of Iowa, state data reflect only that portion of the state within the Seventh Federal Reserve District.

Indiana. Because an Indiana bank can legally concentrate its marketing effort and allocate its resources across a given county through an extensive branching network, it has less incentive to affiliate with other banks across (or within) counties.

Iowa had a total of 30 chain banking organizations that controlled 87 commercial banks and approximately $1.2 billion in commercial bank deposits. The average deposit size of Iowa chain banking organizations ($41.7 million) was the smallest of any District state.

The effects of chain banking upon banking structure in Iowa counties are shown in Table 2. The average Herfindahl index for all 99 counties in Iowa is .272 and the chain banking effect is .007, or 2.6 percent. The identification of chain banking organizations caused the H index to increase in only eight Iowa counties, seven of which are rural and one of which is urban.

Of Iowa's 99 counties, 52 were found to have experienced some chain banking activity. Most chain banks in Iowa operate in rural areas—43 of these 52 counties are rural counties. The average H ratio for these counties is .255 and the average increase in concentration as a result of chain banking is 4.5 percent.

Seven of Iowa's 99 counties are either designated as Standard Metropolitan Statistical Areas (SMSAs) or are included in an SMSA, and 16 of them have populations greater than 40,000. Table 2 shows that the chain banking effect, on both of these subgroups, was zero. Clearly, the competitive effects of chain banking in Iowa are limited solely to rural areas.

Iowa appears to be unique among Seventh District states. Although Iowa is one of the three Seventh District states that permits multibank holding companies, the relative importance of chain banking (30 chains with 87 banks) appears to be somewhat greater than in Michigan and Wisconsin. Iowa chains were also the smallest in the District and were predominately found in rural counties, whereas Michigan, Wisconsin, and Illinois chain banks were confined to urban areas.

Illinois, with 40 chain banking organizations controlling 197 commercial banks, experienced the most pervasive chain banking of any of the Seventh District states. Roughly

<table>
<thead>
<tr>
<th>Seventh District counties</th>
<th>(a) “H” indexes: all bank as if nonaffiliated</th>
<th>(b) “H” indexes: adjusted for chain affiliation</th>
<th>(c) Chain banking effect</th>
<th>(d) Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>99 counties total</td>
<td>.265</td>
<td>.272</td>
<td>.007</td>
<td>2.6</td>
</tr>
<tr>
<td>52 counties with chain activity</td>
<td>.244</td>
<td>.255</td>
<td>.011</td>
<td>4.5</td>
</tr>
<tr>
<td>47 counties without chain activity</td>
<td>.289</td>
<td>.289</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7 SMSA counties</td>
<td>.206</td>
<td>.206</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>92 non-SMSA counties</td>
<td>.270</td>
<td>.277</td>
<td>.007</td>
<td>2.6</td>
</tr>
<tr>
<td>16 counties with 1970 population greater than 40,000</td>
<td>.217</td>
<td>.217</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>83 counties with 1970 population less than 40,000</td>
<td>.275</td>
<td>.282</td>
<td>.007</td>
<td>2.5</td>
</tr>
</tbody>
</table>
one-fifth of all Illinois banks and 14.6 percent ($8.2 billion) of total Illinois commercial bank deposits are controlled by chain banking organizations. Illinois banking chains also had the largest average number of banks (4.9) of any of the District states. Further, chain banking affiliations affected the H index in 17 Illinois counties, which is one more than the number of counties affected throughout the remainder of the Seventh District.

The effect of chain banking on the concentration of banking resources in Illinois has been significant. Thirty-three of 58 Illinois counties were found to contain chain banks. (See Table 3.) The average H index for these counties was .178, 6.0 percent higher than it would have been in the absence of chain banking. Average concentration in the 17 Illinois counties included in SMSA areas was increased 7.8 percent by chain banking. Lastly, the six largest counties in Illinois (those with populations greater than 246,000 persons as of the 1970 census) show the largest average percentage increase in concentration, 30.1 percent, when taking account of chain banking. These six counties, however, exhibit the lowest average effective concentration ratio (H = .108) of any of the county subgroups in Illinois. Indeed, the average H index for these six counties would have to more than double before it equaled the average H index for those 25 counties in Illinois that have not experienced chain banking. Thus, while chain banking is a common and important phenomenon in Illinois banking, it has been centered in the least concentrated regions of the state, minimizing the potential anticompetitive impact of chain banking activity.

Why be concerned?

Despite the potential anticompetitive effects of chain banking organizations, they are allowed to operate outside the realm of regulatory jurisdiction. In contrast, bank holding companies are regulated by the provisions of the Bank Holding Company Act, as administered by the Federal Reserve System. Because the Board has taken a strong stand against horizontal (within market) acquisitions, the opportunities for bank holding companies to acquire competitors within their existing market(s) are severely limited.

<table>
<thead>
<tr>
<th>Seventh District counties</th>
<th>(a) “H” indexes: all bank as if nonaffiliated</th>
<th>(b) “H” indexes: adjusted for chain affiliation</th>
<th>(c) Chain banking effect</th>
<th>(d) Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>58 counties total</td>
<td>.192</td>
<td>.198</td>
<td>.006</td>
<td>3.1</td>
</tr>
<tr>
<td>33 counties with chain activity</td>
<td>.168</td>
<td>.178</td>
<td>.010</td>
<td>6.0</td>
</tr>
<tr>
<td>25 counties without chain activity</td>
<td>.224</td>
<td>.224</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>17 SMSA counties</td>
<td>.128</td>
<td>.138</td>
<td>.010</td>
<td>7.8</td>
</tr>
<tr>
<td>41 non-SMSA counties</td>
<td>.219</td>
<td>.222</td>
<td>.003</td>
<td>1.4</td>
</tr>
<tr>
<td>6 counties with 1970 population greater than 246,000</td>
<td>.083</td>
<td>.108</td>
<td>.025</td>
<td>30.1</td>
</tr>
<tr>
<td>52 counties with 1970 population less than 246,000</td>
<td>.205</td>
<td>.208</td>
<td>.003</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Chain banks, on the other hand, can focus their attention and concentrate their resources on one market and, as a result, can cause the real or effective level of concentration in that market to increase substantially. That this actually occurs is revealed by a comparison of the limited impact of chain banking on concentration in Iowa counties with the much greater impact in Illinois. Chain banking arrangements in Illinois appear to be due, in part, to the fact that Illinois law does not allow multibank holding companies or provide for countywide or statewide branching.

Summary and conclusion

The number and type of chain banking arrangements uncovered within Seventh District states appear to be directly related to the particular circumstances of each state, especially existing state banking laws. Wisconsin and Michigan banking laws allow multibank holding companies and limited branch banking; consequently, the absolute and relative importance of chain banking in these states appears to be rather insignificant. Indiana does not allow multibank holding companies; yet the absolute number of chains and chain banks in the state was low. This appears, in part, to be a result of Indiana’s countywide branching law. Chain banking is a statewide phenomenon in Iowa and exists alongside multibank holding companies. However, Iowa chains were found predominantly in rural counties and the average size of Iowa chains was the smallest of any of the Seventh District states.

The majority of chain banking activity of the five District states was centered in Illinois, where chains appear to have a significant influence on the structure of local banking markets. Illinois, like Indiana, does not allow multibank holding companies to operate in the state but, unlike Indiana, is basically a unit-banking state. The widespread use of chain banking in Illinois appears to be a direct attempt to circumvent the Illinois laws prohibiting both multibank holding companies and (with minor exceptions) branching. Until these prohibitions are relaxed, the only means by which a banking organization can expand its sphere of influence in Illinois is through unregulated chain banking arrangements.

Joseph T. Keating
Farm credit concerns rise

The agricultural sector has experienced wide fluctuations in earnings during the past five years. Crop failures in major producing countries of the world led to an explosion in farm income during the 1972-73 period. By 1973 gross income had risen 65 percent above the 1970-71 average, while net income had more than doubled. Since 1973 gross earnings have edged slightly higher, but the trend in net farm income has been decidedly downward. Net income in 1976 was 18 percent less than in the preceding year and 40 percent below the 1973 record. Although high by most historical comparisons, last year's net farm earnings when adjusted for inflation were among the lowest since the Depression. And despite the long-term decline in farm numbers, real net income per farm was the lowest since the late sixties.

The financial position of farmers has changed markedly during the farm earnings cycle. Efforts to expand production resulted in larger purchases of higher-priced operating inputs. The high earnings also triggered a boom in capital expenditures by farmers, encompassing machinery and equipment purchases as well as real estate purchases and improvements. Despite record earnings, the surge in expenditures for capital and operating inputs resulted in record growth in farm debt, which reached $102 billion at the end of 1976, nearly double the beginning-1970 level.

The recent declines in farm earnings coupled with higher-priced inputs and record debt levels have rekindled concern about farmers' cash-flow problems. Cash-flow problems of farmers have potential impacts for a number of institutions, including agricultural lenders. Recent surveys conducted by the Federal Reserve Bank of Chicago provide some insight into the developments encountered through mid-1977 by Seventh District agricultural banks. In general, banks are experiencing exceptionally strong loan demand, slower rates of loan repayment, increased requests for renewals and extensions of existing loans, reduced liquidity, and deterioration in loan quality.

Survey findings

Nearly three-fourths of the approximately 600 agricultural bankers responding to the survey indicated that second-quarter farm loan demand exceeded the corresponding period in 1976. Since only 3 percent reported decreased demand, the results—on balance—showed the most solid evidence of widespread strength in farm loan demand in more than a decade of quarterly surveys. All District states—particularly Iowa, where 79 percent of the bankers reported year-to-year gains—experienced the exceptional strength in demand.

The increased farm loan demand reflects, in part, new borrowings to finance current operating expenses, which tend to be seasonally high during the spring planting season. Slower loan repayment rates and a simultaneous increase in loan renewals and

Net farm income drops as debt continues to grow

![Graph showing net farm income and total farm debt over time](https://fraser.stlouisfed.org/image.png)
extensions also have contributed to the strong demand. Forty percent of the reporting bankers indicated that the second-quarter farm loan repayment rate was lower than a year ago, while only 6 percent indicated the rate was higher. Similarly, 45 percent noted an increase in loan renewals and extensions, while only 4 percent noted a decline from the year-earlier level. The problems of slower loan repayment rates and increased renewals and extensions appear most widespread in Iowa and Illinois, where about one-half of the bankers reported such changes from the year-earlier period.

Slow repayments and increased renewals and extensions of existing loans have also contributed to a tightening in the availability of funds for lending at District agricultural banks. In essence, the slower loan portfolio turnover has placed more emphasis on deposit growth as a means of funding new loans. Although deposit growth has apparently continued fairly strong at rural banks, it has not paralleled the growth in loans. As of midyear, loan-to-deposit ratios at the surveyed banks averaged 61 percent, up from 57 percent a year earlier. In conjunction with the sharp rise in loan-to-deposit ratios, an unusually large proportion of the banks—nearly two-fifths—indicated their current ratios exceeded the levels they desired.

The tightening liquidity pressures are apparently causing rural banks to utilize correspondent bankers and other lenders more intensively. Nearly one-fifth reported greater-than-normal utilization of correspondent banks to help finance farm customers, while only 7 percent noted a decline. Roughly the same proportion reported making more referrals of farm loan requests to other lending institutions during the second quarter. Furthermore, more than one-fifth of the banks indicated they have become somewhat less aggressive in seeking new farm loan customers.

Credit requests of regular farm loan customers apparently have been fairly well accommodated during the first half of this year. The bankers reported that only a small proportion—typically less than one-tenth—of the farm loan requests were denied or scaled down this year. Nevertheless, the incidence of such actions was somewhat above normal, particularly for requests to finance land purchases. Numerous factors contributed to the increased denials and scaled-down loans, but those most frequently cited include the following: borrower already overextended, insufficient borrower equity,
and the amount requested deemed unjustified based on income prospects.

The declines in farm earnings and commodity prices, as would be expected, have resulted in some deterioration in farm loan portfolios among District agricultural banks. However, the extent of the problem does not yet appear to be of major proportion. The respondents indicated that about 3.5 percent of the dollar value of their farm loan portfolios, on average, would normally have “major” or “severe” repayment problems. As of mid-1977, however, such problems were associated with about 6 percent of their farm loan portfolios. Although nearly doubled, the proportion of the portfolios so classified is still relatively small.

The implications

In several respects current conditions parallel rather closely those experienced during the first quarter of 1975—a period when farm income was also temporarily depressed. Then, as now, bankers were reporting slow repayment rates, increased renewals and extensions, and increasing pressures on the availability of funds. In probable contrast, however, the problems of two years ago were short-lived because of a commodity price boom largely triggered by the growing awareness that the USSR was experiencing disastrous crop conditions. In contrast, there appear to be no near-term prospects that would ameliorate the current situation.

Record crop harvests in the United States and large grain harvests in other areas of the world are forecast for this year. In general, the harvests are expected to exceed utilization and boost ending carryover stocks to record or near-record levels. As a result, farm earnings are likely to remain suppressed for some time.

Assuming farm earnings remain suppressed over an extended period, the current problems of farmers and their lenders could become more pronounced and far more widespread. Under such conditions bankers and other lenders will likely monitor farm lending activities more closely. In recent years lending activities have been influenced by high prices and rapidly escalating land values, while future lending activities will no doubt be geared more toward potential repayment capabilities based on depressed commodity prices. Thus, instances in which farmers are unable to obtain loans, or obtain the desired amount of borrowed funds, may rise significantly. Situations requiring farmers to sell assets—including inventories and/or real estate—to meet their fixed financial commitments will no doubt occur more often. Requests for additional governmental measures to temporarily alleviate the problems will likely be heard more frequently.

The above possibilities suggest the problems may become more widespread in the future. In some cases the impacts may be rather substantial, particularly for farmers who have accumulated large financial commitments—during the recent period of high earnings—that extend well into the future. Nevertheless, it would be premature to hypothesize a disaster for agriculture. The agricultural sector has experienced prolonged periods of tight cash-flows in the past. Concern about the “cost-price squeeze” during the late fifties and early sixties was loudly and frequently voiced, but the basic industry survived to enjoy the recent farm earnings boom. In many respects the recent boom will help alleviate the current problems. Many farmers apparently converted the recent high earnings into liquid assets, which could help alleviate the current stress. The sharply higher land values will also provide many farmers and their lenders with a buffer. Likewise, the enhanced off-farm earnings of farmers—which on a per farm basis are about 75 percent above the level of five years ago—will provide an important cushion against the tight cash-flow. Thus, without denying instances of rather severe ramifications, the current problems are not likely to undermine the basic structure of agriculture.

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