The Current Recession in Perspective

Address by

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I am glad to meet with this distinguished group of business and financial journalists in a leisurely setting. As a policymaker, I feel I have much in common with the members of your profession. Both you and I must be alert to every twist and nuance of the changing economic scene. Both you and I must keep busy searching the business skies for some clues to the economic future. I find this aspect of my work exciting and intriguing, as I am sure you do. But it does involve a certain risk for both of us.

Sharing—as we do—the problem of continually meeting deadlines, we are in danger of becoming so preoccupied with the very short run that we fail to see economic events in perspective. For that very reason, I have wanted to take advantage of your invitation, so that we might ponder together the historical developments which have brought our economy to its present condition. This is a large and highly important subject. I cannot hope to do full justice to it on the present occasion. Nevertheless, I shall make a start this evening.

As you are well aware, these past few years have been trying times for the American people. Not only have we lived through the agony of Vietnam and Watergate, but some of us have even begun to wonder whether our dream of full employment, a stable price level, and a rising standard of living for all our people is beyond fulfillment.

Early last year, economic expansion began to falter in our country, as it did in other countries around the world. At the same time, the pace of the inflation that had been building for more than a decade accelerated sharply further. As the year advanced, it became increasingly clear that our economy was moving into a recession.

During the past two quarters, the real gross national product has declined by 5 per cent, and the level of industrial production is now 12 or 13 per cent below last September. The unemployment rate has risen swiftly, and so also has the idle capacity in our major industries. The decline in business activity since last fall has been the steepest of the post-war period, and yet the advance of the price level—while considerably slower than last year—is continuing at a disconcerting pace.

No business-cycle movement can be comprehended solely in terms of the events that occur within that cycle or the one preceding it. The economic currents of today are heavily influenced by longer-range developments—such as changes in economic and financial institutions, the course of public policy, and the attitudes and work habits of people. By examining the historical background of recent economic troubles, we should be able to arrive at a better understanding of where we now are.

The current recession is best viewed, and I believe it will be so regarded by historians, as the culminating phase of a long economic cycle.

There have been numerous long cycles in the past —that is, units of experience combining two or more ordinary business cycles. One such long cycle ran its course from 1908 to 1921, another from 1921 to 1933. And if we go back to the nineteenth century, we encounter long cycles from 1879 to 1894 and from 1894 to 1908. These long cycles differ in innumerable ways from one another. But they also have some features in common—in particular, each culminates in an economic decline of more than average intensity.

The beginning of the long cycle that now appears to be approaching its natural end may be dated as early as 1958, but it is perhaps best to date its start in 1961. The upward movement of economic activity which began in that year was checked briefly in 1967 and interrupted more significantly in 1970. Although these interruptions were watched with concern and some anxiety by practicing economists and other interested citizens, they will be passed over lightly by economic historians concerned with large events.

The reason is not hard to see. Putting aside monthly and quarterly data, and looking only at annual figures, we find that total employment rose every year from 1961 through 1973. So also did disposable personal income and personal consumption expenditures—both viewed on a per capita basis, and in real terms. This sustained upward trend of the economy came to an end in 1974.

The successive phases of the long upswing from 1961 to 1974 provide a useful perspective on our current problems. Some years ago, in my work at the National Bureau of Economic Research, I observed a pattern in past long upswings—an initial stage that may be called the "industrial phase" followed by what is best described as the "speculative phase." The imbalances that develop in this latter phase lead inevitably to the final downturn. The events of the past 15 years conform rather closely to this pattern.

The period from 1961 through 1964 may be regarded as the industrial phase of the long upswing. Productivity grew rapidly—increasing in the private nonfarm sector at an annual rate of 3.6 per cent between the final quarters of 1960 and 1964, or well above the average rate of the preceding decade. Unit labor costs were then remarkably stable, and so too was the general price level. Real wages and profits rose strongly. During this period of sustained economic expansion, unemployment fell from about 7 per cent of the labor force to 5 per cent, while the rate of use of industrial capacity rose substantially.

The second—or speculative—phase of the long upswing began around 1965 and continued through much of 1974. This ten-year period was marked by a succession of major, interrelated, and partly overlapping speculative waves that in varying degrees gripped other leading industrial countries as well as the United States.

The first speculative movement involved corporate mergers and acquisitions. In the euphoria of what some commentators have called the "go-go" years, rapid growth of earnings per share of common stock became the overriding goal of many business managers. Other yardsticks of corporate performance—such as the rate of return on new investments—were neglected, and so too were the serious risks of increased leveraging of common stock.

The aggregate volume of large corporate acquisitions, which for some years had been running at about $2 billion per year, jumped to $3 billion in 1965, to $8 billion in 1967, to $12½ billion in 1968, and then tapered off. This was the great era of conglomerates, when a variety of unrelated businesses were brought together under a single corporate management. Entrepreneurs who displayed special skill in such maneuvers were hailed as financial geniuses—until their newly built empires began to crumble. Being preoccupied with corporate acquisitions and their conglomerate image, many businessmen lost sight of the traditional business objective of seeking larger profits through better technology, aggressive marketing, and improved management. The productivity of their businesses suffered, and so too did the nation's productivity.

The spectacular merger movement of the late 1960's was reinforced, and to a degree made possible, by the speculative movement that developed in the market for common stocks. The volume of trading on the New York Stock Exchange doubled between 1966 and 1971, and for a time trading volume on the American Exchange rose even faster. The prices of many stocks shot up with little regard to actual or potential earnings. During the two years 1967 and 1968, the average price of a share of common stock listed on the New York Exchange rose 40 per cent, while earnings per share of the listed companies rose less than 2 per cent. On the American Exchange, the average price per share rose during the same years more than 140 per cent on an earnings base that again was virtually unchanged.

Much of this speculative ardor came from a section of the mutual fund industry. For the new breed of "performance funds," long-term investment in the shares of established companies with proven earnings became an outmoded concept. In their quest for quick capital gains, these institutions displayed a penchant for risky investments and aggressive trading. In 1965, a typical mutual fund turned over about one-fifth of its common stock portfolio; by 1969, that fraction had risen to nearly one-half. As Wall Street then had it, the "smart money" went into issues of technologically-oriented firms or into corporate conglomerates—no matter how well or poorly they met the test of profitability.

Speculation in equities was cooled for a time by the stock market decline of 1969-1970, but then it resumed again and took on new forms. Money managers began to channel a preponderant part of their funds into the stocks of large and well-known firms—apparently with the thought that earnings of those companies were impervious to the vicissitudes of economic life. A huge disparity was thereby created between the price-earnings ratios of the "favored fifty" and those of other corporations. Share prices of these "favored" companies were, of course, especially hard hit in the subsequent shakeout of the stock market.

Speculation in common stocks was not confined to the United States. From the late 1960's until about 1973, nearly every major stock exchange in the world experienced a large run-up in share prices, only to be followed by a drastic decline. Indeed, speculation reached a more feverish pace in some countries than in the United States. On the Tokyo stock exchange, for example, both share prices and the trading volume actually doubled in the twelve months between January 1972 and January 1973, and then suffered a sharp reversal.

The third speculative wave that nourished the long upswing of our national economy occurred in the real estate market. Homebuilding fluctuated around a horizontal trend during the 1960's. The vacancy rate in rental housing was at a high level from 1960 to 1965, then fell steadily until the end of the decade, and thus helped pave the way for a new housing boom. Between January of 1970 and January of 1973, the volume of new housing starts doubled. Since then, homebuilding has plunged, and in some sections of the nation it has virtually come to a halt. Failures of construction firms and unemployment among construction workers have reached depression levels. These unhappy developments stem in large measure from the excesses of the housing boom that got under way in 1970.

Inflationary expectations clearly played a substantial role in bolstering the demand for houses. But the boom was fostered also by an array of governmental policies designed to stimulate activity in the housing sector. These governmental measures, however well-intentioned, gave little heed to basic supply conditions in the industry or to the underlying demand for housing.

In response to easy credit and Federal subsidies, merchant builders moved ahead energetically, put up one-family homes well ahead of demand, and thus permitted the inventory of unsold homes to double between 1970 and 1973. Speculative activity was even more intense in the multi-family sector—that is, in apartments built for renting, and particularly in condominiums and cooperatives, which accounted for a fourth of the completions of multi-family structures by the first half of 1974.

The boom in housing was financed by a huge expansion of mortgage credit and construction loans. Real estate investment trusts played an exceptionally large role in supplying high-risk construction loans for condominiums, recreational developments, and other speculative activities. The growth of real estate trusts was extraordinary by any yardstick. Their assets, amounting to less than $700 million in 1968, soared to upwards of $20 billion by 1973. Unsound practices accompanied this rapid growth and, as a result, many real estate trusts now face difficult financial problems.

The speculative boom in real estate was not confined to residential structures. It extended to speculation in land, to widespread building of shopping centers, and to construction of office buildings. By 1972, the vacancy rate in office buildings reached 13 per cent, but this type of construction still kept climbing.

The real estate boom in the United States during the early 1970's had its parallel in other countries. Speculation in land and properties became rampant in the United Kingdom. In 1972 alone, new house prices rose 47 per cent on the average. The amount of credit absorbed in real estate ventures rose so rapidly that the Bank of England felt forced to place special controls on bank lending for such purposes. And in Germany, the boom in residential construction during 1971-73 left an inventory of about a quarter million unsold units—more than a third of a peak year's output—that now overhang the market.

It is in the nature of speculative movements to spread from one country or market to another. Just as the speculative wave in real estate was beginning to taper off in 1973, a new wave of speculation got under way—this time in inventories. That was the fourth and final speculative episode of the long economic upswing from 1961 to 1974. It involved massive stocking up of raw materials, machinery, parts, and other supplies in the United States and in other industrial countries.

The inventory speculation of 1973 and 1974 was the outgrowth of a boom in business activity that had raised its head by 1972 in virtually every industrial country of the world. The synchronism of economic expansion in these countries was partly coincidental, but the expansion that stemmed from ordinary business-cycle developments was reinforced by the adoption of stimulative economic policies almost everywhere. As a result, production increased rapidly around the world, and led to a burgeoning demand for raw materials, machine tools, component parts, and capital equipment—goods for which our country is a major source of supply. The pressure of rising world demand was reinforced in our markets by the devaluation of the dollar, which greatly improved our competitive position in international trade.

By the beginning of 1973, as business firms attempted to meet intense demands from both domestic and foreign customers, serious bottlenecks and shortages had begun to develop in numerous industries—especially those producing steel, non-ferrous metals, paper, chemicals, and other raw materials. In this

environment of scarcities, the rise in prices of industrial commodities quickened both here and abroad. The dramatic advance of food prices in 1973, and later in energy prices, greatly compounded the worldwide inflationary problem. In our country, these price pressures were suppressed for a time by price and wage controls, but the general price level exploded when controls were phased out in late 1973 and early 1974.

One of the unfortunate consequences of inflation is that it masks underlying economic realities. As early as the spring of 1973, a perceptible weakening could be detected in the trend of consumer buying in this country. The business community, however, paid little attention to this ominous development. The escalating pace of inflation fostered expectations of still higher prices and persistent shortages in the years ahead, so that intensive stockpiling of commodities continued. Inventories increased out of all proportion to actual or prospective sales. In fact, the ratio of inventories to sales, expressed in physical terms, had risen by the summer of 1974 to the highest figure for any business-cycle expansion since 1957—another year when a severe recession got under way.

In summary, the period from 1965 to 1974 was marked by a succession of interrelated, partly overlapping, speculative waves—first, in buying up of existing businesses; then, in the stock market, next, in markets for real estate; and finally, in markets for industrial materials and other commodities.

A prolonged speculative boom of this kind can seldom be traced to a single causal factor. In this instance, however, a dominant source of the problem appears to have been the lack of discipline in governmental finances.

The industrial phase of the long upswing drew to a close in late 1964 or early 1965. By then, the level of real output was very close to the limits imposed by our nation's physical capacity to produce. By then, the level of wholesale prices was already moving out of its groove of stability. Nevertheless, our Government did nothing to moderate the pace of expansion of aggregate monetary demand. On the contrary, it actually embarked on a much more expansive fiscal policy. The tax reductions of 1964 were followed in 1965 by fresh tax reductions and by a huge wave of spending both for new social programs and for the war in Vietnam. These misadventures of fiscal policy doomed the economy to serious trouble, but we were slow to recognize this. Indeed, substantial tax reductions occurred again in 1969 and 1971, and they too were followed by massive increases of expenditures.

Deficits therefore mounted, and they persisted year in and year out. Over the last ten complete fiscal years—that is, from 1965 through 1974—the Federal debt held by the public, including obligations of Federal credit agencies, rose by more than 50 per cent. The large and persistent deficits added little to our nation's capacity to produce, but they added substantially to aggregate monetary demand for goods and services. They were thus directly responsible for much of the accelerating inflation of the past decade.

Monetary and credit policies were not without some fault. As every student of economics knows, inflation cannot continue indefinitely without an accommodating increase in supplies of money and credit. It is very difficult, however, for a central bank to maintain good control of money and credit when heavy governmental borrowing drives up interest rates, and when the public is unwilling to face squarely the long-run dangers inherent in excessively stimulative economic policies.

To make matters worse, laxity in our national economic policies spilled over into private markets. The "new economics," of which less is now heard than before, held out the possibility, if not the actual promise, of perpetual prosperity. Many businessmen and financiers came to view the business cycle as dead, and to expect the Federal Government to bail out almost any enterprise that ran into financial trouble. All too frequently, therefore, the canons of financial prudence that had been developed through hard experience were set aside.

Many of our business corporations courted trouble by permitting sharp reductions in their equity cushions or their liquidity. In the manufacturing sector, the ratio of debt to equity—which had been stable in the previous decade—began rising in 1964 and nearly doubled by the end of 1974. Moreover, a large part of the indebtedness piled up by business firms was in the form of short-term obligations, and these in turn grew much more rapidly than holdings of current assets.

Similar trends developed in some segments of commercial banking. Large money-market banks came to rely more heavily on volatile short-term funds to finance their business customers, and at times they increased their loan commitments to businesses beyond prudent limits. A few bank managers, too, began to concern themselves excessively with maximizing short-run profits, so that the prices quoted for their common stock would move higher. Capital ratios of many banks deteriorated; questionable loans were extended at home and abroad; insufficient attention was given here and there to the

risks of dealing in foreign exchange markets; and too much bank credit went into the financing of speculative real estate ventures.

A variety of loose practices also crept into State and local government finance. Faced with rapidly expanding demands for services and limited sources of revenue, some governmental units resorted to extensive short-term borrowing and employed dubious accounting devices to conceal their budget deficits. Statutory debt limits were circumvented through the creation of special public authorities to finance the construction of housing, schools, and health facilities. Some of these authorities issued so-called "moral obligation" bonds, which investors in many instances regarded as the equivalent of "full faith and credit" obligations. The novel financial devices seemed innocuous at the time, but they have recently become a source of serious concern to investors in municipal securities.

A nation cannot realistically expect prosperous economic conditions to continue very long when the Federal Government fails to heed the warning signs of accelerating inflation, when many of its business leaders spend their finest hours arranging financial maneuvers, and when aggressive trade unions push up wage rates far beyond productivity gains. After 1965, the strength of the American economy was gradually sapped by these ominous trends. Productivity in the private nonfarm sector, which had grown at an annual rate of 3.6 per cent from 1961 through 1964, slowed to a 2.2 per cent rate of advance from 1964 to 1969, then to 1.5 per cent from 1969 to 1974. Expansion in the physical volume of national output likewise declined during successive quinquennia. The rate of inflation, meanwhile, kept accelerating.

With the pace of inflation quickening, seeds of the current recession were thus sown across the economy. Rising prices eroded the purchasing power of workers' incomes and savings. Corporate profits diminished—a fact that businessmen were slow to recognize because of faulty accounting techniques. New dwellings were built on a scale that greatly exceeded the underlying demand. Inventories of commodities piled up, often at a fantastic pace, as businessmen reacted to gathering fears of shortages. Credit demands, both public and private, soared and interest rates rose to unprecedented heights.

These basic maladjustments are now being worked out of the economic system by recession—a process that entails enormous human and financial costs. Our country has gone a considerable distance in developing policies to alleviate economic hardships, and these policies have been strengthened recently. Nevertheless, the recession has wrought great damage to the lives and fortunes of many of our people.

This recession has cut deeply into economic activities. It must not, however, be viewed as being merely a pathological phenomenon. Since we permitted inflation to get out of control, the recession is now performing a painful—but also an unavoidable—function.

First, it is correcting the imbalances that developed between the production and sales of many items, also between orders and inventories, between capital investment and consumer spending, and between the trend of costs and prices.

Second, business managers are responding to the recession by moving energetically to improve efficiency—by concentrating production in more modern and efficient installations, by eliminating wasteful expenditures, by stimulating employees to work more diligently, and by working harder themselves.

Third, the recession is improving the condition of financial markets. Interest rates have moved to lower levels as a result of declining credit demands and of the Federal Reserve's efforts to bolster the growth of money and credit. Commercial banks have taken advantage of the reduced demand for loans to repay their borrowings from Federal Reserve Banks, to reduce reliance on volatile sources of funds, and to rebuild liquid assets. The rapidly rising inflow of deposits to thrift institutions has likewise permitted a reduction of indebtedness and addition to their liquid assets.

Fourth, the recession is wringing inflation out of the economic system. Wholesale prices of late have moved down, and the rise of consumer prices has also slowed. Although general price stability is not yet in sight, a welcome element of price competition has at long last been restored to our markets.

These and related business developments are paving the way for recovery in economic activity. No one can foresee with confidence when the recovery will begin. The history of our country indicates clearly, however, that the culminating downward phase of a long cycle need not be of protracted duration.

Signs are multiplying, in fact, that an upturn in economic activity may not be far away. For example, employment rose in April after six successive months of decline. The length of the workweek also stabilized last month. The rate of layoffs in manufacturing is now turning down, and some firms have been recalling workers who formerly lost their jobs. Sales of goods at retail—apart from autos—have risen further. Business and consumer confidence has been

improving. And prospects for an early upturn in economic activity have been strengthened by passage of the Tax Reduction Act of 1975.

Our nation stands at present at a crossroads in its history. With the long and costly cycle in business activity apparently approaching its end, the critical task now is to build a solid foundation for our nation's economic future. We will accomplish that only if we understand and benefit from the lessons of recent experience.

Since World War II, a consensus has been building in this country that the primary task of economic policy is to maintain full employment and promote maximum economic growth. We have pursued these goals by being ever ready to stimulate the economy through increased Federal spending, lower taxes, or monetary ease. Neglect of inflation, and of longer-run economic and financial problems, has thus crept insidiously into public policy making. Our Government has become accustomed to respond with alacrity to any hint of weakness in economic activity, but to react sluggishly, and sometimes not at all, to signs of excess demand and developing inflationary pressures.

The thinking of many of our prominent economists has encouraged this bias in our economic policies. During the 1950's and 1960's, they frequently argued that "creeping inflation" was a small price to pay for full employment. Some even suggested that a little inflation was a good thing—that it energized the economic system and thus promoted rapid economic growth.

This is a dangerous doctrine. While inflation may begin slowly in an economy operating at high pressure, it inevitably gathers momentum. A state of euphoria then tends to develop, economic decision-making becomes distorted, managerial and financial practices deteriorate, speculation becomes rampant, industrial and financial imbalances pile up, and the strength of the national economy is slowly but surely sapped. That is the harsh truth that the history of business cycles teaches.

To emphasize this truth, I should now like to offer this distinguished group of journalists a bit of professional advice. Since few of you are reluctant to pass along hints as to how I should do my job, I have decided to suggest to you what the really big economic news story of 1975 is likely to be.

The story has to do with the drama now unfolding on Capitol Hill in the implementation of the Budget Control Act adopted last year. If I am right in thinking that our present economic difficulties are largely traceable to the chronic bias of the Federal budget toward deficits, there can be no doubt about the importance of what is now being attempted. No major democracy that I know of has had a more deficient legislative budget process than the United States —with revenue decisions separated from spending decisions and the latter handled in piecemeal fashion. Budgets in this country have just happened. They certainly have not been planned.

We are now attempting to change that by adopting integrated Congressional decisions on revenues and expenditures. My advice to you journalists is to follow this new effort closely. It has a significance for our nation that may carry far into the future. But nothing can be taken for granted here. We have tried budgetary reform once before under the Legislative Reorganization Act of 1946, and it failed. It failed partly because of the challenge to cherished Committee prerogatives, partly also because Congress as a whole balked at accepting so much self-discipline. I would urge you to study the history of that earlier effort and to watch the present undertaking for telltale signs of similar faltering.

The potential gain for our nation from budget reform is enormous even in this first year of "dry run." If, in fact, the work of the new budget committees produces in the Congress a deeper understanding of the impossibility of safely undertaking all the ventures being urged by individual legislators, a constructive beginning toward a healthier economic environment will have been made. On the other hand, if the new budget procedures are scuttled, or if they are used with little regard to curbing the bias toward large-sized Federal deficits, there ultimately may be little anyone can do to prevent galloping inflation and social upheaval.

I am inclined to be optimistic about the outcome. More and more of our people are becoming concerned about the longer-range consequences of Federal financial policies. Perspective on our nation's economic problems is gradually being gained by our citizens and their Congressional representatives. A healthy impatience with inflation is growing. You journalists are becoming more actively involved in the educational process. I therefore remain hopeful that we shall practice greater foresight in dealing with our nation's economic problems than we have in the recent past, and that we will thus build a better future for ourselves and our children in the process.

A TIME SERIES ANALYSIS OF BUSINESS LOANS AT LARGE COMMERCIAL BANKS

In the normal course of operations, businesses are often required to supplement their internally generated cash flows with borrowed funds, making them significant participants in the short-term credit markets. Such short-term business credit is generally sought to help meet current expenses associated with the production process—so-called production credit—although at times it may be used as a substitute for long-term debt. During periods when it is difficult or expensive to raise capital through the sale of stocks and bonds, for example, short-term debt may be incurred to help finance investments in plant and equipment. These various requirements for short-term financing are satisfied with the help of a number of specialized financial organizations, including commercial finance companies, factors, commercial paper dealers, and commercial banks. Of first importance among these different types of financial organizations, however, are the commercial banks. They have supplied approximately a third of all new debt raised by nonfinancial business corporations since 1970 in the form of short-term loans.

Commercial banking has a traditional orientation toward business lending, and in fact its origins are closely associated with the development of trade and commerce. Even though commercial banking as we know it today is a diversified industry organized to engage in a wide variety of financial services, the traditional orientation remains strong. Expertise in business lending is, without a doubt, most highly developed within the banking industry, and business loans constitute the single most important use of bank funds. In mid-1974, for example, commercial and industrial loans at all U. S. commercial banks accounted for 35.9 percent of total loans and 20.0 percent of total assets. Inclusion of short-term construction loans secured by real estate would further increase the significance of these figures on business lending at commercial banks.

Business loans constitute an important part of total bank credit, which in turn is recognized as an important factor affecting real economic activity. Since the ultimate policy goals of the Federal Reserve relate to real economic activity, it is quite natural for the System to be concerned with movements in bank credit in general and bank business credit in particular. Furthermore, bank credit is a variable over which the Federal Reserve can exercise a certain degree of control, and it has been recognized as an explicit target of policy since 1966. Broadly speaking, bank credit and the money supply are the aggregates that receive primary attention in System policy deliberations. It is through these aggregates, and through financial market conditions, that monetary policy is transmitted to the real sector of the nation's economy. Private business economists are also interested in bank business credit because of what it can reveal about real economic activity and about the effects of monetary stabilization policy. Businessmen and bankers pay close attention to movements in bank business credit in order that they may gain a better understanding of the market conditions that have a direct impact upon their affairs as borrowers and lenders.

In short, due to their significance as a large component of bank credit and because of their direct connection with the production process, bank business loans attract wide attention as an economic indicator. Their availability in a useful statistical form is a matter of general interest.

One of the most widely used series on bank business loans is derived from the weekly report of condition as filed by a national sample of large commercial banks. This is the commercial and industrial (C&I) loan series, which includes all business loans as defined in Schedule A Item 5 of the regular Report of Condition.[1] The weekly sample can be disaggregated to yield C&I loan data for fourteen sub-groups of banks, one for each of the Federal Reserve Districts and one each for reporting banks in New York City and Chicago. Although these data, in various forms, are accumulated and reported in several places, in actual practice the focus of attention for many observers is the immediately available unadjusted data.[2] This is particularly true in the

[1] Included are all loans made by banks for commercial and industrial purposes, secured or unsecured, except those secured by real estate. As such, they may include open lines of credit, transaction loans, working capital loans, revolving credits and term loans.

[2] Complete condition statements for reporting banks in New York City, reporting banks outside New York City, and all reporting banks are published with a one-month lag in the *Federal Reserve Bulletin*. Figures are given for each week of the month, each week of the prior month, and each week of the like month a year earlier. Seasonally adjusted monthly averages of C&I loans outstanding for all reporting banks are published as lagging indicator 72 in the *Business Conditions Digest*; seasonally adjusted monthly averages of net changes in C&I loans at all reporting banks are published as leading indicator 112.

case of data for the twelve reporting banks in New York City. The unadjusted New York City data are considered by many to be a bellwether for nationwide conditions in C&I loans and are often used, especially in the business community, as a basis for judgments about credit market conditions generally. Unfortunately, this C&I loan series may at times be misleading. Its widespread usage suggests that the basic differences between the behavior of C&I loan portfolios at New York City banks and portfolios at other banks is not clearly understood.[3]

This article compares C&I loans outstanding over time for two groups of banks which together constitute the entire sample of large reporting banks: the twelve New York City reporters (NYC banks) and all reporting banks exclusive of those in New York City (all other banks). Its purpose is to describe the nature of differences in business lending between these two groups of banks and to determine the extent of such differences. Differences in business lending activity between money center and regional banking organizations will be revealed, and an indication will be provided as to whether or not the NYC banks provide a useful proxy for such lending activity in other areas of the country.

The analysis considers monthly average data for the period 1966-1974, a relatively short span by time series standards but remarkably long given the frequency of changes in the large reporting bank sample. The traditional method of analysis of economic time series, which separates the influences on data movements into four distinct components—irregular, seasonal, trend, and cyclical—is employed. After modifying the irregular or random data values and determining the seasonal component, which is accomplished using the ratio to moving average technique, the data are fitted to a function approximating their long-run trend. This process yields a set of residual values that represent the cyclical component of the data. A comparison is made of the seasonal, trend, and cyclical elements in the data between the two groups of banks.[4]

Before undertaking this statistical analysis, however, a background examination of the information source upon which this article is based is in order.

THE LARGE COMMERCIAL BANK WEEKLY CONDITION REPORT

The weekly condition report is completed, on a voluntary participation basis, by approximately 335 banks around the nation, twelve of which are located in New York City.[5] Although small in number, compared with the approximately 14,500 banks that operate in the U. S., these sample institutions include most of the nation's largest banks and together they account for about 60 percent of total banking resources. The weekly condition report, which is completed as of the close of business each Wednesday, is patterned after the mid-year and year-end Report of Condition, and individual items are defined in the same way on both statements. After being completed by the respondent banks, the reports are mailed to the Federal Reserve Banks with intended arrival not later than the following Tuesday; there the information is edited, consolidated and forwarded to the Board of Governors. Aggregate national data and District breakdowns are published by the Board with one week's delay in the H.4.2 release.

Special handling procedures in effect for the reporting banks in New York City and Chicago allow their data to be released on the Thursday following the statement date. The respective Reserve Banks release this information with only one day's delay, as does the Board in its H.4.3 release.

The origins of the large commercial bank reporting series reach back to 1917, when the Federal Reserve first began collecting selected balance sheet information from certain member banks on a weekly basis. As would naturally be expected, a number of revisions have occurred since the inception of the sample, affecting both the composition of reporting banks and the basic report format. Such revisions have damaged the time series continuity of the data, and their existence demands that careful attention be given to considerations of data comparability. A major change in sample composition was effected in December 1965 that places a constraint on any time series study of C&I loan data. At year-end 1965, the sample of weekly reporting banks was redrawn to include all commercial banks (member and non-

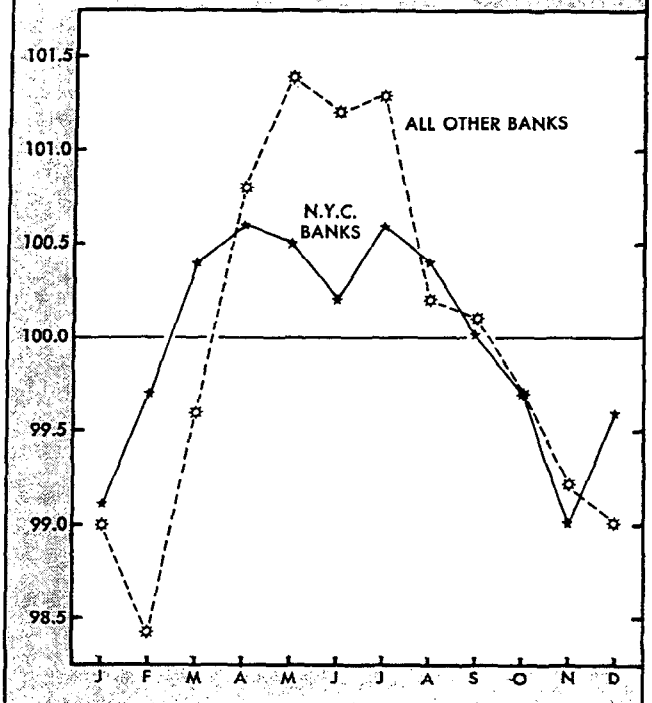
[3] A recent example of such misunderstanding occurred in the summer of 1974, when prevailing thinking in the investment community centered analytical attention on the C&I loan data of weekly reporting New York banks. The stock market developed an acute sensitivity to these data, even though they were not truly representative of conditions at all banks. For a discussion of this situation and its implications, see Richard A. Debs, "On Fed Watching," *Monthly Review*, Federal Reserve Bank of New York, Vol. 56, No. 10, October 1974, 243-47.

[4] Although not discussed in this article, a parallel analysis has been conducted using weekly data observations over the 1966-1974 period. These data, which consist of 470 observations for each group of banks, are seasonally adjusted using an interpolative procedure that relies upon the monthly average seasonally adjusted data for benchmarks. The regression results obtained in the trend-cycle part of the study are almost identical to those obtained using monthly data. The detailed results of this parallel analysis, including weekly seasonal factors, are available to the interested reader upon request.

[5] Included in the twelve are: Amalgamated Bank of New York, The Bank of New York, Bankers Trust Company, The Chase Manhattan Bank N.A., Chemical Bank, First National City Bank, Irving Trust Company, Manufacturers Hanover Trust Company, Marine Midland Bank-New York, Morgan Guaranty Trust Company, Sterling National Bank, and U. S. Trust Company.

Chart 1

SEASONAL FACTORS FOR LARGE COMMERCIAL BANKS: 1974



Source: Federal Reserve Bank of Richmond.

member) with deposits of $100 million or more as of December 31, 1965.[6] Although a minority of banks in this classification declined to participate in the reporting series, the change in sample composition did broaden the scope of coverage to a considerable degree.

In mid-1969 another substantive change occurred, this time affecting reporting format.[7] Fortunately for the present study, C&I loans were not significantly affected by this change, which was designed to bring the weekly condition report into conformity with alterations made to the official Report of Condition. Thus, the C&I loan data can be considered free of any major disturbances due to official action back through 1966.

There remains, however, another potential source of error that could render the C&I loan data inconsistent over the 1966-1974 period. This concerns uncontrollable changes in the sample due to (infrequent) withdrawals from the survey by participating banks or, more commonly, to mergers and spin-offs involving participants. A procedure called "adjustment bank" is used to help maintain intra-year data comparability and to document and correct for the effects of such sample changes over time. This procedure, which is described in detail in Appendix I, has effectively preserved the comparability of C&I loan data since 1966.

SEASONALITY IN COMMERCIAL AND INDUSTRIAL LOANS

Seasonal variation is a periodic movement that repeats itself regularly in a time series within yearly periods. In the case of C&I loans, such variation has its origin in the most basic determinants of business credit demand. More specifically, the short-term credit needs of business are affected by the influence of the seasons on the production process (especially in agri-business), and in some industries the need for credit is very responsive to seasonal changes in final product demand. In order to account for the influence of seasonal patterns on C&I loans, the original data, consisting of 109 monthly observations for each group of banks under study, are seasonally adjusted using the U. S. Bureau of the Census' X-11 Variant of Census Method II adjustment program. In the process, irregular or randomly occurring values are eliminated and replaced by less erratic modified values. The X-11 program, a ratio to moving average method of seasonal adjustment, is widely used to determine the effects of seasonality on economic time series.[8]

The adjustment process yields a set of seasonal factors, one for each data observation, stated in terms of a neutral factor of unity, or 100.0. Dividing each original data value by its seasonal factor yields a corresponding adjusted data value. Factors that fall below the 100.0 neutral value reflect months of seasonally depressed loan volume; their effect is to increase the original data observations by the amount necessary to compensate for this depressing effect. Conversely, those factors that are above 100.0 reflect months of seasonally inflated loan volume; their effect is to compensate for this expansionary influence by reducing the level of the original data observation to one in which the seasonality is neutralized. Thus, factor values below 100.0 correct for negative seasonality while those above 100.0 correct for positive seasonality. Seasonal patterns for any given data series may change over time, and in fact the factors

[6] "Revision of Weekly Reporting Member Bank Series," *Federal Reserve Bulletin*, Vol. 52, No. 8, August 1966, 1137-40.

[7] "Revision of Weekly Series for Commercial Banks," *Federal Reserve Bulletin*, Vol. 55, Part 2, No. 8, August 1969, 642-46.

[8] The ratio to moving average principle underlying the X-11 method of seasonal adjustment is described in William E. Cullison, "A Seasonally Adjusted World—The Census Seasonal Adjustment Technique," *Monthly Review*, Federal Reserve Bank of Richmond, August 1970, pp. 2-8.

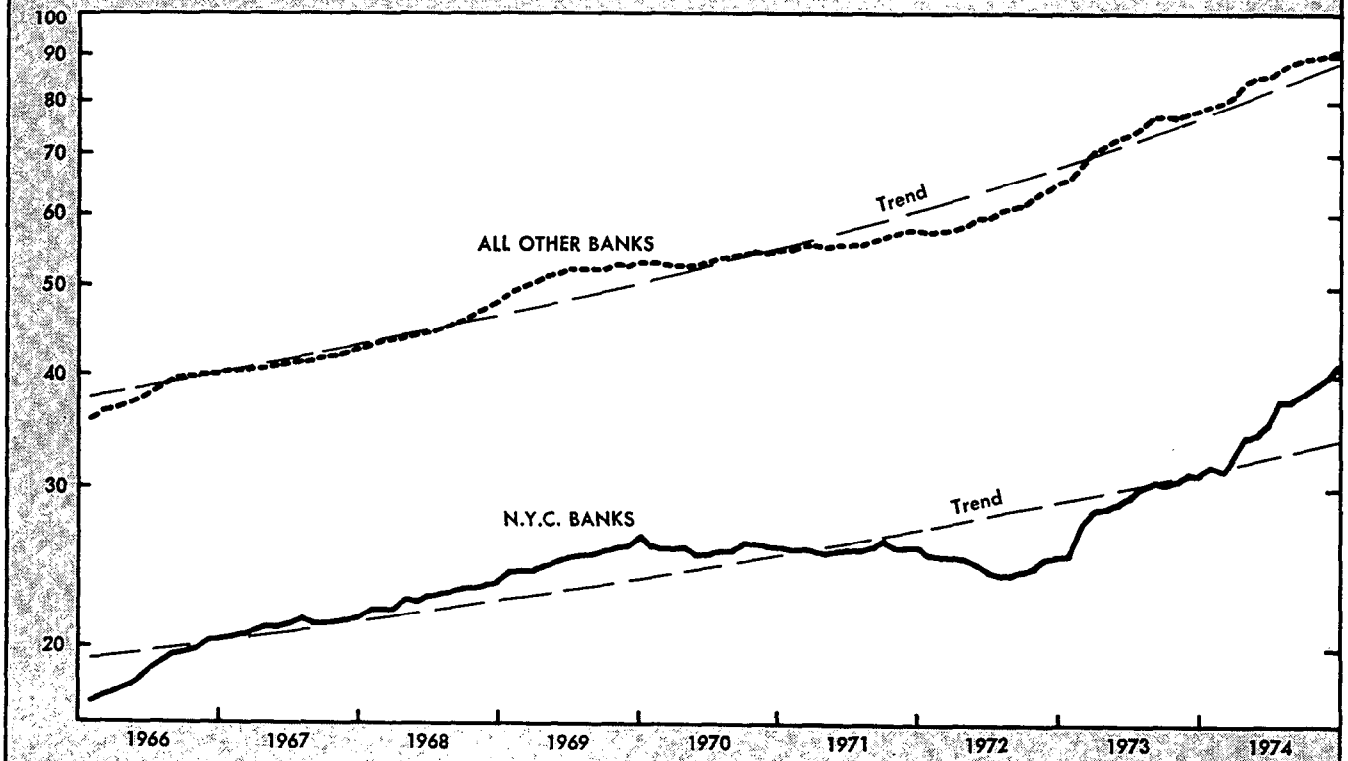
that apply to the early years of the C&I loan data are different from those that apply to later years. Current seasonal patterns are of primary interest here, so the monthly factors for 1974 will be examined in detail.

Chart 1 displays the 1974 monthly seasonal factors for NYC banks and all other banks. It is evident that in most months the gap between monthly factors is rather large. This is especially true in February, March, May, June, July, and December. The gap is most pronounced in February, when the net difference between seasonal factors reaches 1.3. The net differences in seasonal factors are most prevalent during the summer months, when the New York City banks show consistently less positive seasonality than the other banks.

The monthly factors for each group of banks do, however, generally share the same relation to the 100.0 neutral position. Both groups of banks follow the same basic seasonal pattern that is common to business lending at most commercial banks. Loan volume is seasonally depressed beginning in the fall and this situation continues into the spring, with some increased activity possible during December. In late spring, loan demand intensifies, with volume reaching its seasonal peak in the summer. From this point it tapers off into the slack fall period, beginning another seasonal cycle. In only two months, March and September, does the seasonal effect result in opposing corrections at banks within and outside of New York City. Since the pace of seasonal activity quickens faster at the New York City banks as spring approaches, their loan volume requires a correction for positive seasonality in March, while the same correction for all other banks is delayed until April. Again, when lending activity slackens in the fall, the New York City banks reach in September a point where the influence of positive seasonality is lost, but all other banks do not reach this point until October.

Chart 2

TRENDS IN COMMERCIAL AND INDUSTRIAL LOANS* 1966-1974



*Actual data seasonally adjusted.

Note: This is a semilogarithmic graph and therefore allows for relative comparison of growth rates. A straight line on this type of graph represents a constant rate of growth, while an upward sloping line represents a rate of growth that is increasing.

Source: Federal Reserve Bank of Richmond.

Perhaps of greatest concern when interpreting the meaning of unadjusted C&I loan data, as far as the seasonal data component is concerned, are differences in the direction of seasonal changes between different groups of banks. Such differences occur in Chart 1 in the periods January-February, April-May, and November-December. In each of these periods the data observations for one group of banks will display exactly the opposite seasonal movement that exists for the other group. To take the January-February period as an example and assuming, for purposes of simplification, that the seasonal effect predominates over trend and cycle influences, exclusive reliance on C&I loan data for NYC banks would indicate that loan demands were increasing. This indication would certainly not apply to banks outside New York City, where the seasonal decline from peak summer demand periods had not yet turned around.

Although the seasonal factors discussed above may seem small insofar as their adjustment impact is concerned, it should be remembered that their application is to levels of loans outstanding. The level adjustment that occurs may be quite large in relation to changes in levels between periods.[9]

TRENDS IN COMMERCIAL AND INDUSTRIAL LOANS

Correction for seasonal influences results in a set of deseasonalized data that retain only trend and cycle characteristics. These data, for NYC banks and all other banks, are represented by the uneven but rising lines in Chart 2. The trend for each group of banks is computed from these data by arriving at a specific functional relationship that best explains the smooth long-term growth pattern in C&I loans (the dependent variable) in terms of time (the independent variable).

Examination of the deseasonalized data plotted in Chart 2 suggests that both groups of banks have been growing over time, and furthermore that both have been experiencing growth at an increasing rate. This indicates a possible hyperbolic relationship in which the earlier data values are increasing at a slower rate than the later data values. Such a relationship is expressed by the equation

$$Y = \frac{1}{a+bX},$$

where Y = C&I loans and X = time. Trend lines fitted to the deseasonalized data using this functional relationship are also shown in Chart 2.[10]

Perusal of the trend lines in Chart 2 makes it clear that, since 1966, the twelve banks in New York City have not expanded their business loan volume nearly as fast as the other banks. In fact, based on the fitted data in the trends, the NYC banks have experienced C&I loan growth at a compounded annual rate of 6.49 percent versus 9.96 percent for all other banks. This growth differential has been recognized in recent years and is most often attributed to the emergence of a number of large regional banking organizations that are quite aggressive in their efforts to do business on a nationwide basis. Their success and increasing importance as suppliers of short-term credit to business, which has been at least partly at the expense of financial center banking organizations, is clearly illustrated in Chart 2. This success is due in part to the competitive loan terms offered by regional banks. Another factor at work is the effort made by many large companies to diversify their banking relationships, thus creating a buffer during periods of tight credit.[11]

These underlying trends in the data have acted to make C&I loan behavior at NYC banks a downwardly biased estimator of national conditions, at least since 1966. To the extent that the conditions which have retarded C&I loan growth at NYC banks persist and intensify, this downward bias can be expected to continue.

CYCLES IN COMMERCIAL AND INDUSTRIAL LOANS

The regression equations used to fit the trend lines illustrated in Chart 2 also yield a set of residual terms, one for each original observation, that represent the cyclical component in the data. These residual terms are equal to the difference between the

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[9] The analytical results based on weekly data, mentioned in footnote 4, show that 28.4 percent of the average amount of change between weeks for the NYC banks is due to seasonal variation. For all other banks 21.0 percent of the average change between weeks is seasonal in nature. Within any given year, of course, seasonal influences are expected not to change the average level of the data; that is, the seasonal factors for any given year should average to 100.0.

[10] The regressions were run using the transformed equation

$$\frac{1}{Y} = a+bX,$$

with the following results:

$$(1)\quad \frac{1}{\text{NYC C\&I}} = \underset{(96.13)}{52.00} + \underset{(-24.52)}{(-0.20)X}$$

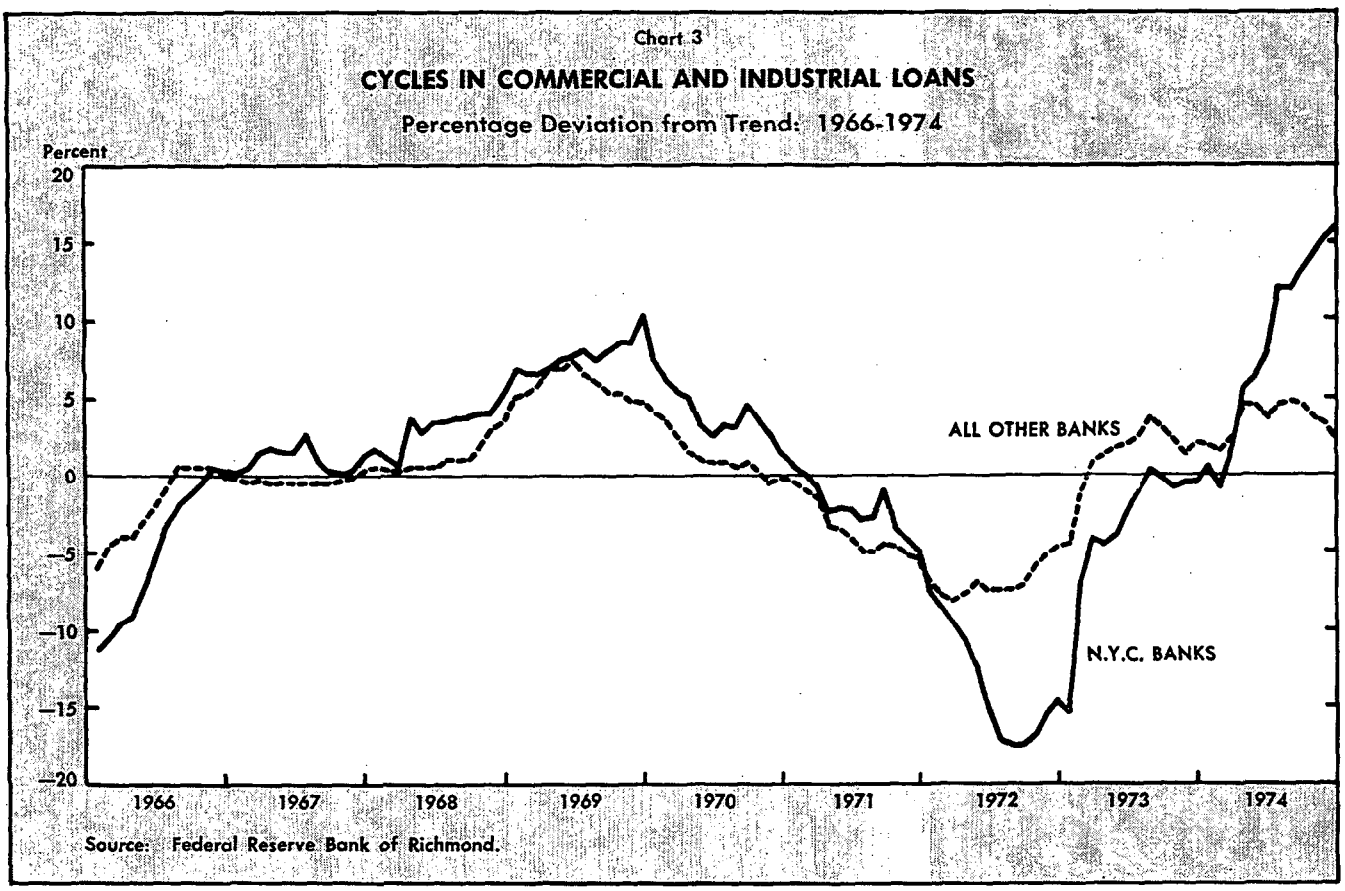
$$\bar{r}^2 = 0.84 \qquad SE = 2.75 \qquad DW = 0.04$$

$$(2)\quad \frac{1}{\text{all other C\&I}} = \underset{(196.70)}{26.79} + \underset{(-66.52)}{(-0.14)X}$$

$$\bar{r}^2 = 0.97 \qquad SE = 0.69 \qquad DW = 0.03$$

Note that the high autocorrelation in the residual terms is an expected result, indicating clear cyclical patterns in the series. Since one objective of this study is to capture and examine the cyclical patterns, any attempt to improve the Durbin-Watson statistic would be counterproductive. Use of these equations for forecasting would require application of the autocorrelative correction factor, rho.

[11] These issues are covered in Ronald E. Wooley, "What Has Happened to Business Loans," *The Bankers Magazine*, Vol. 156, No. 1, Winter 1973, 22-25.



fitted, or trend values, and the actual data, and are visible as deviations from trend in Chart 2. The residuals are plotted in Chart 3 as percentage deviations from trend. This form of expression permits relative comparisons of the cycles at NYC banks and the other banks.

Chart 3 calls into question the usefulness of the NYC C&I loan series as a generalized economic indicator. Although the chart shows that the direction of cyclical movements in C&I loans at NYC banks and all other banks is similar, it also shows that the relative magnitude of the cycle is much greater at banks in the New York City group.[12] A possible explanation for the greater cyclical sensitivity at NYC banks is that their loans are not as broadly based across industry groups as those at regional institutions. In addition, during the period covered, cyclical turning points at banks outside New York City have tended to lead cyclical turning points at the NYC banks. This later characteristic indicates that the regional loan data provide a better advance index than do New York City loan data.

[12] This is also suggested by the relatively large standard error of the regression for equation (1) in footnote 10.

SUMMARY AND CONCLUSIONS

Commercial banks represent the single most important source of supply of short-term business credit, and commercial and industrial loans are closely monitored by researchers and businessmen. The most timely source of data on commercial and industrial loans is derived from the weekly report of condition of large commercial banks. In actual practice this data is often used in unadjusted form, and the twelve reporting banks in New York City are considered by many to serve as a good indicator of national market conditions for business loans. This article conducts a time series analysis of commercial and industrial loans for two groups of banks that constitute the large commercial bank weekly sample: the twelve banks located in New York City and those in other areas of the nation. In the process, the influences that determine the time path of commercial and industrial loans are defined and analyzed, and differences in business lending between money center and regional banks are portrayed.

Although patterns of business lending between New York City banks and other banks around the country are similar in many respects, their differences are significant enough to cause misunderstanding

when exclusive reliance is placed upon movements in commercial and industrial loans in New York City. The differences in business lending between groups of banks can be viewed as being of three types, one corresponding to each of the statistical components that account for major data movements over time.

In two months, March and September, the seasonal influences affecting loan volume result in a different relation to the neutral factor at the two groups of banks. Furthermore, in the periods January-February, April-May, and November-December, the direction of seasonal movements is reversed for the two groups. These seasonal influences have a fairly large impact on the data: it is estimated that seasonality accounts for over 20 percent of week-to-week changes in commercial and industrial loans.

Since 1966, the New York City banks have increased their commercial and industrial loan volume at a trend rate of only 6.49 percent, considerably below the 9.96 percent rate at other banks. This disparity in trend rates is attributed to the development of large and aggressive regional banking organizations and to the efforts of many companies to diversify their banking relationships.

Cyclical patterns in lending are similar for both groups of banks except that (1) the relative magnitude of the cycle is much greater for banks in New York City and (2) cyclical turning points in loan activity at NYC banks tend to lag behind those of loans at banks outside New York City.

*Bruce J. Summers**

* The author is grateful to Marsha Shuler for handling the data processing involved in this article, as well as to Joseph Crews for helpful suggestions. The opinions expressed and any errors that might occur are, of course, the responsibility of the author.

APPENDIX I

ADJUSTMENT BANK PROCEDURES

The reporting panel for the survey of large commercial banks changes from time to time, principally because of mergers, and these changes affect the comparability of the data derived from the survey. The "adjustment bank" procedure is applied when such sample changes occur. It is designed to help maintain intra-year data comparability and to correct the effects that these types of sample changes have on the data over time.

Adjustment figures (negative for mergers and positive for spin-offs and withdrawals) are noted when they occur and are applied to subsequently reported weekly figures for the balance of the year. These adjustment figures are accumulated through the year and are applied with a reverse sign at the beginning of the year following the one in which they occur, causing a level change at the beginning of each new year. The procedure thus causes accumulated disturbances of random magnitude and direction at regular yearly intervals.

The beginning of year accumulated adjustments can be positive (if the merger effect predominates) or negative (if the spin-off or withdrawal effects predominate). Since 1966, such level changes for C&I loans at the two groups of banks examined in this article have not been significant enough to seriously disrupt statistical analysis.

It should be noted that the adjustment bank procedure does not fully neutralize the residual growth effects that accompany uncontrollable sample changes. For example, in the event of a merger, the as of date reduction figure remains constant throughout the year. Any growth attributable to the enlarged sample base is not (and cannot be) counterbalanced. As a result, the earlier in the year a merger occurs, the greater is the inaccuracy of subsequent figures due to the growth effect. This distorting effect on the data, which is certainly minimal, has its primary impact on the trend and cycle components in the C&I loan data.

FARMERS' FINANCIAL POSITION

The Fifth District's average farm operator in 1970 had a 172-acre farm valued at $58,761. His share of the value of farm products sold excluding cash rent equaled $11,929, while his cash operating expenses averaged $8,406. His net cash farm income amounted to only $3,523, but off-farm income added up to an average of $6,755 and brought his total net cash income to $9,174. And, if he were in debt, his indebtedness totaled $15,717.

This picture of the average District farmer's financial position in 1970 is based on published data from the 1970 Survey of Agricultural Finance conducted by the U. S. Bureau of the Census. Information from both the published and unpublished results of this special census survey provides state and national statistics that deal with the many elements of agricultural finance.[1] State data that present a complete picture of the farmer's financial position, his use of credit for purchasing specified items, and his total debts outstanding by kind and source have been made available for the first time.

With this new information at hand, the primary objective of this study, then, is to learn more about the financial position of the Fifth District farmer—his income, both farm and nonfarm; his capital purchases and operating expenditures; his use of credit; and his debts, by amount, kind, and lenders of debt. Although data were collected from both farm operators and landlords, this analysis will concentrate mostly on the farm operators.

FARM INCOME

A farm operator's total net cash income is made up of net cash farm income and off-farm income. Net cash farm income, in turn, is the sum of the operator's share of the value of farm products sold minus cash operating expenses and cash rent. Off-farm earnings, as the name implies, are those received from off-farm sources. Earnings from such sources have become increasingly important to the farm operator and his family in recent years.

Total Net Cash and Net Cash Farm Income

Total net cash income of all farm operators in the District equaled $1,955 million in 1970. Net cash farm income amounted to $751 million and represented 38 percent of the total, while off-farm income came to $1,204 million and accounted for the remaining 62 percent. By states, net cash farm income as a percent of total net cash income ranged from a low of 17 percent in West Virginia to a high of 48 percent in North Carolina.

Farm operators' average total net cash income by economic class of farm varied widely, ranging from around $2,420 for the low-income farmers to some $49,930 for those grossing $100,000 or more in farm sales. Wide variation by value-of-sales categories also occurred in the relative contribution of net cash farm income and off-farm income to the total net cash income of farm operators. For instance, as the value of farm sales rose from less than $2,500 to $100,000 or more, net cash farm income's share of the total climbed from 11 to 81 percent. Just the opposite was true in the case of off-farm income. Farms with sales of farm products valued at $10,000 and over accounted for 49 percent of total net cash income, 82 percent of all net cash farm income, and 29 percent of total off-farm income.

MEASURES OF THE FARM OPERATOR'S FINANCIAL POSITION

Fifth District, 1970

Item	Unit	Average per Farm Reporting
Average size of farm	acres	172
Value of land and buildings per farm	dollars	58,761
Value of farm products sold per farm (operator's share minus cash rent)	dollars	11,929
Cash operating expenses per farm	dollars	8,406
Net cash farm income per farm	dollars	3,523
Off-farm income per farm	dollars	6,755
Total net cash income per farm*	dollars	9,174
Total debt per farm**	dollars	15,717

*Total net cash income of farm operators with off-farm income averaged about $10,278 if it is assumed that farmers with off-farm jobs had the same net cash farm income as those who did not work off the farm.

**Farm operators with debt only.

Source: Computed from U. S. Bureau of the Census, U. S. Census of Agriculture: 1969, Vol. V, Part 11, "Farm Finance," Tables 1, 14, 20, and 109.

[1] Since the data are based on a sample survey, they are subject to both sampling and nonsampling errors—the latter arising from a variety of reasons such as underreporting, misclassifications by respondents, and processing errors.

FARM OPERATORS' INCOME BY ECONOMIC CLASS OF FARM

Fifth District, 1970

Economic Class of Farm*	Total Net Cash Income		Net Cash Farm Income		Off-Farm Income	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
	$ Million	Percent	$ Million	Percent	$ Million	Percent
All farms	1,955.3	100.0	750.8	38.4	1,204.5	61.6
Commercial farms	1,532.8	100.0	741.2	48.4	791.6	51.6
$100,000 or more	150.4	100.0	122.1	81.2	28.3	18.8
$40,000 to $99,999	278.7	100.0	191.5	68.7	87.2	31.3
$20,000 to $39,999	331.3	100.0	208.3	62.9	123.0	37.1
$10,000 to $19,999	202.3	100.0	90.2	44.6	112.1	55.4
$5,000 to $9,999	274.1	100.0	81.1	29.6	193.0	70.4
$2,500 to $4,999	232.4	100.0	40.7	17.5	191.7	82.5
$50 to $2,499	63.4	100.0	7.2	11.4	56.2	88.6
Noncommercial farms	422.5	100.0	9.6	2.3	412.9	97.7
Part-time farms	355.2	100.0	5.9	1.7	349.2	98.3
Part-retirement farms	67.4	100.0	3.7	5.5	63.7	94.5

Note: Data may not add to totals because of rounding.

*The terms "commercial" and "noncommercial" were not used in the 1970 Survey of Agricultural Finance. The commercial and noncommercial farm groupings are used in this article, however, to make the terminology similar to that used in earlier censuses. Defined, they are as follows:

Commercial farms—Generally, all farms with a value of sales of $2,500 or more are classified as commercial. Farms with a value of sales of $50 to $2,499 are also classed as commercial if the operator is under 65 years of age and does not work off the farm 100 or more days during the year.

Noncommercial farms—The two principal classes of noncommercial farms are the part-time and part-retirement farms. Their annual gross sales from farming are less than $2,500. Part-time farmers, in addition, work off their farms 100 or more days during the year and are under 65 years of age. Part-retirement farmers, however, are 65 years old or over.

Source: Computed from U. S. Bureau of the Census, 1970 Survey of Agricultural Finance (unpublished data).

Off-Farm Income When farm folks take on a second job, it is typically known as "daylighting"—working an off-farm job during the day and farming on evenings and weekends. For many of these dual jobholders, the second job has been a necessity.

In 1970, 84 percent of the District's farm operators and their families received income from off-farm sources. Some 55 percent of all farm operator families earned income from cash wages and salaries, receiving an average of $6,911 per family reporting this source of income. Cash wages and salaries, in fact, accounted for 68 percent of the nonfarm income received by all farm families. Operation of nonfarm businesses and professional practice provided the second largest source of off-farm earnings, contributing an average of $6,215 to farm families reporting this type of income and comprising 12 percent of all income from nonfarm sources. Government farm payments, although received by better than two-fifths of all farm operators, averaged little more than $900 per farm. Farm operators also obtained some nonfarm income from sources such as customwork and rental of agricultural property; Social Security and pensions; and rental of nonfarm property, dividends, and interest.

By economic class of farms, the proportion reporting off-farm income ranged from 74 percent for those with sales of farm products valued at $100,000 or more to about 100 percent for part-time farmers. Off-farm earnings per farm operator family reporting ran from a low of $2,775 for the operator with farm sales valued at less than $2,500 to a high of some $12,640 for the farmer whose gross sales of farm products amounted to $100,000 and over. For farmers with farm sales of less than $20,000, off-farm earnings dominated the income picture. Or, in other words, off-farm income per farm was sizably larger than average net cash farm income when the operators' farm sales were under $20,000. It would seem clear, therefore, that farm operators' off-farm earnings have made them better customers for consumer goods as well as farm goods. And, because of this extra income, they have often proven to be better farm loan customers.

CAPITAL AND OPERATING EXPENDITURES

Spending by the District's farm operators for capital purchases and operating expenses in 1970 came to a hefty $2,285 million. Operating expenditures accounted for nearly four-fifths of the total,

while capital purchases made up the remainder. Only 46 percent of the farm operators bought capital items during the year, however. Moreover, capital spending per farm was considerably smaller than average operating expenditures. Capital spending comprised a slightly larger proportion of total expenditures in Virginia and West Virginia than in Maryland and the Carolinas.

Farm operators' capital purchases and operating expenditures varied significantly by tenure of operator and by economic class of farm. Part owners, for instance, represented 27 percent of all farm operators but accounted for 44 percent—almost the same as full owners—of total operator spending for capital and operating items. Total expenditures per farm operator averaged $10,725 but ranged from some $8,090 for tenants to around $17,610 for part-owner operators.

Economic classes of farms showed a much wider range in capital and operating expenditures per farm than did tenure of operator. Spending per farm for capital purchases and operating expenses rose as the sales value of farm products increased, climbing steadily from about $990 for farms with sales valued at less than $2,500 to some $170,675 for farms with sales of $100,000 or more. The data would seem to indicate that the District's farm operators are firm believers in the familiar saying, "You must spend money, if you wish to make money."

FARM OPERATORS' OFF-FARM INCOME BY SOURCE

Fifth District, 1970

Source	Share of Farm Operators Reporting Income from Off-Farm Sources	Distribution of Farm Operators' Off-Farm Income by Source	Average Off-Farm Income per Farm Operator Reporting
	Percent	Percent	Dollars
Total, all off-farm sources	83.7	100.0	6,755
Cash wages and salaries	55.3	67.7	6,911
Nonfarm business or profession	11.2	12.3	6,215
Government farm payments	41.5	6.7	909
Customwork and rental of agricultural property	17.1	3.9	1,291
Social Security, pensions, etc.	22.4	5.8	1,457
Other sources*	9.4	3.6	2,211

*Rental of nonfarm property, dividends, interest, and other off-farm income.

Source: Computed from U. S. Bureau of the Census, U. S. Census of Agriculture: 1969, Vol. V, Part 11, "Farm Finance," Tables 1 and 20.

FARM OPERATORS' CAPITAL PURCHASES AND OPERATING EXPENDITURES BY ECONOMIC CLASS OF FARM

Fifth District, 1970

Economic Class of Farm	Farms Reporting	Amount		
		Total	Percent of Total	Average per Farm Reporting
	Number	$1,000	Percent	Dollars
All farms	213,124	2,285,245	100.0	10,723
Commercial farms	157,791	2,196,088	96.1	13,918
$100,000 or more	3,013	514,248	22.5	170,676
$40,000 to $99,999	12,287	631,676	27.6	51,410
$20,000 to $39,999	22,775	474,901	20.8	20,852
$10,000 to $19,999	23,058	256,628	11.2	11,130
$5,000 to $9,999	35,594	190,953	8.4	5,365
$2,500 to $4,999	34,882	101,783	4.5	2,918
$50 to $2,499	26,182	25,901	1.1	989
Noncommercial farms	55,333	89,158	3.9	1,611
Part-time farms	38,649	71,886	3.1	1,860
Part-retirement farms	16,684	17,272	0.8	1,035

Note: Data may not add to totals because of rounding.

Source: U. S. Bureau of the Census, 1970 Survey of Agricultural Finance (unpublished data).

Capital Purchases Farm operators reported capital purchases of $493 million in 1970. Although they comprised little more than one-fifth of total operator capital purchases and operating expenditures combined, they made up better than 90 percent of the capital purchases made by both operators and landlords.

Farm operators who made capital purchases were generally those best able to do so. Purchases of capital items averaged around $5,035 per farm reporting but ran from as low as about $1,285 for operators with farm sales under $2,500 to some $25,125 for the farmer with sales of $100,000 or more. Farm operators with farm sales of $10,000 and over added up to only two-fifths of the operators reporting but accounted for three-fourths of the total value of all capital purchases.

With the growing substitution of capital for labor, farming has become increasingly capital intensive. What capital goods, then, did the District's farm operators purchase in 1970? How did the dollar value of these capital items stack up relative to the total value of all purchases? Surprisingly, perhaps, purchases of tractors and farm machinery—new and used combined—had the greatest value by far and made up 27 percent of all capital expenditures. The value of new and used trucks and autos was second

CAPITAL PURCHASES BY CASH AND CREDIT FOR ALL FARM OPERATORS

Fifth District, 1970

Item	Capital Purchases	Share Paid in Cash	Share Bought on Credit of: Less than 12 Months	Share Bought on Credit of: 12 Months or More
	$1,000	Percent	Percent	Percent
Total capital purchases	493,609	55.7	9.4	34.9
Land and buildings	71,099	50.7	3.7	45.6
Irrigation improvements	11,157	*	*	*
Other land improvements	83,607	55.2	6.8	38.0
Moveable irrigation equipment and machinery:				
New	2,388	77.4	7.8	14.8
Used	790	93.0	4.2	2.8
Tractors and farm machinery:				
New	102,610	46.6	15.2	38.2
Used	28,169	64.2	15.2	20.6
Trucks and autos:				
New	74,724	57.3	8.9	33.8
Used	22,287	74.1	8.3	17.6
Breeding livestock and dairy cows and heifers	64,964	71.6	11.1	17.3
All other agricultural capital purchases	31,813	32.0	4.5	63.5

*Data withheld in some states to avoid disclosure of information for individual farms.

Source: U. S. Bureau of the Census, **U. S. Census of Agriculture: 1969**, Vol. V, Part 11, "Farm Finance," Tables 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, and 56.

OPERATING EXPENDITURES BY CASH AND CREDIT FOR ALL FARM OPERATORS

Fifth District, 1970

Item	Operating Expenditures	Share Paid in Cash	Share Bought on Credit of: Less than 12 Months	Share Bought on Credit of: 12 Months or More
	$1,000	Percent	Percent	Percent
Total operating expenditures	1,791,637	80.5*	17.6	1.9
Upkeep of farm buildings, fences, drains, and irrigation systems	61,254	91.6	7.1	1.3
Purchases of livestock other than breeding stock and dairy cows and heifers	106,180	70.4	26.9	2.7
Feed, seed, fertilizer, pesticides, and fuel	727,486	70.5	27.4	2.1
Other agricultural operating expenses	575,650	82.9	14.4	2.7
Expenditures paid by contractors	321,067	100.0**	—	—

*Expenditures paid or provided by contractors equaled 17.9 percent of farmers' total operating expenditures; hence, cash payments made by the operators themselves amounted to 62.6 percent of the total.

**Expenditures paid by contractors are not broken down into cash and credit categories.

Source: U. S. Bureau of the Census, **U. S. Census of Agriculture: 1969**, Vol. V, Part 11, "Farm Finance," Tables 58, 60, 62, 64, and 66.

in importance and comprised 20 percent of the total. Then followed spending for other land improvements accounting for 17 percent, purchases of land and buildings amounting to 14 percent, and buying breeding livestock and dairy cattle representing 13 percent. The remaining capital expenditures consisted of spending for irrigation improvements, moveable irrigation equipment and machinery, and all other capital purchases.

Operating Expenditures Rising costs and increased use of farm inputs in recent years have caused farmers' operating expenses to skyrocket. Small wonder, then, that operating expenses per farm averaged $8,406 and added up to a total of $1,792 million in 1970. Like the farm operator's capital purchases, his operating expenditures increased as his gross sales of farm products rose. For the low-income farmers with farm sales under $2,500, expenses per farm averaged only $670. By contrast, the high-income operator with farm sales of $100,000 and over had operating expenditures averaging around $150,450 per farm. Farm operators grossing $10,000 and over from farm sales were responsible for 84 percent of the value of all operating expenditures. Moreover, those in the $20,000-plus class accounted for almost three-fourths of the total.

How were these operating expenditures distributed? Farm operators used 41 percent of their total operating expenses for feed, seed, fertilizer, pesticides, and fuel; another 32 percent for other agricultural operating expenses; 6 percent for purchases of livestock other than breeding stock and dairy cows and heifers; and 3 percent for upkeep of farm buildings, fences, drains, and irrigation systems. Expenditures paid or provided by contractors for farm operators producing crops or livestock under contract made up the remaining 18 percent.

FARM CAPITAL FLOW

The growing capital requirements of modern-day agriculture have raised many questions concerning the financing of present and future farm capital flows. Financing farm capital flows comes mainly from farmers' cash flows and from debt financing or credit

flows. How are the District's farmers financing their capital flows? What proportion is financed from their cash flows and what proportion from credit flows? Such questions can now be answered from data made available by the special 1970 census survey.

The District's farm operators and landlords spent a staggering $2,373 million in 1970 for capital purchases and operating expenditures. Spending by farm operators alone amounted to 96 percent of the total.

Of the vast amount of capital used, farm operators and landlords combined paid cash for 61 percent. They borrowed another 25 percent, while contractors paid or provided for 14 percent. (Expenditures paid by contractors were not broken down into cash and credit categories. Although initially tallied separately, the census summation of the data included them with the cash payments.) Farm operators' cash and credit flows showed the same proportions as those of the operators and landlords together.

Credit Flow Funds borrowed by farm operators and landlords to finance agricultural operations during 1970 added up to $771 million. Farm operators accounted for 95 percent of all borrowed funds. Of the total credit used, 78 percent was for specified items or uses—that is, itemized capital purchases and operating expenditures—and 22 percent for unspecified or general purpose expenditures. Operating expenditures accounted for three-fifths of the funds borrowed for specified items.

Two-thirds of all funds borrowed were for less than 12 months and 34 percent for 12 months or more. In the case of capital purchases, four-fifths of the borrowings were for a period of 12 months or more. But nine-tenths of the funds borrowed for operating expenditures were for less than 12 months.

Farm Operators' Cash and Credit Flows Since farm operators account for 96 percent of total spending and 95 percent of all borrowings, a more detailed examination of their cash and credit flows might be useful. Tabular material provides much of the detail.

Farm operators paid for 56 percent of the total value of their capital purchases in 1970 with cash. They financed the remaining 44 percent, with 35 percent of the purchases for a period of 12 months or more. Measured in terms of the highest percentage of their purchased values, cash was used to a greater extent than credit in paying for new and used trucks and autos, used tractors and farm machinery, breeding livestock and dairy cattle, new and used moveable irrigation equipment and machinery, and other land improvements. Debt financing was used more extensively in the purchase of new tractors and farm machinery and other agricultural capital purchases. In buying land and buildings, cash and credit were used about equally. With the exception of other agricultural capital items, land and building pur-

FARM OPERATOR DEBT BY KIND AND ECONOMIC CLASS OF FARM FOR ALL FARMS WITH OPERATOR DEBT

Fifth District, 1970

Economic Class of Farm	Total Debt		Real Estate Debt		Non-Real-Estate Debt	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
	$ Million	Percent	$ Million	Percent	$ Million	Percent
All farms	1,361.1	100.0	793.4	100.0	567.6	100.0
Commercial farms	1,263.9	92.9	719.0	90.6	545.0	96.0
$100,000 or more	198.8	14.6	107.6	13.6	91.2	16.1
$40,000 to $99,999	328.8	24.2	190.4	24.0	138.4	24.4
$20,000 to $39,999	336.2	24.7	173.0	21.8	163.2	28.8
$10,000 to $19,999	164.7	12.1	95.8	12.1	68.9	12.1
$5,000 to $9,999	138.6	10.2	85.3	10.7	53.4	9.4
$2,500 to $4,999	72.5	5.3	50.7	6.4	21.8	3.8
$50 to $2,499	24.3	1.8	16.1	2.0	8.1	1.4
Noncommercial farms	97.2	7.1	74.5	9.4	22.7	4.0
Part-time farms	87.5	6.4	67.9	8.6	19.6	3.5
Part-retirement farms	9.7	0.7	6.6	0.8	3.1	0.5

Note: Data may not add to totals because of rounding.

Source: U. S. Bureau of the Census, 1970 Survey of Agricultural Finance (unpublished data).

chases had the highest percentage (46 percent) of their purchase value financed for a period of 12 months or more.

Farm operators financed 20 percent of the value of all operating expenditures, a much smaller proportion than the 44 percent borrowed for making capital purchases. The dollar volume of credit used for operating expenses was 60 percent larger than that for capital purchases, however. Most of the value of the expenditures financed was for a period of less than 12 months. Operators themselves paid cash for some 62 percent of all operating expenditures, while contractors paid or provided for the remaining 18 percent. Expenditures with the highest percentage of financing (30 percent each) were those for purchases of livestock and poultry other than breeding stock and dairy cattle and those for feed, seed, fertilizer, pesticides, and fuel. Better than nine-tenths of the spending for upkeep of farm buildings, fences, drains, and irrigation systems and more than four-fifths of other agricultural operating expenses were paid in cash.

Funds borrowed for unspecified or general purposes were used for both capital and operating expenses, mostly the latter. Such loans were not used for, or could not be readily allocated to, a specific use or purpose. Thus, when used, the operator reported them as cash payment for the specific item.

FARM DEBT

The outstanding debt held by the District's farm operators and landlords on December 31, 1970 totaled $1,587 million. Farm operators themselves held $1,361 million or 86 percent of this total. Landlord debt, on the average, was much smaller than operator debt. Moreover, the proportion of landlords with debt was significantly smaller than for farm operators. This analysis, therefore, will concentrate on farm operator debt and on characteristics of farm operators with debt.

Farm Operator Debt Roughly two-fifths of the District's farm operators were in debt at the end of 1970, although this share varied from one-third in Virginia and West Virginia to one-half in Maryland. Real estate debt comprised almost three-fifths of the total and non-real-estate debt the remainder. Debt outstanding averaged $15,717 per farm operator reporting but ranged from as low as $12,168 in West Virginia to as high as $29,388 in Maryland.

Debt by Economic Class Farm operator debt appeared to be concentrated in the hands of those grossing $20,000 and over in farm sales. These operators comprised only 29 percent of all those who were in debt, but they held 64 percent of the total debt outstanding. Moreover, better than three-fifths of the operators in each of the three value-of-sales

FARM OPERATORS WITH DEBT BY ECONOMIC CLASS OF FARM

Fifth District, 1970

Economic Class of Farm	Farm Operators With Debt	Farms Reporting Operator Debt as Percent of All Farms in Each Class	Average Debt per Farm Operator Reporting	Share of Total Debt	
				Real Estate	Non-Real-Estate
	Number	Percent	Dollars	Percent	Percent
All farms	86,596	40.6	15,717	58.3	41.7
Commercial farms	70,787	44.9	17,855	56.9	43.1
$100,000 or more	1,988	66.0	99,995	54.1	45.9
$40,000 to $99,999	7,710	62.7	42,646	57.9	42.1
$20,000 to $39,999	15,336	67.3	21,923	51.5	48.5
$10,000 to $19,999	11,698	50.7	14,082	58.1	41.9
$5,000 to $9,999	15,860	44.6	8,740	61.5	38.5
$2,500 to $4,999	11,400	32.7	6,359	69.9	30.1
$50 to $2,499	6,795	26.0	3,570	66.5	33.5
Noncommercial farms	15,809	28.6	6,145	76.7	23.3
Part-time farms	12,339	31.9	7,089	77.6	22.4
Part-retirement farms	3,470	20.8	2,788	67.8	32.2

Source: Computed from U. S. Bureau of the Census, 1970 Survey of Agricultural Finance (unpublished data).

FARM OPERATORS WITH DEBT BY TENURE, AGE OF OPERATOR, AND YEARS ON FARM

Fifth District, 1970

Classification	Farm Operators With Debt	Farms Reporting Operator Debt as Percent of All Farms in Each Class	Average Debt per Farm Operator Reporting	Share of Total Debt	
				Real Estate	Non-Real-Estate
	Number	Percent	Dollars	Percent	Percent
All farms	86,596	40.6	15,717	58.3	41.7
Tenure of operator:					
Full owners	42,464	34.0	13,790	69.7	30.3
Part owners	32,620	57.3	21,211	55.6	44.4
Tenants	11,512	36.6	7,259	0.7	99.3
Age of operator:					
Under 35 years	8,752	49.9	16,507	56.4	43.6
35 to 44 years	14,636	51.5	18,647	60.9	39.1
45 to 54 years	22,382	46.9	14,455	54.3	45.7
55 to 64 years	15,020	30.7	13,108	59.8	40.2
65 years and over	6,228	19.8	8,577	68.5	31.5
Age not reported	19,578	50.0	18,890	58.3	41.7
Years on farm:					
Not reported	10,462	27.1	13,599	53.7	46.3
Under 2 years	4,341	49.4	13,483	74.1	25.9
2 to 4 years	6,589	54.6	12,865	66.5	33.5
5 to 9 years	10,438	53.6	16,661	58.7	41.3
10 to 14 years	8,887	43.7	14,121	51.9	48.1
15 to 19 years	8,024	47.7	18,328	57.4	42.6
20 to 29 years	11,569	35.4	15,084	55.9	44.1
30 years and over	6,708	26.6	12,624	61.9	38.1
No 1969 report	19,578	50.0	18,890	58.3	41.7

Source: Computed from U. S. Bureau of the Census, 1970 Survey of Agricultural Finance (unpublished data).

classes of farms in the $20,000-plus group reported debts, and their average debts ranged from a low of around $21,925 to a high of almost $100,000. These same farm operators had relatively more of the total non-real-estate debt than of the real estate debt, a good indication that they were highly commercialized farmers. Their proportion of the total non-real-estate debt by economic class, in fact, closely paralleled their proportion of net cash farm income by class.

Below the $20,000-plus category, the proportion reporting debt in each economic class (except part-time farmers) declined, falling to a low of 21 percent for part-retirement farms. The average size of debt followed the same pattern. Although these operators represented 71 percent of all who had debts, they held only 36 percent of the total debt outstanding. Generally speaking, as their volume of gross sales fell below the $20,000-plus category, real estate debt as a share of total debt increased. Overall, the evidence seems to suggest that debt was held by those best able to repay.

Debt by Tenure, Age, Years on Farm Some 57 percent of all part-owner operators reported debt. By comparison, only 37 percent of the tenants and 34 percent of the full owners indicated they were in debt. Part owners had an average indebtedness of around $21,210, well above the $13,790 average for full owners and close to three times the average tenant's debt. Since full owners own all the land they operate, perhaps it is no surprise to find that real estate debt, with 70 percent, accounted for the largest proportion of their total debt. Part owners, on the other hand, had only 56 percent of their total indebtedness secured by real estate.

Beginning with 45 years of age, the proportion of operators who were in debt declined as age increased. Around half of the farm operators under age 45 reported debt, but the share dropped to one-fifth for those 65 years and over. The average size debt rose through age 44, peaking at about $18,650 in the 35-to-44-year group, and then fell as the age of the operator increased. At age 65 and over, the average

TOTAL OPERATOR DEBT RELATIVE TO MEASURES OF INCOME OF FARM OPERATORS WITH DEBT BY ECONOMIC CLASS OF FARM

Fifth District, 1970

Economic Class of Farm	Total Operator Debt	Operator Debt as A Percent of— Operators' Share of Farm Products Sold Minus Cash Rent	Cash Operating Expenses	Net Cash Farm Income	Total Operator Net Cash Income
	$ Million	Percent	Percent	Percent	Percent
All farms	1,361.1	89	122	328	137
Commercial farms	1,263.9	84	116	304	149
$100,000 or more	198.8	50	63	235	186
$40,000 to $99,999	328.8	75	101	290	182
$20,000 to $39,999	336.2	89	138	249	154
$10,000 to $19,999	164.7	114	153	442	157
$5,000 to $9,999	138.6	141	209	430	108
$2,500 to $4,999	72.5	190	274	620	83
$50 to $2,499	24.3	303	381	1,487	118
Noncommercial farms	97.2	509	482	—9,209	68
Part-time farms	87.5	559	520	—7,515	72
Part-retirement farms	9.7	282	291	8,876	46

Source: Computed from U. S. Bureau of the Census, 1970 Survey of Agricultural Finance (unpublished data).

debt was less than half that of the peak level. The kind of debt operators had seemed to have little relationship to age.

Roughly half of the beginning farmers—those with less than two years on the farm—reported they were in debt. Although this proportion was somewhat below the share of those who had been farming from two to nine years, it was larger than for all others who had farmed longer. Beginning farmers had an average indebtedness of some $13,485, larger than the average of those who had been farming from two to four years and for 30 years and over but smaller than for those whose years in farming were in between. Nearly three-fourths of the total debt of the beginning farmers was real estate debt. This fact suggests that these operators own some land as they start farming. The average size debt of the beginning farmers, however, lends support to the general concern for the adequate financing of young farmers.

In general, the proportion of farm operators reporting debt fell as the number of years on the farm exceeded four. But of those who were in debt, the average debt trended upward and peaked at the end of 19 years in farming. For the longer term operators with 20 or more years on the farm, average debt declined. There seems to be little if any trend in the shares of real estate and non-real-estate debt as the years on the farm increase.

Debt Relative to Measures of Income Examination of farm operator debt relative to measures of income—or selected cash flows—by economic class of farm provides an excellent picture of farmers' debt position. Operator debt as a percent of each of four cash flows—operators' share of farm products sold minus cash rent, cash operating expenses, net cash farm income, and total operator net cash income —is revealed in an accompanying table.

Looking at the various commercial farms, for example, one finds that total debt becomes an increasing proportion of the value of farm products sold as the gross sales decline. For the operator grossing $100,000 or more in 1970, average total debt was only 50 cents per dollar of sales (adjusted for cash rent). But the operator with farm sales of less than $2,500 had around $3.00 in debt for each dollar of sales.

Debt expressed as a percent of cash operating expenses showed a similar pattern. The $100,000-and-over operator had 63 cents in debt for each dollar of operating expenses. But for the low-income operator with sales under $2,500, his debt per dollar of expenses came to some $3.80.

Debt in relation to net cash farm income was pretty much the same for each of the three classes of farms in the $20,000-plus category. But as gross sales declined below the $20,000 level, debt became a much

larger proportion of gross sales. This finding, perhaps, lends support to the view that nonfarm income becomes relatively more important than farm income for those classes of farms with low gross farm sales.

Generally speaking, debt in relation to total net cash income was higher for the high-income farms than for those grossing low farm sales. This situation probably resulted from the fact that the high-income operators, with highly commercialized operations, made fairly heavy use of non-real-estate as well as real estate credit. But non-real-estate credit appeared to be much less important to operators with low gross farm sales.

Sources of Borrowed Capital Good information giving farm loans outstanding by institutional lenders has been available on a state basis for many years. But data showing the amount of credit supplied by merchants and dealers and individuals have been woefully lacking. Now, however, the special 1970 census survey has provided a complete state-by-state picture of total farm debt, by source, for the first time.

Commercial and savings banks provided the largest proportion—around one-fourth—of the combined farm operator and landlord debt outstanding. They were followed closely by the Federal land banks with 22 percent. Credit from the production credit associations comprised 16 percent, while individuals supplied 15 percent of the total and ranked fourth as a source of borrowed capital. A mortgage or deed of trust was the predominant form of credit extended by individuals.

Merchant and dealer credit, primarily non-real-estate credit, comprised only 4 percent of the combined operator and landlord debt. But their relative share of the total varied widely from state to state, ranging from about 1 percent in Maryland to 10 percent in West Virginia. Actually, this same sort of state-by-state variation existed for the other major lenders, too. Ranking fifth and supplying 9 percent of the total debt was the Farmers Home Administration. Life insurance companies and other lending institutions provided other debt capital.

Banks supplied credit to the greatest number of farm borrowers and were followed by merchants and dealers, Federal land banks, and PCA's in that order. But the largest average size loans were made by individuals who provided credit either under a mortgage or deed of trust, or under a land purchase contract. The average bank loan was considerably smaller than the loans made by individuals, the Federal land banks, and PCA's but were more than three times the average loan made by merchants and dealers.

TOTAL OPERATOR AND LANDLORD DEBT FOR FARM OPERATORS AND LANDLORDS WITH DEBT

Percentage Distribution by Lenders of Debt

Fifth District by States, 1970

Source of Debt	Maryland	Virginia	West Virginia	North Carolina	South Carolina	Fifth District
	Percent	Percent	Percent	Percent	Percent	Percent
Federal land banks	21.0	20.7	15.4	20.5	31.3	22.1
Farmers Home Administration	5.3	5.2	25.5	11.7	9.6	9.2
Insurance companies	1.8	4.9	1.0	4.9	2.1	3.7
Commercial and savings banks	34.9	36.5	22.9	15.3	16.6	24.8
Production credit associations	6.1	8.6	6.8	25.4	22.4	16.3
Individuals from whom you bought part or all of this farm under—						
A mortgage or deed of trust	22.6	12.6	10.6	8.6	3.3	11.5
A land purchase contract	2.4	3.0	0.6	0.8	1.2	1.7
Other lending institutions	3.6	4.9	4.2	5.8	3.0	4.6
Merchants and dealers, total	0.6	1.1	9.6	5.8	9.3	4.4
Any other individuals	1.6	2.0	3.2	0.9	0.9	1.4
Unpaid bills	0.1	0.5	0.2	0.3	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Computed from U. S. Bureau of the Census, U. S. Census of Agriculture: 1969, Vol. V, Part 11, "Farm Finance," Table 108.

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SUMMARY

Most cash farm sales are produced by the comparatively small number of farmers grossing $20,000 and over. Off-farm income has become important to a majority of farm operator families but especially so to those with lower net cash farm income. Spending per farm for capital purchases and operating expenses rose as the sales value of farm products increased.

Farmers used borrowed funds to finance 25 percent of their total farm capital flows. They paid cash for 61 percent, and contractors paid or provided for 14 percent.

The evidence seems to indicate that debt generally was held by those best able to repay. More operators of large farms with gross sales of $20,000 or more were indebted than were the small farm operators. Average debt loads were also greater for the large highly commercialized farmers.

Institutional lenders provided the major portion of borrowed capital. Surprisingly, perhaps, individuals supplied 15 percent of the credit and merchants and dealers only 4 percent.

Sada L. Clarke

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