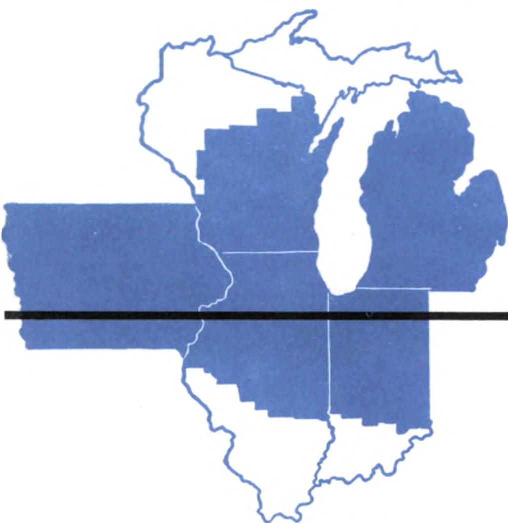
A review by the **Federal Reserve Bank of Chicago**

Business Conditions

1960 August



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THE Trend OF BUSINESS

A growing number of firms has reported disappointment with the volume of new orders received in recent months, and in a few industries there have been general cutbacks of production and employment. These developments are interpreted by some as indicating that the nation is entering a period of recession.

The indicators of general activity, however, have continued to trace a high level plateau. Employment rose seasonally in the early summer and in June was a record 68.6 million. Unemployment increased—to 5.5 per cent of the labor force from 4.9 per cent in May—reflecting in part the larger influx of teen-agers into the summer labor market. While wage and salary payments of manufacturing firms declined in June in response to cutbacks in steel and a strike in aircraft plants, total personal income rose to a record. Retail sales were a shade below the record April level, but exceeded June of last year by 2 to 3 per cent. Industrial production showed only small changes during the first half of 1960, holding close to a level about 5 per cent above the average for 1959, and the total output of all goods and services in the second quarter was moderately above the first quarter.

Nevertheless, the business news has carried a somewhat pessimistic flavor, in part, because during periods of stability profit margins tend to be squeezed and many goods are under downward price pressures. Although relatively few price lists show reductions and the price indexes remain relatively stable, a rising proportion of business is done at larger-than-usual discounts from list. These developments promote pessimism in some sectors. Furthermore, during the summer, seasonal slowdowns help to obscure underlying trends. In addition, it is easier to spot probable sources of weakness than strength. Thus, the absence of a fairly obvious upward or downward trend results in widespread uncertainty and a tendency toward pessimistic expectations even though activity currently is at a high level.

Whether the economy moves into a period of more vigorous expansion or not will, of course, depend largely upon decisions by businesses and consumers since these sectors account for about 80 per cent of total spending for goods and services. Spending by government, although much smaller than the private sector, may be more predictable, for expenditures are determined largely by budgets and legislative enactments formulated well in advance of the disbursement. On several occasions in the postwar years, a shift in Federal outlays has tipped the economic scales. Spending by state and local governments, on the other hand, has shown a fairly steady rise throughout the period.

Government spending to rise

Congress and the Administration took steps in June and July which will boost Government spending and tend to give the economy a modest upward push toward year

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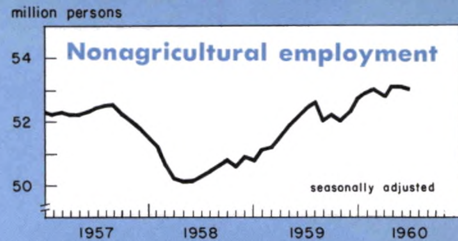
end and into 1961. Starting July 1, 1.6 million Federal employees received a pay raise of 7½ per cent, thereby increasing salary and wage payments about 740 million dollars per year.

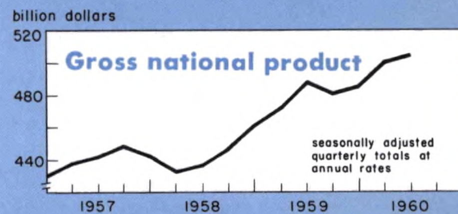
In 1958, the pay of Federal workers was raised by 10 per cent. At that time, the increase was made retroactive to the start of the year. Total personal income was given an immediate and substantial lift. This year's raise is smaller and is not retroactive. Nevertheless, the pay increase may have a substantial impact because such a change will have some effect on the wage policies of employers who compete with the Government for workers.

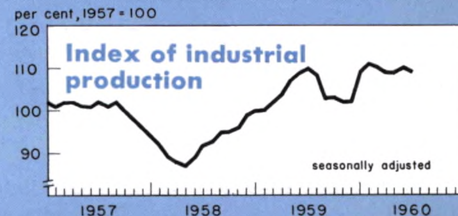
On June 27, the Secretary of Commerce announced that the states would be authorized to contract for 1.4 billion dollars of new highway work under the Federal Aid Program during the July-September quarter. This was made possible by transferring to the third quarter the planned authorizations for the fourth quarter. The action doubles the amount originally scheduled for that period. As yet, no indication that the move will do other than accelerate the amounts available to the states for the fiscal year ending June 30, 1961 is apparent. Nevertheless, this has the effect of raising economic sights upon the near-term outlook. The larger highway allocation may quickly affect activity because many projects are "ready to go."

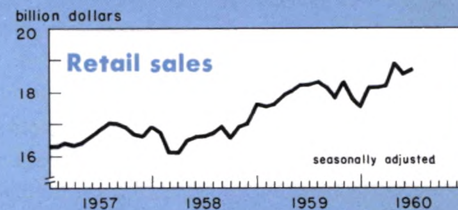
Another sector in which Federal spending appears to be rising is defense procurement. Defense orders rose during the second quarter. And on July 7 the President signed a bill appropriating 700 million dollars more for defense than he had requested, bringing the total of new appropriations to 40 billion dollars. The Secretary of Defense stated in early July that he probably would want to use at least a portion of the additional funds

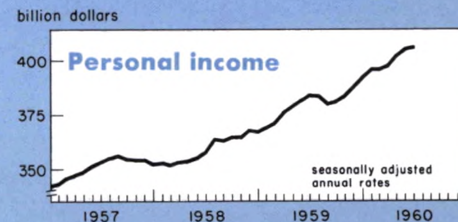
Economic indicators show stability or gradual rise











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"to expedite some of the weapon systems we have on the way." Any rise in procurement is likely to be largely in aircraft and missiles. Defense spending, of course, is not immediately responsive to changes in appropriations since most weapons have a fairly long production period. Furthermore, a large backlog of unexpended funds always exists, making it possible, within limits, to step up or slow down the current rate of procurement as prospective needs dictate.

Construction

Construction activity rose less than seasonally in June, to about 5 per cent below the year-earlier rate. The lag has been largely in the residential and public sectors. Housing starts in the first half of 1960 were about one-fifth below the very high rate in the first half of 1959, but about equal to the previous record in 1955. Public construction may receive some support from the acceleration of the Federal highway program, and there are preliminary indications that residential construction may perk up in the second half. In June, applications to Government agencies for mortgage insurance and guarantees increased. The market on existing residential mortgages has strengthened somewhat in recent months, and interest rates and commissions charged by some large lenders on residential property have recently been reduced in Chicago. The inflow of savings to institutions which invest heavily in mortgages continues at a high level, and this, together with the reduced demand for mortgage loans, is bringing about the decline of interest rates and commissions.

The volume of contracts awarded for construction, compiled by F. W. Dodge, has shown a somewhat more favorable trend recently than has construction activity. Total awards were 5 per cent below the year-ago figure in June. However, after allowance for seasonal movement, the total in the second quarter, and particularly in June, was well above the level of the first quarter.

Recently contract awards have been larger than last year in nonresidential building and in public works. Residential building has continued to show large declines. In the Midwest, especially in the case of public works and other types of so-called "heavy engineering," contracts have been relatively stronger than in the nation as a whole. Total awards for the first half of 1960 in this area were 2 per cent below last year, as compared with 7 per cent below for the U. S.

A comparison of recent awards in the public sector with current levels of activity indicates a future pickup in work put in place. In June, contracts for public works other than buildings were 15 per cent above the same month in 1959, whereas activity was 11 per cent below.

Farm income rising

Net farm income increased substantially in the second quarter and was well above the low levels prevailing since the third quarter of last year. Higher prices for hogs, poultry and eggs and prospects for a continued large volume of marketings of both crops and livestock are expected to at least maintain the current level of farm income during the second half of the year.

Total crop production will likely equal the record levels of the past two years. In the Midwest, prospects for crop production are less promising than in other areas of the nation, as a cold, wet spring delayed plantings and slowed plant growth. As a result, the corn and soybean crops were ten days to two weeks behind "normal" in July. The areas most seriously affected have been northern Illinois, Iowa and Wisconsin. Only

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in Indiana are excellent corn yields expected. However, in most areas the corn and soybeans "look good", and favorable weather could bring these crops to maturity before frost, thus raising yields and production above those indicated currently.

Instalment debt continues rapid climb

Consumers have continued to add to their short- and medium-term instalment debt at a rapid pace. At the end of June, their obligations of this type totaled 41.4 billion dollars, up 5.2 billion in twelve months' time. The advance during 1959 came close to matching the record rise of 1955.

In the first six months of 1960, retail sales were ahead of a year earlier, but by less than the rise in personal income. Through June, instalment debt climbed somewhat less this year than last: 401 million dollars per month against 426 million.

Automobile sales were running well above the year-earlier rate and a rise in auto sales usually boosts the growth of instalment debt. The 1959-60 expansion, however, has been diffused among the major types of instalment credit, with automobile loans, loans on other consumer goods, home improvement loans and personal loans all increasing in about the same proportion. This has been in sharp contrast with 1955. In that year, automobile debt climbed far more than the other classes, not only in dollar amount but relatively as well (see chart on page 6).

Terms hold the line

The big increase in automobile instalment debt during 1955 was accompanied by significant easing in lending terms. This process, which appeared to begin the year before, continued into 1956 and, in some markets, well beyond. In the Chicago area, for instance, it was not until 1958 that 36-month financing on new autos had become widespread. But this was exceptional. In most areas, the stretch-out of loan maturities from 24 and 30 months to a full 3 years had taken place earlier.

Along with lengthening in contract maturities went a reduction in down payments. Financing of the full "wholesale" cost and, in many cases, even larger proportions of selling prices, supplanted the more stringent "one-third down" rule which had been widely adhered to by lenders in earlier years.

To judge from available data on individual loans made by a sample of commercial banks, the past year and a half has seen no material change in the pattern of new car financing in the major markets of the Seventh District. In 1958, however, contract maturities in both the Chicago region and in southeastern Michigan appear to have lengthened appreciably. Thirty-six-month loans were comparatively rare in the opening months of the year but almost commonplace

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by summer. During 1959 and in the first half of this year, one contract in four in the Chicago area and about half of those reported from southeastern Michigan ran to terms beyond 30 months—generally to 36 months. Maturities longer than 36 months have remained quite uncommon. This maturity stretch-out, however, was past by the time the 1959 expansion in automobile borrowing took place. In effect, it simply brought practice in the big Chicago and Detroit markets more nearly into line with the other major areas in the District (see chart on page 8). The available evidence, of course, is limited to banks and does not directly reflect the characteristics of credits advanced by sales finance companies and other important nonbank lenders.

A maturity ceiling?

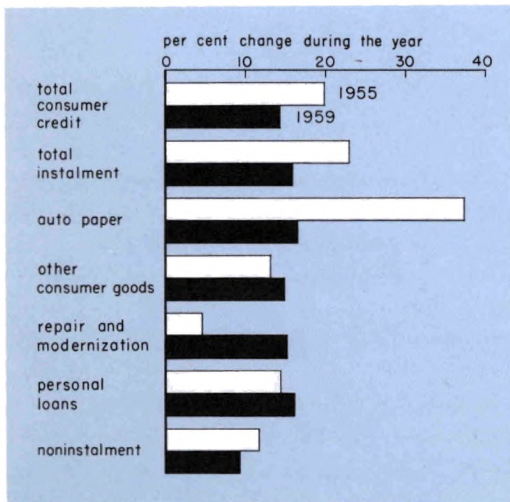
Extending the maturity of instalment contracts tends, of course, to lower the monthly payments. Many users of consumer credit apparently regard the amount of the monthly payments as more important than the number of them. But the *relative* reduction in payments tapers off as term is extended. Adding 6 months to the maturity of a 1-year loan with interest at 6 per cent per annum on the initial amount reduces monthly payments 30 per cent. But extending a 3-year loan to 42 months reduces the instalments by only 12 per cent. The incentive to lengthen contract maturity, therefore, weakens the longer the initial term of the credit. This factor probably explains in part the failure of maturities to push out beyond 36 months on any appreciable scale.

Collateral values

Another reason that terms in automobile lending have held relatively firm during recent months has been the ascendancy of the compacts in the new car market. The availability of these new autos appears to have contributed to the weakening of prices in the present used car market. It has also created uncertainty over the future resale values of today's new cars—both the standard models and the compacts themselves. A lender's risk exposure is greater the longer the term of the credit he extends. In the face of doubt or uncertainty over resale values, therefore, lenders understandably tend to resist any moves toward further lengthening of maturities or reduction of down payments.

The rise of the compacts appears also to have restrained growth in total automobile credit. Although retail deliveries of new cars in the first six months of 1960 were up 11 per cent from the year before, automobile credit extended—to buyers of both new and used vehicles—rose only half as much. The

Instalment debt growth
broadly based in 1959—concentrated in auto loans in the big 1955 rise



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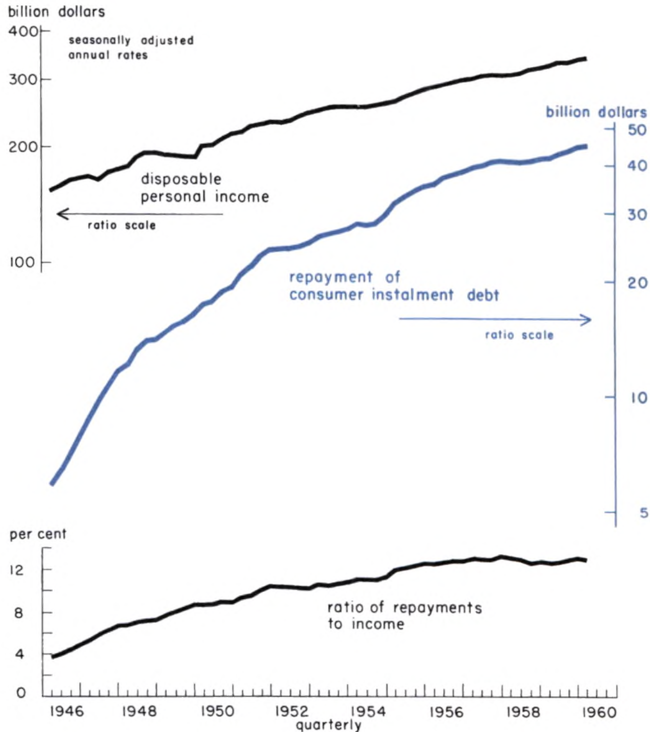
proportion of the total number of new car purchases sold on credit, however, was virtually the same in the two periods, at about 57 per cent. The comparatively low prices of the smaller cars, the impact they have had on the values of used cars and a pickup in the popularity of six-cylinder engines and manual shifts at the expense of eight's and automatic transmissions in the standard-sized new models appear to have spelled lower prices on an average, enabling the car-buying public to get better mileage out of instalment credit.

Consumer loan repayments have held close to 13 per cent of disposable income since 1955 record auto year



Repayments and income

A sharp rise in the amount of instalment debt usually touches off a flurry of concern over the ability of consumers to service their obligations. Clearly, an individual's ability to make the payments on his borrowings stands in some direct relationship to his income.

During the first quarter of 1960, repayments of outstanding instalment obligations were at a yearly rate of nearly 46 billion dollars. This was equal to 13 per cent of total personal income after taxes. This ratio was first reached early in 1957, in the wake of the big credit expansion of 1955-56. From the end of the war until 1957, the ratio had risen almost without interruption. The past three and one-half years, however, have seen the repayment-to-income ratio virtually stable. This has led some observers to conclude that an amount of instalment debt calling for repayment at a rate of 13 per cent of disposable income is a sort of new "norm" or, perhaps, ceiling on the volume of debt that consumers can, or will, accommodate.

The instalment debt outstanding at any time, however, is an aggregate obligation of only certain of the nation's families. The *Survey of Consumer Finances* for early 1959, conducted by the University of Michigan Research Center, found, for example, that 40 per cent of all "spending units" in the U.S. had no nonmortgage instalment debt. Another 10 per cent had such debt, but in amounts of less than $100 per unit. Some of these spending units doubtless were at the

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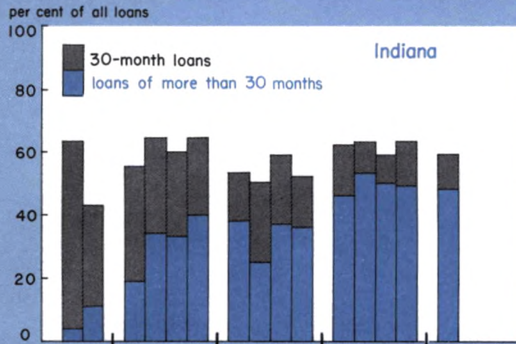
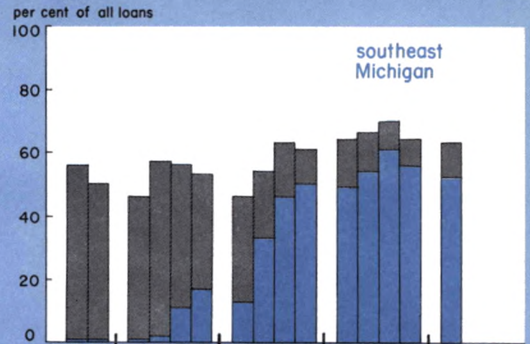
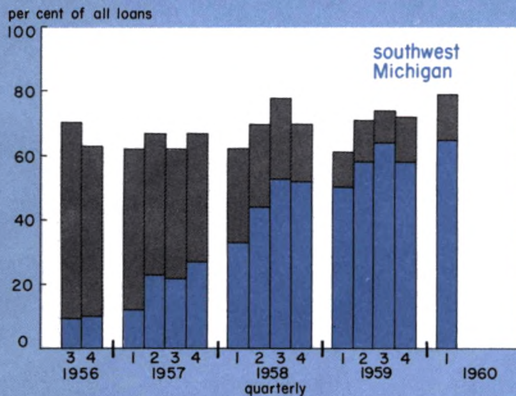
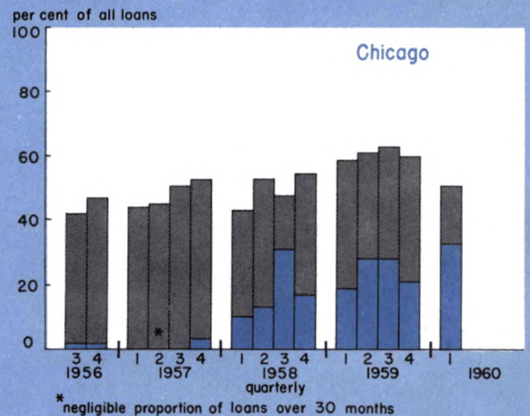
Maturity patterns vary in new car loans by Midwest banks . . .





longer terms least common in the area's largest market





lower end of the income scale and, therefore, poor prospects for the assumption of debt in any form, but many others were debt-free because they had no need or desire to assume it. The 13 per cent over-all repayment-to-income ratio is an average of individual situations in which repayments range all the way from zero to appreciably more than 13 per cent of disposable income. Thus, there is no magic about the 13 per cent ratio. The national average could easily climb well beyond that level if more "qualified" borrowers decided to take on such debt, and it could fall below the current level if more consumers should decide to defer purchases until they had the necessary cash available. Other ratios have seemed, on earlier occasions, to constitute ceilings, only to fail to hold in the face of changing circumstances. A decade ago, for example, 10 per cent appeared to some

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observers as the likely limit. This was the peak ratio in prewar experience. But it was readily breached in the upsurge of instalment borrowing during the Fifties as credit terms were relaxed, additional lenders were attracted to the field and credit came to be offered for a wide variety of new purposes.

Charge-offs on business loans, 1957-59

Loans to businesses remain the backbone of the lending activity of commercial banks even though there has been a large increase in loans to consumers. Since 1957, business loans at Seventh District member banks have ranged between 4¾ and 5 billion dollars and have accounted for 40 to 50 per cent of the total amount of loans of these banks (excluding insured and guaranteed loans on residential real estate), more than any other type of loan. For some of the District's largest banks, business loans account for 60 per cent or more of their total loans.

Delinquency and charge-off experience with business loans understandably is a matter of continuing interest and concern to bank managements. On the whole, such experience of Seventh District member banks in the 1957-59 period was favorable. During 1959, charge-offs amounted to $91 per $100,000 of loans outstanding (just less than 0.1 of 1 per cent), roughly the same as in 1957. Although charge-offs over the entire 3-year period were relatively small, the shifts in general business conditions were reflected rather clearly in the results for the individual years. In the recession year 1958, charge-offs, though still small in the aggregate, rose substantially to $247 per $100,000 of business loans outstanding.

Recoveries also showed the impact of changes in the economic environment. During 1959, a more prosperous year than the preceding one for most businesses, *recoveries* on loans previously charged off increased markedly. The net result was that District member banks reported *net recoveries* of $83 per $100,000 of loans in 1959 and *net losses* of $22 and $166 respectively in 1957 and 1958.

Individual bank losses

Business loan charge-offs have been too infrequent in the 1957-59 period to permit any detailed interpretation of *individual bank* charge-off rates. The unequal distribution of business loans among banks is also a factor. A small number of large banks accounts for the bulk of business loans. Among these large lenders, one might expect to find a significantly higher proportion of banks reporting some charge-offs than among the smaller lenders, whose exposure to default is correspondingly less. On the other hand, individual bank charge-off *rates* among large lenders might be expected to be relatively

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small; whereas, for the smaller lenders, writing off only one or a few loans would result in a relatively high ratio of charge-offs to total loans.

Actually, such are the results of the survey data. In each of the three years, many banks reported no charge-offs at all, but a much higher proportion of small than large lenders fell into the "no charge-off" category. Among those banks that had charge-offs, the rates covered a wide range. For example, in the recession year 1958, 84 banks charged off more than 1 per cent of their business loans outstanding, and for a fifth of these—all small banks—the charge-off exceeded 5 per cent of total business loans. In a very few cases, charge-offs were as high as one-fourth of outstandings, but such banks account for only a small fraction of the District's business loan volume.

Whether or not higher average charge-off rates actually offset the lower incidence of charge-offs among small lenders was tested by combining the loss experience data for the three years. One result, the largest charge-off ratio—$653 per $100,000 of outstandings—was sustained by banks with the smallest volume of outstanding loans and the lowest ratio of business to total loans. This contrasts with a charge-off rate of $133 for banks with more than $1 million in business loans and with such loans accounting for 30 per cent or more of total loans. Between the two extremes, the relationship between charge-off rate and degree of specialization in business loans was consistently inverse.

This relationship held for the 1957-59 period as a whole in spite of the fact that banks specializing in loans to businesses, including numerous loans to manufacturers, appear to have experienced a greater impact from the 1958 recession than did the smaller lenders. The loss pattern of the smaller lenders appears to be relatively constant in years of recession or rising business activity. Thus, while over-all charge-off experience is influenced to some extent by external factors—notably the general economic climate—differences in the incidence of charge-offs at individual banks seem likely to reflect also the internal factors over which bank managements exercise some measure of control.

Further evidence of the importance of total volume of loans as a determinant of loan charge-offs is provided by an analysis of data for banks which reported total *number* of loans in 1959 (see chart). This information was reported by one-third of the banks in the survey.

For the past three years, at least 960 of the slightly more than 1,000 District member banks have reported detailed information on loan charge-offs and recoveries. These reporting banks accounted for 99 per cent of total loans outstanding at all Seventh District member banks. Results of the 1957 and 1958 surveys of charge-offs and recoveries were summarized in the pamphlet, "Loan Loss Experience at Member Banks of the Seventh Federal Reserve District," available on request to the Research Department.

Business loans, referred to in this article, include loans to manufacturing and mining firms, wholesale and retail trade firms, sales finance companies, transportation, utilities, construction, real estate and service firms. The term, **charge-offs,** is used here to designate gross charge-offs on loans, and includes items charged directly to current expenses and those charged through reserves for bad debts; charge-offs exclude transfers to valuation reserves. **Net losses** designate gross charge-offs minus recoveries.

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These data indicate more favorable experience for the larger and more active lending banks. This showing probably reflects also the concentration of these banks in large loans to "prime" borrowers where losses are infrequent.

It should be noted, of course, that charge-offs are not necessarily indicative of the profitability of business loans in individual banks or groups of banks, or for that matter to particular types or asset sizes of borrowers. Higher interest rates or lower servicing costs on loan categories where risks are greater may more than compensate for higher loss rates. The total absence of loan charge-offs probably is not a practical goal for active lenders, although many banks do in fact have this experience in individual years.

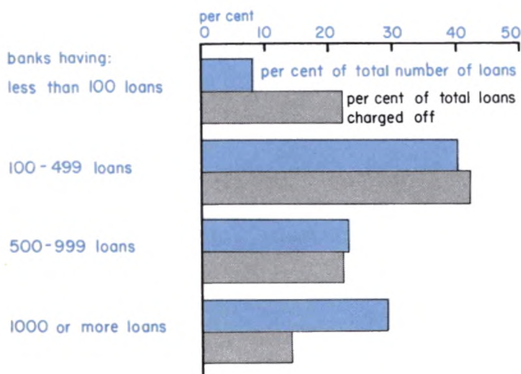
Differences among borrowers

This Bank's 1957 Business Loan Survey provides detailed data on loans outstanding by size and type of business of borrower. These data together with the charge-offs and loss information from the 1957 Loan Loss Survey—also on a *size and kind of business* basis—make it possible to associate charge-offs and loss rates with size and type of business for that year. Both charge-offs and loss rates on loans to retail trade firms were much higher than for any other industry classification in 1957. In contrast, loans to wholesale trade firms and sales finance companies were relatively low.

As to size, there appeared to be an *inverse relationship* between size of borrower, measured in terms of total assets, and loss rates. This was most striking in the case of loans to retailers. Gross loss rates to wholesale trade firms showed a similar inverse relationship. But the experience was far from consistent. Greater charge-off rates were shown for loans to large manufacturing and mining firms, for example, than for loans to medium-sized firms.

Identical data cannot be compiled for 1958 and 1959 because total loans by kind or size of business are not available for those years. If the relative importance of the kinds and sizes of businesses remained roughly the same, however, the 1958 loan loss experience was such that the "pattern" shown in 1957 was altered substantially. For example, in 1957, 45 per cent of business loans at Seventh Federal Reserve banks were made to manufacturing and mining firms, and they accounted for 45 per cent of the charge-offs. The proportion of charge-offs rose to 73 per cent in 1958 and dropped back to 50 per cent in 1959. It is not likely that a similar movement in loans outstanding occurred. Moreover, charge-offs on loans to the large- and medium-sized borrowers in this category, i.e., those with assets in excess of 1 million dollars, increased sharply. Loans to retail trade and construction firms, which carried relatively high loss rates in 1957, accounted for a smaller proportion of charge-offs in

Banks with fewer than 500 loans accounted for a greater percentage of charge-offs than loans



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1958, more in line with their share of total loans in the earlier year.

Only tentative conclusions can be reached from data currently available as to the influence on charge-offs and loss experience of kind of business or size of borrower. Survey results suggest, however, that the incidence of charge-offs of loans to retail establishments and construction firms is likely to be greater than to some other kinds of firms in both good times and bad. Loans to small borrowers appear also to be more susceptible to charge-offs than loans to large borrowers. However, in the course of a setback in business activity, as in 1958 when the impact was especially severe in certain industries, the over-all loss picture can be altered substantially.

Federal agency securities

"Federal agency securities" have increased in importance in the capital markets in the past decade. Although issued to the public by agencies sponsored by the Government, these securities are not guaranteed as to payment of principal or interest. Nearly 7.8 billion dollars of Federal agency securities were outstanding on March 31, 1960, about six times the amount a decade earlier. These securities evidently are accepted by investors as low-risk assets, since they bear only a small premium above the interest rates on Treasury issues of comparable maturities.

Five groups of agencies issue nonguaranteed debt. All of them were organized for the purpose of making credit more readily available to certain classes of borrowers. The Federal Home Loan Banks make advances to savings and loan associations and other institutions which write home mortgages. The Federal National Mortgage Association also provides credit for residential property. In its *Secondary Market Operation,* FNMA buys and sells home mortgages, thereby helping to provide a secondary market in mortgages, while in its *Management and Liquidation Function* the association is disposing of the mortgages accumulated under commitments made before its reorganization in 1954. (Securities issued for the Management and Liquidation Function, unlike the other obligations discussed in this article, are further supported by declaration of the Treasury that FNMA may borrow from the Treasury, if necessary, in order to pay the principal and interest on Management and Liquidation obligations.)

Of the three groups of agencies which facilitate borrowing by farmers, the Federal Land Banks extend long-term credit, secured by mortgages on farm real estate, while the Federal Intermediate Credit Banks and the Banks for Cooperatives extend both short- and intermediate-term credit. Both the Land Banks and the Intermediate Credit Banks extend credit through local cooperative associations of farmers. The Intermediate Credit Banks are also authorized to discount agricultural loans for commercial banks, agricultural credit corporations and other institutions. The Banks for Cooperatives

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make loans to farmers' cooperatives organized to provide purchasing, marketing or other farm business services.

Growth of nonguaranteed debt

Credit demands rose rapidly during the 1950's throughout the economy. The Federal agencies, which had been organized to supplement the credit available to farmers and homeowners from private sources, experienced an especially strong demand. In part this was because of the rapid rise in prices of both farm and urban real estate and in part because interest rates charged by the Government agencies lagged behind the rise in market rates.

The effects are evident in the experience of the Federal Land Banks, for example. While the total volume of new farm mortgage loans rose from 1,655 million dollars in 1950 to 2,814 million in 1959, the proportion of the loans made by the Federal Land Banks rose from 12 per cent to 22 per cent. As interest rates increased, the gap between Federal Land Bank rates and the rates charged by commercial banks and insurance companies widened (see table on following page).

Another factor, and possibly more important for some lenders, was the rise in interest rates on some other types of investments. Rates on Governments and high-grade corporate securities of less than fifteen years maturity, for example, rose faster than rates on farm mortgages. Rates on other types of loans on which market quotations are not readily available may have risen even more sharply and provided attractive alternatives for banks and life insurance companies which invest in a variety of assets.

The rising credit demands experienced by the Banks for Cooperatives were undoubtedly caused in part by similar forces. Although the number of cooperatives in the United States declined slightly during the decade, those which had loans from the Banks for Cooperatives on June 30 increased from 1,754 in 1950 to 2,689 in 1959.

Similarly, the effect of the rise in interest rates can be seen in the growth of credit extended by the FNMA. Most of the increase in the debt of this agency since its reorganization in 1954 has resulted from the need to finance the growing portfolio of the Secondary Market Operation. Since 1956, the first year in which sales were made from this portfolio, sales have exceeded purchases in only one year, 1958. In all other years, mortgage sales were less than 1 per cent of purchases. Nearly 85 per cent of the Secondary Market Operation purchases made from the time of the reorganization to the end of 1958 were from mortgage companies, which usually serve as intermediaries; that is, they make mortgage loans with the intention of selling them to other investors. When the price set by FNMA on existing insured mortgages is higher than that offered by other buyers, as during periods of strong or rising credit demand, mortgage companies as well as others utilize that outlet. When credit demand declines, as in 1958, and interest rates fall to a low level, FNMA purchases decline and sales rise, as lenders who traditionally invest in mortgages buy from FNMA.

Most of the increase in the debt of the Federal Home Loan Banks has occurred in spurts which followed upsurges in homebuilding activity—1950, 1955 and 1959. The amount of Federal Home Loan Bank loans outstanding increased abruptly in each of these years and then remained at the same or a slightly higher level until the next sharp rise in home building.

The increase in demand for credit was responsible for only part of the growth in Federal agency debt. The other major cause

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was that the Banks for Cooperatives and the Federal National Mortgage Association, both of which had previously obtained funds from the U. S. Treasury or by borrowing from private lending institutions, began to issue securities to the public. The Banks for Cooperatives sold their first issue of securities in 1950, and the Federal National Mortgage Association in 1955. Recently, the debt of these two agencies has accounted for nearly 40 per cent of the total nonguaranteed debt outstanding.

Ownership has broadened

As the amount of Federal agency debt has risen, a greater variety of investors has purchased the agencies' securities. In 1950, over 80 per cent of the nonguaranteed debt was owned by banks. This percentage has decreased steadily over the decade, with the exception of temporary increases during periods of reduced credit demand, such as 1958. In March 1960, banks held less than 25 per cent of the total amount outstanding.

Detailed information on the amount of nonguaranteed debt held by other investors is not available. Data from the Federal Reserve flow-of-funds accounts suggest that consumers and nonprofit organizations increased their holdings from approximately 10 per cent of the total in 1950 to between 25 and 30 per cent in 1958. Savings institutions other than banks increased their holdings from a nominal amount in 1950 to between 10 and 15 per cent of the total in 1958. State and local governments, which also held very small amounts in 1950, held between 5 and 10 per cent of the total in 1958. Insurance company holdings varied over the decade, but never comprised more than 5 per cent of the total.

The relationship between the yield on Federal agency securities and the yield on Treasury securities has remained roughly the same over the decade, perhaps because the broadening of the ownership base has offset the effects of the growth in total Federal agency debt. During much of this period, Federal agency securities have carried an interest rate of around one-third to two-thirds of 1 per cent above the rate on Treasury securities.

Maturities have varied

The average maturity of the nonguaranteed debt has varied widely in the past ten years, due both to changes in the maturity of the debt issued by each agency and the proportion of the total nonguaranteed debt originating with each agency. It would be expected that the agencies which make short-term loans would issue primarily short-term obligations and those which make long-term loans would issue primarily long-term obligations. By approximately matching the ma-

Average rate of interest on farm mortgages recorded

	1949	1951	1953	1955	1957
			(per cent)		
Federal Land Banks	4.0	4.0	4.1	4.1	4.4
Insurance companies	4.4	4.3	4.8	4.6	5.2
Commercial and savings banks	5.2	5.3	5.5	5.5	5.8
Individuals	4.8	4.9	5.0	5.0	5.2
Miscellaneous	4.9	4.7	5.2	5.2	5.3

Source: Agricultural Research Service, USDA.

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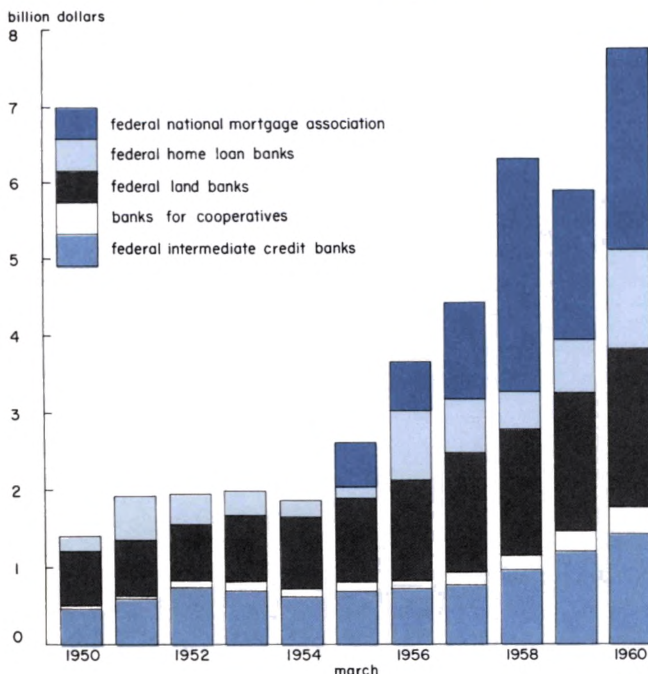
turities of their loans and obligations, the agencies would minimize difficulties which could result if interest rates rose and maturing obligations had to be replaced with higher coupon securities while rates on outstanding long-term loans were "frozen." On the other hand, if interest rates on long-term obligations were to decline, borrowers could refinance their mortgage loans at lower rates and the lenders would still be obligated on their long-term, high coupon securities. Thus, agencies which make long-term loans issue some short-term obligations. Also, in some instances, the lower rates on short-term securities have made it attractive to agencies to borrow short even though the loans they make are predominantly long-term.

The nonguaranteed debt of all Federal agencies has increased rapidly since 1954



Loans extended by the Banks for Cooperatives and the Federal Intermediate Credit Banks average less than a year to maturity. Federal Home Loan Bank loans average somewhat over a year to maturity. All three of these institutions generally issue obligations maturing in less than a year.

The Federal Land Banks' mortgage loans have average maturities of more than twenty years. However, prepayments have reduced the average period loans are outstanding to between five and ten years. In the early years of the decade, loan funds were obtained by issuing short- and intermediate-term obligations. Between 1950 and 1956, no issue of Federal Land Bank securities exceeded seven years' maturity, and most issues carried maturities of five years or less. However, since 1956, obligations of over ten years' maturity, as well as shorter-term obligations, have been issued.

The Federal National Mortgage Association, in contrast to the other four agencies, has little basis on which to predict the length of time for which most of its funds will be committed. The maturities of the mortgages held in the portfolio of the Secondary Market Operation average between 20 and 30 years, but the length of time FNMA will hold these mortgages is not predictable, in the absence of a specific schedule to disposition. Under present policy, when the demand for mortgage credit is strong, mortgages remain in the Secondary Market Operation portfolio, since very few sales of mortgages can be made without substantial discounts. However, when credit demand eases, sales of

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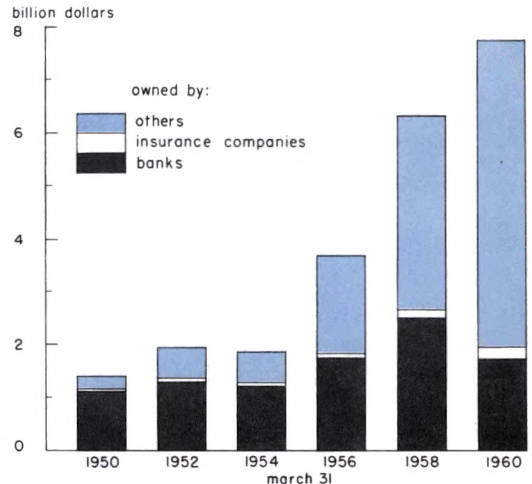
mortgages could rise sharply, as happened in 1958. FNMA has adjusted to this uncertainty by issuing both long- and short-term obligations, thereby hedging against a rise in interest rates (by borrowing in part long-term) and protecting itself against a rapid decline in its portfolio (by borrowing in part short-term).

FNMA has now begun to issue variable maturity obligations. These obligations may vary from one to nine months in maturity. The association sets the interest rates for various maturities within this period and the investor selects the maturity he desires at the time of purchase. To the extent that buyers are willing to accept lower yields for the privilege of deciding the maturity of the obligations they buy, FNMA may obtain its short-term funds more cheaply.

The obligations which FNMA issues for its Management and Liquidation Function provide funds for an operation which will be self-liquidating over time as its mortgages are disposed of. The two major issues have been intermediate-term securities, the first maturing in three years, and the issue which refunded it, maturing in two years and seven months. The latter issue, as well as an eight-month obligation issued in 1957, was made in order to repay funds borrowed from the Treasury and help keep the Treasury's borrowings below the statutory ceiling on the public debt. It will be refunded at maturity in August, 1960 with regular Treasury obligations.

Banks hold declining proportion of nonguaranteed securities issued by Federal agencies



The average maturity of the nonguaranteed debt has varied greatly. The percentage maturing in less than a year as of the end of each January and July from 1950 through 1960 has ranged between 46 and 82 per cent, but there has been no consistent trend up or down. In January 1950, 76 per cent of the nonguaranteed debt had a maturity of less than one year; in January 1960, 68 per cent. Obligations with a maturity of five years or more constituted 16 per cent of the total in January, 1950; this percentage had fallen to zero by the beginning of 1951, and thereafter obligations with maturities longer than five years were seldom issued until 1956. Since then, the amount of long-term obligations has increased steadily and in March 1960 constituted 17 per cent of the total.

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