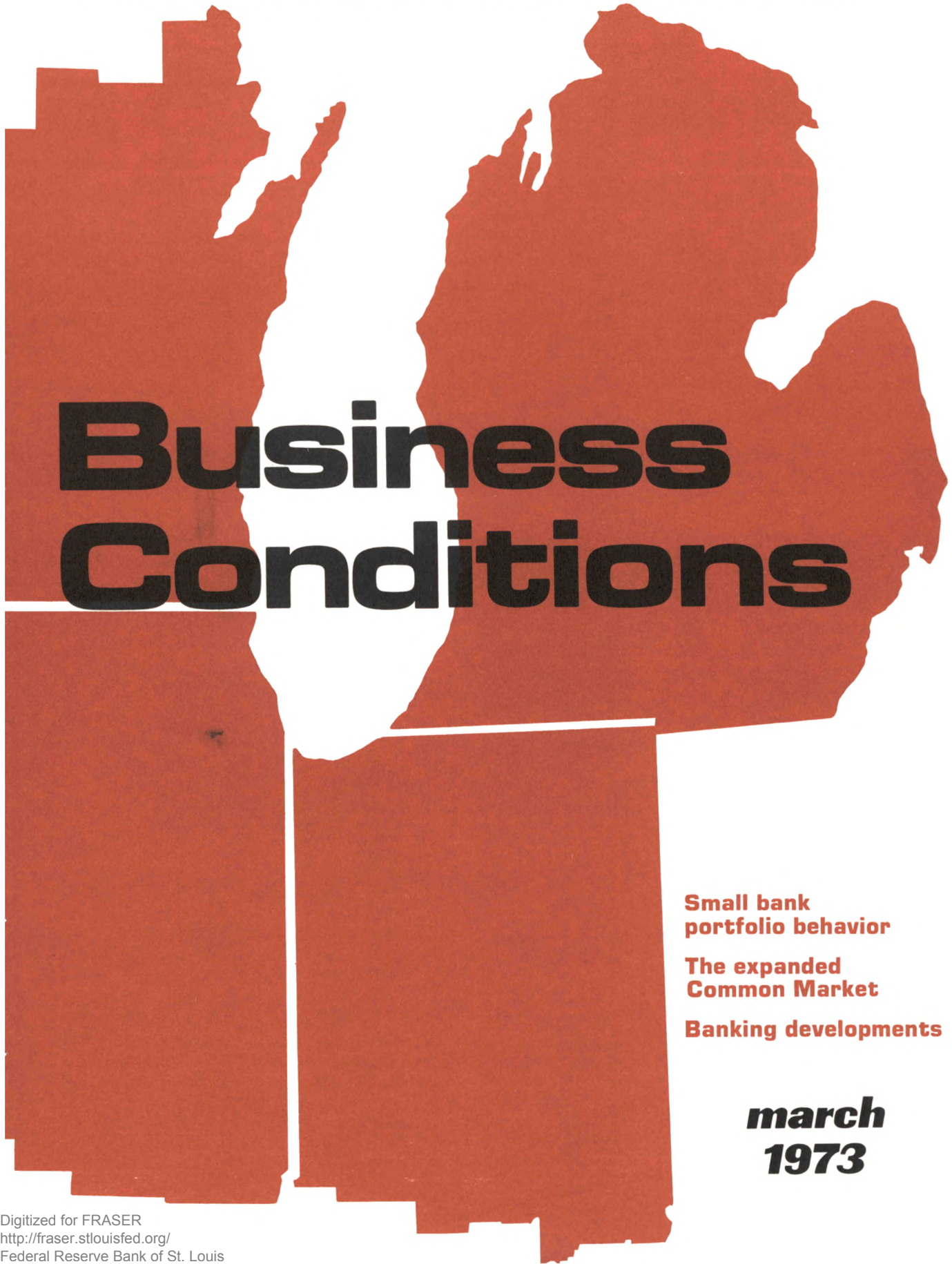
an economic review by the Federal Reserve Bank of Chicago



Business Conditions

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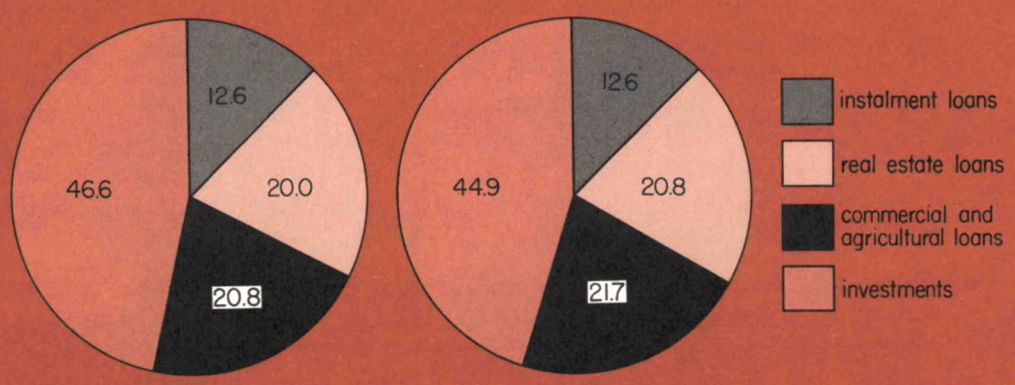
Small bank portfolio behavior

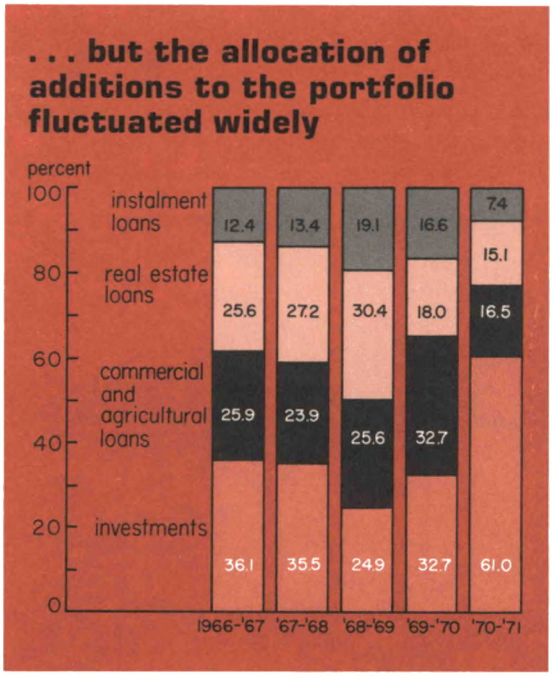
How have small district banks responded to the sharp swings in credit market conditions in recent years? Can their responses be described in terms of a few basic principles of economic behavior? Light is shed on these and related questions by an examination of aggregate portfolio behavior for the period 1966-71 of 71 Seventh District member banks, each of which had average deposits over the six years of less than $50 million. These banks displayed several distinct patterns and trends in earning asset composition and yields over the period.

- The average bank allocated 13 percent of its portfolio funds to instalment loans, 21 percent to real estate mortgage loans, 22 percent to commercial and agricultural loans, and 44 percent to investments. Although there were cyclical deviations from this allocation during the period, there was no discernible trend.
- Gross and net yields (yields net of operating expenses) on these earning assets rose continuously between 1966 and 1970, but most yields declined slightly in 1971.
- The relative increase in gross and net yields was greatest for investments, and least for instalment loans.
- Net yields increased more rapidly than gross yields, as operating costs declined as a proportion of gross yields.
- Asset allocation, in contrast with asset yields, was quite sensitive to the influence of bank size and location.

Interesting though these trends may be, they do not reveal much, in and of themselves, about bank behavior. However, some insight into what is happening at small banks can be gained by reviewing such underlying trend determinants as risk, technological change, market conditions, and the principles thought to govern bank portfolio behavior.

Portfolio composition in 1971 was virtually unchanged from 1966 . . .





Portfolio behavior

Probably the simplest and most plausible principle that can be adduced to explain the portfolio behavior of banks is that of profit maximization. Assuming that earnings in subsequent periods are not influenced by behavior in the current period, this principle calls for a bank to adjust its portfolio so that the return after operating expenses on the last dollar loaned or invested (the marginal net yield) is equal for each of the various earning assets. A bank not following this principle could increase its profits by shifting funds from low-yield assets to high-yield assets.

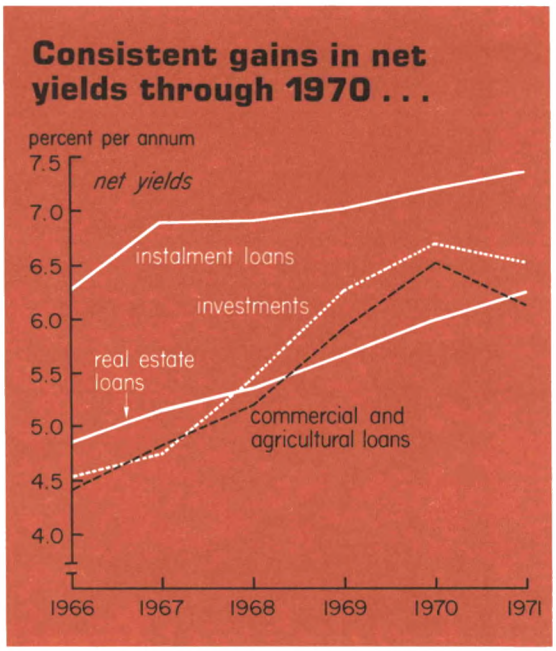
Functional Cost Analysis (FCA) data[1] provide average net yields for the major earning assets categories. Marginal net yields cannot be determined directly from the data. The average net yield of an asset is derived by dividing revenue less operating expense by the total dollar volume of the asset. Using average net yields in conjunction with some plausible conjectures regarding the degree to which the average and marginal yields should differ for each type of asset, it is possible to assess how closely the banks approached a profit-maximizing allocation of earning assets.

Default risk

FCA data on average net yields should be adjusted for two factors that affect the expected and realized yields on assets, factors that bankers generally consider in the allocation process. One is default risk, the other liquidity risk. The measure of default risk for loans is a five-year average of net losses associated with each loan type expressed as a percentage of total loans outstanding. Based on 1971 data, the default risk is approximately ten times greater for instalment loans than for real estate mortgage loans, and slightly more than twice as great for instalment loans as for commercial and agricultural loans.

In 1971, the average net yield was 7.36 percent on instalment loans and 6.24 percent on real estate mortgage loans, a difference of 1.12 percentage points. After adjustment for default risk factors of .351 percent for instalment loans and .032 percent for real estate loans, the average net yield equaled 7.01 percent for instalment loans and 6.21 percent for real estate loans—a difference of only .80 percentage points. Similarly, the difference between average net yields on instalment loans and commercial and agricultural loans prior to adjustment for default risk was 1.21 per-

[1] The Functional Cost Analysis (FCA) program sponsored by the Federal Reserve Bank of Chicago is a bank-oriented, standardized cost accounting system designed primarily for small banks lacking the personnel and resources to develop their own cost systems. The FCA program subdivides the bank into a number of distinct "functions" to determine the level and composition of the costs and revenues associated with each function. The data are for 71 Seventh District member banks that have participated in the FCA program continuously from 1966 to 1971. Of the 71, all of which have a six-year deposit average of less than $50 million, 32 designate themselves as rural banks, 18 as urban banks, and 21 as suburban banks.



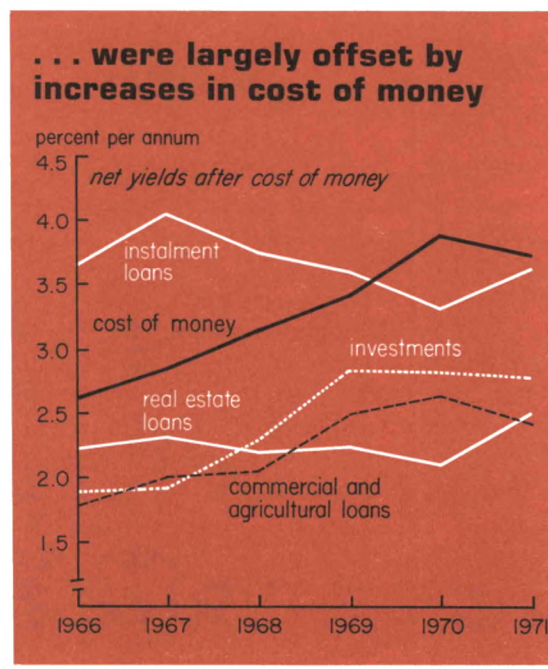
centage points, but declined to 1.01 percentage points after adjustment. The extent to which adjustment for default risk narrows the variation in average net yields associated with the loans suggests that the average net yields may be closer to being equal than first appears.

Liquidity risk

Liquidity risk also influences banks' allocations of funds among earning assets. When cash is needed to meet depositors' requests, the bank must either have adequate cash on hand, or be able to obtain cash quickly from repayments on maturing assets or the sales of assets. Generally, a bank's liquid assets have short maturities or provide a constant flow of cash through small but frequent repayments.

Among loans, commercial and agricultural loans, with maturities averaging three to six months, are most liquid, although in practice these loans are frequently rolled over. Instalment loans have an average life of 15 months. Because lenders may be expected to demand a "liquidity premium" on less liquid assets, the difference in maturity between instalment and commercial loans would tend to depress net yields on instalment loans and raise net yields on commercial and agricultural loans, although the more complete amortization of instalment loans may offset this effect somewhat.

Real estate loans generally have original maturities of 20 years or more, and average realized maturities of seven or eight years. One of the few ways of reducing the liquidity risk associated with real estate loans would be to develop a strong secondary market for these loans. At the present time, a fairly broad secondary market exists for FHA-insured and VA-guaranteed mortgages, while the secondary market for conventional mortgages is still in an embryonic stage. Because small banks find it difficult to take full advantage of secondary market facilities, real estate loans probably carry more liquidity risk than the other two loan categories.



The liquidity risk associated with investments is relatively low because of their short maturities and ready marketability. Between 1966 and 1971, the proportion of U. S. Government securities held in the investment portfolios of small district banks decreased, while the proportions of both tax-exempt securities and federal funds sold increased. Although the increase in federal funds would tend to increase the liquidity of investments, the effect of the rise in tax-exempts would be to decrease it since the secondary market for them is not as strong as that for U. S. Governments. Nevertheless, the liquidity risk associated with investments is still lower than that of the other major earning assets, and taking it into account tends to narrow the gap between the average net yields on investments and on loans.

Compensating balances

Compensating balances, required of business borrowers, have the effect of increasing the net yield on commercial loans relative to the yields on other types of loans and investments. Although the revenue associated with compensating balances is included in total bank income, FCA data do not disclose its magnitude or allocate it specifically to the commercial and agricultural loan function. However, some estimate of the effect of compensating balances on total bank revenue must be made to arrive at a true measure of the net yield on these loans.

Although policies with respect to compensating balances vary greatly from bank to bank and despite the fact that the enforcement of such policies varies cyclically, many bankers report trying to get customers to maintain balances equal to 10 percent of their lines of credit or 20 percent of loans outstanding. Given that most bankers experience some difficulty in keeping balances at these target levels, a rough estimate of their actual balances is 15 percent of loans outstanding. An estimate of the earnings attributable to compensating balances can be obtained by multiplying commercial loans outstanding by 15 percent and applying to this volume of funds the average net yield on the total portfolio. Dividing the result by total commercial and agricultural loans gives a crude indication of the adjustment to the net yield called for by compensating balances. In 1971, the adjustment was 83 basis points.

Adjustments for cost and risk narrow the differences on net yields

	Gross yield	Net yield	Net yield adjusted for: Default risk	Net yield adjusted for: Default risk and compensating balances
	(percent per annum)			
Loans				
Instalment	10.77	7.36	7.01	7.01
Real estate	6.96	6.24	6.21	6.21
Commercial and agricultural	7.46	6.15	6.00	6.83
Investments	**6.66**	**6.52**	**6.52**	**6.52**

Average versus marginal yields

The net yields calculated thus far are average yields rather than marginal yields. In order to determine whether small district banks approach a profit-maximizing allocation of resources, it is necessary to have some notion of how average yields may be expected to differ from marginal yields for each of the functions. Important determinants of the extent of these differences are the size of the market and degree of competition faced by the bank for each type of asset. Insofar as the individual bank supplies a large proportion of local demand for a given asset, it is likely to face a downward sloping demand curve for that asset—i.e., the more loans of a given type the bank makes, the lower the yield it can ob-

tain on such loans. Where this is the case, the average yield on an asset will exceed the marginal yield. This is most likely to be true of consumer instalment loans, for which customers usually limit their search for alternative sources of credit to a relatively small local area. It is less likely to be true of real estate mortgage loans because of the large average amount of such loans and the consequent greater incentive customers have to search for better terms.

In the case of commercial and agricultural loans, it is doubtful whether the typical bank is able to influence rates except for loans to the smallest enterprises. Finally, it is unlikely that individual banks can influence the market interest rates on investments at all; a small bank's decision to purchase additional U. S. Government securities, for example, would have no perceptible effect on their market price. Or, to put the matter slightly differently, the marginal yield on such securities equals the average yield.

These considerations have clear implications for the observed pattern of average net yields. Assuming that banks purchase each type of earning asset up to the point at which the marginal net yields on each asset are equal—the condition for maximization of profits—then the average net yield on instalment loans would be expected to be greater than that on any other type of earning asset, followed by real estate mortgage loans, commercial and agricultural loans, and investments. This would be true even after net yields are adjusted for differences in risk, compensating balances, etc. The yields for 1971 show just such a pattern, with the exception of the yield on real estate loans, which is even less than the yield on investments. However, the measured yield on real estate loans is biased sharply downward by the inclusion in the calculation of loans contracted in the past at lower interest rates.

Although it is not possible to prove rigorously, adjustment for the overall effects of the risk factors, compensating balances, and differing degrees of competition tends to equalize the effective marginal net yields on the different types of assets. It appears quite possible that small banks approach a profit-maximizing allocation of assets.

The customer relationship

The portfolio behavior of a bank in the short run may appear to deviate from the principle of profit maximization if the bank takes a long-run view of profits and allows its lending practices to be influenced by long-established customer relationships. Such apparent deviations occur when banks accommodate the loan demands of valued customers even though higher yields—and consequent short-lived additions to profit—could be obtained by other uses of the same funds.

Generally, commercial and agricultural borrowers that have done business with the bank for a long time are considered "prime" customers because they leave balances on deposit through periods when they do not exercise their borrowing options. The extent to which a small bank will sacrifice short-run profits to accommodate the loan demands of such customers is best ascertained by observing the behavior of the bank's asset portfolio and asset yields during periods of strong credit demand and rising interest rates.

FCA data suggest that a deliberate policy of accommodating the loan demands of established customers may have characterized small bank portfolio behavior during the period 1966 through 1971—a period that witnessed the change from tight to easy credit market conditions twice. As the credit markets moved from tightness in 1966 to ease in 1967 and 1968, back to tightness in 1969 and 1970, and then to ease again in 1971, changes occurred in the composition of earning assets that are consistent with such a hypothesis.

The proportion of funds that small district banks held in investments declined continuously through the period, with the largest decline taking place in 1969 as the proportions of all three loan categories in the earning asset portfolio increased. But in 1971, when credit conditions eased and bank customers once again found alternative sources of funds, investments began to increase relative to loans.

Moreover, some small banks altered the composition of their loans during the period. Even though all loan types continued to increase as a proportion of earning assets in the tight credit market of 1969, there was a dramatic decline in the rate of increase of instalment and real estate loans, but only a slight decline in the rate of increase of commercial and agricultural loans. The continued rapid increase in commercial and agricultural loans in 1969, largely at the expense of investments but also at the expense of instalment loans, supports the view that banks do, in fact, behave as loan accommodators in the short run. It would appear from the data that these small banks honored their commitments to established business borrowers by directing funds from higher-yielding instalment loans to commercial and agricultural loans.

There is some evidence to indicate that the 1969-70 reduction in the rate of increase of instalment loans was achieved by nonprice credit rationing. Two facts would make it seem so. One, the number of instalment loan applications approved annually in the 1969-70 period declined by 5 percent. Two, the number of applications approved as a percent of those submitted also declined and was about the same as in 1966, the year of the "credit crunch."

By denying a larger proportion of instalment loan applications, apparently the banks were able to free the necessary funds to meet commitments to their established customers. This does not mean that customer relations overrode profit considerations nor does it prove that the banks behaved in a manner inconsistent with profit maximization in the long run. Nevertheless, motives other than profit may have played a role in the allocation of credit, particularly in areas where competition was not so severe as to eliminate all discretion.

Operating costs

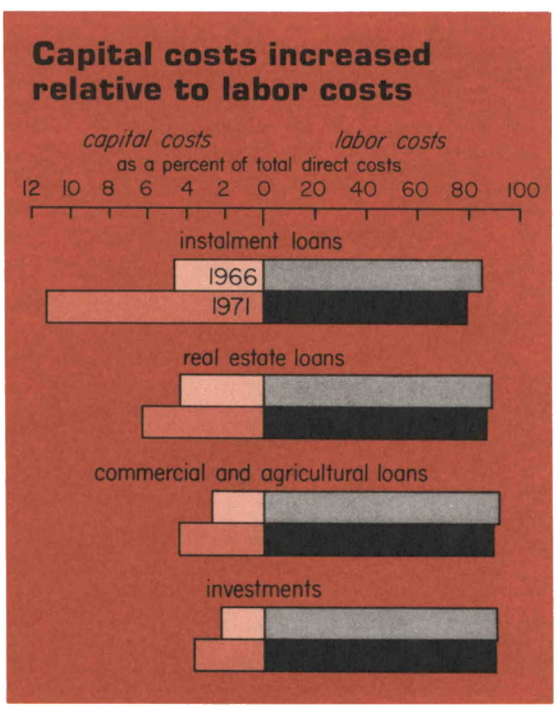
The gross yields realized by banks on various earning assets reflect primarily current market interest rates, but also, to a varying extent depending on the maturity of the asset under consideration, the rate of interest on assets acquired in the past. Gross yields also varied greatly among the four classes of earning assets for the surveyed banks because of differences in operating expenses incurred in initiating, handling, processing, and extending the loan or making the investment. Differences in these costs tend to be related directly to the number of separate transactions, such as repayments, and to be independent of the size of loan.

Bank expenses as a percentage of the dollar volume of loans outstanding are highest for consumer instalment loans and lowest for commercial and agricultural loans. Overall, operating costs as a proportion of the dollar volume of loans outstanding declined for real estate loans and increased only slightly for the other three categories of loans between 1966 and 1971, reflecting the spreading of operating costs over a larger average loan balance. Total costs per loan increased sharply between 1966 and 1971.

A comparison of instalment loan operating costs in 1966 and 1971 indicates that all increases in labor costs per loan were directly related to increased salaries and fringe benefits. (Labor *input* per loan was the same in both years.) Material costs per loan increased by 40 percent between the two years and capital costs per loan by 350 percent, with much of the increase in

capital costs attributable to the more extensive use of computers by small banks in 1971. In 1966, only eight banks in the 71-bank sample had computerized the instalment loan function. By 1971, 42 banks had computerized the instalment loan function, with ten banks using on-premise installations and 32 banks using off-premise computer services.

Labor costs per loan for real estate and commercial and agricultural loans also increased due to higher salaries and improved fringe benefits. However, in contrast to a remarkable steadiness in the instalment loan function, labor *inputs* per loan increased in these two lending functions. Material costs associated with these loans increased at roughly the same rate as in the instalment loan function. Capital costs per loan, while more than doubling, did not approach the three and one-half fold increase in the instalment loan function. The main reason for this is that the repetitive, standardized procedures associated with consumer instalment loans are well-suited to computer processing. Thus, more of the processing is being done by machine and less by hand, with the higher capital costs that go along with this handling. Only ten of the 71 banks in the sample had computerized their mortgage loan function in 1971, of which two used on-premise and eight off-premise computers. Of the seven banks that had computerized their commercial and agricultural loan function by 1971, one used an on-premise computer, while six used off-premise computers.



Influences of size and location

Given the importance of convenience to many bank customers, and the close relationship between bank size and lending limits, it is reasonable to expect that banks' portfolios may be related systematically to their size and location. For purposes of comparison, the sample Seventh District FCA banks were divided into four groups: rural banks with less than $25 million in deposits; urban banks with $25-50 million in deposits; suburban banks with less than $25 million in deposits; and suburban banks with $25-50 million in deposits.[2] In general, the portfolio composition of sample banks in the most diverse size and location categories are surprisingly similar. Nevertheless, differences become apparent upon close examination of the data.

For example, although gross yields on instalment loans were roughly equal for both groupings of suburban banks over the six years 1966-71, the net yields were lower on average for the $25-50 million group than for the less-than-$25 million group. The difference seemed to be attributable to higher initial operating expenses resulting from computer technology. While fewer than 40 percent of the suburban

[2]Two of the 71 banks in the sample were eliminated because they did not fit into one of the defined groupings.

banks in the $0-25 million deposit-size group used computers in the instalment loan function in 1971, nearly 90 percent of the suburban banks with more than $25 million in deposits did so.

A second pattern was the tendency of rural and urban banks to hold a larger proportion of their assets in commercial and agricultural loans than either size class of suburban bank—a normal development, given the differences in loan demand one would expect between these areas. A finer breakdown revealed—again as one would expect—that rural banks had a much higher proportion of their assets in agricultural loans, while urban banks had the highest proportion in commercial loans.

A third pattern, somewhat less pronounced, was the tendency for rural and large suburban banks to participate more than urban and smaller suburban banks in mortgage lending. For the large suburban banks, this greater emphasis on mortgages was balanced by their low level of instalment loans—the smallest of any of the categories of banks—and by the tendency for suburban banks to place a large proportion of their available funds into investments. Possibly this behavior reflected a policy of seeking additional liquidity to compensate for the illiquidity of real estate loans.

Summary and conclusions

Although there were no substantial shifts in the earning asset portfolios of banks in any size or location category, there were indications that adjustments took place in response to the factors that affect small bank profitability. The apparent variation in average net yields (gross yields adjusted for operating costs) among instalment loans, real estate mortgage loans, commercial and agricultural loans, and investments was reduced once default and liquidity risks, implicit returns on compensating balances, and differences in competitive conditions were recognized. Nevertheless, the small bank's shift out of investments into loans during tight money markets, coupled with a rearrangement of its loan portfolios via credit rationing to meet established customers' loan demands, indicates that, at least in the short run, small bank portfolio behavior reflects considerations other than short-term profit maximization.

David Updegraff

Asset composition varied with bank size and location in 1971

	Rural		Urban		Suburban	
	$0-25 million deposit size		$25-50 million deposit size		$0-25 million deposit size	$25-50 million deposit size
Percent of earning assets						
Loans						
Instalment	12.56		16.10		12.96	10.50
Real Estate	20.59		24.78		20.44	21.81
Commercial	15.48		24.61		17.90	18.26
Agricultural	8.93		1.08		.60	1.05
Investments	42.44		54.13		48.10	48.38
Gross yield						
Loans						
Instalment	11.41		10.84		10.30	10.10
Real estate	7.01		6.96		6.92	6.95
Commercial and agricultural	7.80		7.28		7.50	7.29
Investments	6.68		6.75		6.39	6.69
Net yield						
Loans						
Instalment	7.96		7.45		7.35	6.49
Real estate	6.31		6.16		6.19	6.34
Commercial and agricultural	6.39		6.01		6.08	5.97
Investments	6.53		6.61		6.22	6.58

The expanded Common Market

On January 1, 1973, Denmark, Ireland, and the United Kingdom entered the European Economic Community joining Belgium, France, Germany, Italy, Luxembourg, and the Netherlands—the original charter members. Together, these nations are now committed to a path toward economic—and possibly political—integration. The progress along this path has had, and no doubt will continue to have, profound implications for the peoples of the European Community (EC) as well as for the world at large.

The additions of the United Kingdom, Denmark, and Ireland have made the EC a formidable world economic force:

- In 1971, the combined gross national product (GNP) of all nine countries totaled nearly $707 billion—two-thirds that of the United States, and three times larger than that of Japan.
- The 1971 population of the EC was estimated at 253 million, with per capita gross national product of $2,800—about 52 percent as large as in the United States, and 25 percent greater than in Japan.
- Production of crude steel by the nine countries in 1970 was the largest of any market in the world, totaling nearly 138 million metric tons.
- The EC was second only to the United States as a producer of electric power during 1970.
- The nine current members had worldwide exports exceeding $128 billion in 1971, 41 percent of the world total. Excluding trade within the Community, EC exports were more than $63 billion. This compares to world exports of about $44 billion by the United States and $24 billion by Japan. Imports in 1971 by the nine members from all world suppliers totaled $130 billion, and imports, excluding intra-Community trade, were over $64 billion. U. S. imports were nearly $46 billion, while Japan's were about $20 billion.[1]

[1] An additional measure of the importance of international trade to the EC is seen in the ratios of foreign trade to GNP. These ratios, for exports and for imports, have been increasing since the EC came into being, and for the nine members of the expanded Community in 1971 they were just over 9 percent when intra-Community trade is excluded, and more than 18 percent when counting intra-Community trade. But there were wide variations among members. Imports as a percent of GNP were about 41 percent for Belgium-Luxembourg, Ireland, and the Netherlands, but only 13 percent in France. Comparable ratios were nearly 9 percent for Japan, and a little over 4 percent for the United States.

The expanded EC—a formidable economic power

	The Six	The Three	Expanded EC	Japan	United States
1971 GNP *(bil. dol.)*	$548.3	158.4	706.7	225.0	1,068.8
1971 population *(mil.)*	189.8	63.7	253.5	104.7	207.0
1971 per capita GNP *(dol.)*	$2,890	2,490	2,790	2,150	5,160
1970 crude steel production *(mil. metric tn.)*	109.2	28.8	138.0	93.3	119.6
1970 electrical energy production *(bil. KWH)*	568.9	273.3	842.1	359.5	1,638.0
1971 exports *(bil. dol.)*	$100.8*	27.3*	128.1*	24.1	44.1
1971 imports *(bil. dol.)*	$ 99.6*	30.4*	130.0*	19.7	45.6

*Includes intercountry trade.

The assimilation process

For Denmark, Ireland, and the United Kingdom—now being termed "The Three" to distinguish them from "The Six" original members—assimilating their individual economies into the economy of the European Economic Community (EC) will be a two-part affair; one political, the other economic.

Political. Upon becoming members, The Three acquired full responsibilities in the decision-making process of the Community, and EC governmental bodies were immediately expanded to accommodate the enlarged membership.

- The Commission of the EC, an independent executive authority that administers the treaties of the Community and proposes policy to the EC Council of Ministers, was expanded from nine to 13 members.
- The Council of Ministers, the decision-making body of the Community, was reconstituted to give France, Germany, Italy, and the United Kingdom ten votes each, Belgium and the Netherlands five votes each, Denmark and Ireland three votes each, and Luxembourg two votes.
- The European Court of Justice and the European Parliament were similarly expanded and reconstituted.

Economic. The economic transition of The Three into the Common Market will take place over a five-year span.

- Existing tariffs on industrial products traded between The Three and The Six will be eliminated in five equal steps beginning April 1, 1973, and ending July 1, 1977.
- The Three will begin adopting the common external tariff levels of The Six beginning on January 1, 1974 with an initial 40 percent adjustment, to be followed by three 20 percent adjustments on January 1, 1975 and 1976, and finally July 1, 1977. Common external tariffs of the Community for industrial goods generally are lower than those of the three new members, thus the level of tariff protection for industrial goods will decrease somewhat for Denmark, Ireland, and the United Kingdom.
- Full adherence by The Three to the Community's common agricultural policy is scheduled for completion by December 31, 1977, after a six-stage adjustment process beginning this year.
- Financial contributions to the Community's operations by the new members will increase progressively until January 1, 1978, when The Three will assume their full responsibility for the EC budget.

These last two harmonization adjustments to Community programs reaffirm the EC's aim of full economic, and possibly political, integration in the future.

Some adjustments toward economic integration were made by old and new members prior to, but in anticipation of, the EC's expansion. In 1967, in a move toward gradual tax structure harmonization within the Community, The Six agreed to adopt the value added tax (VAT) in place of various other types of sales and turnover taxes (See *Business Conditions*, February 1971). Denmark actually adopted the VAT in 1967, before the EC. Ireland instituted a VAT on November 1, 1972, and the United Kingdom is scheduled to initiate a VAT on April 1, 1973.

As a step toward a hoped-for common currency late in this decade, the EC in 1972 adopted a range of permissible exchange rate fluctuations among member currencies that was narrower than that permitted relative to the U. S. dollar. The Three were party to this agreement although not full-fledged members at the time of the signing. Britain and Ireland were forced to withdraw from the agreement temporarily when the pound was allowed to float in June 1972. Italy withdrew when the lira was floated during the

monetary turmoil in February of this year. In mid-March, as a response to continuing international monetary upheaval, Belgium, Denmark, France, Germany, Luxembourg, and the Netherlands agreed to a linked joint float of their currencies. Ireland, Italy, and the United Kingdom are expected to eventually join the current agreement. While the details of the monetary arrangements to be adopted by the EC remain in flux, the direction of EC action is clear—joint action on the part of EC members.

The Three also have been involved in Community negotiations concerning common patent regulations, common regulations covering stock exchange operations, common procedures for facilitating the establishment of commercial bank branches across national borders, and possibly Community-wide commercial banking regulations.

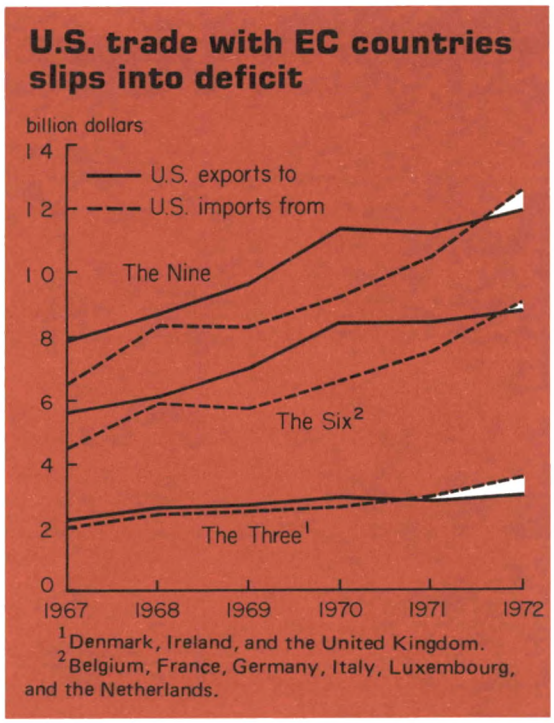
Some consequences of expansion

For the world at large, the EC's elimination of tariffs among members while maintaining tariffs against nonmembers raises an all important question: what will be the union's potential impact on trade creation and trade diversion? Trade creation occurs when, as a result of the elimination of artificial trade barriers, more trade is carried on with efficient, low-cost producers who are members than with less efficient, higher-cost producers who are not members. Trade diversion occurs when trade is switched from lower-cost producers who are not members to higher-cost member-producers whose goods do not face tariff restrictions. The spector of trade diversion in the expanded EC has been a major concern of U. S. observers.

An additional potential trade-diverting policy (not unique to a customs union, and not new to the EC) is the preferential trade arrangement. Such agreements are a common trade practice of the nine-member EC, having been granted to numerous developing countries, and often with a "reverse preference" provision. This provision means that the EC will grant import preferences to the exports of a developing country only if that country will grant preferences to EC exports—the preference generally being reduced or eliminated tariffs. The U. S. has protested the "reverse" provision on the grounds that it reduces the ability of U. S.-made goods to compete with EC-produced goods in markets where the preferences are in effect.

Industrial goods. More serious from the U. S. point of view are similar preferential trade arrangements that have been negotiated with advanced European countries that are not members of the EC. By 1978, these agreements will result in a 16-member European free trade area in industrial goods. The reverse preference trade agreements on industrial goods between the nine-member EC and the seven-member European Free Trade Association obviously will have a negative influence on the ability of the United States to compete in most European markets. Eventually, however, such agreements may open the way for EC acceptance of a recent U. S. proposal calling for elimination of all tariffs on industrial goods among industrial nations.

In the immediate future, tariffs facing industrial goods entering the United Kingdom, Denmark, and Ireland will generally be lower than when these nations were outside the EC—a positive factor for U. S. industrial exports. Of course, tariffs between The Three and The Six gradually will be eliminated completely, thereby encouraging intra-Community trade and discouraging trade with nonmembers—a negative factor for U. S. industrial exports. Still, since the six-member EC came into being, U. S. industrial exports to the area have more than doubled—indicating that as European economies expand U. S. exports to them also expand. This trend presumably will continue with the enlarged EC.



Agricultural commodities. Within the United States, the most clearly identified problem pertaining to the trade diversion aspects of the EC expansion concerns the common agricultural policy (CAP) of the Common Market.(See *Business Conditions*, February 1970 for a discussion of the EC and U. S. agriculture.)

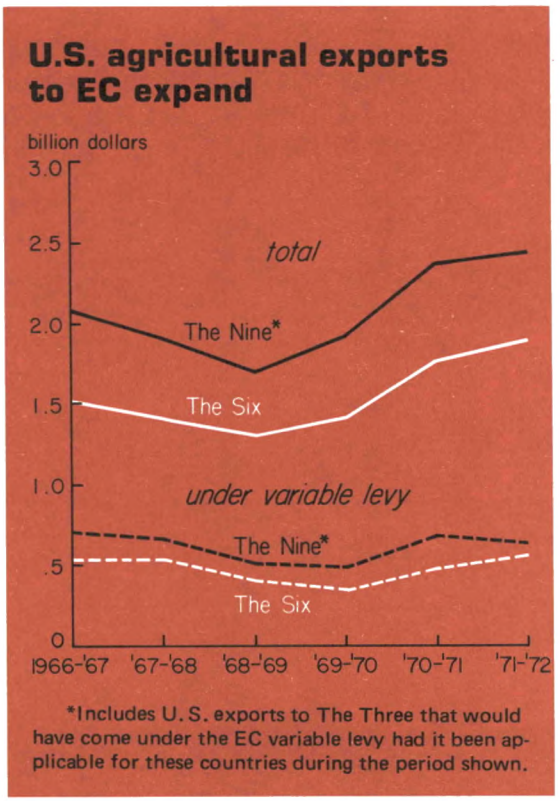
Most industrial countries have a relatively small population directly involved in agricultural production, but the farm population often possesses a relatively large degree of political influence. As a result, agricultural production is often shielded from foreign competition in a more forthright manner than are industrial goods. The EC provides a most effective shield against foreign competition for its farmers.

Variable levies on imported grains, meat, poultry, eggs, dairy products, and many processed foods made from agricultural products raise the price of these imports to a "threshold" price that is related to the EC's "intervention" or support price. At this price, the EC government stands ready to purchase all covered products, domestically produced, that are offered for sale. Foreign agricultural products subject to the variable levy are thus unable to compete in EC markets at the generally lower world market prices. Rather, they can enter the EC only at the high internal price. The high internal prices also encourage increased EC output (in some cases, surpluses that are exported at subsidized prices) in place of the low-cost imports.

U. S. agricultural exports

U. S. exports of agricultural commodities to the EC Six subject to the variable levy declined 15 percent between 1967, when the uniform grain prices of CAP were fully implemented, and calendar year 1971. During the same period, U. S. exports to the EC of farm products not subject to CAP (especially soybeans and soybean products) increased 45 percent, resulting in a net increase of 23 percent in total agricultural exports to the EC. In 1967, U. S. agricultural exports subject to the variable levy accounted for 36 percent of agricultural shipments to the EC, but in 1971 the variable levy share slipped to 25 percent. There is intense concern within the United States, as well as in other grain exporting countries, that the expansion of the EC, especially Britain's membership, will result in a shrinkage in what has been up to now a large export market for agricultural products, especially grains.

The United Kingdom, prior to joining the Community and thereby committing itself to adopting CAP, held to a low-price food policy with farmers receiving prices at world market levels and agricultural imports coming in with little or no duty. Farmers' incomes were generally supplemented by direct government subsidies. Largely because of the lack of import restrictions, the United Kingdom has been the world's largest single importer of agricultural commodities, and in some years



was the fourth or fifth largest market for U. S. agricultural commodities.

It is understandable that major exporters of agricultural products outside of the EC view Britain's adoption of CAP with some alarm. In recent years, 33 to 40 percent of the United Kingdom's agricultural imports have been in categories covered by the EC variable levy. Since 1970, more than 40 percent of U. S. agricultural exports to Britain have been in variable levy categories—primarily feed grains. It is expected that when Britain adopts the high price supports of the EC, British agricultural output will expand, and there will be a shift to purchasing high-cost, EC-produced products rather than commodities that must face the variable levy in order to enter the British market. As far as the United States is concerned, corn will be hardest hit by British membership in the EC because corn is the largest single U. S. agricultural export to the United Kingdom that is subject to the variable levy. But as corn prices increase, it is likely that duty-free, high-protein meal products (especially soybean meal) gradually will be partially substituted for corn in making up livestock and poultry feed rations—a plus for U. S. farm exports.

It should be noted that regardless of whether the United Kingdom had joined the EC or remained outside, the U. S. would have gradually found it more difficult to export farm products to that market. The British government in recent years has increasingly relied on high market prices and minimum import prices to support farm incomes in the attempt to shift farmer income-maintenance costs away from the national budget and on to the consumer.

The adoption of CAP by Denmark and Ireland will have only minimal impact on U. S. agricultural exports with the exception of tobacco. Tobacco is the largest U. S. agricultural export to Ireland and the United Kingdom, and ranks second to soybeans in shipments to Denmark. U. S. tobacco must now compete for these markets with EC-associated countries and countries located in tobacco-growing areas of the Mediterranean that have been granted preferential trading arrangements with the EC.

Summary comments

The expanded Common Market has broad political and economic implications for the nine countries involved and for the world at large. There shall be no "unaffected bystanders" to the growth of this powerful economic body; members and nonmembers shall continue to feel the impact of this multinational phenomenon either directly or indirectly. The growth of the EC is one of the few concrete examples that seem to counter the apparent quickening tempo of economic nationalism—real and threatened—among the nations of the

world. The enlarged European Community has the potential—perhaps even the goal—to more strongly press its economic will on others, or on the opposite side of the coin, to resist the economic will of others when goals are in conflict. The Community also has the potential to take on some of the political-economic responsibilities heretofore borne by the United States. The growing pains of the EC will be felt in the United States. The process may not always be pleasant, but it cannot be otherwise.

Jack L. Hervey

Industrial Production: 1971 Edition

This new publication is now available at $4.00 per copy from Publications Services, Division of Administrative Services, Board of Governors of the Federal Reserve System, Washington, D. C. 20551.

The Federal Reserve's index of industrial production was started in 1919. Major revisions were made in 1927, 1940, 1953, 1959, and the latest in 1971. The "FRB index" measures changes in the physical volume of output of factories, mines, and electric and gas utilities. The indexes in this volume are presented as "relatives" with 1967=100. The index and its components are widely used by business analysts. Monthly releases, which are published by the Federal Reserve about the fifteenth of each month, show measures of output for the previous month.

The new volume contains 134 pages of text and 249 pages of statistical tables. The text describes the sources of data and methods of preparation, and analyzes the relationships of the new production measures to other data. The tables present annual and monthly index numbers (seasonally adjusted and not seasonally adjusted) beginning in 1919 for major industry divisions, in 1947 for major market and industry groupings, and in 1954 for subtotals.

Banking developments

Contra-seasonal business loan gain

Loans to commercial and industrial firms at the nation's largest banks typically decline in January, largely offsetting—and occasionally erasing—the normally large December increases. This year, however, business loans increased by more than $1 billion in January, the first net January gain in at least 20 years. The total gain over the nine weeks between the last Wednesdays of November and January was more than 4 percent. In the comparable periods of the two previous years, loan demand was weak. The largest gain for the same weeks of any other recent year was 2.3 percent in 1968-69, a period when business expenditures were rising rapidly. Although part of this year's gain also reflects demands generated by the strong business expansion, the stability of bank loan charges in the face of rising market interest rates also may have been an important factor.

The December-January business loan increase at major district banks was broadly based throughout the major industrial categories. Mining firms, including crude petroleum and natural gas extraction, accounted for the largest share of the increase.

Increases in loans with an original maturity in excess of one year more than offset, or partially offset, repayments of short-term borrowing in several borrower categories. This pattern was especially marked during January. The rising proportion of term loans was consistent with the greater demands for interim financing of growing capital expenditure programs and general expectations that interest rates will rise further as the economy approaches its productive capacity.

Business loans of major district banks*

Borrower	Outstanding 1-31-73	Change from 11-29-72 by original maturity: Under 1 year	Change from 11-29-72 by original maturity: Over 1 year
		(million dollars)	
Mining and petroleum	864	+ 83	+ 87
Metals and machinery	2,127	+ 91	+ 22
Food, liquor, tobacco	664	+ 79	–
Public utilities	1,476	– 40	+ 92
All other domestic	4,728	– 8	+100
Foreign and bankers' acceptances	637	–100	–
Total	**10,496**	**+105**	**+301**

*The 18 banks that report by business of borrower account for 85 percent of the business loans of the 55 large district banks that report total business loans weekly.

Percent change in business loans of large banks

	1966-70 average	1970-71	1971-72	1972-73
United States				
Dec. (4 wks.)	+2.5	+1.2	+0.9	+2.7
Jan. (5 wks.)	–1.0	–2.0	–2.0	+1.5
9 weeks	+1.5	–0.8	–1.1	+4.2
District				
Dec. (4 wks.)	+2.7	+0.4	–	+3.9
Jan. (5 wks.)	–0.8	–2.3	–3.4	+0.4
9 weeks	+2.0	–1.9	–3.4	+4.4

Note: Beginning December 1969, data include loans sold to affiliates.

Number of banking facilities up in 1972

Most bank structure changes in 1972 were related to the expansion of bank holding companies. Bank holding company subsidiaries increased by 42. The net increase was the difference between 54 banks that became subsidiaries and 12 that ceased to be subsidiaries. Twenty-two of the new subsidiaries were in Michigan, where the law was recently changed to permit corporate ownership of bank stock, and 12 each were in Iowa and Wisconsin, states in which multibank holding companies have long been important. Multibank holding companies are prohibited in Illinois and Indiana. A total of 23 new bank holding companies were formed in the district—18 one-bank and five multibank—while 12 existing companies ceased to be bank holding companies. Four existing holding companies changed from one-bank to multibank status through acquisition of additional banks.

There was a net increase of 23 banks in the district in 1972. One liquidation occurred, the same as the annual average for the preceding decade. Only three banks were eliminated through mergers and two of the merged banks continued to operate as branches. Mergers have declined steadily from the 1965 high of 22, reflecting the combined effects of more stringent policies toward anticompetitive mergers, the gradual exhaustion of attractive merger possibilities, and preoccupation with expansion through bank holding companies.

A total of 27 new banks were established during the year. As has been the case in virtually every year in the past two decades, more than half of these were in Illinois and more than one-fourth were in the Chicago SMSA, primarily in rapidly growing suburban areas to the north and west. In Illinois, which prohibits branches other than drive-in facilities, a new bank is virtually the only means of providing new banking facilities. Michigan gained only two banks and Indiana one in 1972. Most new banks were established under state charters, and the number of Federal Reserve members in the Seventh District declined by two, to 939, on December 31.

The number of banking offices—including home offices, full-service branches, paying-and-receiving stations, drive-in facilities, and special facilities at airports and on military installations—increased by 4.6 percent in Michigan, 3.5 percent in Indiana, and 3.4 percent in Illinois. Virtually all of the increase in Michigan and Indiana consisted of de novo branches. Indiana now has more branches than home offices, and Michigan has more that four times as many branches as home offices. In the district, the number of branches and other facilities nearly equaled the number of home offices at the close of the year and seems certain to surpass it in 1973.

Changes in district banking structure in 1972

	State					Dist.
	Il.	In.	Ia.	Mi.	Wi.	total
	(number)					
Banks, Jan. 1	848	316	666	285	489	2,604
New banks	17	1	3	2	4	27
Mergers	1	1	0	1	0	3
Liquidations	0	0	0	0	1	1
Net change	16	0	3	1	3	23
Banks, Dec. 31	864	316	669	286	492	2,627
Offices, Jan. 1	95	568	330	1,211	215	2,419
De novo	16	32	18	72	6	144
Conversions	0	1	0	1	0	2
Closed	0	2	4	5	0	11
Net change	16	31	14	68	6	135
Offices, Dec. 31	111	599	344	1,279	221	2,554
Holding companies						
Jan. 1	134	22	137	23	37	353
Dec. 31	137	23	138	27	39	364
Subsidiary banks						
Jan. 1	125	20	148	20	108	421
Dec. 31	128	21	158	36	120	463

Loan-deposit ratios

Following a decline which began in mid-1970 and continued through the middle of 1971, the loan-deposit ratio (total loans and discounts expressed as a percentage of total deposits) for all U. S. commercial banks combined moved up during 1972, reaching a high of 69.3 percent in November. Although the year-end ratio, at 68.7 percent, was below November, it was high relative to other months of 1971 and 1972. The 1970 peak was 70.8 percent.

The pattern of change in the ratio of major Seventh District member banks largely paralleled that for all commercial banks but at a higher level. From a low of 69.3 percent reached in the second quarter of 1971, the ratio for the 55 large weekly reporting Seventh District banks increased to a high of 77.1 percent in November 1972—the highest level since the previous high of 78.9 percent in June 1970. In late December, the ratio slipped back to 76.5 percent. As the table indicates, the ratios of more than one-fifth of these banks were over 80 percent last December 27. The pattern has beem similar for other district member banks, but their ratio reached a new high of 61.4 percent last November.

Variations in loan-deposit ratios for particular groups of banks through time result from such factors as varying rates of change in deposits, loan demand, and individual bank management policies. Despite better than average loan growth in December, the ratios declined because of exceptionally large year-end deposit inflows. The increases in loan-deposit ratios indicate that loan demand increased even more rapidly than the deposits during 1972 as a whole.

Differences in levels of loan-deposit ratios among various size classes of banks result, in part, from differences in access to and use of nondeposit sources of funds such as federal funds, Eurodollars, and commercial paper. When money is tight, large banks typically generate funds from such sources to meet loan demands. In mid-1970, when loan-deposit ratios were at their peaks, loans at some large banks exceeded total deposits, but nondeposit liabilities supplied over $20 billion—about 5 percent of total commercial bank deposits. These liabilities declined as funds flowed into banks in deposit form, and at the end of 1972 totaled less than one-fourth their 1970 highs.

Loan-deposit ratios at Seventh District banks

	Loans as percent of deposits			
	6-24-70	12-29-71	6-28-72	12-31-72
	(number of banks)			
Large banks				
Under 60	6	12	12	9
60 - 69	24	25	21	17
70 - 79	15	17	17	17
Over 80	10	1	5	12
	(percent)			
Aggregate ratio*	78.9	69.9	74.4	76.5
	(number of banks)			
Other banks				
Under 40	64	77	77	78
40 - 49	111	129	114	102
50 - 59	244	250	230	225
60 - 69	312	273	281	270
70 - 79	129	127	150	174
Over 80	26	26	35	37
	(percent)			
Aggregate ratio*	60.6	59.1	60.0	61.1

*Total loans and discounts expressed as a percentage of total deposits of all banks in group.