APRIL, 1948

BUSINESS CONDITIONS

A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

Bank Profits Decline Despite Record Earnings

An Analysis of 1947 Seventh District Member Bank Operations

The all-time record increase in the volume of loans made by Seventh District member banks during 1947 raised earnings on loans to a point where net current earnings were slightly above the previous peak reached in 1946 despite a substantial increase in expenses and a reduction in the amount of interest earned on Government securities. Net profits after income taxes continued the decline started in 1946 when profits on securities were drastically reduced.

Failure of 1947 net profits to follow the trend of net current earnings resulted chiefly from a 15 million dollar drop in total recoveries and security profits from the previous year. The net profits of all member banks in the Seventh District aggregated 93 million dollars in 1947, a decrease of nine million from 1946 and a decline of 15 million from the peak year of 1945.

The recently completed study of Member Bank Operating Ratios of Seventh District member banks made annually by this Bank discloses that the average ratio[1] of net profits to capital accounts declined from 12.5 per cent in 1946 to 10.5 per cent in 1947. Total capital accounts of all Seventh District member banks at the end of the year amounted to 1,078 million dollars, a gain of 55 million during the year.

REVIEW OF CAPITAL STRUCTURE NECESSARY

Cash dividends declared by Seventh District member banks totaled 31 million dollars, leaving approximately two-thirds of the banks' 1947 profits available to further strengthen their capital position. As a ratio of capital accounts, cash dividends declared amounted to 2.7 per cent, and this conservative dividend policy resulted in a desirable addition to capital for many banks. The rapid expansion in loans raced far ahead of the capital gains made by some banks, however, and the need for additional capital in many cases is manifest.

The increase in capital accounts raised to 5.6 per cent the ratio of capital accounts to total deposits, reversing a downward trend in this ratio of several years standing. This capital-deposit ratio, however, is still substantially below the 10 per cent level considered "safe" in the latter portion of the 1930's. Although at one time this ratio was considered a fairly reliable guide to the adequacy of a bank's capital, it is not affected by changes in the structure of bank assets and it has to a large extent been discarded. Instead many now prefer the ratio of capital accounts to the so-called "risk assets," which are determined by subtracting the "riskless assets" (cash and U. S. Government securities) from total assets. Because conditions vary among individual banks, no specific figure for the capital-risk ratio can be used as the sole criterion for judging capital adequacy, but since the capital-risk asset ratio is affected by fluctuations in the composition of bank assets, it is therefore considered a better measure in this respect than the capital-deposit ratio.

As a result of the phenomenal wartime growth of U. S. Government security holdings, the capital-risk asset ratio rose steadily from 1941 to a peak of 39.6 per cent in 1945 when a downward trend set in. This ratio fell to 35.9 per cent in 1946 and dropped again in 1947 when it reached 29.4 per cent. A single ratio of aggregate dollar amounts shows the 1947 capital-risk asset ratio to be 19.2 per cent, considerably under the level of about 25 per cent maintained by this ratio for the prewar years 1934 thru 1939.

(Continued on Page 8)

[1] Ratios in this study are arithmetic averages of the ratios of the individual banks rather than single ratios of aggregate dollar amounts, and unless otherwise stated references to ratios in this article are to ratios computed on this basis. Copies of this study may be obtained on request to the Research Department, Federal Reserve Bank of Chicago, Box 834, Chicago 90, Illinois.

TABLE 1

EARNINGS AND DIVIDENDS OF ALL SEVENTH DISTRICT MEMBER BANKS BY CLASS OF BANK 1946-47

(Dollar amounts in thousands)

Item	All Seventh District Banks			Central Reserve City Banks			Reserve City Banks			Country Banks		
	1947	1946	Per Cent Change	1947	1946	Per Cent Change	1947	1946	Per Cent Change	1947	1946	Per Cent Change
Total Current Earnings	361,531	336,371	+ 7	113,031	110,795	+ 2	114,358	104,745	+ 9	134,142	120,831	+11
Operating Expenses	237,270	212,190	+12	69,995	63,137	+11	80,557	71,889	+12	86,718	77,164	+12
Net Current Earnings	124,261	124,181	—	43,036	47,658	—10	33,801	32,856	+ 3	47,424	43,667	+ 9
Recoveries and Other Profits	33,134	48,598	—32	18,723	23,201	—19	6,981	11,570	—40	7,430	13,827	—46
Losses and Charge-offs	34,198	37,548	— 9	15,573	20,632	—25	8,510	8,222	+ 4	10,115	8,694	+16
Profits Before Income Taxes	123,197	135,231	— 9	46,186	50,227	— 8	32,272	36,204	—11	44,739	48,800	— 8
Taxes on Net Income	30,362	33,132	— 8	9,651	12,993	—26	7,859	9,258	—15	12,852	10,881	+18
Net Profits After Taxes	92,835	102,099	— 9	36,535	37,234	— 2	24,413	26,946	— 9	31,887	37,919	—16
Cash Dividends Declared	30,981	29,691	+ 4	14,060	14,050	—	8,018	7,173	+12	8,903	8,468	+ 5
Retained Earnings	61,854	72,408	—15	22,475	23,184	— 3	16,395	19,773	—17	22,984	29,451	—22

Financial Condition of Business

Some Weakening Appears Amidst Widespread Strength

The financial position of most Seventh District business firms remains strong, certainly by prewar standards, but some of the financial gains achieved during the war have been lost. The immediate prospects are for continued over-all financial strength, but also for increasing instances of financial stringency as more firms are confronted with rising buyer resistance, high break-even points, and increased competition for sales. How a business is financed, moreover, has changed from a question of no great concern for most business executives during war and postwar years of "assured" sales to one now receiving the very close attention of top business managements.

Some postwar deterioration in the financial condition of business was to be expected. Most concerns built up large liquid asset balances during the war—expenditures on capital assets, inventories, and receivables were held to a minimum by Federal regulations, and undistributed earnings were high. The need to bring these assets back to more normal levels in relation to volume of sales, high physical levels of business activity, and sharply rising prices created a demand on the part of corporate business for approximately 25 billion dollars in funds in 1946[1] and 26 billion dollars in 1947, more than four times the war and immediate prewar averages (see accompanying table). Business has thus faced a financial task of immense proportions since V-J Day.[2]

Comparatively few firms thus far since the end of the war have been forced by financial stringencies to defer expansion programs or other expenditures deemed essential to re-establishing their businesses under postwar conditions. When internal sources and the capital markets have not provided sufficient funds to meet expanded financial requirements, additional capital generally has been forthcoming from banks, insurance companies, and other lenders. Doubt in financial circles about future business prospects later in 1948, together with increased attention to their loan-capital position by bankers, however, have led to a comparatively recent tightening of business credit. Since early January, in fact, commercial and industrial loans of weekly reporting banks have shown a small decline. The explanation of this trend lies in part in seasonal factors and an interplay between bank and nonbank sources of funds, but probably reflects some credit tightening as well.

From scattered but fairly representative reports available, the vast majority of business firms, and particularly the largest, appear to have anticipated a high proportion of their expected 1948 financial requirements through the establishment of credit lines with banks and other lending institutions or through the issuance of new securities. These firms have not been affected by the tightening of credit conditions, and it is not likely that they will be for some time.

While the current high level of general business activity, through its impact on earnings, remains the dominant influence affecting the financial conditions of individual firms, many financial problems are arising currently because of a return to more competitive conditions and because of unfavorable sales trends in particular business fields. Who will finance the carrying of inventory, for example, is becoming an important problem in some lines, e.g., household appliances and women's apparel. This is particularly true where shortages of goods are easing, and a good deal of the control over inventory and payment terms is being shifted from manufacturers and distributors to retailers and others closer to the consumer. Moreover, the slackening of cash sales generally, itself a sign of growing financial strain, and the resultant rise in credit sales are causing a larger need for funds among firms which have been relying upon a rapid turnover of goods and receivables to finance their operations.

SOURCES OF FINANCIAL WEAKNESS

At the end of the war, American business was in a stronger financial position than at any previous time. While all companies engaged in war manufactures or the production and distribution of essential civilian goods and services achieved striking wartime financial gains, smaller establishments typically outdistanced larger firms in rel-

CORPORATE DEMAND FOR FUNDS TO FINANCE ASSET EXPANSION
1939-47
(In billions of dollars)

Year	Expenditures on Plant and Equipment[1]	Increases or Decreases		Total
		Inventories	Receivables	
1939	4.7	.3[2]	.7[2]	5.7[2]
1940	5.8	1.8	1.9	9.5
1941	7.4	5.8	.4	13.6
1942	5.5	1.7	—.7	6.5
1943	4.1	.3	—.4	4.0
1944	4.7	—.8	—.4	3.5
1945	6.0	.2	—.9	5.3
1946	10.8	8.7	5.4	24.9
1947	14.1	7.0	5.0	26.1

[1] Estimated at 90 per cent of corporate and non-corporate expenditures on plant and equipment.
[2] Estimated.
SOURCE: Securities and Exchange Commission.

[1] In 1946 corporations used an additional 2.5 billion dollars to reduce their Federal income tax liability.

[2] For a discussion of how business raised these funds, see "Prices, Profits, and the Corporate Security Markets" in the March 1948 issue of *Business Conditions.*

ative improvement of financial strength. In the two and one-half years since V-J Day, however, inflationary developments, a return to more normal business operations, and a gradual catching up with the backlog of demand for many goods have led to a noticeable deterioration in the financial position of most business firms. Price increases alone during the past year required 10-15 per cent more funds merely to handle the same volume of business. With third round wage increases in the offing and costs of many raw and finished goods and services still rising, the financial drains on business from the price side have not yet come to an end, although probably their importance is diminishing.

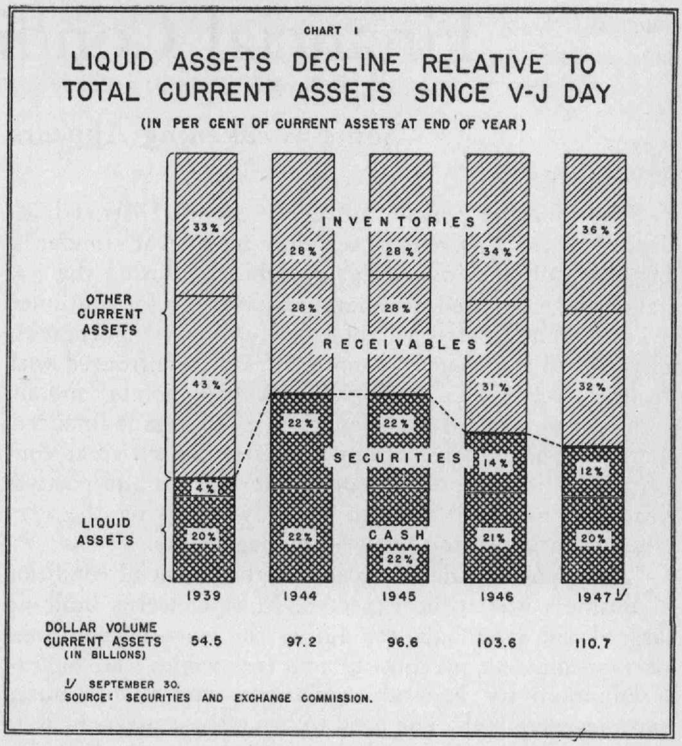
Greater than anticipated outlays for plant and equipment also have upset many financial plans in business since the end of the war. Not only have budgeted expenditures for expansion programs involved record amounts, but under general conditions of rising prices "cost-plus" contracts commonly have increased actual expenditures by 25-150 per cent over original estimates.

Since the end of the war, total corporate current assets and current liabilities have increased in the same proportion, i.e., the current ratio has remained unchanged at about 1.8, according to the Securities and Exchange Commission. However, as a result of postwar increases of approximately 56 per cent in inventories and 30 per cent in receivables and a decline of over 27 per cent in liquid assets, the liquidity ratio obtained by dividing cash and marketable securities by current liabilities fell from .82 at V-J Day to a little over .55 at December 31, 1947, virtually its 1939 level.

The present high level of prices and the ever present possibility of price-sales declines confront corporations with a constant threat of loss in inventory values. Manufacturing and trade inventories are now not only at an all-time absolute high—they were in excess of 42 billion dollars at the end of 1947—but they comprise a greater proportion of current assets, 36 per cent, than they did at V-J Day, 28 per cent, or in 1939, 33 per cent (see Chart 1). Inventories also will become more vulnerable as consumers question the prices of specific products in relation to their quality. Under these conditions the sales-inventory ratio, which now compares favorably with that existing prewar, could be expected to fall. Regardless of price and sales trends, therefore, inventories bear close watching.

In spite of their already noted substantial postwar growth, receivables now account for only 30 per cent of corporate current assets compared with 41 per cent prewar. Since V-J Day when the figure was 26 per cent, business concerns have been in the process of rebuilding normal trade credit relationships which were disrupted during the war. Receivables promise to increase in coming months, not only from continuation of this process but also from increased reliance on trade credit as other sources of funds become harder to tap.

Collections have already slowed considerably and are approaching prewar rates. Cash discounts are also being taken by fewer firms. It is only because receivables are relatively less important than they were before the war that corporate liquidity has not fallen below prewar



standards. In absolute terms, corporate receivables exceeded 34 billion dollars at the end of last year; this compares with a level of 22 billion dollars in 1939.

Several other needs for funds have contributed to the financial weakness which has appeared among some business firms. These include funds needed to: hold the organization together during material shortages, labor disputes, and fuel stringencies; rebuild distribution facilities; expand research, marketing, and advertising programs; and in general to meet the many costs of maintaining a business organization during a period of rising prices, high labor turnover, and general business uncertainty. With inventories already vulnerable and receivables and fixed assets still growing, the liquid position of corporate business could rapidly fall below prewar standards if prices should drop sharply.

NET WORTH-DEBT RATIO

During the war most business firms increased their debt relative to their net worth. The major factor underlying this trend was the rise in Federal income taxes payable, which more than offset the combination of higher earnings and conservative dividend payments. The Government being both chief customer and chief creditor, no particular significance was attached to abnormally low net worth-debt ratios. In manufacturing, for example, the ratio declined from three in 1939 to a wartime low of 1.5. Wholesale and retail trade, railroads, and utilities experienced similar ratio trends. With the return of more normal peacetime conditions, however, the problem of an "adequate" equity capital base for operations has assumed considerable importance. This has become particularly true in recent months as a consequence of the already discussed weakening in liquidity position from the V-J Day record high point.

In the late war period there was a general tendency for the net worth-debt ratio to resume an upward movement. However, this trend has since been reversed in wholesaling in 1945, retailing in 1946, and manufacturing in 1947. After reaching a level of 2.5 in 1946 the net worth-debt ratio for manufacturing fell last year principally because of heavy bank borrowing and record bond flotations.

The renewed weakening in net worth-debt relationships is significant in view of the sharp postwar increase in net worth. Undistributed profits reached successive records, 6.9 and 10.3 billion dollars in 1946 and 1947, considerably above the wartime average of about five billion dollars and an immediate prewar level under two billion dollars.

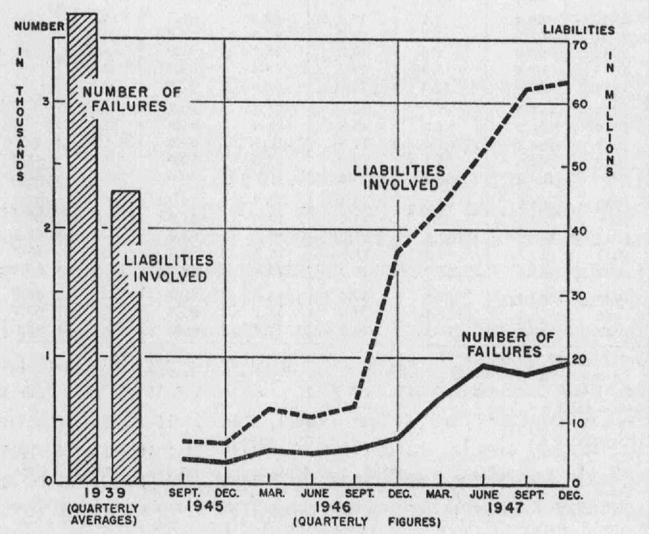
BUSINESS FAILURE TRENDS

Further indication of growing financial weakness is indicated by postwar trends in business failures. After rising gradually in the early postwar period, the number of failures and the dollar liabilities involved have experienced marked increases since the fourth quarter of 1946 (see Chart 2). The number of failures still remains considerably below prewar levels. Because the average firm size increased during the war and has further risen as a result of postwar inflationary trends, the dollar liabilities involved in current business failures are almost 50 per cent higher than in 1939.

Postwar failures have been concentrated among small firms and particularly those started since the beginning of the war. Although some larger firms have also failed, a greater number have sought to forestall failure by making arrangements with creditors, in some cases with and in some without benefit of the Federal bankruptcy act. Recent prominent examples from the Midwest include companies making electrical equipment, automatic vending machines, and furniture.

CHART 2

BUSINESS FAILURES UP MARKEDLY IN THE LAST YEAR



SOURCE: U.S. DEPARTMENT OF COMMERCE.

MANUFACTURING FINANCIAL TRENDS

A review of the 1947 financial statements of 356 manufacturing corporations with assets over one million dollars indicates that the foregoing financial trends observed generally among business firms characterized manufacturing as a whole, both the durable and nondurable sectors, and the several size groups.[3] The major exception was the behavior of the net worth-debt ratio among durable corporations with assets of one to five million dollars. The ratio for that group increased during the year, all other groups experiencing decreases.

In spite of the unusually large post V-J Day expenditures on plant and equipment, fixed assets of manufacturing corporations are still much lower relative to total assets than they were prewar. For example, among corporations with assets of five million dollars or more, fixed assets comprise two-fifths of the current total compared with about three-fifths in 1939. The major reason for this decline lies in the fact that the postwar rise in prices has not affected the values of fixed assets which were in existence prior to V-J Day. Corporations have not adjusted the value of these fixed assets to current prices. Many corporations, however, have attempted to provide for replacement at higher prices by setting up reserves supplemental to depreciation allowances, the latter being based on cost. Fixed assets will become a larger component of total assets as plants and equipment built before the war at lower costs wear out and are replaced. Their relative importance, of course, also will be increased by any general downward movements in the price level.

MORE FUNDS TO BE NEEDED

It can thus be seen that the inflationary "boom" conditions of the postwar period have contributed to large asset expansions on the one hand and to a sharp reduction in liquid asset holdings on the other. Even record earnings have proved insufficient to meet the heavy business expenditures of the period, and necessitated substantial reliance on external sources of capital and credit. Because of the difficulty encountered by many firms in acquiring new equity funds in recent months, the principal effect of these acquisitions of new funds by business firms has been a marked increase in debt. The key to the financial conditions of business firms in coming months will be (a) the course of earnings, (b) the attitude of investors and lenders who will be called upon to furnish additional funds to many individual companies, and (c) the scope of currently discussed defense preparations which could modify significantly the financial needs and problems of most business firms.

[3] The proportions of their respective universes represented by the total assets of the companies sampled are: one-five million dollar group, 2.5 per cent; five-100 million dollar group, 15 per cent; and 100 million dollar and over group, 23 per cent.

Michigan State Finance — III

Development and Character of Tax System

The major concern of state governments during the past three decades has been the expansion and development of revenue systems capable of meeting the tremendous growth in the amount and scope of state expenditures and able partially to absorb the shock of both economic depression and inflation.

In adding new taxes to their revenue systems, the states have exhibited natural preferences for levies that accommodate their own fiscal requirements. Yield characteristics are of predominant importance. Constitutional restrictions on deficit financing effectively prohibit borrowing for all but an occasional expenditure, and thus require the states to operate on a pay-as-you-go basis, though with some dependence on surplus finance (i.e., the accumulation of tax moneys in periods of prosperity in anticipation of reduced yields in depression).

The tax yields sought by the state governments on a pay-as-you-go basis are those, therefore, which fluctuate in proportion to changes in the demand for government services and unit costs of such services in years of prosperity and inflation on the one hand or in depression and deflation on the other. As the public economy, particularly at the state and local level, is less flexible than the private economy in adjusting expenditures to changes in economic conditions, the taxes for which the states have the highest regard are those that are comparatively stable in yield and yet not completely insensitive to variations in the level of prices and the national income. Unless the tax rules are changed during the game, the taxes that are resistant to depression are certain to be insensitive to boom and inflation. The taxes that respond to or even accentuate price and volume increases are bound to be vulnerable to depression and price collapse. Most state tax systems are more heavily weighted by the moderately sensitive levies (the retail sales taxes), but every state places a considerable reliance on such stable yielders as the specific excises on gasoline, motor vehicles, tobacco, and liquor.

From a yield standpoint, therefore, the states seem to be evolving tax systems with an automatic elasticity geared to the timing of their expenditures. A system of this type obviates changes in the revenue structure solely to adjust for the vicissitudes in economic conditions and makes for stability and certainty in state tax policy.

Another important attribute of those state taxes which have survived the testing period and have been widely adopted is a limited exposure to competitive tax policies of other states, particularly those of the neighboring jurisdictions. The extent to which state taxes provide a major or marginal inducement to migration of businesses or residents is not a proposition to which a simple or obvious answer can ordinarily be given—too often the incidence of the tax is incorrectly determined and the offsetting effects of expenditure policy are ignored. State legislatures, however, are keenly sensitive to contentions that given tax policies will drive businesses or residents out of their state. In framing tax legislation the effect upon the competitive situation with other states is always a factor if migration to such other states is a practical alternative, or if heavier taxation of a localized resource appears to jeopardize an existing and necessary economic advantage of in-state business enterprises competing in out-state markets.

Other considerations have played significant roles in evolving the characteristics of present day state tax systems. Current payment, for example, has at the present level of Federal and State taxation become an almost indispensable feature of the major taxes. In consumption levies, pay-as-you-go is an implicit characteristic; for personal income and payroll taxes, tax withholding fully

TABLE 1

CLASSIFICATION OF MICHIGAN STATE TAX REVENUES 1920-47

(In millions of dollars)

Year Ending June 30	Total[1]	Sales[2]	Business[3]	Property[4]	Highway User[5]	Personal[6]	Payroll
1920	34.5	—	2.6	25.2	5.9	.8	—
1921	36.0	—	3.1	24.9	6.6	1.4	—
1922	47.5	—	8.5	30.1	7.7	1.2	—
1923	47.8	—	9.1	27.0	10.6	1.1	—
1924	59.4	—	9.9	33.2	12.6	3.7	—
1925	54.8	—	10.2	26.6	15.5	2.5	—
1926	70.2	—	10.4	30.4	27.2	2.2	—
1927	71.3	—	10.9	29.7	28.8	1.9	—
1928	88.9	.1	11.8	38.5	36.2	2.3	—
1929	92.5	.1	12.4	33.7	43.0	3.3	—
1930	108.4	1.1	13.4	42.8	45.7	5.4	—
1931	105.0	.7	12.7	42.2	43.4	6.0	—
1932	97.7	1.2	12.2	36.7	42.0	5.6	—
1933	67.6	1.5	11.1	18.4	34.3	2.3	—
1934	105.4	35.3	11.0	18.8	37.8	2.5	—
1935	117.9	45.7	10.1	20.6	39.1	2.4	—
1936	128.7	54.0	15.8	13.0	43.8	2.1	—
1937	156.2	65.4	12.5	10.3	49.8	4.2	14.0
1938	201.6	65.3	17.0	12.6	50.0	8.5	48.2
1939	184.8	66.1	15.8	10.7	50.6	5.0	36.6
1940	206.9	75.6	15.5	10.5	55.2	2.7	47.4
1941	243.2	90.5	15.9	13.6	61.8	4.2	57.2
1942	264.5	102.6	17.0	13.7	60.3	3.7	67.2
1943	250.7	109.2	17.3	13.2	50.8	4.3	55.9
1944	261.0	116.7	19.1	13.4	48.6	2.9	60.3
1945	262.2	125.8	20.0	13.7	47.4	6.5	48.8
1946	315.3	156.1	22.9	16.1	55.6	3.7	60.9
1947	358.5	198.3	24.2	17.4	69.6	5.4	43.6

[1]Gross receipts including penalties and interest less actual amounts refunded during fiscal year.
[2]See Table 2.
[3]See Table 3.
[4]See Table 4.
[5]See Table 5.
[6]Consists of the inheritance tax and a two dollar poll tax for the Old Age Pension Fund of approximately $200,000 annually for the years 1934 and 1935.
SOURCES: *Report of the Auditor General* (annual); *Michigan Liquor Control Commission Activities* (1933-45); and *Report of the Michigan Unemployment Compensation Commission* (1942-46).

TABLE 2

SALES TAX REVENUES

1928-47

(In millions of dollars)

Year Ending June 30	Total	General Sales and Use[1]	Beer, Malt, and Alcoholic Spirits[2]	Liquor Store Profits[3]	All Other[4]
1928	.1	—	—	—	.1
1929	.1	—	—	—	.1
1930	1.1	—	1.0	—	.1
1931	.7	—	.6	—	.1
1932	1.2	—	1.1	—	.1
1933	1.5	—	1.5**	—	*
1934	35.3	31.4	2.8**	1.1	*
1935	45.7	38.7	3.7**	3.3	*
1936	54.0	45.6	4.0	4.3	.1
1937	65.4	54.8	3.9	6.6	.1
1938	65.3	52.6	5.5	7.1	.1
1939	66.1	51.8	4.4	9.8	.1
1940	75.6	60.4	4.3	10.9	*
1941	90.5	73.6	4.5	12.2	.2
1942	102.6	82.7	5.1	14.7	.1
1943	109.2	86.4	5.6	17.0	.2
1944	116.7	92.8	6.3	17.3	.3
1945	125.8	99.3	7.6	18.6	.3
1946	156.1	118.7	18.6	18.5	.3
1947	198.3	161.3	17.1	19.5	.4

[1]The sales tax (rate of three per cent) has been in effect since June 30, 1933; the use tax was first effective October 29, 1937.
[2]Includes the malt tax (1930-47), the beer and wine tax (1933-47), and the alcoholic spirits tax (1946-47). Since licensees under the beer tax law were exempt from the malt tax, yields from the malt tax were negligible in 1935 and thereafter, and the tax was repealed in 1947. During the entire period the tax on beer has been $1.25 per barrel (31 gallons); the original rate on wine was the same as on beer. Effective July 1, 1938, the rate on wine was increased to 50 cents per gallon except for wine from Michigan fruit on which the rate remained unchanged. The 1945 General Assembly imposed for a two-year period a 10 per cent tax on the retail sale price of spirits. This tax expired May 14, 1947.
[3]Consists of revenues from sales less costs of liquor sold and less expenses directly attributable to liquor store operation. Also includes proceeds from sale of ration stamps (1944-45), liquor identification stamps (1945-47), and miscellaneous related items. The original mark-up on liquor merchandise of 45 per cent was increased to a maximum of 55 per cent in 1940 and of 65 per cent effective July 3, 1947. After the increases in the Federal taxes on liquor, mark-ups on merchandise were below the statutory maximum—50 per cent in fiscal year 1941 and 46 per cent in fiscal year 1942 and thereafter. From 1935 to 1939 funds transferred to the General Fund by the Liquor Control Commission consisted of profits and the cost of store operation; in millions of dollars these were as follows: 4.9, 5.9, 8.4, 8.7, and 9.7. In 1940 and thereafter transfers reflected the difference between gross sales and the cost of merchandise purchased; in millions of dollars these were as follows: 12.8, 12.8, 13.8, 19.0, 13.6, 16.2, 23.8, and 13.0.
[4]These are boxing and wrestling admission taxes (1928-47) and the gasoline tax on fuel used in aviation (1929-47).
*Less than $50,000.
**Estimated.

covers most of the tax liabilities as they accrue.

In order to minimize the government expenditure for tax administration another feature in the development of state tax systems has been the adoption of devices by which taxes are initially collected through intermediaries —merchants, employers, and private dealers in taxable commodities. Thus while taxes are legally imposed upon millions of individuals, they are collected from licensed or bonded agents numbered in the hundreds or thousands.

EVOLUTION OF MICHIGAN SYSTEM

The development of the Michigan tax system since 1920 is illustrative of these and other trends in state finance in this era. In revenue produced Michigan state taxes of today are 10 times those of 1920, four times those of 1929, and one and three quarters times those of 1940 (see Table 1 and accompanying chart). The yields of the tax systems of the states as a whole show approximately the same timing and rate of growth.

Had there been no change in the scope of state activities in this period, the increase in population and the price level between 1920 and 1948 would normally have increased taxes in Michigan, for example, to about two and one-half times the 1920 level. Moreover, the greater part of this increase would have occurred without any material change in tax rates from the natural growth in the tax base.

In the 1920's the ceilings of previous expenditures were pierced in many states by the payment of veterans' bonuses following World War I and in others by the assumption of financial responsibility for construction and maintenance of hard roads.

The states which adopted the bonuses following World War I generally financed them with bond issues serviced by increased property taxes. To initiate the era of good roads the states generally required the local units of government—principally the counties and cities—to share the financial responsibility. Typically, both the states and the localities then used their credit and the property tax to finance highway construction. But these sources of revenue shortly were replaced by the first of the im-

TABLE 3

BUSINESS AND CORPORATION TAXES, 1920-47

(In millions of dollars)

Year Ending June 30	Total (All Business)	General Business[1]	Special Business					
			Total	Insurance[2]	Liquor License[3]	Chain Store[4]	Severance[5]	All Other[6]
1920	2.6	.4	2.2	1.4	—	—	—	.8
1921	3.1	.4	2.7	1.8	—	—	—	.9
1922	8.5	5.7	2.8	1.7	—	—	—	1.1
1923	9.1	6.2	2.9	1.8	—	—	—	1.1
1924	9.9	6.8	3.1	2.1	—	—	—	1.0
1925	10.2	6.5	3.7	2.4	—	—	—	1.3
1926	10.4	6.5	3.9	2.6	—	—	—	1.3
1927	10.9	6.7	4.2	3.0	—	—	—	1.2
1928	11.8	7.3	4.5	3.2	—	—	—	1.3
1929	12.4	7.5	4.9	3.5	—	—	—	1.4
1930	13.4	7.8	5.6	3.9	—	—	.2	1.5
1931	12.7	7.7	5.0	3.7	—	—	.1	1.2
1932	12.2	7.2	4.0	3.5	—	—	.1	.4
1933	11.1	5.8	5.3	3.0	1.2*	—	.1	1.0
1934	11.0	5.0	6.0	2.8	1.9*	.2	.2	.9
1935	10.1	4.9	5.2	3.0	.5*	.1	.2	1.4
1936	15.8	4.5	11.3	3.2	4.2	2.2	.4	1.3
1937	12.5	5.3	7.2	3.5	1.3	.7	.3	1.4
1938	17.0	5.4	11.6	3.9	4.8	.7	.5	1.7
1939	15.8	5.6	10.2	3.7	3.1	.6	.4	2.4
1940	15.5	5.5	10.0	3.9	3.0	.6	.5	2.0
1941	15.9	5.7	10.2	4.2	3.1	.6	.4	1.9
1942	17.0	6.0	11.0	4.8	3.2	.5	.6	1.9
1943	17.3	6.4	10.9	4.9	3.0	.5	.7	1.8
1944	19.1	6.8	12.3	5.4	3.0	.5	.6	2.8
1945	20.0	7.1	12.9	5.2	3.3	.4	.6	3.4
1946	22.9	7.4	15.5	6.6	3.6	.4	.5	4.4
1947	24.2	7.8	16.4	6.9	3.8	.4	.7	4.6

[1]Consists of the corporate organization fee (.05 per cent of capital stock but not less than $25) paid at the time of incorporation and, beginning in 1922, an annual privilege fee (.25 per cent of the paid-up capital stock and surplus but not less than $10 nor more than $50,000).
[2]This is based on gross premiums of foreign insurance companies. Rates are two per cent on life and three per cent on casualty, fire, marine, and auto companies.
[3]Principally state and local shares of liquor retailers licenses. Also includes liquor manufacturers, wholesalers, and other liquor dealers licenses.
[4]Tax is graduated according to the number of chain stores and chain counters (beginning in 1936). Unusually large collection in 1936 represents payments of taxes withheld pending outcome of litigation.
[5]Consists of the two per cent tax on the market value of gas and oil produced and in 1940 and thereafter an additional tax of 1/8 cent per barrel on oil produced.
[6]Includes the several licenses and fees required of specified businesses or occupations. The following are the most significant in terms of revenue yields: horse racing licenses, agricultural inspection fees, examination fees required of banks and insurance companies, and real estate and insurance brokers licenses. Increased revenues in 1944 and thereafter resulted from the adoption of a graduated rate based on the size of the parimutuel pool for race track licenses in preference to the fixed limits formerly provided by statute. During 1934-43 revenues from this source approximated $200,000 annually; in the past four years they averaged 1.6 million annually.
*Estimated.

portant new taxes—the motor fuel tax—and the phenomenal increase in motor vehicle registration fees. In Michigan the revenue from these fees quadrupled to over 20 million dollars by 1930, and the fuel tax inaugurated in 1925 attained a comparable position within five years (see Table 5). The yields of both taxes have been remarkably stable since that time if account is taken of a reduction in the schedule of fees for passenger car licenses in 1934 and the effects of gas rationing during the war.

The collapse in farm real estate prices in the early 1920's followed shortly thereafter by a weakening of urban land values, the stock market crash of 1929, and the severe economic depression of the early 1930's precipitated a major reorganization in state finance. The long decline in real estate prices had strained the capacity of the property tax under existing administrative methods to bear the expanding costs of state and local government in the late 1920's. A gradual increase in tax delinquency quickly cumulated into critical proportions in the full force of the depression. Temporarily a major source of state revenue virtually disappeared. The attempts to decrease taxes on real property in proportion to falling real property values failed as state and local expenditures exhibited a greater resistance to decline than real estate prices. As a result in these years property taxes, or, more realistically, property tax liabilities, rose very sharply in relation to the market value of real estate.

By 1933 the financial condition of many states, including Michigan, was desperate. Only substantial grants by the Federal Government made it possible to continue reduced levels of service. In Michigan state tax collections declined nearly 40 per cent from 1930 to 1933.

The immediate step taken to restore the State's income was the adoption of a three per cent retail sales tax which in the first year of operation nearly restored the pre-depression level of income. This action was followed in the brief space of three years by a series of changes which established the character of the present tax system. Retaining the highway user taxes, the State added various liquor levies and licenses to the newly adopted sales tax, and in 1937 adopted payroll taxes as an earmarked source for meeting the cost of unemployment compensation. The property tax was relinquished to the municipalities except for the role the State played in collecting certain portions particularly adapted to centralized administration. The Michigan tax system thus became one based predominantly on the volume of purchases for consumption of tangible personal property, alcoholic beverages, and gasoline, and on the ownership of motor vehicles.

The yield of each of the consumption tax components automatically reflects changes in the physical volumes of the taxable commodities. Thus the gasoline tax, the beer and wine levies, and the newly enacted cigarette tax (effective July 1, 1947) all produce fairly constant yields as they are based upon quantities of commodities for

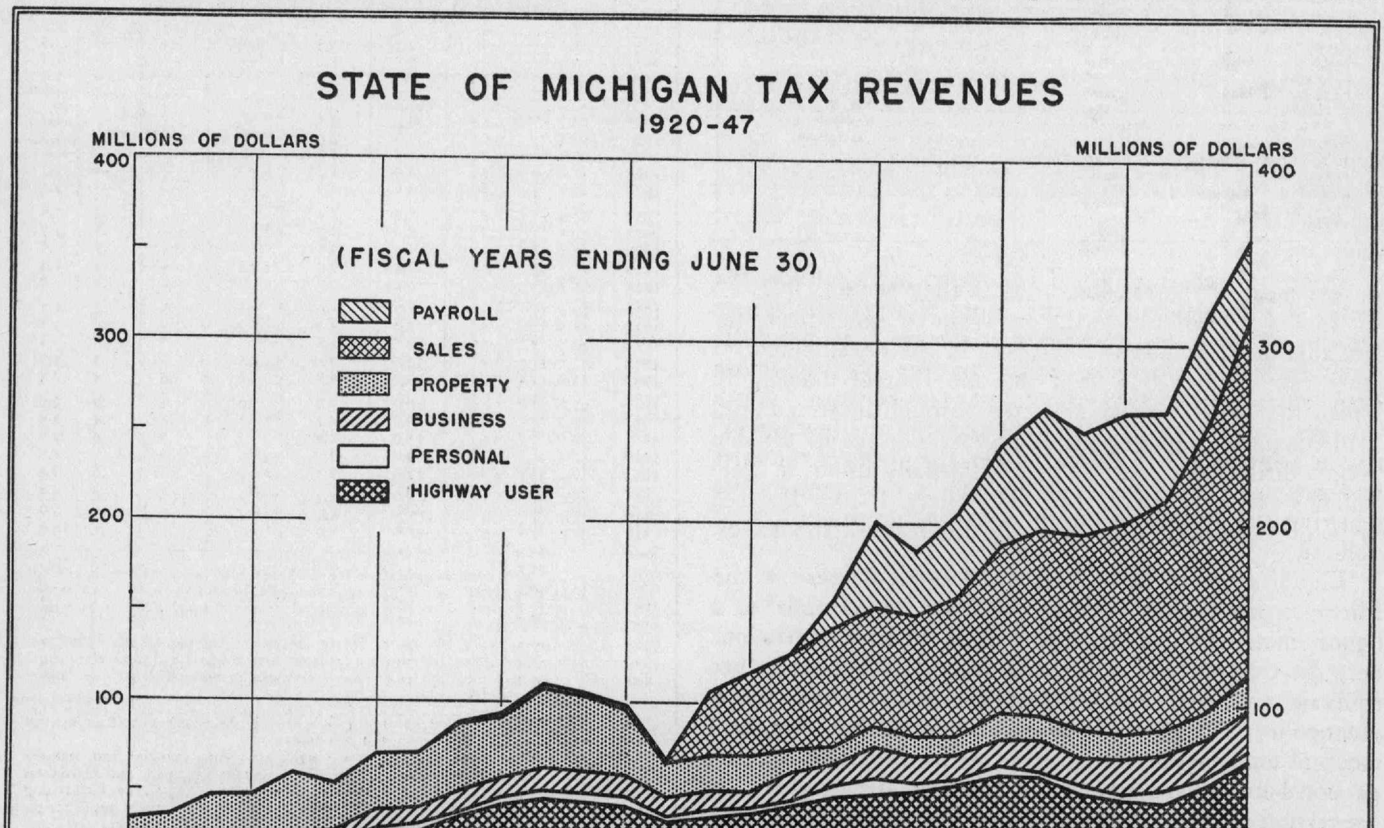


TABLE 4
PROPERTY TAXES, 1920-47
(In millions of dollars)

Year Ending June 30	Total	General State Levy[1]	Intangible[2]	Public Utilities: Total	Public Utilities: Railroad	Public Utilities: Telephone and Telegraph	Public Utilities: All Other[3]
1920	25.2	17.5	.8	6.9	6.0	.8	.1
1921	24.9	17.3	.6	7.0	5.9	.9	.2
1922	30.1	20.3	1.1	8.7	7.4	1.1	.2
1923	27.0	17.5	1.1	8.4	7.0	1.3	.1
1924	33.2	22.8	1.1	9.3	7.4	1.6	.3
1925	26.6	14.9	1.4	10.3	8.3	1.8	.2
1926	30.4	17.7	1.5	11.2	8.9	2.1	.2
1927	29.7	16.7	1.4	11.6	8.9	2.4	.3
1928	38.5	24.1	1.4	13.0	9.9	2.8	.3
1929	33.7	19.5	1.2	13.0	9.6	3.2	.2
1930	42.8	27.3	1.1	14.4	10.3	3.8	.3
1931	42.2	26.8	.9	14.5	10.4	3.9	.2
1932	36.7	24.5	.5	11.7	7.9	3.6	.2
1933	18.4	10.5	.2	7.7	5.2	2.3	.2
1934	18.8	8.3	.2	10.3	6.8	3.4	.1
1935	20.6	11.0	.2	9.4	6.2	3.1	.1
1936	13.0	2.7	.4	9.9	6.2	3.6	.1
1937	10.3	2.6	.3	7.4	4.8	2.4	.2
1938	12.6	3.6	.4	8.6	5.3	3.2	.1
1939	10.7	1.6	.4	8.7	5.2	3.4	.1
1940	10.5	.9	.6	9.0	5.3	3.6	.1
1941	13.6	1.0	2.5	10.1	6.3	3.7	.1
1942	13.7	.9	3.4	9.4	5.4	3.8	.2
1943	13.2	.6	3.1	9.5	5.4	4.0	.1
1944	13.4	.2	3.5	9.7	5.5	4.1	.1
1945	13.7	.3	3.7	9.7	5.5	4.1	.1
1946	16.1	.1	6.2	9.8	5.5	4.2	.1
1947	17.4	.1	7.0	10.3	5.6	4.6	.1

[1]Consists of the State's portion of the locally collected general property tax. With the adoption of the sales tax in the fiscal year 1934, the state levy was limited to less than one mill for the University of Michigan and Michigan State College. In 1935 this levy was also abandoned; collections in 1936 and thereafter are for delinquent taxes only.

[2]Comprises taxes on intangibles in lieu of property levies; the amounts for years prior to 1940 are the State's share of the locally collected mortgage and bond recording fees; in 1940 and thereafter the proceeds of the state administered intangibles tax at rates from .04 per cent on cash and deposits to three per cent of income derived from intangibles.

[3]Includes taxes on sleeping car, car loaning, and express companies and on steamship tonnage.

which the demand is relatively unaffected by cyclical changes in economic conditions. Even though these yields exhibit a definite upward or downward trend they do not show marked year-to-year changes.

Price, as well as physical volume changes, affects the yields of the sales tax and the liquor store profits. These are the elements in the Michigan system that automatically reflect a changing dollar volume of transaction even though the physical volume is constant. Since changes in mark-up policies have reduced the responsiveness of store profits to price changes, the yields of the sales and use taxes are a better indication of the comparative sensitivity of a tax based upon dollar rather than physical volume.

Liquor store profits are regarded as an element of the Michigan tax system because the State has established a liquor monopoly and through pricing policies covers not only the cost of merchandise and operation but also a tax equivalent. About one-third of the states have liquor monopolies; the others license producers, importers, and retailers and impose gallonage taxes on spirits. If a comparison between monopoly and license states is based on conversion of store profits to dollars per gallon of apparent consumption of spirits, the equivalent tax rates in the monopoly states, including Michigan, are more than double the actual tax rates in the licensing states.

In the period in which the Michigan tax system was completely overhauled no significant changes were made in personal taxes. Although in these years many other states adopted personal net income taxes, Michigan continued to confine its taxes on individuals to an inheritance levy and a poll tax imposed for a period of only two years. Among the District states, graduated net income taxes are found in Wisconsin and Iowa, a flat rate tax on gross income is imposed in Indiana, while Illinois, as Michigan, taxes neither gross nor net income of individuals.

No significant change in the State's dependence on business taxes has occurred since early in the period. State levies on business generally were last revised in 1922. While several special business taxes were added to the Michigan system in the 1930's, the liquor dealer and horse racing licenses were the only significant ones in terms of yields. A chain store levy and a severance tax on oil and gas account for only minor additions to business tax revenues.

The introduction of the payroll tax in 1937 obviously affected business tax liabilities. The nationwide extension of this device to finance unemployment compensation payments nullified any significant likelihood it would change comparative state tax burdens. The incidence of the tax is uncertain but some portion should doubtless be regarded as a part of the business tax system.

TABLE 5
HIGHWAY USER REVENUES, 1920-47
(In millions of dollars)

Year Ending June 30	Total	Motor Fuel[1]	Motor Vehicle License[2]	Motor Vehicle Operators[3]	Common and Contract Carriers[4]
1920	5.9	—	5.7	.2	—
1921	6.6	—	6.5	.1	—
1922	7.7	—	7.6	.1	—
1923	10.6	—	10.5	.1	—
1924	12.6	—	12.4	.1	.1
1925	15.5	2.3	13.0	.1	.1
1926	27.2	9.3	17.5	.3	.1
1927	28.8	10.6	17.9	.2	.1
1928	36.2	16.3	19.6	.2	.1
1929	43.0	19.8	22.8	.3	.1
1930	45.7	21.8	23.6	.1	.2
1931	43.4	21.7	21.4	.2	.1
1932	42.0	21.6	19.3	1.0	.1
1933	34.3	19.4	14.6	.2	.1
1934	37.8	21.1	15.7	.4	.6
1935	39.1	22.5	15.5	1.0	.1
1936	43.8	25.0	17.4	.8	.6
1937	49.8	27.9	21.0	.7	.2
1938	50.0	28.7	19.6	1.1	.6
1939	50.6	28.4	21.1	.7	.4
1940	55.2	31.2	22.6	.9	.5
1941	61.8	34.2	25.5	1.5	.6
1942	60.3	34.6	24.0	1.1	.6
1943	50.8	26.9	22.5	.9	.5
1944	48.6	23.6	23.2	1.3	.5
1945	47.4	23.5	22.4	1.0	.5
1946	55.6	30.4	23.3	1.3	.6
1947	69.6	36.9	30.4	1.6	.7

[1]The rate of the tax is three cents a gallon during the entire period except for fiscal years 1925 and 1926 when it was two cents.

[2]Usually referred to in Michigan as the weight tax. Also includes fees received for half-year registration, duplicate license plates, license transfers, and certificates of title. The drop in revenues in 1933 is a consequence of legislation authorizing instalment payment of taxes due March 1 of that year; in the ensuing year receipts of final instalments of the preceding year's taxes conceal a 36 per cent reduction of passenger car rates.

[3]These are derived from drivers and chauffeurs license fees.

[4]Prior to 1934 this was a tax (at the rate of one dollar for each 100 pounds) on the total vehicles employed in business during the year; in 1934 and thereafter the tax was based on ton miles of operation with rates graduated according to gross tonnage of vehicles.

BANK PROFITS DECLINE

(Continued from Inside Front Cover)

The unprecedented growth in loans outstanding caused marked changes in the composition of assets of Seventh District member banks. Earning assets as a percentage of total assets rose slightly from 76.8 per cent in 1946 to 77.0 per cent in 1947. Government securities fell from 58.2 per cent of total assets to 54.0 per cent, however, while loans advanced from 13.0 per cent of total assets in 1946 to 16.8 per cent in 1947, and accounted for 36.8 per cent of total earnings. The greater earning power of loans compared with other earning assets is tempered, of course, by the larger expenses incurred servicing the loans and the increased possibility of losses.

The volume of loans outstanding soared to 4,280 million dollars, an increase of 791 million for the year. Earnings on these loans amounted to 130 million dollars, 36 per cent above a year ago. The average rate earned on loans remained at 4.9 per cent, unchanged from 1946. Interest earned on U. S. Government securities dropped 13 million dollars to 151 million. The earnings on Government securities were only 16 per cent larger than the income received from loans. The margin of difference between the two sources of earnings was considerably reduced from 1946 when Government security earnings were 71 per cent greater than income derived from loans.

The average rate of interest realized on U. S. Government securities was 1.6 per cent, no change from 1946. Holdings of other securities by all member banks in the District rose 15 per cent, principally because of purchases of new issues of obligations of states and political subdivisions. The rate of interest and dividends received on other securities averaged 2.4 per cent. Total current operating earnings forged seven per cent above 1946 to 362 million dollars and set a new high record for member banks in the Seventh District.

TOTAL EXPENSES RISE 12 PER CENT

The increased cost of doing business in 1947 is reflected in total expenses, which climbed 25 million dollars. The major portion of this increase was caused by larger expenditures for wages and salaries, which were almost 14 per cent higher in 1947 and accounted for 46 per cent of all expenses. Interest payments on time deposits amounted to 18 per cent of total expenses. Disbursements for other current expenses were 36 per cent of total expenses and 10 per cent larger than in 1946. Some of the more important items included in other expenses are maintenance of banking quarters, office equipment and supplies, Federal deposit insurance assessments, communications, taxes other than on net income, and publicity and advertising.

Following the trend of the last two years as shown in the ratio studies, time deposits continued to improve their position relative to total deposits and on the average are now 35.1 per cent of the total. The ratio of interest paid on time deposits to total time deposits was computed at .8 per cent for the fourth consecutive year.

COUNTRY BANKS LEAD PROFIT DECLINE

The effect of reduced profits was not felt equally by all classes of banks in the Seventh District (see Table 1). Country banks experienced the most severe decline in net profits, the aggregate dropping 16 per cent from the previous year. Totals for reserve city and Chicago central reserve city banks decreased only nine per cent and two per cent, respectively. Lower net profits of central reserve city banks were almost wholly attributable to a 10 per cent reduction in total net current earnings from 1946. This drop was substantial enough to depress net profits despite lowered income taxes and a gain in net recoveries and other profits. Both reserve city and country banks enjoyed increased net current earnings in 1947 but made a smaller net profit for the year because, unlike the central reserve city banks, both classes of banks suffered net losses in excess of net recoveries and other profits. Net profits of country banks were further reduced in 1947 by 18 per cent greater taxes on net income. The increase in income tax reflects the inclination of country banks to operate on a cash basis in which the amount of income tax paid during 1947 was based on the net income of 1946.

TOTAL EXPENSES RISE 12 PER CENT

Segregation of banks into homogeneous deposit size groups is another popular method of grouping bank data for analysis. Three deposit size groups roughly divide the Seventh District member banks into thirds as shown in Table 2. The outstanding loans of banks in the under three million dollar deposit size class represent a slightly smaller proportion of total assets than in either of the larger groups. However, the ratio of earnings on loans to

TABLE 2

SELECTED OPERATING RATIOS — 1947

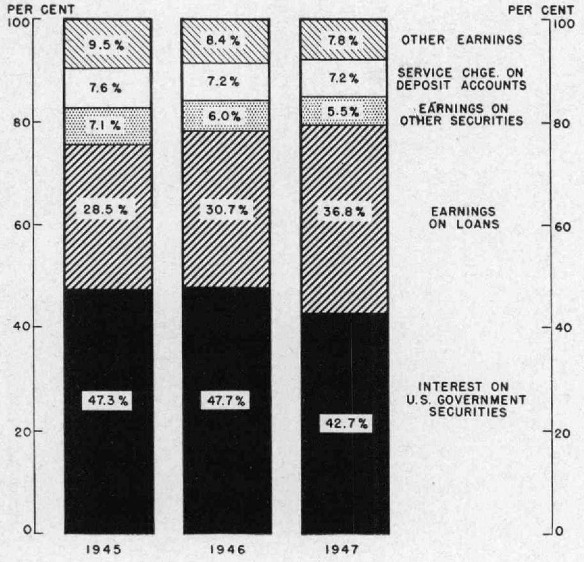
Averages of Individual Bank Ratios of All Seventh District Member Banks

(By size of bank)

Item	Size Groups — Total Deposits (In thousands of dollars)			
	Under 3,000	3,000 to 10,000	Over 10,000	All Members
Number of Banks	386	381	232	999
Percentage of Total Capital Accounts				
Net current earnings	14.5	15.0	14.1	14.6
Profits before income taxes	13.9	14.2	13.1	13.8
Net profits after income taxes	11.3	10.4	9.3	10.5
Cash dividends declared	2.7	2.7	2.6	2.7
Percentage of Total Earnings				
Interest on U.S. Government securities	43.3	42.4	42.3	42.7
Interest and dividends on other securities	4.8	6.1	5.8	5.5
Earnings on loans	37.6	37.2	34.7	36.8
Service charges on deposit accounts	7.3	7.2	7.1	7.2
All other earnings	7.0	7.1	10.1	7.8
Total earnings	100.0	100.0	100.0	100.0
Salaries and wages	29.3	28.9	30.3	29.4
Interest on time deposits	11.5	13.4	13.5	12.7
All other expenses	22.3	21.9	23.8	22.5
Total expenses	63.1	64.2	67.6	64.6
Net current earnings	36.9	35.8	32.4	35.4
Net recoveries and profits (or losses)	—1.2	—1.7	—1.8	—1.5
Taxes on net income	6.4	8.9	9.0	7.9
Net profits after income taxes	29.3	25.2	21.6	26.0
Percentage of Total Assets				
U.S. Government securities	54.7	53.9	52.8	54.0
Other securities	4.9	7.2	6.8	6.2
Loans	16.0	17.0	17.6	16.8
Cash assets	24.0	21.4	22.0	22.5

CHART 1

PERCENTAGE DISTRIBUTION OF TOTAL CURRENT EARNINGS
ALL SEVENTH DISTRICT MEMBER BANKS
1945-47



total earnings is greater in the small banks and reflects higher interest charges associated with a loan volume comprised principally of relatively smaller loans. All other earnings include gross income from trust departments, a type of revenue more prevalent in the larger banks.

The 1947 ratio study showed the profit picture over the entire District to be uniform, as member banks in each of the five states exhibited lower ratios of net profits to total capital accounts. The Seventh Federal Reserve District includes the entire state of Iowa and the larger portions of Illinois, Indiana, Michigan, and Wisconsin. As in 1946, Wisconsin again had the lowest ratio of net profits to capital accounts, while Michigan showed the highest average for the second consecutive year. Although banks in Wisconsin recorded the largest percentage gain in total loans outstanding, Michigan banks hit a high of 45.8 per cent of total earnings from earnings on loans and exceeded the other states by a wide margin in this respect. Banks in all states except Michigan continued to earn more on Government securities than on any other single type of earning asset. Aggregate holdings of Government securities by Illinois banks increased 1.1 per cent over 1946, whereas all other states reported small declines for the period. Downward trends in the capital-risk asset ratio were apparent in all states, Iowa having the smallest change and Illinois the largest.

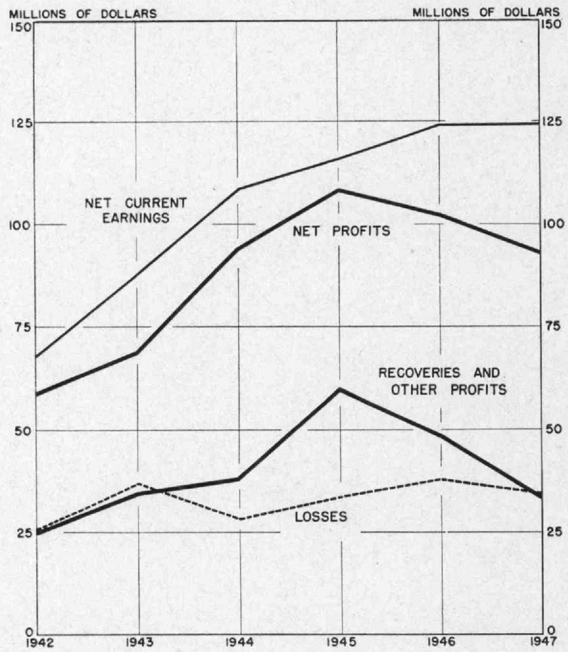
A contrast favorable to Seventh District member banks is seen when a comparison with all member banks in the United States is made. Total profits decreased 14 per cent in all member banks in the country during 1947 as compared with a nine per cent decline reported by banks in this District. All member banks in the nation earned 13 per cent less on Government securities and 34 per cent more on loans. In the Seventh District the same sources of earnings brought eight per cent less and 36 per cent more, respectively. The decline in total recoveries and security profits was larger for all member banks than for the banks in this District. Total losses and charge-offs reported by the country's banks showed little change from 1946, whereas Seventh District banks showed a nine per cent reduction in such losses.

1948 PROBLEMS AND TRENDS

The commercial banker has already come to grips with several of the major problems to be faced in 1948. One leading problem is the determination of a loan policy in this period of inflationary trends that will meet the demands for working capital for producers of essential goods and services. Another important factor requiring attention has been the effect of the Treasury cash surplus and retirement of Federal Reserve holdings of Government securities on reserve funds available for credit extension or investment. Concern over the possibility of new credit control regulation, increased operating costs, and a continued shortage of experienced personnel are some of the other problems confronting the banker. A review of the first two months of this year shows that the rate of increase in loans outstanding in Seventh District member banks is only about one-fourth the rate of a year ago, an indication possibly that loan applications are being subjected to a more rigid appraisal. So far this year Government securities of the banks have been reduced slightly, and purchases of other securites have been limited to small amounts.

CHART 2

EFFECT OF RECOVERIES AND OTHER PROFITS ON NET PROFITS
ALL SEVENTH DISTRICT MEMBER BANKS
1942 - 47



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