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IN THIS ISSUE

An Economic Profile
of Canton 3

Savings Flows and
Mortgage Lending,
1966-1967 12

FEDERAL RESERVE BANK OF CLEVELAND

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AN ECONOMIC PROFILE OF CANTON

Canton is the eighth largest metropolitan area (SMSA) in Ohio and seventy-ninth largest in the nation.¹ Economic activity in the Canton SMSA is heavily concentrated in durable goods manufacturing, and the area is well known for its production of stainless and alloy steel, tapered roller bearings, vacuum cleaners, vaults and safes, and metal office furniture.

EARLY DEVELOPMENT AND POPULATION GROWTH

The City of Canton grew slowly in the 1800's, mainly because two key early modes of transportation, a canal and a railroad, bypassed the City. From 1900 to 1930, however, population growth in Canton soared, rising more than twice as fast as in the United States or Ohio. As was the case in neighboring Akron,² these rapid gains largely reflected increasing job opportunities in the area's fast growing auto-related industries. In the following thirty years, population growth in

the Canton SMSA slowed, increasing only slightly more than in Ohio and in the nation as a whole.

In-migration accounted for about one-third of the 21-percent gain in Canton area population in the 1940's. During the 1950's, in-migration accounted for about one-seventh of the total 20-percent gain in population. From 1960 to 1965, out-migration reduced the natural population growth of 5.9 percent by about one-fourth, so that the net increase in population amounted to only 4.5 percent. Total population in the Canton SMSA in 1965 amounted to 356,000 (see Table I). Although the percent increase in population for the entire 1900 to 1965 period in the Canton SMSA was substantially greater than in either the State of Ohio or the United States, the gain between 1960 and 1965 lagged both the State and the United States.

EMPLOYMENT

Distribution. Manufacturing is the most important source of wage and salary employment in the Canton SMSA, accounting for 49 percent of total nonfarm employment in 1966 (see Table II). This proportion of employment in manufacturing is the highest among the major SMSAs in Ohio, the State

¹ The Canton Standard Metropolitan Statistical Area is coterminous with Stark County.

² "An Economic Profile of Akron," *Economic Review*, Federal Reserve Bank of Cleveland, Cleveland, Ohio, December 1967.

ECONOMIC REVIEW

TABLE I

Population

Canton SMSA, Other Selected SMSAs in Ohio, State of Ohio, and United States
1900-1965

	Population (thousands of persons)			Percent Increase	
	1900	1960	1965	1900-1965	1960-1965
United States	76,212	179,323	193,795	154%	8.1%
Ohio	4,158	9,706	10,241	146	5.5
Total 8 SMSAs	2,114	6,744	7,171	239	6.3
Akron	101	605	650	544	7.4
Canton	95	340	356	275	4.5
Cincinnati	618	1,268	1,347	118	6.2
Cleveland	498	1,909	2,000	302	4.7
Columbus	218	755	847	289	12.1
Dayton	229	727	791	245	8.8
Toledo	238	631	657	176	4.2
Youngstown-Warren	117	509	523	347	2.7

Source: U. S. Department of Commerce, Bureau of the Census

of Ohio, and the United States.³ The proportion of employment in nonmanufacturing industries, particularly services and government, is low in the Canton SMSA compared with the major SMSAs in Ohio, the State of Ohio, and the United States. Among the major SMSAs in Ohio, Canton, in 1966, had the lowest proportion of persons employed in government, was tied for the lowest in services, and was second lowest in trade, as shown below. The proximity of Canton to large trading and service centers such as Cleveland and Akron may be a factor in explaining the low proportion of such employment in Canton.

Growth. During the 1940's the growth rate of nonfarm wage and salary employment was slightly higher in the Canton SMSA than in the State of Ohio or the United States. However, during the 1950's, employment growth

³ Major Standard Metropolitan Statistical Areas in Ohio are those having more than 40,000 employed in manufacturing or population of 500,000 or more.

Number of Persons Employed in Selected Groupings Per 1,000 Population 1966

	Manu- factur- ing	Non- manu- factur- ing	Trade	Ser- vices	Gov- ern- ment
United States	100	230	68	49	56
Ohio	140	200	66	44	47
Akron	150	190	66	42	43
Canton	170	180	62	42	30
Cincinnati	120	220	69	47	44
Cleveland	160	240	81	56	48
Columbus	100	280	79	58	79
Dayton	160	220	66	47	66
Toledo	120	210	70	47	41
Youngstown- Warren	160	180	61	46	33

Sources: U. S. Department of Commerce, Bureau of the Census and Division of Research and Statistics, Ohio Bureau of Employment Services

in the Canton area trailed that of the State of Ohio and the nation, due largely to a 5-percent decline in manufacturing employment. Of special significance in that connection is the fact that employment in the primary metal industries dropped 16 percent.

TABLE II
Percent Distribution of Total Nonagricultural Employment
Seven Major Employment Categories
Canton SMSA, Other Selected SMSAs in Ohio, State of Ohio, and United States
1966 Annual Average

Manufacturing		Wholesale and Retail Trade		Services		Government	
Canton	49.4%	Toledo	21.3%	United States	15.0%	Columbus	20.8%
		Columbus	20.7			Dayton	17.6
Youngstown-Warren	47.5	United States	20.7	Columbus	15.0	United States	17.0
Akron	42.9			Toledo	14.2		
Dayton	41.9	Cincinnati	20.4	Cleveland	13.9	Ohio	13.7
		Cleveland	20.1	Youngstown-Warren	13.1	Cincinnati	13.0
Ohio	39.6	Akron	19.7			Akron	12.6
		Ohio	19.2	Ohio	12.8	Toledo	12.5
Cleveland	39.2			Dayton	12.4	Cleveland	11.8
Toledo	36.6	Canton	17.8	Akron	12.3	Youngstown-Warren	9.2
Cincinnati	35.6					Canton	8.7
United States	29.9	Youngstown-Warren	17.7				
Columbus	26.2	Dayton	17.4				
Transportation and Public Utilities		Contract Construction		Finance, Insurance, and Real Estate			
Cincinnati	7.5%	United States	5.1%	Columbus	6.1%		
Toledo	7.3			Cincinnati	5.1		
		Columbus	5.1				
United States	6.5	Toledo	4.7	United States	4.8		
Akron	6.3			Cleveland	4.6		
Cleveland	6.2	Ohio	4.4				
Columbus	6.0			Ohio	3.8		
		Cincinnati	4.4				
Ohio	5.9	Youngstown-Warren	4.3	Canton	3.3		
		Cleveland	4.2				
Youngstown-Warren	5.4	Dayton	4.1	Toledo	3.2		
				Akron	2.7		
Canton	5.0	Canton	3.8	Dayton	2.7		
				Youngstown-Warren	2.6		
Dayton	3.8	Akron	3.5				

Sources: U. S. Department of Labor and Division of Research and Statistics, Ohio Bureau of Employment Services

ECONOMIC REVIEW

In the 1960-1966 period, nonfarm wage and salary employment in both the Canton SMSA and the State of Ohio increased 12 percent, compared with an 18-percent increase in the United States. From 1960 to 1966, manufacturing employment and nonmanufacturing employment in Canton increased 12 percent and 13 percent, respectively. While services and government were the fastest growing nonmanufacturing employment categories in the Canton SMSA, the increases were below comparable gains in the United States (see Table III).

MANUFACTURING

Two of the nation's 500 largest industrial corporations are headquartered in Canton (Timken Roller Bearing Company and Hoover Company). Durable goods production, mainly primary metals and nonelectrical machinery, accounts for more than 80 percent of manufacturing activity in the Canton SMSA. Two companies, Republic Steel Corporation and Timken Roller Bearing Company, employ

about two-fifths of the people engaged in durable goods production.

Primary metals manufacturing in the Canton SMSA mainly involves the production of alloy and stainless steel, used principally in consumer goods. The Canton SMSAs' position as a large, specialized steel-producing center is attributable in part to its geographic location in the "steel-producing belt" that extends northwest from Pittsburgh to Lake Erie. Like other parts of this area, steel producers in Canton have access to both high-grade coal fields and sources of iron ore.

Mainly because of the dominance of steel, employment in the Canton area's primary metal industries fluctuates more widely than in the nation as a whole (see chart). In the three most recent recessions, for example, employment in the primary metal industries in the Canton area showed larger relative declines than in the United States as a whole. In the post-recession periods of the 1950's, Canton area employment failed to regain

TABLE III
Nonagricultural Employment
Seven Major Employment Categories
Canton SMSA, Other Selected SMSAs in Ohio, State of Ohio, and United States
1966 Annual Average and Percent Change 1960-1966

	Total Nonagricultural Employment		Manufacturing		Contract Construction		Transportation and Public Utilities		Wholesale and Retail Trade		Finance, Insurance, and Real Estate		Services		Government	
	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966	1966 (000)	Percent Change 1960-1966
	United States	63,864	+18%	19,081	+14%	3,281	+14%	4,137	+3%	13,220	+16%	3,086	+16%	9,582	+29%	10,850
Ohio	3,528	+12	1,399	+11	157	+8	208	-1	678	+9	134	+12	451	+21	484	+21
Akron	221	+12	95	+4	8	+10	14	+5	43	+18	6	+9	27	+23	28	+40
Canton	125	+12	62	+12	5	+7	6	+3	22	+9	4	+11	15	+24	11	+20
Cincinnati	456	+7	162	+2	20	-5	34	-1	93	+4	23	+4	63	+20	59	+25
Cleveland	798	+11	312	+8	33	-2	49	+4	161	+8	36	+11	111	+23	95	+25
Columbus	324	+20	85	+13	16	+27	19	+4	67	+17	20	+24	49	+30	67	+30
Dayton	297	+18	124	+19	12	+20	11	+10	52	+16	8	+20	37	+29	52	+12
Toledo	218	+12	80	+7	10	+20	16	+5	46	+9	7	+9	31	+27	27	+26
Youngstown-																
Warren	180	+9	86	+9	8	-20	10	+5	32	+9	5	+4	24	+29	17	+15

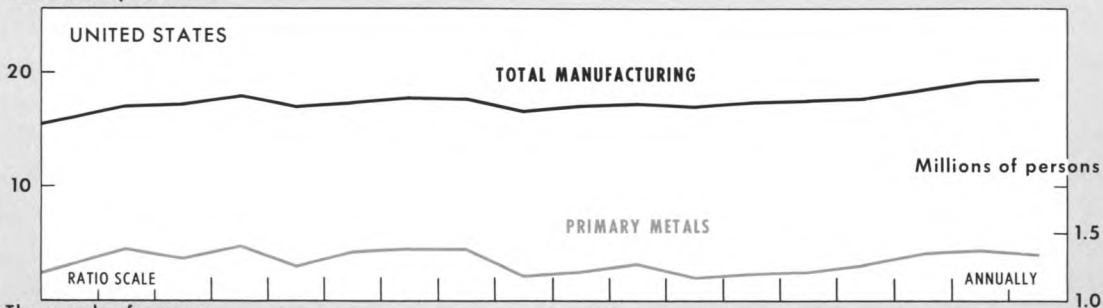
NOTE: 1960 data for Akron, Cincinnati, Cleveland, Columbus, Dayton, and Toledo have been modified by Federal Reserve Bank of Cleveland to be comparable with 1966 data.

Sources: U. S. Department of Labor and Division of Research and Statistics, Ohio Bureau of Employment Services

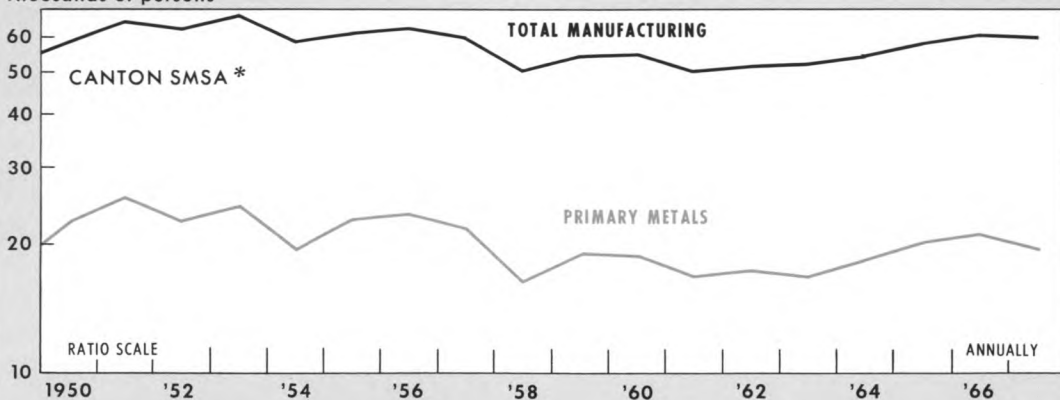
EMPLOYMENT in MANUFACTURING and PRIMARY METAL INDUSTRIES

United States and Canton SMSA, 1950-1967

Millions of persons



Thousands of persons



* Covered employment.

Sources of data: U. S. Department of Commerce and Division of Research and Statistics, Ohio Bureau of Employment Services

Last entry: 1967

pre-recession levels, even though larger percent gains were recorded than in the United States. As the data in the table show, the pattern was changed during the recovery years following the 1960-1961 recession.

Despite the favorable showing during 1961-1966, employment in Canton's primary metal industries in 1966 was still substantially below pre-1956 levels (see chart). Among the possible reasons for the shortfall in employment in the primary metal industries (which

Employment in the Primary Metal Industries Percent Change

	Canton SMSA	United States
Recession Periods		
1953-1954	-20.6%	-11.9%
1957-1958	-26.2	-14.8
1960-1961	-10.8	- 7.1
Recovery Periods		
1954-1957	+12.7	+11.2
1958-1960	+16.6	+ 6.7
1961-1966	+25.6	+17.7

Sources: U. S. Department of Commerce, Bureau of the Census and Division of Research and Statistics, Ohio Bureau of Employment Services

ECONOMIC REVIEW

would also explain the somewhat similar situation in the nation) are gains in productivity, closing of outdated open hearth furnaces in the Canton area, greater import competition, and dispersal of steel-producing units into regional markets. A \$60 million expenditure in the Canton area by Republic Steel Corporation for one of the world's largest electric furnaces is likely to help revitalize Canton's share in the stainless and alloy steel market.

Since 1958, employment in nonelectrical machinery manufacturing has generally been stable in the Canton area, compared with a slight upward trend in the United States. The largest nonelectrical machinery company in Canton, The Timken Roller Bearing Company, began its operations in the area in the early 1900's and was ideally located when the automobile industry, a major customer, began its rapid growth. Currently, this company employs about 10,000 people in the Canton area, compared with about 8,000 in 1958.

OTHER MEASURES OF ECONOMIC ACTIVITY

Unemployment Rates. During the 1960-1961 recession, the Canton SMSA recorded the second highest unemployment rate among Ohio's eight major SMSAs (Youngstown-Warren was first), reflecting generally the dominance of manufacturing and particularly the sensitive durable goods industries (see Table IV). In 1964, the unemployment rate in the Canton SMSA moved below the rate in the United States, but remained at or above the rate in Ohio as a whole during the 1960-1965 period. In 1966, among the major SMSAs in Ohio, the unemployment rate in Canton was lower than in Cincinnati, Toledo, and Youngstown-Warren (see Table IV).

Wages in Manufacturing. During 1966, average hourly earnings of production workers in the Canton SMSA were \$3.11, virtually the same as the average in the State of Ohio, but well above the level in the United States as a whole (see following table).

TABLE IV
Rate of Unemployment Among all Civilian Workers 14 Years of Age and Over
Canton SMSA, Other Selected SMSAs in Ohio, State of Ohio, and United States
1960-1966

	1960	1961	1962	1963	1964	1965	1966
United States	5.6%	6.7%	5.6%	5.7%	5.2%	4.6%	3.9%
Ohio	5.3	7.3	5.7	5.1	4.2	3.5	3.1
Akron	4.6	7.4	4.9	4.7	4.2	3.2	2.7
Canton	5.9	8.9	7.0	6.3	4.4	3.5	3.0
Cincinnati	4.0	5.5	4.4	4.2	4.8	4.0	3.1
Cleveland	4.8	7.0	5.2	4.4	3.6	3.1	2.6
Columbus	3.8	4.3	3.3	3.3	3.3	2.8	2.6
Dayton	3.6	5.1	3.9	3.7	3.0	2.8	2.5
Toledo	5.0	8.4	6.2	5.1	4.4	3.7	3.3
Youngstown-Warren	7.4	9.9	8.3	6.5	4.2	3.9	3.6

Sources: U. S. Department of Labor and Division of Research and Statistics, Ohio Bureau of Employment Services

**Average Hourly Earnings in Manufacturing
Canton SMSA, Other Selected SMSAs in Ohio,
State of Ohio, and the United States**

	1966	Percent Change 1960-1966
United States	\$2.71	+20%
Ohio	3.10	+19
Akron	3.42	+20
Canton	3.11	+17
Cincinnati	2.92	+20
Cleveland	3.17	+19
Columbus	2.97	+20
Dayton	3.39	+24
Toledo	3.23	+19
Youngstown-Warren	3.37	+15

Sources: U. S. Department of Labor and Division of Research and Statistics, Ohio Bureau of Employment Services

From 1960 to 1966, average hourly earnings in the Canton SMSA increased 17 percent, which was a somewhat smaller increase than in Ohio or the United States as a whole. Average weekly earnings in Canton behaved somewhat differently in the 1960-1966 period due to the fact that the average workweek in

Canton was at a comparatively low level in 1960. A sharper gain in the workweek than in either Ohio or the United States during 1960-1966 contributed to the slightly faster increase in average weekly earnings in Canton than in either Ohio or the United States.

Value Added and Capital Spending. Among the major Ohio SMSAs, the Canton SMSA recorded the second largest increase in value added by manufacture from 1958 to 1965 (see Table V). In addition, the percent increase in Canton was larger than the gain in either Ohio or the United States. The primary metal industries accounted for nearly one-half of the increase in Canton.

The Canton SMSA had the fourth largest percent gain in capital spending among Ohio's major SMSAs from 1958 to 1965, with the 85-percent gain well above the increases in Ohio and the United States (see Table V). The overall gain was due mainly to a large increase in capital spending by the primary metal industries.

**TABLE V
Measures of Manufacturing Activity
Canton SMSA, Other Selected SMSAs in Ohio,
State of Ohio, and United States**

	Value Added by Manufacture		Capital Expenditures (new)	
	(mil. \$) 1965	Percent Change 1958-1965	(mil. \$) 1965	Percent Change 1958-1965
United States	\$225,366	+59.2%	\$16,534	+ 73.2%
Ohio	18,352	+60.0	1,382	+ 73.6
Akron	1,192	+47.3	83	+ 40.7
Canton	826	+65.2	50	+ 85.2
Cincinnati	2,357	+51.6	116	+ 8.4
Cleveland	3,989	+55.9	266	+ 86.0
Columbus	1,112	+63.5	77	+ 48.1
Dayton	1,581	+73.4	113	+169.0
Toledo	1,088	+52.0	91	+ 56.9
Youngstown-Warren	1,108	+52.0	192	+262.3

Source: U. S. Department of Commerce

ECONOMIC REVIEW

MINERAL PRODUCTION

In addition to the position of the Canton SMSA as a major Ohio manufacturing center, Stark County is an important mineral-producing area, particularly industrial minerals. In 1966, Stark County ranked tenth among Ohio's eighty-eight counties with mineral production valued at \$13 million. Coal is the most important mineral produced, followed by sand, gravel, clay, and shale.

BANKING ACTIVITY

Bank debits and bank loans, two measures of banking activity in Canton, showed moderate gains in recent years. Canton had a 57-percent increase in bank debits between 1960 and 1966, the fifth largest gain among Ohio's major SMSAs (see Table VI). The

volume of loans outstanding at Canton banks increased 52 percent between 1960 and 1966, the second lowest increase among major SMSAs in Ohio. On the other hand, the 96-percent gain between 1960 and 1966 in savings deposits of individuals at Canton banks was one of the largest increases recorded at banks in the major metropolitan areas of Ohio.

RECENT DEVELOPMENTS

In 1967, economic activity in the Canton SMSA underwent a more pronounced slowdown than was the case in Ohio or the United States. The relatively unfavorable economic developments in Canton during 1967 largely reflected reduced operations in durable goods manufacturing, particularly in the automo-

TABLE VI

Bank Debits, Savings Deposits of Individuals, and Loans Outstanding
Canton and Other Selected Cities in Ohio
1966

	Bank Debits (annual totals)		Savings Deposits of Individuals (annual average)		Loans Outstanding (yearend)			
					Total		Commercial and Industrial	
	(mil. \$) 1966	Percent Change 1960-1966	(mil. \$) 1966	Percent Change 1960-1966	(mil. \$) 1966	Percent Change 1960-1966	(mil. \$) 1966	Percent Change 1960-1966
Akron	\$12,365	+ 77%	\$ 318	+ 99%	\$ 514	+ 78%	\$ 144	+129%
Canton	3,852	+ 57	135	+ 96	236	+ 52	62	+ 50
Cincinnati	32,085	+ 50	361	+ 84	1,136*	+ 51	428*	+ 60
Cleveland	73,515	+ 58	1,852	+ 56	3,473	+ 76	1,175	+102
Columbus	28,445	+112	331	+210	844	+129	237	+ 87
Dayton	10,704	+ 70	152	+142	511	+ 66	141	+ 23
Toledo	12,253	+ 42	279	+ 85	436†	+ 71	121†	+ 58
Youngstown-Warren	6,374	+ 50	132‡	+ 39‡	341	+ 58	70	+ 71

* Does not include Dearborn County, Indiana.

† Does not include Monroe County, Michigan.

‡ Youngstown only.

NOTE: Bank debits and savings deposits data are for reporting banks (member and nonmember) in selected centers, which are reported monthly to the Federal Reserve Bank of Cleveland. Savings deposits at reporting banks (member and nonmember) represent chiefly savings deposits of individuals and eleemosynary organizations, Christmas savings and similar thrift accounts, and time certificates of deposit of individuals. Loan data are from call reports of all insured commercial banks in the SMSAs.

Source: Federal Reserve Bank of Cleveland

bile and steel industries.

As shown in Table VII, manufacturing employment in the Canton SMSA averaged 2 percent less in 1967 than a year earlier, due to the decline in employment in durable goods manufacturing. On a monthly basis, seasonally adjusted manufacturing employment in Canton declined 8 percent from the December 1966 high to September 1967. During the fourth quarter of 1967, manufacturing employment began to recover, but as of De-

ember, was still 5 percent below the year-earlier peak. During 1967, the unemployment rate in Canton averaged 3.2 percent compared with 3.0 percent in 1966.

From 1966 to 1967, bank debits in the Canton SMSA increased more than in Ohio, but less than in the United States; and savings deposits of individuals increased more slowly than in Ohio. Both total bank loans and commercial and industrial loans increased twice as fast in Canton as in Ohio or in the United States.

TABLE VII
Selected Measures of Economic Activity
Canton SMSA, State of Ohio,
and United States
Percent Change 1966-1967

	Canton	Ohio	United States
Employment			
Total nonfarm	+ 0.6%	+ 2.2%	+3.1%
Manufacturing	- 2.3	- 0.7	+0.7
Durable goods	- 2.9	- 0.9	+0.6
Nondurable goods . .	-0-	- 0.1	+0.9
Nonmanufacturing . . .	+ 3.6	+ 4.0	+4.1
Financial*			
Bank debits	+ 8.5	+ 5.8	+9.2
Loans*			
Total	+12.7	+ 5.4	+6.0
Commercial and industrial	+23.9	+11.6	+9.5
Savings deposits of individuals	+ 5.8	+10.0	n.a.

* Loan data are from midyear call reports of member banks.

Sources: U. S. Department of Labor; Division of Research and Statistics, Ohio Bureau of Employment Services; Board of Governors of the Federal Reserve System; Federal Reserve Bank of Cleveland

CONCLUDING COMMENTS

Canton's reputation as a producer of stainless and alloy steel will be enhanced in the future as the large new electric furnaces currently under construction are brought into production. In view of this development, manufacturing employment in the Canton area is likely to maintain about the same proportion of total employment as it did during the early 1960's. This would be contrary to the situation in Ohio's other major SMSAs where the manufacturing sector has tended to account for a declining share of total employment. On the other hand, Canton's proximity to other major metropolitan areas is likely to continue to inhibit substantial growth in nonmanufacturing areas such as services and trade.

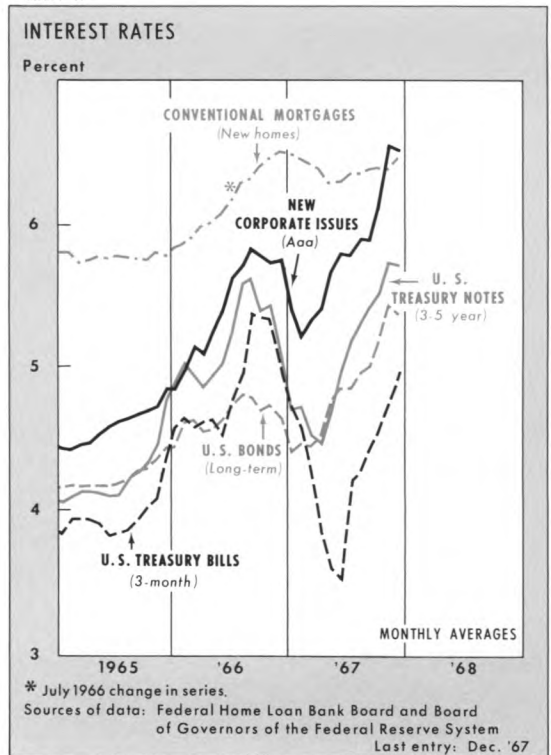


SAVINGS FLOWS AND MORTGAGE LENDING, 1966-1967

Wide swings in conditions in the money and capital markets in 1966 and 1967 had a marked influence on flows of funds and investment decisions at financial institutions. This article discusses the 1966-1967 experience, with emphasis on interest rates, savings inflows, and mortgage loans.

In the way of background, in the first three quarters of 1966, largely because of strong demands for credit and an increasingly restrictive monetary policy, interest rates rose considerably (see Chart 1). In contrast, in the fourth quarter of 1966, interest rates declined sharply as the monetary and fiscal authorities took a number of steps to relieve pressures in financial markets (including an easing of monetary policy) and credit demands slackened. Early in 1967, interest rates on longer term securities, such as Aaa rated corporate bonds, began to advance again; and after midyear, interest rates on shorter term issues, e.g., Treasury bills, also advanced. As shown in Chart 1, by yearend 1967, interest rates on longer term securities were just below record highs, and interest rates on shorter term issues were nearly back to earlier highs.

Chart 1.



INTEREST RATES AND FLOWS OF FUNDS

Available evidence suggests that the direction of savings flows is sensitive to changes in the relationship between market rates of

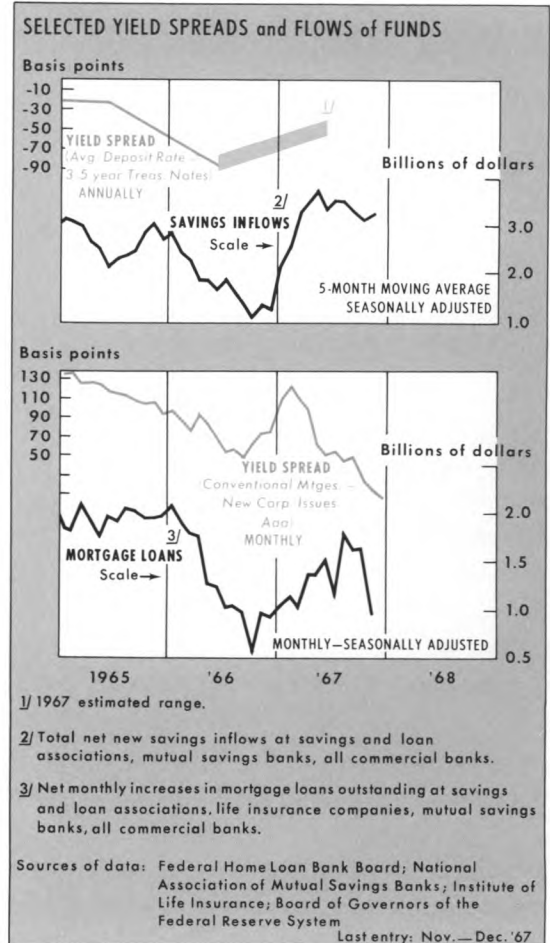
interest and rates paid by deposit-type institutions, particularly when the latter are paying the maximum interest rates allowed on time and savings deposits. Thus, when market rates of interest on short-term securities rise relative to deposit rates, savings inflows to deposit-type financial institutions usually decline; and when market rates on short-term issues decline, savings inflows increase. The evidence also indicates that changes in market rates of interest and changes in savings flows in turn influence the investment behavior of financial institutions.

Yield spreads are useful in analyzing the relationship between interest rates at any given time. In Chart 2, the annual average deposit rate paid by deposit-type institutions is compared with average yields on 3-5 year U. S. Treasury notes; and the monthly average interest rate charged by mortgage lenders on conventional mortgages¹ is compared with yields on new Aaa corporate bonds.

As shown in Chart 2, the spread between the average deposit rate and the yield on 3-5 year U. S. Treasury notes increased in 1966, due to the fact that market yields rose more than the average rate paid by deposit-type institutions. In fact, in 1966, market rates on short-term securities exceeded the maximum interest rates that deposit-type institutions could legally pay on time deposits. Therefore, the market rate was more attractive to investors than rates paid by deposit-type institutions. As shown in the top panel of Chart 2, the increase in the yield spread in 1966 was associated with a reduction in sav-

¹ Conventional mortgages on new homes as reported by the Federal Home Loan Bank Board.

Chart 2.

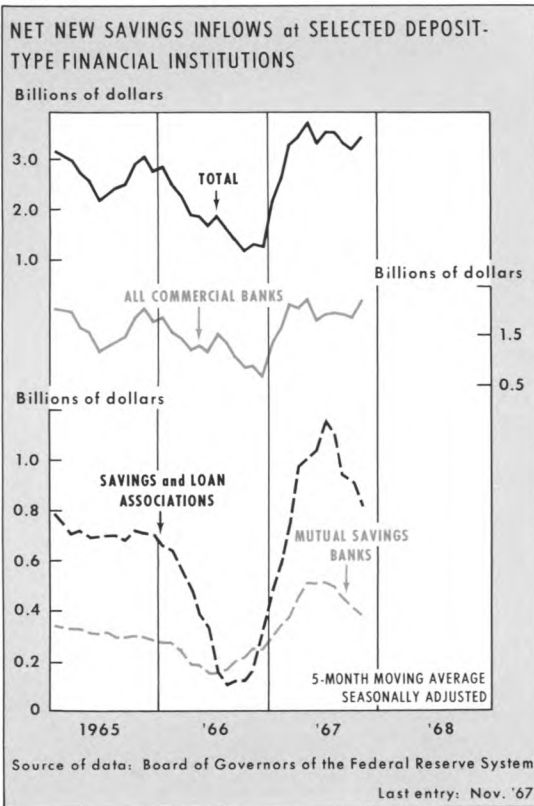


ings flows into deposit-type institutions, as available funds were invested directly in marketable securities. Available data suggest that in 1967 the yield spread, on average, decreased in favor of deposit-type institutions, contributing materially to increased savings inflows last year.

Net inflows of savings varied substantially among the different deposit-type institutions during the period under review. As shown in Chart 3, savings and loan associations experienced the largest reduction in net savings

ECONOMIC REVIEW

Chart 3.



inflows in 1966, or a decline of 56.6 percent from the previous year. Net inflows at commercial banks and mutual savings banks in 1966 were 32.2 percent and 28.6 percent smaller, respectively, than in the previous year. At all three types of institutions, net savings flows amounted to \$19.7 billion in 1966, a decline of 38.2 percent from 1965.

In 1967, total savings inflows reached record highs, exceeding the total for all of 1966 by June and almost doubling it by yearend. Although total savings inflows leveled off in the last half of 1967, they still remained at a very high level. The slackening of growth is explained at least in part by the widening of the spread between rates paid by deposit-

type institutions and market rates of interest in the latter part of 1967. In summary, the data for 1966-1967 show quite clearly that savings flows at deposit-type institutions moved counter to the movement of the yield spread between the average deposit rate and a representative market rate.

As shown in the bottom panel of Chart 2, the spread between rates on conventional mortgages and yields on new corporate Aaa issues declined in the first nine months of 1966, rose for the next five months, and then declined through the remainder of 1967. A decline in the spread suggests that corporate bonds are more attractive to investors than mortgage loans, while an increase suggests the reverse. Not surprisingly, therefore, as the yield spread narrowed further in the first nine months of 1966, the net increases in mortgage loans became smaller, and when the yield spread increased in late 1966, an acceleration of mortgage lending activity followed shortly. The narrowing of the yield spread that began in February 1967 preceded the August-November decline in mortgage loans. Thus, during the period under review, changes in the yield spread between conventional mortgages and new corporate Aaa issues provided a fairly good indicator of the near-term direction of the volume of mortgage loans.

As also shown in Chart 2, there is a reasonably close relationship between savings flows and mortgage loans. The decline in net savings inflows that began in late 1965 preceded the slowdown in net mortgage loans in 1966; conversely, the sharp increase in savings inflows that began at the outset of 1967 introduced the recovery in mortgage

lending activity. In the last half of 1967, savings flows slackened, and mortgage lending activity showed signs of moderating.

INVESTMENT BEHAVIOR OF FINANCIAL INSTITUTIONS

A number of factors affect the relationship between savings flows and mortgage loans, with the result that not all of the net inflows of savings funds are invested in mortgage loans. Of major importance is the fact that the investment behavior of each type of financial institution tends to be unique. For example, while savings and loan associations are required to invest the bulk of their assets in mortgages, other financial institutions have greater latitude in their investment practices. In 1967, attractive alternative investments were instrumental in diverting potential funds away from the mortgage market.

In addition, the level and structure of interest rates also influence investment behavior of financial institutions. For example, usury laws may appreciably affect the decisions of mortgage lenders, while some potential mortgage borrowers may be temporarily discouraged when interest rates advance to high levels. In 1966-1967, movements in interest rates were particularly important with respect to basic investment decisions, which in turn affected mortgage lending. In the fourth quarter of 1965, savings and loan associations held 85.1 percent of their assets in mortgage loans (see table). The growth of mortgage loans at savings and loan associations (indicated by the percent change in the level of mortgage loans from the previous quarter) decreased in each quarter during 1966 and then increased in the first three quarters of

1967. To supplement reduced savings inflows, savings and loan associations sharply increased their borrowings in the second quarter of 1966, principally from the Federal Home Loan Bank. In contrast, in response to the increase in savings inflows in 1967, savings and loan associations attempted to rebuild liquidity by using a significant share of net inflows of funds to repay borrowings, which in turn tended to restrain mortgage lending activity.

Life insurance companies and mutual savings banks experienced sizable portfolio adjustments during the period under review. The growth of mortgage loans at life insurance companies generally slackened, while mortgage loans at mutual savings banks expanded at a relatively constant rate (with the exception of the second quarter of 1966). In addition, acquisitions of corporate securities by life insurance companies moderated in 1966, reflecting a dropoff in inflows of funds; mutual savings banks irregularly increased their acquisition of corporate securities. In 1967, however, both life insurance companies and mutual savings banks substantially increased holdings of corporate issues, including convertible bonds (see table). The expansion in holdings of corporate securities in 1967 was due to increased savings inflows that made more funds available for investment, as well as to higher yields on corporate bonds than on mortgages. In addition, corporate bonds tend to be more attractive to investors than mortgages because they are readily marketable, offer more potential opportunities for capital gains, and require lower management costs.

Usury laws also affected the investment behavior of many institutional lenders. When

Changes in Selected Balance Sheet Items at Financial Institutions

Balance Sheet Item	Fourth Quarter 1965 (mil. \$)	Percent of Total Assets	Average Quarterly Percent Change 1965	Percent Change from Previous Quarter							
				1966				1967			
				First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Savings and Loan Associations											
Mortgages	\$110,202	85.1%	2.1%	1.6%	1.5%	0.3%	0.2%	0.5%	1.9%	2.2%	1.9%
Borrowings	6,440	5.0	4.2	-5.8	21.0	4.8	-3.1	-27.1	-16.2	-3.7	10.9
Life Insurance Companies											
Mortgages	60,021	37.8	2.1	2.1	2.1	1.8	1.8	1.5	0.9	0.4	n.a.
Corporate securities	65,520	41.2	1.4	2.0	1.3	0.5	0.5	2.2	1.8	2.4	n.a.
Mutual Savings Banks											
Mortgages	44,412	76.3	2.5	1.7	1.1	1.7	1.6	1.7	1.7	1.6	1.5
Corporate securities	5,482	9.4	1.9	-2.4	0.8	3.8	2.1	13.3	12.9	10.1	1.4
All Commercial Banks											
Mortgages	49,300	13.1	3.1	2.0	3.2	2.5	1.5	0.2	2.2	2.4	2.1
Total investments	104,400	27.4	0.7	-3.4	1.3	0.2	2.4	4.7	1.0	6.8	4.3

n.a. Not available.

Sources: Federal Home Loan Bank Board; Institute of Life Insurance; National Association of Mutual Savings Banks; Board of Governors of the Federal Reserve System

the contract interest rates on mortgages reached legal limits in some states in the past two years, and yields on alternative investments rose further, some mortgage lenders refrained from making mortgage loans, and invested in marketable securities.

The growth of mortgage loans at commercial banks slackened in 1966, but picked up again in 1967. On balance, however, the average quarterly changes in 1966 and 1967 were about the same. On the other hand, in 1967, commercial banks acquired a sizable volume of investments (U. S. Government and municipal securities), some portion of which might conceivably have been channeled into mortgage loans under other circumstances.

MORTGAGE LENDING AT FINANCIAL INSTITUTIONS

As shown in Chart 4, savings and loan associations experienced the largest shortfall in 1-4 family mortgages in 1966. However, savings and loan associations also experienced the greatest recovery in 1-4 family mortgages when mortgage lending rebounded in 1967. Thus, developments at savings and loan associations tended to dominate both the slowdown in mortgage lending activity in 1966 and the recovery in 1967. At commercial banks, the increase in 1-4 family mortgage lending moderated during 1966 and the first quarter of 1967, picked up in the second and third quarters, and then again slackened in the fourth quarter. Except for a dip in the second quarter of 1966, 1-4 family mortgage loans at mutual savings banks increased at a fairly constant rate during the other quarters of the period under review. In the insur-

ance sector, net increases in the volume of 1-4 family mortgage loans generally slackened during the period under review; during the last three quarters of 1967, total holdings of 1-4 family mortgages actually were reduced.

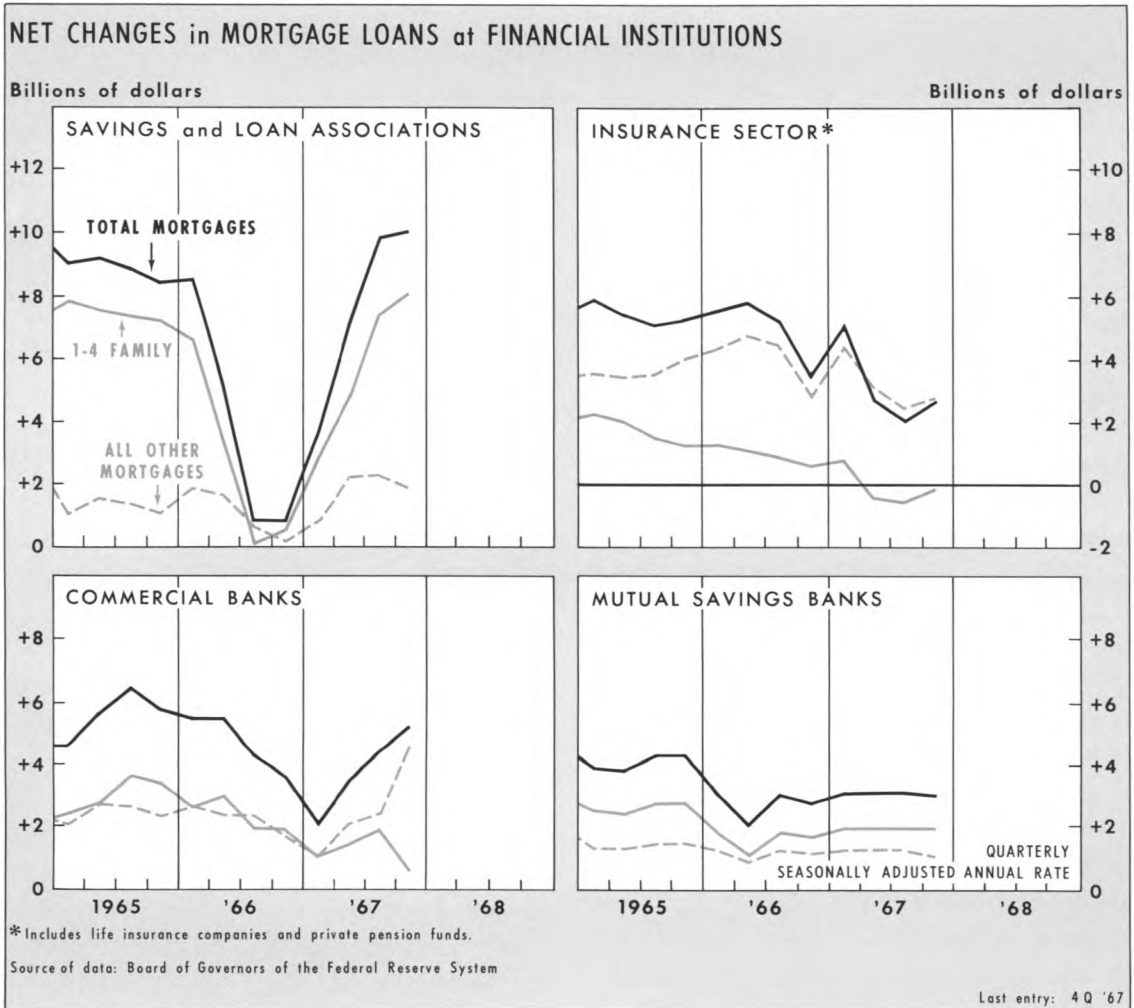
Because the dollar volume involved is smaller, changes in "other" mortgage loans (multi-family, commercial, and farm) in 1966-1967 were not as large as those in 1-4 family mortgages. Nevertheless, both the slowdown and the recovery in "other" mortgage loans were significant. After an increase in the first quarter of 1966, the pace of "other" mortgage loans at savings and loan associations slackened in the next three quarters. In 1967, "other" mortgage loans again increased in the first quarter, and continued strong for the remainder of the year, in contrast to year-earlier periods. Net increases in "other" mortgage loans in the insurance sector showed no consistent pattern during the period under review, with significant slackening occurring in the fourth quarter of 1966 and the second and third quarters of 1967. Net increases in "other" mortgage loans at commercial banks moderated in 1966 and the first quarter of 1967, and then accelerated sharply through the fourth quarter. At mutual savings banks, the increases in "other" mortgage lending remained virtually unchanged in 1966-1967.

CONCLUDING COMMENTS

Substantial changes in interest rates and savings inflows in 1966-1967 considerably influenced the portfolio adjustments of major mortgage lending institutions. A marked rise and subsequent fall in market interest rates were associated with corresponding declines

ECONOMIC REVIEW

Chart 4.



and increases in both savings inflows and mortgage lending. Thus, the rise in interest rates in the first three quarters of 1966 was accompanied, with some time lag, by a reduction in both savings flows and mortgage lending activity. The decline in market interest rates in the fourth quarter of 1966 was in turn associated with record inflows of savings and increased mortgage lending activity.

In 1967, mortgage lending activity at sav-

ings and loan associations and commercial banks expanded at a faster rate than at mutual savings banks and in the insurance sector. Developments at savings and loan associations tended to dominate the vigorous rebound in mortgage lending in 1967, as they dominated the slowdown in 1966. Restraints on mortgage lending that appeared in 1967 included increased building and borrowing costs, higher credit standards, and

usury laws, as well as more attractive alternative investment opportunities for mortgage lenders.

The rise in longer term interest rates in 1967 prompted some financial institutions to invest heavily in corporate and government securities instead of mortgages. At yearend 1967, short-term interest rates were again

approaching levels where investors might have considered bypassing financial institutions and investing directly in securities; and the yield spread between rates paid by deposit-type institutions and yields available on short-term marketable securities was considerably smaller than it had been earlier in 1967.

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