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FEDERAL RESERVE BANK OF CLEVELAND

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A NOTE ON DEFENSE SPENDING

The acceleration of the U. S. military effort in Vietnam has been reflected in a sharp step-up in the Federal Government's purchases of defense goods to support that effort. It is widely recognized that the timing and impact of such spending have posed serious problems of economic evaluation, particularly regarding the impact on the economy. This note considers some of the emerging patterns of defense spending that seem to be taking shape for the calendar year 1967.

From the second quarter of 1965 to the fourth quarter of 1966, defense spending as recorded in the national income accounts increased by \$16.4 billion (from \$49.1 billion to \$65.5 billion). Within that six-quarter period, defense spending increased by \$8.0 billion during the four quarters from the second quarter of 1965 to the second quarter of 1966, and by \$8.4 billion (at an annual rate) during the last two quarters of 1966. The substantial expansion of defense purchases in the second half of 1966 implied that Federal spending associated with the war effort in Vietnam was increasing at a more rapid rate.

It may, therefore, be useful to consider the timing of defense spending, as well as its impact on the economy. The latter is particularly important because the impact of defense spending on economic activity is widely rec-

ognized to occur when the production of defense goods takes place, for example, when workers are hired; there may also be an anticipatory effect prior to the time defense orders are placed, for example, when announcement of a military buildup is made.

Defense purchases in the national income accounts are recorded not when goods are ordered or produced, but when goods are delivered to the Federal Government—which may be far removed in time from the original order stage. The GNP figures on defense spending consequently tend to lag the actual impact on the economy of a step-up in military orders, particularly when a significant proportion of the orders is for hard goods requiring lengthy production time. From this point of view, the series on defense purchases in the national income accounts may (1) initially understate the impact of a step-up in defense orders, and (2) subsequently overstate that impact. It could be, as some have maintained, that the impact of the military buildup associated with Vietnam has already reached a peak even though defense spending may continue to rise in the future. The data in the tables and the accompanying discussion are used to indicate the reasons the stimulus from defense spending largely may now be dissipated.

ECONOMIC REVIEW

Table I presents data on changes in new obligational authority (NOA) and changes in payments for major military functions. It can be seen from the data that in three categories — military personnel, operation and maintenance, and research and development — there is a reasonably close correspondence between changes in NOA and changes in payments.¹ These are the budget categories with the shortest time lag between incurring

¹ Defense payments also reflect commitments arising from previously authorized, but unobligated balances, which have been carried forward to the current fiscal year. Unobligated balances as of the end of the fiscal year for Department of Defense total military funds are projected to decline slightly in fiscal years 1967 and 1968, indicating that obligations incurred will exceed new obligational authority in those years. The following figures also suggest that this will be the case:

	Department of Defense—Military (millions of dollars)		
	Fiscal Years		
	1966	1967	1968
New Obligational Authority*	\$63,892	\$72,034	\$74,674
Obligations Incurred	61,836	73,493	74,846

*Including supplemental appropriations.

In terms of fiscal year changes, NOA increased by \$8.1 billion in fiscal 1967 while obligations incurred increased by \$11.7 billion (reflecting the fact that not all NOA in fiscal year 1966 — or previous years — resulted in obligations being incurred). For fiscal 1968, however, NOA for total military will increase by \$2.6 billion while obligations incurred will increase by only \$1.4 billion. This suggests that the drawing down of unobligated balances will not be a major source of obligations incurred or expenditures in fiscal year 1968.

More detailed data on obligations incurred, with respect to the breakdown in Table I, do indicate that changes in obligations incurred have tended to approximate changes in new obligational authority. Unfortunately, projections of obligations incurred by military function are not published for fiscal years 1967 and 1968. For additional information, see Executive Office of the President, Bureau of the Budget, *The Budget of the United States Government — 1968* (Washington: U. S. Government Printing Office, 1967), pp. 45, 50-51, 170-173.

an obligation and payment of that obligation.

The behavior of the procurement category contrasts markedly to that of the above three categories. New obligational authority for procurement increased by \$6.2 billion in fiscal year 1966 and by \$2.9 billion in fiscal year 1967. Virtually no increase is projected for fiscal year 1968. Procurement payments, however, tend to show a lagged response. The increase in payments for procurement was \$2.5 billion in fiscal year 1966, followed by \$4.1 billion in fiscal year 1967, with \$3.2 billion budgeted for fiscal year 1968. Fiscal year 1968 is of special interest since NOA for procurement does not show any change, while procurement payments, on the other hand, show a jump of more than \$3 billion. This, of course, reflects the time lag involved in producing procurement goods (for example, aircraft, missiles, ships, vehicles, ammunition, etc.); it also represents the backlog of procurement orders due to delays in converting productive facilities and in handling rapidly expanding new orders (see footnote 1).

The fact that NOA shows no change for fiscal year 1968 suggests that there will be no net additional stimulus to private industry due to hard goods procurement in that fiscal year even though payments will continue to increase. What stimulus there is will be due to other than hard goods procurement. Consequently, only a portion of the rise in defense spending in fiscal year 1968 should be interpreted as stimulative, and will come primarily from spending on military personnel. Specifically, almost 60 percent (or \$3.2 billion) of the \$5.4 billion increase in defense spending (administrative budget) in fiscal year 1968 will reflect past stimulus.

TABLE I
Changes in New Obligational Authority (NOA)
and Expenditures for Military Functions
Fiscal Years 1965-68
 (in billions of dollars)

Fiscal Year	Military Personnel		Operation and Maintenance		Procurement		Research and Development		Other		Total Military	
	NOA	Expenditures	NOA	Expenditures	NOA	Expenditures	NOA	Expenditures	NOA	Expenditures	NOA	Expenditures
1965	\$0.8	\$0.6	\$0.9	\$0.4	\$-1.8	\$-3.5	\$-0.5	\$-0.8	\$0.1	\$-0.3	\$-0.6	\$-3.6
1966	2.4	2.0	2.7	2.4	6.2	2.5	0.3	0.0*	2.9	1.4	14.5	8.2
1967	3.4	3.4	3.9	3.9	2.9	4.1	0.4	0.4	-2.5	0.6	8.1	12.5
1968	1.6	1.6	-0.1	0.4	0.0*	3.2	0.1	0.5	1.0	-0.4	2.6	5.4

*Less than \$50 million.

Source: Executive Office of the President, Bureau of the Budget, *The Budget of the United States Government — 1968* (Washington: U. S. Government Printing Office, 1967), pp. 456 and 462

Tables II and III tend to substantiate this point. The data in Table II indicate that NOA due to Vietnam will decline by nearly \$1.4 billion in fiscal year 1968 even though expenditures will continue to rise.

Table III presents data on various types of obligations and orders for defense products. The obligations series reached a peak in the second quarter of 1966, and since that time have declined for two successive quarters; the orders series reached a peak in the third quarter of 1966, and receded in the fourth quarter.

TABLE III
New Orders for Defense Products, Department of Defense Obligations,
and Military Prime Contract Awards, 1965-66
Seasonally Adjusted Annual Rates
 (in billions of dollars)

Quarter	Department of Defense Obligations		Military Prime Contract Awards to U. S. Business Firms	New Orders for Defense Products
	Total	Procurement		
1965 I.	51.0	12.2	21.3	29.1
II.	55.0	16.4	29.6	33.1
III.	59.0	18.4	31.7	35.5
IV.	62.1	19.3	32.7	33.5
1966 I.	64.6	21.1	32.9	39.3
II.	75.9	24.6	38.8	39.6
III.	75.2	23.5	41.1	45.3
IV.	72.1	22.4	39.1	37.4

Source: U. S. Department of Commerce, *Business Cycle Developments*, February 1967

TABLE II
Estimated New Obligational Authority and Expenditures for Special Support of Vietnam Operations
Fiscal Years 1965-68
 (in millions of dollars)

Fiscal Year	New Obligational Authority	Expenditures
1965	\$ 700	\$ 103
1966	14,946	5,812
1967	21,969	19,419
1968	20,600	21,900

Source: Executive Office of the President, Bureau of the Budget, *The Budget of the United States Government—1968* (Washington: U. S. Government Printing Office, 1967), p. 77

TABLE IV

Defense Production, Unfilled Orders for Defense Products, and the Ratios of Unfilled Orders to Shipments and of New Orders to Shipments, 1965-66

	Percent Change in Defense Production ^e	Unfilled Orders for Defense Products (millions)	Ratio of	
			Unfilled Orders to Shipments	New Orders to Shipments
1965 January		\$19,964	9.09	1.08
February	1.8%	20,260	9.12	1.10
March		20,502	8.99	1.08
April		21,361	9.46	1.43
May	3.5	21,457	9.41	1.08
June		21,743	9.46	1.12
July		22,036	9.48	1.13
August	4.8	22,503	9.61	1.20
September		23,532	9.72	1.42
October		24,407	9.16	1.36
November	6.3	24,587	9.31	1.08
December		24,587	9.71	1.00
1966 January		25,383	9.64	1.32
February	8.4	25,841	9.03	1.18
March		26,578	10.01	1.28
April		27,239	10.25	1.24
May	5.0	27,316	9.65	1.03
June		28,269	10.35	1.35
July		28,879	9.98	1.21
August	6.0	29,184	10.24	1.11
September		31,033	11.00	1.66
October		31,453	10.89	1.15
November	2.7	31,316	10.93	0.95
December		31,691 ^p	10.85	1.13

^e Estimated by Federal Reserve Bank of Cleveland

^p Preliminary

Sources: U. S. Department of Commerce and Federal Reserve Bank of Cleveland

Table IV presents measures on the production side of defense — defense output, order backlogs, and the ratios of unfilled orders to shipments and of new orders to shipments. It can be seen that the rate of increase in estimated defense production slowed substantially in the fourth quarter of 1966. The slowing down in the rate of growth does not appear to reflect capacity limitations. The ratio of new orders to shipments declined below 1.00 in November, the first month-to-month decline in the backlog of unfilled orders for defense products during the time period covered by the data in the table. While new orders exceeded shipments in December, thereby pushing up the backlog of unfilled orders again, the growth of unfilled orders does appear to have slackened.

In view of the data, several comments seem pertinent. For one thing, as calendar 1967 progresses, defense spending is likely to increase less than during 1966. For another, much of the increase in spending will represent deliveries of previously ordered hardware and will not reflect an additional stimulus to productive activity. Moreover, new orders and commitments for those military products that require extensive productive capacity are not expected to increase, but will remain level or possibly even show a slight decline; in fact, they have remained virtually level since the second quarter of 1966. Thus, the data suggest that the economy may not receive much additional stimulus from defense spending in calendar 1967— at least as things stand now.

1966 PATTERNS IN FOURTH DISTRICT BANKING

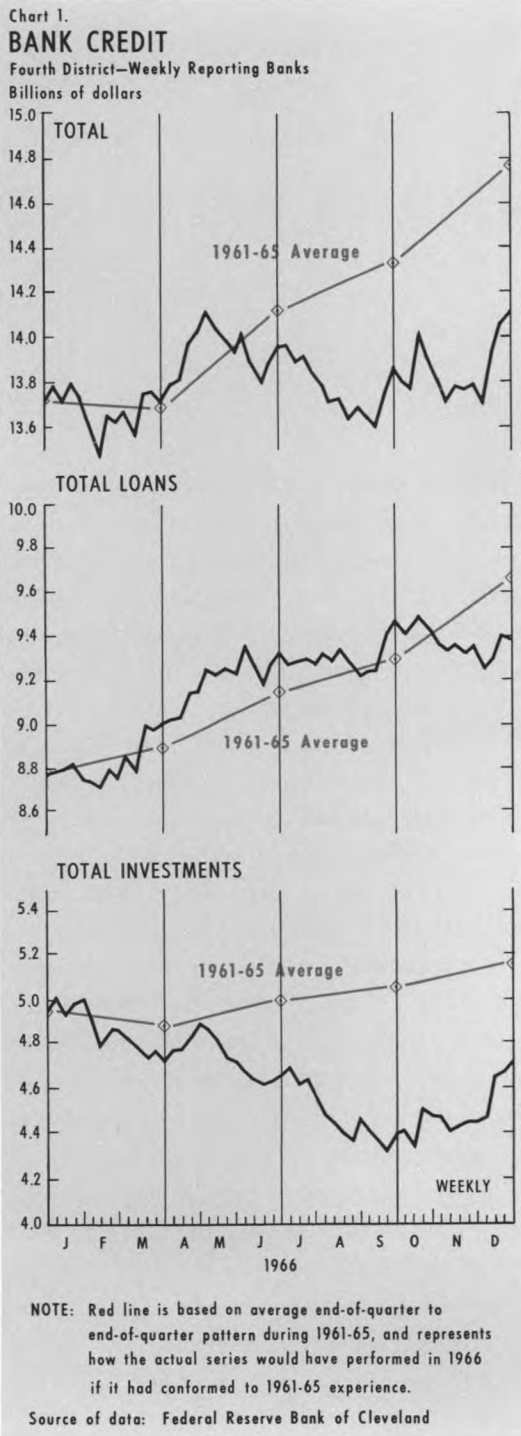
During 1966, total loans and investments at weekly reporting banks in the Fourth District advanced \$388 million or about 2.8 percent.¹ At least two major developments are significant. First, the rate of expansion of bank credit was considerably less than that of recent years. Second, during 1966 bank management had to cope with heavy demands for funds at a time when credit was becoming less available.

¹ The statistical series on the Condition of Weekly Reporting Member Banks was revised during 1966, beginning with the report for July 6. Two major revisions involved the addition of banks (including nonmembers of the Federal Reserve System) to the reporting series and the inclusion of only those banks with deposits of \$100 million or more. To reflect these changes, the series title has been changed to Weekly Condition Report of Large Commercial Banks. Presently, 31 banks within the Fourth District report weekly to the Federal Reserve Bank of Cleveland. Data used in this article for the period prior to July 6, 1966, have been revised to be comparable to the more recent data.

Since the weekly reports of participating banks are compiled as of Wednesdays only, the 52-week period used in this article does not coincide precisely with the calendar year. The period covered is from December 29, 1965, to December 28, 1966.

With reference to the second development, member bank borrowings from the Federal Reserve System exceeded excess reserves throughout the year, indicating the need to use borrowed funds to meet reserve requirements. Banks generally were under pressure to maintain deposit levels, in part because attractive yields on investment securities tended to lure depositors' money. Frequently, banks were forced to liquidate portions of their investment holdings to raise funds to accommodate loan demand. The situation differed somewhat in the Fourth District, since excess reserves generally exceeded borrowings. It is not clear whether District banks were in a more favorable position than banks in the nation or whether they were more prepared to take other steps (such as liquidation of investments or curtailment of lending activity) to meet reserve requirements. In any event, Fourth District banks still had to operate in a general environment of reduced credit availability. Against this background, the present article describes the banking situation that unfolded in the Fourth District during 1966.

ECONOMIC REVIEW



BANK CREDIT

The swings in total credit at District banks in 1966 are apparent in Chart 1, which shows total bank credit, loans, and investments at weekly reporting banks. The dip in bank credit in the first quarter and the increase in the second quarter were not unlike the patterns of previous years, but the decline during the late spring and summer months was unusual. In the period from May through the middle of September, bank credit declined by \$511 million, or 9.9 percent at an annual rate. On balance, loan demand held up fairly well during that period. Lending, however, was restrained by the difficulty banks had in acquiring and holding new deposits, which reflected the restrictive credit policy of the Federal Reserve System. Federal Reserve credit policy also was reflected in the steady decline in total investments through most of 1966.

During the fourth quarter, bank credit increased at Fourth District weekly reporting banks, but at a slower rate than in recent years. While loans receded in the fourth quarter, total investment holdings rose to the level that existed at midyear. On balance, the volume of total bank credit at District reporting banks at yearend was still slightly below the peak level reached in the spring of 1966.

INVESTMENTS

Total investments receded at District weekly reporting banks in 1966, with the net decline just under 5 percent for the year as a whole. During the year, the pattern was one of total investments declining by 16 percent

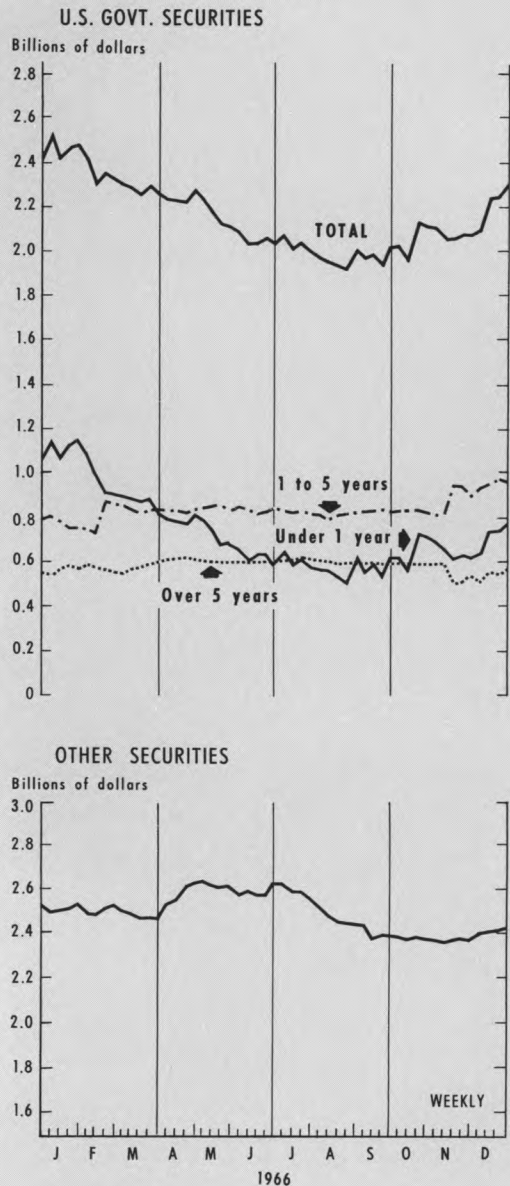
(annual rate) through the first three quarters, and then regaining some of the loss during the fourth quarter (see Chart 1).

During the first half of the year, holdings of U. S. Government securities at District reporting banks were reduced substantially, while holdings of other securities increased fractionally (see Chart 2). Although holdings of Governments declined somewhat further in July and August, the pattern of investment in these and other securities was reversed during most of the second half of the year. That is, holdings of U. S. Treasury issues were accumulated (particularly in the fourth quarter) while holdings of other securities were liquidated. As shown in Chart 2, most of the fluctuation in total investments during the year was centered in holdings of short-term U. S. Treasury issues, those due to mature within one year. The changes in holdings of intermediate-term and long-term Treasury issues were relatively small in magnitude and partly off-setting, so that adjustments in these maturity areas had little effect on the behavior of total investments.

LOANS

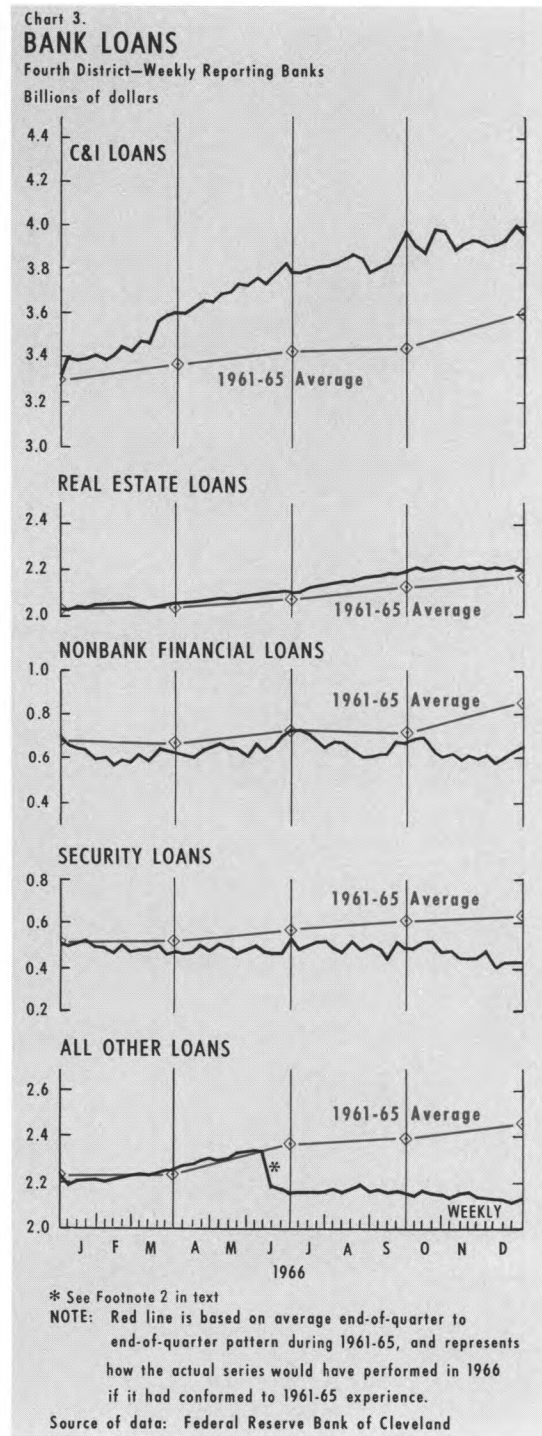
Total loans (the major component of bank credit) experienced a relatively consistent pattern of rapid expansion at District reporting banks through the first three quarters of 1966. Customarily, the largest amount of loan expansion at District reporting banks as a whole (in fact, at commercial banks generally) takes place during the last half of the calendar year, when business and consumer borrowing increases seasonally, but this was not the case in 1966. From the end of June to the end of the year, loans at District reporting banks increased by only \$67 million, or

Chart 2.
BANK INVESTMENTS
Fourth District—Weekly Reporting Banks



Source of data: Federal Reserve Bank of Cleveland

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less than 1½ percent at an annual rate (see Chart 1). Developments during the last quarter deviated sharply from the usual pattern, and total loans actually declined at an annual rate of 4 percent. As a result, for the year as a whole the gain in total loans was the smallest annual increase in four years.

During the first half of 1966, the *commercial and industrial loan* component of total loans at District reporting banks rose sharply at an annual rate of 30 percent, in a spillover of the rapid expansion that had occurred in 1965. (See Chart 3.) The District experience reflected an even more accelerated rate of business loan expansion than in the nation, where the rate of advance was 20 percent at an annual rate. In fact, the increase in business lending at commercial banks in general was so large that the Federal Reserve System found it necessary to issue a letter on September 1, 1966, that specifically asked banks to curb loans to business and industry and not to sell securities in order to prevent severe pressures from developing in credit and capital markets. In the District, the pace of business loan expansion had actually slowed noticeably at midyear, to an annual rate of about 8 percent during the summer. This, in part, reflected credit-restraining actions by the Federal Reserve System, referred to earlier, as well as the first indications of slackening demand for business loans.

Real estate loans increased modestly throughout the first quarter of 1966 in contrast to the sharp climb in total loans. (See Chart 3.) However, from April through October, real estate loans advanced at an annual rate of approximately 13 percent, which in part reflects patterns established in recent

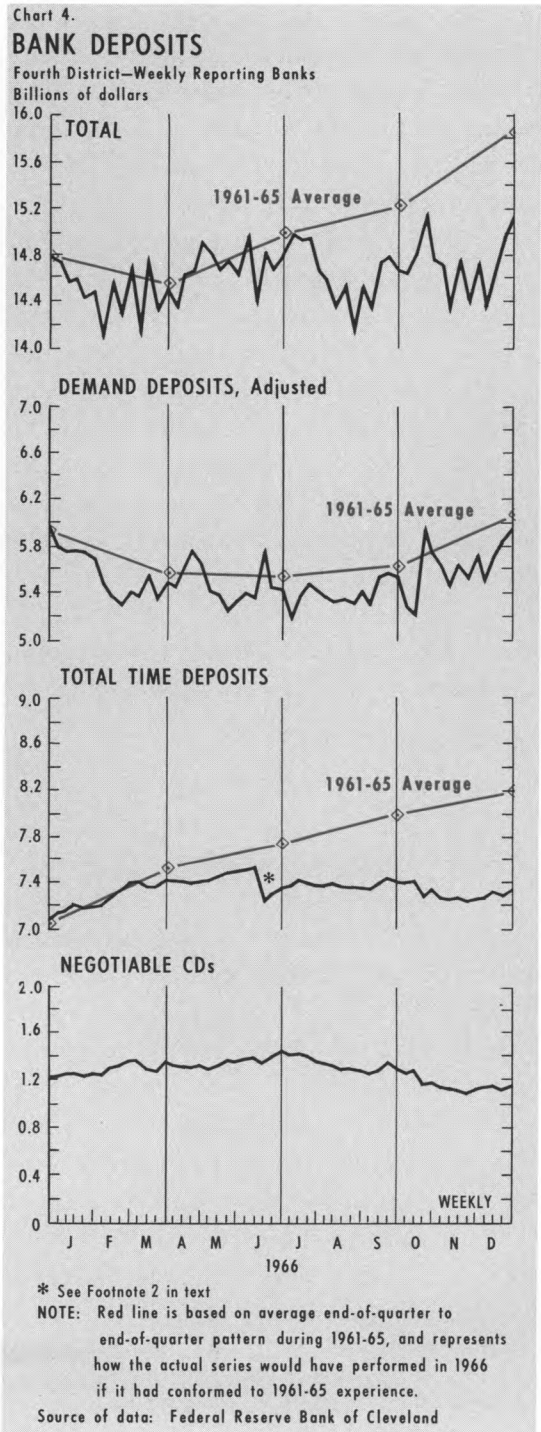
years. During much of this period, banks in the District were more successful in obtaining and holding savings funds than were other types of financial institutions that specialize in granting mortgage loans. Real estate loans were virtually unchanged at District reporting banks during November and December.

Loans to nonbank financial institutions (such as finance companies and savings and loan associations), loans to securities dealers for the purpose of carrying securities, and all other loans² showed little net change over the year and thus did not have a noticeable net effect on the behavior of total loans at District weekly reporting banks. (See Chart 3.) The fact that loans to nonbank financial institutions by District reporting banks declined during the fourth quarter is perhaps significant because in recent years such loans usually have increased during that quarter. With resources scarce, District banks apparently took advantage of other lending opportunities that were available.

BANK LIQUIDITY

Familiar measures of bank liquidity reflect the pressures on District reporting banks in 1966, as they attempted to acquire and hold deposits, while being forced to liquidate portions of investment holdings in the face of heavy loan demands. The loan-to-deposit

² For the purpose of this article, all other loans include the following categories from the weekly report of condition: agricultural loans, consumer instalment loans, and other loans. In June 1966, a sharp decline in all other loans resulted from a decision by the Federal Reserve System to disregard certain time deposits ("hypothecated deposits") set up by banks in some states to reflect repayments on consumer loans. The decision resulted in corresponding declines in total time deposits and all other loans.



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ratio for Fourth District weekly reporting banks at the beginning of 1966 was at 59.6 percent; by August, the ratio reached a recent record level of 65.4 percent; it then receded and closed the year at 62.0 percent. The ratio of risk assets³ to total assets moved somewhat more narrowly, increasing from 76.3 percent at the beginning of the year to a peak level of 79.6 percent in both June and October with the higher level being maintained during the summer and fall. By yearend, however, the ratio had declined to 77.0 percent. It should be pointed out that both the loan-deposit and the risk-asset ratio have been in a gradual secular uptrend over the past four years, and at yearend 1966 both were almost 10 percentage points higher than in 1962 for Fourth District weekly reporting banks.

BANK DEPOSITS

As mentioned earlier, District reporting banks — as well as those across the nation — experienced a great deal of difficulty in maintaining deposit levels in 1966. In fact, if it were not for seasonal increases in deposits at District banks during the last two weeks of December, total deposits probably would have finished the year at a lower level than at the beginning of the year.

Customarily, total deposits at District reporting banks decline in the first quarter of the year. The usual deposit pattern was followed in the first three months of 1966, but the decline was greater than in recent years. In addition, the second quarter brought a smaller increase than usual in total deposits,

as time deposits lost some of their attractiveness in view of rising interest rates on money market instruments. The third quarter added to the problems of District banks, with total deposits declining sharply in July and August. Usually, total deposits show a strong increase in the third quarter, but the seven-week period from July 6 to August 24, 1966, saw a sharp decline at an annual rate of about 40 percent (a rate of decline smaller than that experienced by all weekly reporting banks in the nation, however). Total deposits declined again, during the fourth quarter, until the recovery just before yearend.

Demand deposits at Fourth District reporting banks moved lower during the first two quarters of 1966 in seasonal fashion, with most of the decline occurring in the first quarter (see Chart 4). Gains in the second half were not enough to recover the earlier loss, as in other recent years. As a result, demand deposits closed fractionally lower in 1966 than at yearend 1965. As the chart shows, the largest changes in demand deposits occurred in months in which business and personal income tax liabilities were substantial: April, June, September, October and December.

Weekly reporting banks in the Fourth District were able to increase *time deposits* throughout most of the first half of 1966, as funds continued to flow into other time deposits, and passbook savings deposits remained relatively steady. After midyear, however, passbook savings as well as negotiable CDs began to run off, causing total time deposits to show a gain of only 3½ percent for 1966 as a whole. This contrasts sharply to the 10 to 25 percent gains in total

³ Risk assets equal total assets less cash and U. S. Government securities.

time deposits in the preceding five years. This was the case despite the fact that reporting banks raised interest rates offered on the various time deposits to or near the maximum levels permitted. In view of monetary restraint during much of 1966, as well as large advances in yields on money market instruments, the behavior of time deposits at District reporting banks is not surprising.

The total dollar volume of negotiable CDs in denominations of \$100,000 or more issued by Fourth District weekly reporting banks turned downward during the first week in July, as illustrated in Chart 4. There was a temporary halt in the outflow of funds held in the form of large CDs during September, but subsequently the reporting banks again began to lose deposits and at an accelerated pace. During November, with interest rate relationships changing, banks in the Fourth District were able to halt the decline in large CDs; by yearend, banks had regained a portion of the lost CD volume.

CONCLUDING COMMENTS

Generally, 1966 provided many challenges for Fourth District weekly reporting banks,

as well as for other banks in the nation. Commercial banks continued to refute their popular reputation as institutions that resist change by adapting, often quickly, to rapidly changing monetary and financial conditions. During most of the year, loan demand at District reporting banks remained strong, but total resources (deposits) did not expand enough for banks to accommodate loan demand. To have allowed banks to do so would have been inappropriate monetary policy in view of the economic situation then prevailing. Banks were forced to sell some investments, frequently at losses, to raise funds to accommodate loan requests of valued customers. While this was clearly the situation during the first half, it was less so during the rest of the year and not the case at all as the year came to a close, reflecting the shift in monetary policy toward less restraint. The increase in the volume of time deposits at District reporting banks in 1966 was well below that of other recent years, even though interest rates paid by reporting banks moved to or approached the legal maximum. But this was not an atypical experience, as it occurred widely at banks throughout the nation.



GROWTH OF DEPOSIT-TYPE FINANCIAL INSTITUTIONS IN THE FOURTH DISTRICT, 1947-65

Total assets of deposit-type financial institutions¹ located within the Fourth Federal Reserve District exceeded \$41 billion at the end of 1965. At this level, total assets were 185 percent greater than at the end of 1947, when they amounted to \$14.5 billion. This increase in total assets during the 1947-65 period was not distributed evenly among the

NOTE: The cooperation of the Federal Home Loan Banks of Cincinnati and Pittsburgh, the Credit Union Leagues of Ohio, Pennsylvania, Kentucky, and West Virginia, and the banking and building and loan departments in the Fourth District states in providing historical data is gratefully acknowledged.

¹ A deposit-type financial institution derives its primary resources from deposits by the public. The most familiar types of deposit-type financial institutions are commercial banks, savings and loan associations, mutual savings banks, and credit unions. Although there are a number of sales and consumer finance companies in the Fourth District that accept deposits, they are excluded from this study since statistics are not available on either their number or activities.

various subareas within the District (the entire State of Ohio, western Pennsylvania, eastern Kentucky, and six counties in West Virginia). Total assets of deposit-type financial institutions in Ohio more than tripled during the period under review, while assets of institutions in Pennsylvania, Kentucky, and West Virginia expanded about two-and-one-half times (see Table I).

The vast growth in total assets of deposit-type financial institutions in the Fourth District was accompanied by large-scale expansion of physical facilities. Not only were a large number of new financial institutions formed, but there was an even more rapid increase in the number of branches, particularly of commercial banks and savings and loan associations in Ohio and Pennsylvania. At the end of 1965, there were 5,481 offices of deposit-type financial institutions in the Fourth District, a 69 percent increase from

TABLE I
Assets and Facilities
Deposit-Type Financial Institutions
Fourth Federal Reserve District
December 31, 1947 and December 31, 1965

State or Portion in Fourth District	ASSETS		FACILITIES		
	(millions of dollars)		Total	Main Offices	Branches
<u>December 31, 1947</u>					
Ohio	\$ 9,367		2,064	1,863	201
Pennsylvania	4,328		870	818	52
Kentucky	667		268	262	6
West Virginia	170		41	41	-0-
TOTAL	\$14,532		3,243	2,984	259
<u>December 31, 1965</u>					
Ohio	\$28,214		3,651	2,386	1,265
Pennsylvania	11,001		1,405	875	530
Kentucky	1,727		362	280	82
West Virginia	412		63	63	-0-
TOTAL	\$41,354		5,481	3,604	1,877
<u>Percent Change, 1947-65</u>					
Ohio	+201%		+77%	+28%	+ 529%
Pennsylvania	+154		+61	+ 7	+ 919
Kentucky	+159		+35	+ 7	+1,267
West Virginia	+142		+54	+54	-0-
TOTAL	+185%		+69%	+21%	+ 625%

Sources: Federal Home Loan Bank of Cincinnati; Federal Home Loan Bank of Pittsburgh; Division of Building and Loan Associations, The State of Ohio; Department of Banking and Securities, The Commonwealth of Kentucky; Department of Banking, The Commonwealth of Pennsylvania; Department of Banking, The State of West Virginia; Pennsylvania Credit Union League; Ohio Credit Union League; Kentucky Credit Union League; West Virginia Credit Union League; Federal Reserve Bank of Cleveland

TABLE II
Assets and Facilities
Commercial Banks
Fourth Federal Reserve District
December 31, 1947 and December 31, 1965

State or Portion in Fourth District	TOTAL ASSETS			TOTAL MAIN OFFICES			TOTAL BRANCHES			TOTAL BANKING OFFICES
	(millions of dollars) 12-31-47	12-31-65	Percent Change	Main Offices 12-31-47	Main Offices 12-31-65	Percent Change	Branches 12-31-47	Branches 12-31-65	Percent Change	Percent Change
Ohio	\$ 7,416	\$17,506	+136%	668	542	-19%	186	945	+ 408%	+74%
Pennsylvania	3,977	8,275	+108	286	128	-55	52	455	+ 775	+72
Kentucky	588	1,286	+119	167	149	-11	6	74	+1,133	+29
West Virginia	152	269	+ 77	26	24	- 8	-0-	-0-	-0-	- 8
TOTAL	\$12,133	\$27,336	+125%	1,147	843	-27%	244	1,474	+ 504%	+67%

Source: Federal Reserve Bank of Cleveland

the number in operation in 1947. The growth in facilities was concentrated in the establishment of branch offices, with the number of branches increasing 625 percent. Alternatively stated, the expansion of branch offices accounted for 72 percent of the total increase in the number of deposit-type facilities in the District. Like the expansion in total assets, expansion in number of total facilities was not uniformly distributed among the sub-areas of the District. Moreover, rates of growth of the individual types of financial institutions, in terms of both assets and facilities, varied from area to area within the District.

GROWTH OF DEPOSIT-TYPE FINANCIAL INSTITUTIONS — BY TYPE AND AREA

Commercial Banks. Total assets of Fourth District commercial banks expanded 125

percent during the period 1947-65, or from \$12.1 billion to \$27.3 billion. That increase (\$15.2 billion) represented more than half (57 percent) of the gain in total assets of all deposit-type financial institutions in the Fourth District during 1947-65. The number of commercial banking offices rose by 67 percent, all of which resulted from the establishment of branches, as the number of commercial banks fell by 27 percent (see Table II).²

Despite posting the largest absolute increases in total assets and total facilities, the share of total assets of all deposit-type financial institutions accounted for by District commercial banks fell during the 1947-65

² For a discussion of the changes in the structure of commercial banking in the Fourth Federal Reserve District, see "The Anatomy of Fourth District Banking, 1954-65," *Economic Review*, Federal Reserve Bank of Cleveland, Cleveland, Ohio, May 1966.

period. Whereas commercial banks held 83 percent of total assets and operated 43 percent of total facilities in 1947, the proportions fell to 66 percent and 42 percent, respectively, by the end of 1965.

The rates of growth of commercial banks in the subareas of the Fourth District varied during the 1947-65 period. Commercial banks in Ohio led the way with an increase in total assets of 136 percent. Total assets of banks in the District's portions of Kentucky and Pennsylvania increased by 119 percent and 108 percent, respectively, while those of banks in the six-county portion of West Virginia grew by 77 percent. In the case of facilities, the number of banking offices in Ohio, Pennsylvania, and Kentucky increased in a range of from 29 to 74 percent; in West Virginia, the only unit banking state in the Fourth District, the number of banking offices fell by 8 percent. Although the number of total banking offices increased in three of the four District areas, the number of commercial banks fell in all four; the largest decline was experienced in Pennsylvania, where the number of commercial banks declined by 55 percent. The number of branches of commercial banks in the District rose in all states, except for West Virginia, with the largest increase (1,133 percent) taking place in Kentucky (see Table II).

Savings and Loan Associations and Mutual Savings Banks. The combined total assets of savings and loan associations and mutual savings banks operating in the Fourth District spurred from \$2.3 billion in 1947 to over \$13.2 billion at the end of 1965, a 464 percent in-

crease.³ All of the growth was centered in the expansion of the savings and loan associations. There were three mutual savings banks in the Fourth District in 1947 with combined assets of \$317 million; at the end of 1965, there were two mutual savings banks with combined assets of \$309 million.⁴

In 1947, the savings and loan associations of the Fourth District held only 16 percent of the total assets of all deposit-type financial institutions in the District; at the end of 1965, the percentage share amounted to 32 percent. In contrast to commercial banks, the savings and loan associations expanded primarily through internal expansion (not through merger or consolidation), although there were a few consolidations of small, uninsured associations, especially in Ohio, and to a lesser degree, in Pennsylvania. The number of main offices declined 10 percent during the 1947-65 period; the number of branch offices skyrocketed, however, increasing by 2,587 percent (see Table III). The net result was that total offices of savings and loan associations rose approximately 31 percent during the period under review. During 1947-65, the savings and loan associations gained a sizable share of total assets of financial institutions within the Fourth District, even though they experienced a loss in the percent

³ Mutual savings banks are relatively unimportant in the Fourth District, and have been combined with the savings and loan associations, the deposit-type institution the former most closely resembles in terms of structure and operation.

⁴ The largest mutual savings bank in 1947 was converted to a national bank in 1958.

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TABLE III
Assets and Facilities
Savings and Loan Associations and Mutual Savings Banks
Fourth Federal Reserve District
December 31, 1947 and December 31, 1965

State or Portion in Fourth District	TOTAL ASSETS			TOTAL MAIN OFFICES			TOTAL BRANCHES		
	(millions of dollars) 12-31-47	12-31-65	Percent Change	Main Offices 12-31-47	Main Offices 12-31-65	Percent Change	Branches [‡] 12-31-47	Branches 12-31-65	Percent Change
Ohio	\$1,916*	\$10,150†	+430%	624	557	-11%	15	320	+2,033%
Pennsylvania	339*	2,544†	+650	215	186	-13	-0-	75	-0-
Kentucky	77	423	+449	71	67	-6	-0-	8	-0-
West Virginia	17	136	+700	12	17	+42	-0-	-0-	-0-
TOTAL	\$2,349	\$13,253	+464%	922	827	-10%	15	403	+2,587%

* Includes two mutual savings banks in Ohio with assets of \$227 million and one in Pennsylvania with assets of \$90 million.

† Includes one mutual savings bank in Ohio with assets of \$3 million and one in Pennsylvania with assets of \$306 million.

‡ Estimated.

Sources: Federal Home Loan Bank of Cincinnati; Federal Home Loan Bank of Pittsburgh; Division of Building and Loan Associations, The State of Ohio; Department of Banking and Securities, The Commonwealth of Kentucky; Department of Banking, The Commonwealth of Pennsylvania; Department of Banking, The State of West Virginia

share of facilities. In 1947, offices of savings and loan associations accounted for 29 percent of the facilities of all deposit-type financial institutions; in 1965, the share had declined to 22 percent even though the absolute number of savings and loan facilities had grown appreciably.

Within the District, savings and loan associations in Ohio showed the greatest amount of expansion. There are more uninsured savings and loan associations in Ohio than in any other state; the percent of total assets held by the uninsured associations was 30 percent in 1947, and amounted to about 10 percent at the end of 1965.

In 1947, savings and loan associations in Ohio held assets amounting to \$1.9 billion;

by 1965, assets had grown to nearly \$10.2 billion, a more than fivefold increase, which accounted for 76 percent of the growth of all savings and loan associations in the District during 1947-65. At the same time, Ohio experienced the largest absolute decline in the number of associations and the sharpest increase in the number of branches.

The Commonwealth of Pennsylvania also experienced a sharp increase in the total assets held by savings and loan associations, with a percent increase of 650 percent surpassing that in Ohio. While the number of savings and loan associations in Pennsylvania also declined, the number of branches increased markedly. Both Kentucky and West Virginia experienced slight gains in

TABLE IV
Assets and Facilities
Credit Unions

Fourth Federal Reserve District
 December 31, 1947 and December 31, 1965

State or Portion in Fourth District	TOTAL ASSETS (millions of dollars)			TOTAL MAIN OFFICES		
	12-31-47	12-31-65	Percent Change	Main Offices 12-31-47	Main Offices 12-31-65	Percent Change
Ohio	\$35	\$558	+1,494%	571	1,287	+125%
Pennsylvania	12	182	+1,417	317	561	+ 77
Kentucky	2	18	+ 800	24	64	+167
West Virginia	1	7	+ 600	3	22	+633
TOTAL	\$50	\$765	+1,430%	915	1,934	+111%

Sources: Kentucky Credit Union League; Ohio Credit Union League; Pennsylvania Credit Union League; West Virginia Credit Union League

the amount of assets held by savings and loan associations as well as in the number of facilities. Interestingly, West Virginia was the only Fourth District state in which the number of savings and loan associations increased during 1947-65, reflecting in part the state law prohibiting expansion through branching.

Credit Unions. Total assets of credit unions in the Fourth District rose from \$50 million in 1947 to \$765 million at the end of 1965 (see Table IV). That increase (1,430 percent) was the largest relative gain of any deposit-type financial institution in the District, although the absolute volume of total assets held by credit unions represents less than 2 percent of the total assets held by Fourth

District financial institutions. The credit union share of total assets was even smaller in 1947 — less than one-third of one percent.

The number of facilities operated by credit unions in the Fourth District more than doubled during the period under review, reflecting increasing acceptance by employers and employees of the credit union as both a depository and source of credit. Credit union offices accounted for 35 percent of total facilities operated by financial institutions in the Fourth District in 1965, in comparison with 28 percent in 1947.

As Table IV shows, increases in assets of credit unions in the individual areas of the District ranged from 600 percent in West Virginia to nearly 1,500 percent in Ohio. The

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larger magnitude of credit union operations in Ohio meant that asset growth in that State represented more than 70 percent of the total asset growth of all credit unions in the District during 1947-65. More new credit unions (716) were established in Ohio during 1947-65 than in the rest of the District, although all areas did experience an increase in the number of facilities available.

MAJOR ASSETS AND LIABILITIES

Assets and liabilities of deposit-type financial institutions in the Fourth District, as elsewhere in the nation, underwent fundamental shifts during 1947-65. Tables V-VIII summarize these changes. The major change that pervaded all balance sheets was the marked increase in the proportion of loans to total assets. This was especially true in the case of commercial banks in the Fourth District (see Table V). In 1947, more than 52 percent of the assets of banks in the District were in investments; by the end of 1965, the proportion had fallen to 32 percent. Correspondingly, loans climbed from 24 percent of total assets in 1947 to 52 percent in 1965. On the liability side of the balance sheet, the 18-year period witnessed a sizable shift in the distribution of deposits between time and demand. In 1947, demand deposits accounted for two-thirds of all deposits; by the end of 1965, demand deposits accounted for nearly half of total deposits. Commercial banks also appreciably increased capital accounts during the 18-year period.

Tables VI and VII show the balance sheet items for savings and loan associations and mutual savings banks in the Fourth District,

TABLE V
Balance Sheet Items
Commercial Banks
Fourth Federal Reserve District
December 31, 1947 and December 31, 1965

ASSETS	December 31, 1947		December 31, 1965	
	Millions of Dollars	Percent of Total	Millions of Dollars	Percent of Total
Loans	\$ 2,887	23.8%	\$14,216	52.0%
Investments	6,348	52.3	8,763	32.1
Other Assets	2,898	23.9	4,357	15.9
TOTAL	\$12,133	100.0%	\$27,336	100.0%
LIABILITIES				
Deposits:		92.0%		89.0%
Demand	\$ 7,401	66.3 *	\$12,122	49.8 *
Time	3,765	33.7 *	12,216	50.2 *
Other Liabilities and Capital Accounts	967	8.0	2,998	11.0
TOTAL	\$12,133	100.0%	\$27,336	100.0%

* Percent of total deposits.

Source: Federal Reserve Bank of Cleveland

and the increased proportion of loans in the portfolios of these institutions. On the other hand, there was little change in the relationship of total deposits to total liabilities over the 18-year period. Interestingly, the growth experienced by the various types of savings and loan associations was not uniform, as illustrated by the data in Table VII. The total assets of all savings and loan associations in the District increased by 537 percent during 1947-65. However, most of that gain was recorded by the insured associations,

TABLE VI
Balance Sheet Items
Savings and Loan Associations and Mutual Savings Banks
 December 31, 1947 and December 31, 1965
 (millions of dollars)

ASSETS	December 31, 1947				December 31, 1965			
	Savings and Loan Associations	Mutual Savings Banks	Total	Percent of Total	Savings and Loan Associations	Mutual Savings Banks	Total	Percent of Total
Loans	\$1,467	\$ 50	\$1,517	64.6%	\$10,959	\$222	\$11,181	84.4%
Other	565	267	832	35.4	1,985	87	2,072	15.6
TOTAL ASSETS	\$2,032	\$317	\$2,349	100.0%	\$12,944	\$309	\$13,253	100.0%
LIABILITIES								
Savings Accounts	\$1,735	\$292	\$2,027	86.3%	\$11,233	\$285	\$11,518	86.9%
Other	297	25	322	13.7	1,711	24	1,735	13.1
TOTAL LIABILITIES	\$2,032	\$317	\$2,349	100.0%	\$12,944	\$309	\$13,253	100.0%

Sources: Federal Home Loan Bank of Cincinnati; Federal Home Loan Bank of Pittsburgh; Division of Building and Loan Associations, The State of Ohio; Department of Banking and Securities, The Commonwealth of Kentucky; Department of Banking, The Commonwealth of Pennsylvania; Department of Banking, The State of West Virginia

TABLE VII
Growth in Savings and Loan Associations
 Fourth Federal Reserve District
 December 31, 1947 and December 31, 1965

	TOTAL ASSETS (millions of dollars)			TOTAL LOANS (millions of dollars)		
	12-31-47	12-31-65	Percent Change	12-31-47	12-31-65	Percent Change
Federal	\$ 744	\$ 5,905	+694%	\$ 547	\$ 4,963	+807%
State Insured	688	5,657	+722	462	4,766	+932
State Uninsured	600	1,382	+130	458	1,230	+169
TOTAL	\$2,032	\$12,944	+537%	\$1,467	\$10,959	+647%

Sources: Federal Home Loan Bank of Cincinnati; Federal Home Loan Bank of Pittsburgh; Division of Building and Loan Associations, The State of Ohio; Department of Banking and Securities, The Commonwealth of Kentucky; Department of Banking, The Commonwealth of Pennsylvania; Department of Banking, The State of West Virginia

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TABLE VIII
Balance Sheet Items
Credit Unions
 Fourth Federal Reserve District
 December 31, 1947 and December 31, 1965

ASSETS	December 31, 1947		December 31, 1965	
	Millions of Dollars	Percent of Total	Millions of Dollars	Percent of Total
Loans	\$23	46.0%	\$537	70.2%
Other Assets	27	54.0	228	29.8
TOTAL	\$50	100.0%	\$765	100.0%
LIABILITIES				
Shares	\$46	92.0%	\$675	88.2%
Other Liabilities	4	8.0	90	11.8
TOTAL	\$50	100.0%	\$765	100.0%

Sources: Kentucky Credit Union League; Ohio Credit Union League; Pennsylvania Credit Union League; West Virginia Credit Union League

either federal or state-chartered, which expanded 694 percent and 722 percent, respectively. Uninsured savings and loan associations, which are especially numerous in Ohio, did not experience the same rapid increase in total assets, due primarily to the relatively

small increase in the number of associations. Furthermore, many former uninsured associations switched to coverage by the Federal Savings and Loan Insurance Corporation, which further reduced the growth potential of uninsured associations. The pattern of behavior in the growth of loans at the various types of savings and loan associations varied according to whether the associations were insured or uninsured.

Comparative credit union statistics for 1947 and 1965 show clearly the major shift in the asset mix of the credit unions, especially into instalment loans. At the end of World War II, like the case of commercial banks and savings and loan associations, many credit unions held funds idle or had invested them in U. S. Government securities. In fact, at the end of 1947, more than 50 percent of the total assets of the credit unions were in other than loan categories (see Table VIII). By the end of 1965, loans accounted for 70 percent of total assets. On the other side of the balance sheet, the percentage of liabilities represented by deposits was appreciably reduced, due primarily to increases in equity as credit unions multiplied in size.



