

# BUSINESS REVIEW

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*Reports on the Region*

## THE HEALTH OF BANKING IN THE THIRD DISTRICT

Thomas K. Desch & Richard W. Lang

THE  
PHILADELPHIA  
AREA ECONOMY:  
Faster Growth in the 1980s?

John M. L. Gruenstein

Working Paper Summary: Tax Reform & Housing, Theodore Crone

# BUSINESS REVIEW

Federal Reserve Bank of Philadelphia  
Ten Independence Mall  
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## REGIONAL REPORTS

As we move into the second half of the 1980s, the region's economy seems to be in much better shape than many people would have expected a few years ago. This is particularly good news considering both the serious employment declines the region experienced in the 1970s, and some alarming financial developments in the nation recently. This issue of the *Business Review* surveys the regional economic scene in this light. In the first article, Thomas K. Desch and Richard W. Lang briefly analyze some of the causes of the recent surge in the number of failed banks nationally, and assess the health of banks in the Third District. With only one bank failure in this District in the 1980s, and good scores for District banks on various measures of banks' health, the condition of the region's banks appears to be quite good. In the second article, John M. L. Gruenstein contrasts several measures of the region's performance relative to the nation in the 1970s with the 1980s. While the region's performance in the 1970s seemed to signal continuing decline, so far in the 1980s it has performed much closer to the national average. The analysis suggests both that the region now shares more fully in national expansions and contracts less in national recessions, and that regional growth is not limited to one sector, such as services, but is broad-based.

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# The Health of Banking in the Third District

*Thomas K. Desch and Richard W. Lang\**

## INTRODUCTION

The rising number of bank failures since 1981 has fueled concern about the health of the banking industry. Between 1981 and 1984, more than 150 FDIC-insured banks failed. In 1984 alone, 79 banks failed—a level not approached since 1938 (Figure 1, p. 4).<sup>1</sup> News reports have been

widespread that banks are troubled with loan losses and a general deterioration in their condition. One of the explanations for this state of affairs revolves around changes in the economic environment. Declining prices in the energy industry, problems in the agricultural sector, and poor economic performance by foreign

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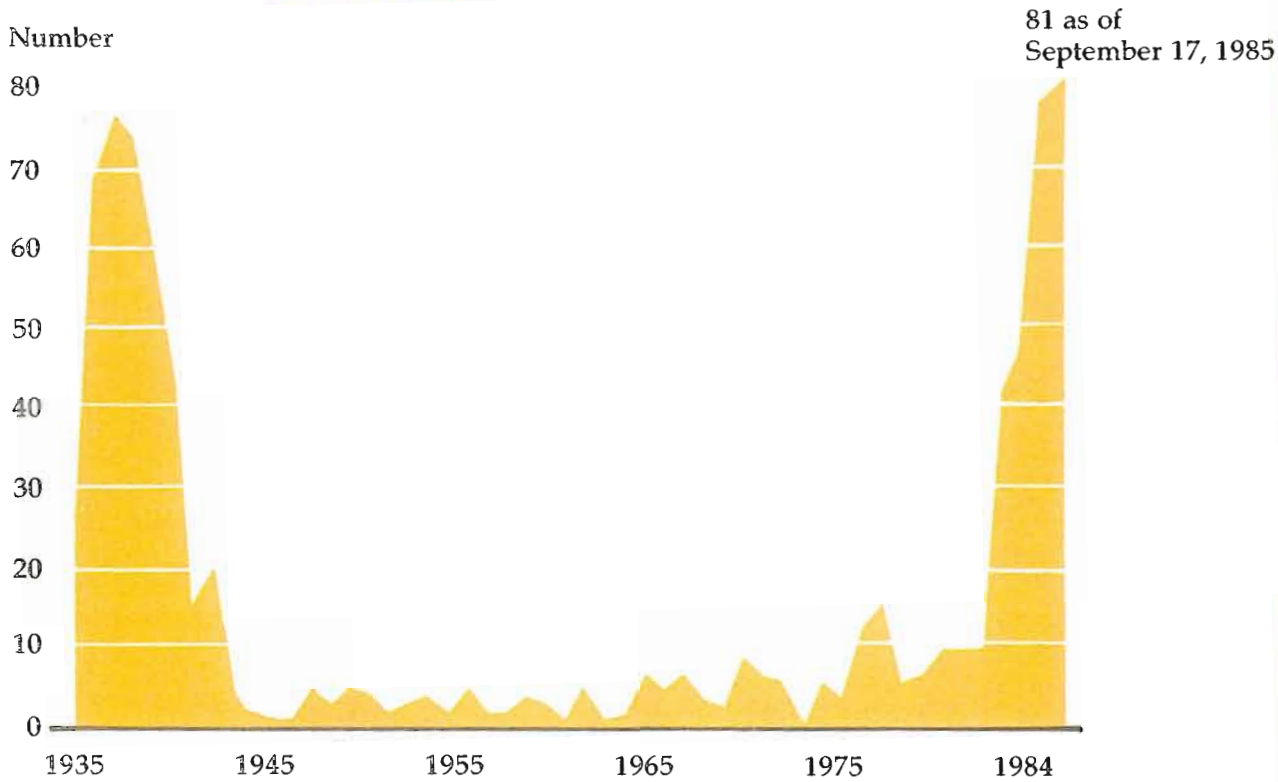
<sup>1</sup>Bank failure data used in this article are failures of FDIC-insured banks, which include some savings banks as well as

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commercial banks. These data include both payoffs and purchase and assumptions. The data do not include failures of savings and loans or credit unions. It should be noted that the high number of bank failures over the past few years cannot be attributed to the general economic and deregulatory environment alone. According to Attorney General Edwin Meese 3rd, bank fraud was a factor in more than half of the bank failures in recent years. See Leslie Maitland Werner, "U.S. Drive on Bank Fraud Set," *Wall Street Journal* (April 3, 1985), p. D-6.



FIGURE 1  
INSURED BANK FAILURES



NOTE: Failures of FDIC-insured commercial banks and savings banks. These data do not include failures of savings and loans or credit unions.

SOURCE: Annual Report of the FDIC, 1984.

debtors have translated into substantial losses for banks on energy loans, agricultural loans, and international loans. Another prominent explanation in news reports involves the trend toward financial deregulation, which has exposed banks to stiffer competition for both depositors and loan customers.

Despite these widespread reports of problems in the banking industry, only one FDIC-insured bank failed in the Third Federal Reserve District during 1981-84 when bank failures were rising rapidly for the nation as a whole.<sup>2</sup> Indeed, a look

at several measures of bank soundness and performance reveals that the health of banks in the Third District has not deteriorated during the past few years and compares favorably with banks nationally. These measures help explain the success of Third District banks in adjusting to recent changes in the economic and regulatory environments.

**BANKS' HEALTH IN A CHANGING ENVIRONMENT**

The health of the banking system certainly depends in part on the health of the national economy, just as the health of individual banks is tied to the health of the region's economy in which the bank does most of its business. Banks'

<sup>2</sup>The Third Federal Reserve District includes the eastern two-thirds of Pennsylvania, the southern half of New Jersey, and the state of Delaware.

problems with deteriorating loan quality can be traced in part to the rising number of business bankruptcies resulting from the recessions of 1980 and 1982 (Figure 2). A rise in bankruptcies in the early stages of a recovery from a recession is typical in business cycles. As a result of this increase in bankruptcies, banks faced a rise in nonperforming loans—loans to businesses that are not being repaid on schedule—as well as outright losses on some business loans—called loan chargeoffs. Banks that have many of their loans turn sour find that their own health can deteriorate quite quickly.<sup>3</sup>

In the early 1980s, business bankruptcies increased even more sharply than usual in an economic recovery for several reasons. In addition to back-to-back recessions in 1980 and 1982—the latter of which was one of the most severe recessions in the post-World War II period—the economy in the 1980s has been experiencing a prolonged period of historically high real interest rates (that is, interest rates adjusted for expected inflation). Furthermore, some sectors of the economy suffered special problems and did not share equally in the economic recovery that began at the end of 1982. Energy conservation measures that reduced energy demand and declining energy prices resulted in cash-flow problems for businesses in the energy sector. Falling agricultural prices reduced farm income and land values. In many other industries, the rise in the value of the dollar on foreign exchange markets after 1980 increased foreign competition with U.S. producers and led to a rising trade deficit. Despite an increase in consumer and business spending between late 1982 and mid-1984 that was the strongest during the first 18 months of an economic recovery since 1949-50, foreign compe-

tition took away sales from U.S. manufacturers in domestic markets, reduced their exports, helped to hold down their prices, and thereby narrowed their profit margins. All of these factors help to explain why some sectors of the economy found it more difficult to recover from the recessions of the early 1980s, and why banks that lent to firms in these sectors found the quality of their loans deteriorating despite the economic recovery that began in late 1982.

Banks in 1982 also found that changing economic conditions in other countries affected the quality of their loan portfolios. The international debt problems of several Latin American, East European, and Southeast Asian nations came to a head in 1982 and 1983, contributing to the overall deterioration in the condition of some U.S. banks by increasing their nonperforming loans.

In addition to the problems tied to general economic conditions in the early 1980s, the banking industry also faced an increasingly competitive environment that was spurred by deregulation. Since 1980, deposit interest rates have

FIGURE 2  
BUSINESS FAILURES  
U. S. TOTAL



<sup>3</sup>Gary Gorton has shown that, historically, business bankruptcies have been good indicators for predicting bank failures. See Gary Gorton, "Bank Suspension of Convertibility," *Journal of Monetary Economics* (March 1985), and "Banking Panics and Business Cycles," Federal Reserve Bank of Philadelphia Working Paper, forthcoming.



been progressively deregulated and barriers to competition among financial institutions for both assets and liabilities have been reduced.<sup>4</sup> Banks and other depository financial institutions found in the late 1970s that money market mutual funds were competing vigorously for depositors' funds. This was primarily because banks faced regulated ceilings on the interest rates they could pay depositors, whereas the interest rates that could be paid on money market mutual funds were unregulated. To free banks and other depository institutions from this competitive disadvantage, Congress deregulated deposit interest rates in several steps, which resulted in the nationwide introduction of NOW accounts in 1980, and of MMDAs in late 1982 and Super-NOWs in early 1983. At the same time that Congress provided for the deregulation of deposit interest rates, it also permitted other depository institutions, such as savings and loan associations and credit unions, to offer transaction accounts in competition with banks and to make a wider range of consumer and commercial loans. Increased competition for both deposits and loans has meant that banks have had to run harder just to stay in place in terms of their market shares and profit margins. So although deregulation brought opportunities, it also made it

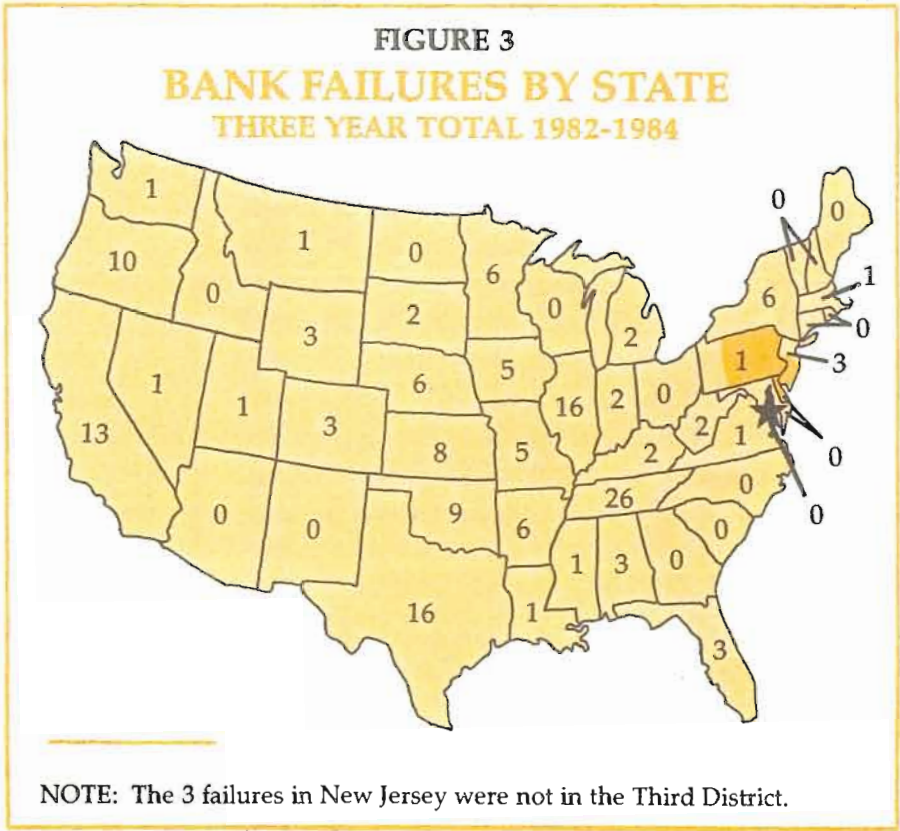
more difficult for weaker financial institutions to survive because of increased competition.

Despite the problems facing the banking industry during the past three years, not all parts of the U.S. suffered them to the same degree. Although the geographic distribution of bank failures is fairly widespread (Figure 3), there are some areas of the U.S. that have had fewer than their share of failures given the number of banks in those regions. This has been the case in the Third Federal Reserve District.

**COMPARING HEALTH OF THIRD DISTRICT BANKS TO THE NATION**

Banks in the Third District have not experienced the rising number of failures that banks have nationally. In fact, an examination of some of the measures used to profile banks' health shows that, on average, the condition of Third District banks in the early 1980s did not deteriorate significantly and that Third District banks generally were healthier than the national average. These measures include asset quality,

<sup>4</sup>For a discussion of interest rate deregulation, see Herb Taylor "The Return Banks Have Paid on NOW Accounts," this *Business Review* (July/August 1984). For a discussion of deregulation of barriers to competition for assets and liabilities, see Janice Moulton, "Delaware Moves Toward Interstate Banking: A Look at the FCDA," this *Business Review* (July/August 1983), Jan Loeys, "Deregulation: A New Future for Thrifts," this *Business Review* (January/February 1983), and Janice Moulton, "Antitrust Implications of Thrifts' Expanded Commercial Loan Powers," this *Business Review* (September/October 1984).



earnings, capital adequacy, and liquidity.<sup>5</sup>

**Asset Quality.** Third District banks managed to avoid the severe deterioration in loan quality observed nationally. As a percent of total loans, net loan losses (chargeoffs less recoveries) for the nation roughly doubled between 1981 and 1984 (Figure 4). Although this loan-loss ratio for Third District banks began the decade at a level above the national average, the District banks' ratio has not been rising during the past few years. Consequently, this ratio has remained below the national average since 1982, and at the end of 1984 was only about half that of the national average.

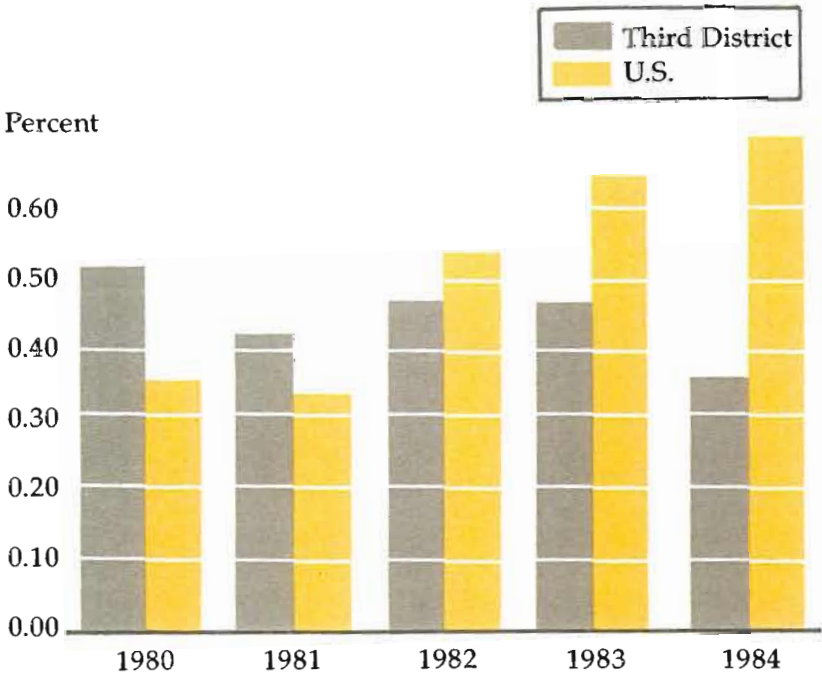
A major reason for a better loan-loss experience in the Third District is that the region's economy has a diversified base of manufacturing, service, and agricultural firms. Consequently, banks in this region generally have been able to avoid concentrating their loan portfolios in one sector or industry. Diversification of banks' loan portfolios helps to cushion shocks coming from any one sector or industry, such as from energy loans, agricultural loans, or international loans.

Although Third District banks have avoided an increasing loan-loss ratio over the past several years, another aspect of banks' health to consider is whether they are in a position

to absorb such loan losses when they *do* occur. The ability to absorb such losses depends both on banks' earnings performance—that is, whether current earnings can cover such losses—and on their capital position—that is, whether the bank has sufficient capital to cover such losses.

**Earnings.** Although the deregulation of deposit interest rates and heavier competition for loans and deposits in the early 1980s helped to increase banks' interest expense, banks' interest income was increasing at the same time. In fact, for the nation as a whole during this period, net interest margins (that is, net interest income as a percent of average assets) were quite stable (Figure 5, p. 8). But even though banks in the Third District have maintained higher net interest margins than the national average in the early 1980s, their margins have declined because in-

FIGURE 4  
NET LOAN LOSSES AS A PERCENT  
OF NET LOANS AND LEASES



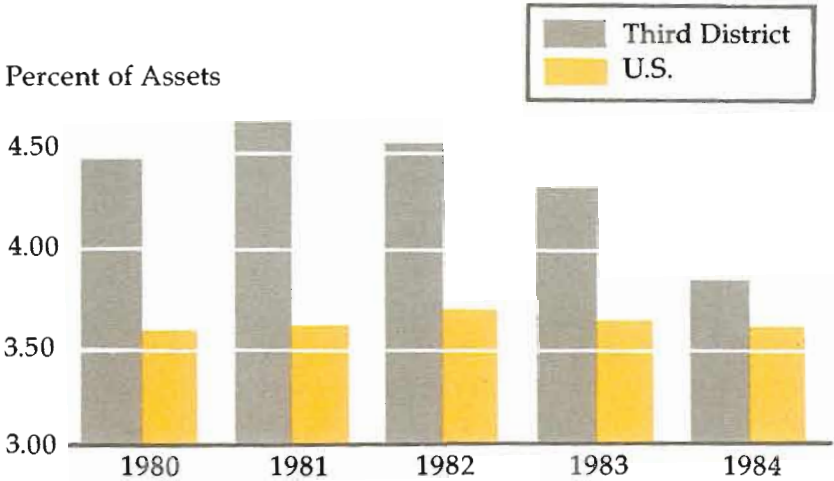
Loan chargeoffs less loan recoveries expressed as a percent of net loans and leases.

SOURCE: Federal Financial Institutions Examination Council *Quarterly Reports of Condition and Income for Insured Commercial Banks*.

<sup>5</sup>Bank regulators construct a detailed profile of a bank's health based on what is called the CAMEL rating system. The CAMEL acronym stands for Capital adequacy, Asset quality, Management, Earnings, and Liquidity. For a discussion of the CAMEL rating system, see "Warning Lights for Bank Soundness: Special Issue on Commercial Bank Surveillance," Federal Reserve Bank of Atlanta *Economic Review* (November 1983).



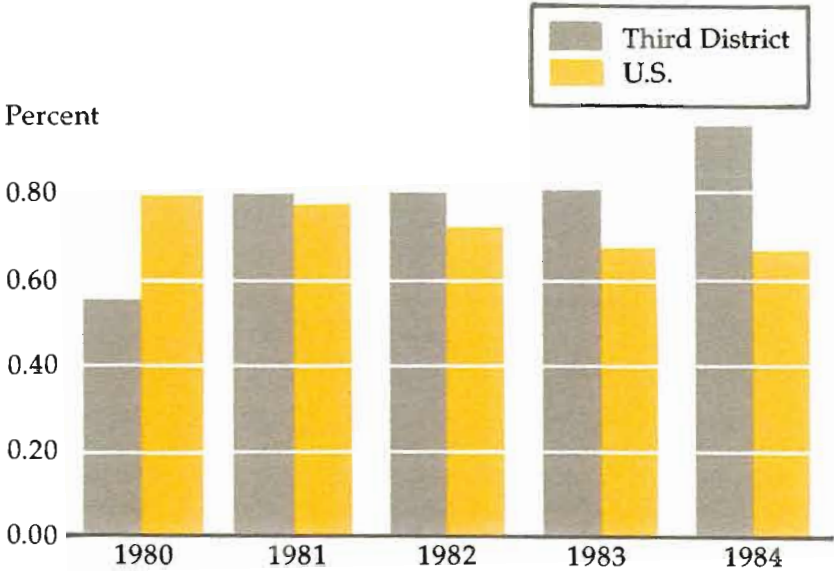
FIGURE 5  
NET INTEREST MARGIN



NOTE: Net interest margin is calculated as the difference between interest income (adjusted for taxable equivalence on tax-exempt state and local securities) and interest expense, expressed as a percent of the beginning- and end-of-year assets.

SOURCE: See Figure 4.

FIGURE 6  
RETURN ON ASSETS



NOTE: Return on Assets is calculated as net income as a percent of the average of the beginning- and end-of-year assets.

SOURCE: See Figure 4.

terest income in the Third District did not increase as much as interest expense. This narrowing of the net interest margin for Third District banks has been more than offset, however, by an improvement in the difference between noninterest income and expenses less taxes and extraordinary items. Consequently, earnings at Third District banks were somewhat stronger in the early 1980s than were banks' earnings in other parts of the nation. In fact, the return on average assets for Third District banks has been increasing since 1981, whereas it has been declining for banks nationally (Figure 6). The decline in return on average assets (ROA) in the national figures cannot be explained by the change in net interest margins. Instead, the decline in ROA nationally is primarily the result of mounting loan losses—both increased loan chargeoffs and additions to loan loss reserves in the expectation of future chargeoffs. Excluding such loan loss figures, banks' earnings nationally improved slightly between 1981 and 1984, although they improved even more in the Third District. So Third District banks have been better positioned to absorb additional loan losses than have banks in other parts of the nation.<sup>6</sup>

Capital Adequacy. Banks' pri-

<sup>6</sup>From these data, it appears that the claim that deregulation of deposit rates would result in a large drop in banks'



mary capital represents funds put up by stockholders of the bank (equity capital), as well as funds set aside in a reserve to cover loan losses (loan loss reserves).<sup>7</sup> Because of poorer loan quality the past several years, banks nationally and in the Third District have increased their loan-loss reserves as a share of their total capital position in order to be in a better position to

earnings has not been supported by actual declines in net interest margins nationally. One explanation for this is that increased interest expenses stemming from deregulation were offset by the acquisition of higher yielding, riskier assets which later contributed to the rise in loan losses and the decline in profits. Net interest margins did decline in the Third District, however, and loan losses have not been rising in step with the national figures, suggesting that Third District banks followed a more conservative strategy in acquiring assets in response to rising interest expenses during the early 1980s.

For more discussion of the effects of deregulation on banks' profitability, see Michael C. Keeley and Gary C. Zimmerman, "Deregulation and Bank Profitability," Federal Reserve Bank of San Francisco *Weekly Letter*, July 13, 1984, and Mark J. Flannery, "Removing Deposit Rate Ceilings: How Will Bank Profits Fare?" this *Business Review* (March/April 1983), pp. 13-21.

<sup>7</sup>For regulatory purposes, primary capital also includes mandatory convertible debt outstanding and the bank's minority interests in consolidated subsidiaries.

absorb loan losses. As a percent of total assets, Third District banks' average loan-loss reserves increased from 0.62 percent in 1980 to 0.74 percent in 1984, while nationally this average rose from 0.54 percent to 0.74 percent (Table 1). In addition, banks nationally have been increasing their equity capital as a percent of total assets. Partly this has occurred in response to the urgings of the various bank regulators. In fact, all of the federal bank regulators have recently announced higher minimum standards for banks' capital-asset ratios.<sup>8</sup>

The ratios of primary capital to assets have been on an upward trend in the early 1980s for both the District and the nation, with the exception of one year, 1984, in which Third District banks' average capital-asset ratio declined (Table 1). This decline in 1984 was due largely to the early retirement of a special assistance package to one large bank, rather than to a general decline

<sup>8</sup>The new capital-asset ratio set by the Comptroller of the Currency and the FDIC is 6 percent, up from 5½ percent. The Federal Reserve has adopted similar guidelines, although the exact definition of what can be counted to meet the capital guidelines is somewhat different.

TABLE 1  
PRIMARY CAPITAL RATIOS  
(As Percent of Total Assets)

		1980	1981	1982	1983	1984
Loan-Loss Reserves	U.S.	0.54	0.56	0.60	0.66	0.74
	Third District	0.62	0.63	0.62	0.67	0.74
Equity Capital	U.S.	5.79	5.81	5.85	6.00	6.15
	Third District	6.37	6.65	6.72	6.91	6.72
Primary Capital	U.S.	6.33	6.37	6.46	6.65	6.89
	Third District	6.99	7.28	7.34	7.59	7.46

NOTE: The primary capital ratio is the sum of the loan-loss reserve ratio and the equity capital ratio.

SOURCE: See Figure 4.



in the capital-asset ratios at many of the region's banks. Despite this decline, Third District banks' capital-asset ratios have been higher than the national average throughout the 1980s. On the whole, then, Third District banks' capital has been in a good position, relative to the national average, to cover unexpected loan chargeoffs.

**Liquidity.** Another yardstick by which to assess a bank's ability to withstand a sudden deterioration in loan quality or a sudden loss of its depositors' confidence is generally referred to as a bank's liquidity—that is, its ability either to convert quickly some of its assets into cash or to maintain a stable source of funding its assets. Since a bank's loans are generally less easily converted into cash (that is, less liquid) than its securities holdings (particularly short-term securities), one measure of liquidity is the ratio of loans and leases to total assets. The higher this ratio, the less liquid the bank's assets.

Between 1980 and 1983, the loans-to-total-assets ratio decreased slightly for Third District banks while rising slightly for the nation (Figure 7a). Although the changes were not very large, this measure suggests that Third District banks' liquidity increased slightly over the 1980-83 period compared to the national average. The reversal of this situation in 1984 was primarily the result of the increasing numbers of new, rapidly growing banks in Delaware. These institutions are limited purpose banks that specialize in credit card or commercial lending, and consequently they maintain higher loans-to-assets ratios than full service banks.<sup>9</sup> As these institutions expanded in 1984, they pulled up the overall loan-to-asset ratio for the District.

Another aspect of liquidity can be assessed by looking also at the banks' liability structure. Banks that have raised most of their funds from stable sources of deposits, such as savings and small time deposits, have a stronger base on which to

increase their assets than those banks whose major sources of funds are more volatile liabilities, such as short-term certificates of deposit sold overseas or overnight federal funds purchases. Such liabilities are called "volatile" because they tend to be sensitive to interest rate fluctuations and to swings in their holders' confidence about the bank since they are uninsured. Therefore, banks with a higher ratio of what are called core deposits to their total assets would be less subject to sudden shifts of depositors' confidence or to interest rates than banks with lower core-deposit-to-total-asset ratios.<sup>10</sup>

This core deposit ratio has been higher for Third District banks than the national average during the early 1980s (Figure 7b). In fact, the core deposit ratios for the nation and the District declined somewhat between 1979 and 1982 when market interest rates were substantially above the ceiling interest rates on core deposits. This decline was not reversed until money market deposit accounts were introduced at the end of 1982. The District's higher core-deposit ratio suggests that Third District banks had a more stable source of funding their asset growth, and in particular their loan growth, in the early 1980s than did banks in other parts of the nation.<sup>11</sup>

This point is made clearer by examining the ratio of loans to banks' total sources of funds (Figure 7c) along with the first two ratios. Banks' total sources of funds is simply the sum of their core deposits and volatile liabilities. Although the mix of funding for banks nationally between

<sup>9</sup>For more information about these limited purpose banks in Delaware, see Moulton, "Delaware Moves Toward Interstate Banking: A Look at the FCDA," this *Business Review* (July/August 1983).

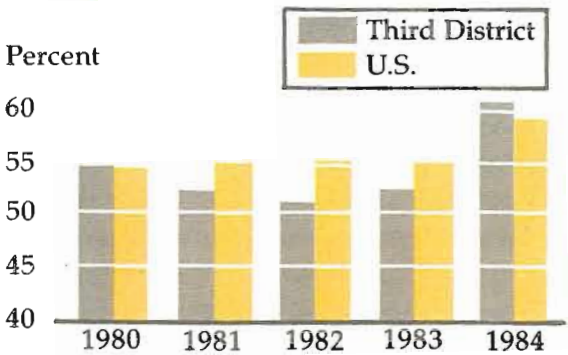
<sup>10</sup>Core deposits include all demand and savings deposits, money market deposit accounts, NOW and Super-NOW accounts, and time deposits in amounts less than \$100,000; volatile liabilities include all time deposits in amounts of \$100,000 or more, deposits of foreign offices, federal funds purchased, securities sold under agreements to repurchase, interest-bearing demand notes issued to the U.S. Treasury, and other liabilities for borrowed money.

<sup>11</sup>The same conclusion emerges from comparing the ratios of volatile liabilities to total assets for the Third District and the nation. It should be noted that the increasing numbers of new, rapidly growing limited purpose banks in Delaware pulls down the core-deposit-to-assets ratio for the Third District banks in 1984.



FIGURE 7a

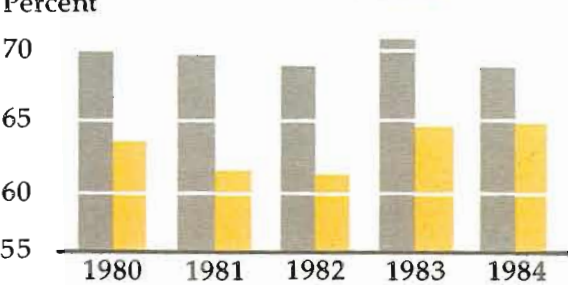
NET LOANS AND LEASES TO TOTAL ASSETS



Total loans and leases less reserves for loan losses expressed as a percent of total assets.

FIGURE 7b

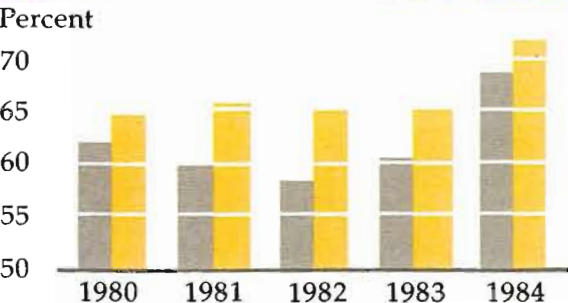
CORE DEPOSITS TO TOTAL ASSETS



Total domestic deposits less large CDs (over \$100,000) as a percent of total assets.

FIGURE 7c

LOANS AND LEASES TO TOTAL SOURCES OF FUNDS



Net loans and leases as a percent of the sum of: domestic and foreign deposits, federal funds purchased, securities sold under agreement to repurchase, U.S. notes and other borrowings, less cash items in the process of collection.

SOURCE: See Figure 4.

1980 and 1983 was shifting away from core deposits toward more volatile liabilities, their loans-to-total-sources-of-funds ratio changed little, while this ratio declined for Third District banks between 1980 and 1982. Combining this with the changes in the core deposit and loan-to-asset ratios shows that banks nationally were funding their less-liquid assets (loans) with more volatile sources of funds. Third District banks between 1980 and 1982 were decreasing the share of loans in their total asset structure, were decreasing loans relative to their total sources of funds, and were not increasing their funding of their loans through the use of more volatile sources of funds. In sum, Third District banks maintained a better liquidity position than the national average in the early 1980s.

SUMMARY

Despite widespread problems in the banking industry due to the changing economic and de-regulatory environments in the early 1980s, the condition of Third District banks did not deteriorate substantially over the past several years. Indeed, a comparison of measures used to profile banks' health reveals that Third District banks generally have been in good condition and compare favorably to banks nationally. This better health in the early 1980s was reflected in better loan quality, solid earnings performance, higher capital ratios, and a better overall liquidity position. As a result, Third District banks have been better able to adjust to recent changes in the economic and regulatory environments than have banks in other parts of the nation. This undoubtedly has helped banks in this region to avoid the financial difficulties that have plagued banks in other parts of the country during the past several years.

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## The Effect of Recent Tax Reform Proposals on the Return to Owner-Occupied Housing

Theodore Crone

Three major tax reform proposals have recently been presented to the Congress: Bradley-Gephardt (S.409); Kemp-Kasten (H.R.777); and an Administration proposal. This working paper examines the effect of these three proposals on the homeownership decision. By altering the tax advantages to homeownership, all three proposals would increase the user cost of owner-occupied housing. This has raised concerns that the reforms would also lower the homeownership rate in the U.S., that is, the proportion of households who own their principal place of residence rather than rent. In this paper, the homeownership decision is analyzed as an investment decision in which a household invests its accumulated wealth in that asset which promises the highest after-tax rate of return. This return will be dependent upon the tax advantages of homeowners as well as on the implicit rent they receive from their property.

A number of provisions in the three proposals would lower the value of the current tax advantages enjoyed by homeowners, thus raising the cost of owning a home. These include a reduction in marginal tax rates, an increase in the standard deduction, the elimination of some non-housing deductions, and, in the Administration proposal, the elimination of the deduction for state and local property taxes. The yearly economic cost of owning a home is the sum of mortgage payments, maintenance costs, property taxes, and forgone interest on equity minus capital gains. Let us consider a three-person household with one wage earner and an annual income of \$40,000 who buys an \$80,000 house with a 20 percent down payment. With the interest rates that prevailed in January 1985 and under the assumption of a 5 percent inflation rate, the after-tax economic cost of living in this home for the first year would be \$7,391 under the current tax law. This cost would rise by 23 percent under Bradley-Gephardt, by 8 percent under Kemp-Kasten, and by 20 percent under the Administration proposal.

These estimated increases presume no change in interest rates or rents as a result of changes in the tax law. However, both interest rates and rents can be expected to change if any of the tax reform proposals becomes law. A reduction in marginal tax rates is likely to reduce the equilibrium interest rate by the amount that would keep the after-tax rate for the marginal borrower unchanged. This would imply a 7 percent reduction in the rates which prevailed in January 1985.

There are also provisions in each of the tax reform proposals which would increase rents. These provisions include lower marginal tax rates for landlords, an increase in the capital gains tax rate, and, in the Administration proposal, a longer depreciation period. Others have estimated that rents would rise by 6 percent under Kemp-Kasten and by 10 percent under Bradley-Gephardt or the Administration proposal. While rent increases do not affect the cost of homeownership, they will influence the homeownership decision since the untaxed imputed rent which the homeowner enjoys represents a major portion of the return on his investment.

The homeownership decision in this study is viewed as a choice between alternative investments, in this case between owner-occupied housing and government securities. Based on a ten-year expected length of residence, the critical income level above which a three-person household would fare better by investing in an owner-occupied house under current law is \$30,000.

With no changes in interest rates or rents this critical income level would rise to \$68,000 under Kemp-Kasten or the Administration proposals. Under Bradley-Gephardt this household would fare better by investing in a home only if its expected length of stay were 17 years and its income \$71,000 or more. The longer length of stay required under Bradley-Gephardt is due to the fact that the major tax advantages come later in the period of residence because the repeal of indexation increases real marginal tax rates over time.

If we assume that market interest rates fall by 7 percent because of the adoption of any of the reform proposals and that rents rise by 6 percent under Kemp-Kasten and by 10 percent under the other two proposals, the critical income level for our hypothetical three-person household falls dramatically. For Kemp-Kasten it is \$24,000, for Bradley-Gephardt it is \$30,000, and for the Administration proposal it is \$33,000. Even though the after-tax cost of homeownership would rise under any of the proposed tax reforms, the results of this study suggest that because of offsetting effects from lower interest rates and higher rents the homeownership rate may actually increase under Kemp-Kasten or Bradley-Gephardt and decline only slightly under the Administration proposal.