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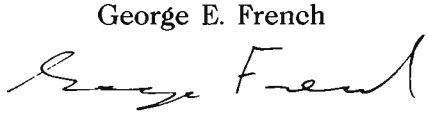
A Letter from the Editor

In 1980 the phrase "the Texas economy" evoked images of surging oil prices and boundless possibilities; by 1990 those images had been replaced by the reality of vacant office buildings and bankruptcy court. In the interim, nine of the ten largest Texas banking organizations were recapitalized with FDIC or other outside assistance, 425 Texas banks failed or were assisted by the FDIC, and the FDIC incurred insurance losses of nearly $11 billion in Texas.

How did this calamity occur? Certainly, much of the blame can be ascribed to economic events, but what was the role of the supervisory and examination process and the deposit insurance system itself? In an effort to answer these questions, Chairman L. William Seidman directed the FDIC's Division of Research and Statistics to conduct a study of the causes of the Texas banking crisis.

The study, entitled "The Texas Banking Crisis: Causes and Consequences," appears in this issue of the *FDIC Banking Review*. In light of the length and importance of the study, the Editorial Committee decided to publish it in a special issue. This study contains much new and interesting information on the Texas banking crisis and, in my view, will come to be regarded as an extremely valuable contribution to the historical record on the anatomy of that crisis.

George E. French



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The Texas Banking Crisis: Causes And Consequences 1980 — 1989

by John O'Keefe*

Executive Summary

The purpose of this analysis is to explain the recent high failure rates among Texas commercial banks. Specifically, financial and nonfinancial market data, as well as information regarding regulatory activity in Texas over the past decade, were examined in order to determine those factors contributing to the recent problems of the state's commercial banks.

Background

Over the past decade, 349 Texas commercial banks failed, and an additional 76 required FDIC financial assistance. The number of failed and assisted Texas banks rose from three in 1983 to 134 in 1989. In 1988 and 1989, failed and assisted banks (hereafter denoted as failed banks) in Texas comprised over 80 percent of total U.S. failed-bank assets, and over 80 percent of total FDIC reserves for losses on failed banks. In addition, both the domestic energy and local commercial real-estate markets, in which Texas banks invested heavily, experienced dramatic declines after 1985.

Principal Findings

— Most Texas commercial banks that failed over the past decade reacted quickly to oil-price movements. Loan concentrations in commercial and industrial loans, which include loans to oil and gas producers, increased as oil prices rose from 1978 to 1981. Commercial loan concentrations generally peaked in 1982, shortly after oil prices began to drop. These concentrations subsequently declined along with oil prices.

— Texas commercial real-estate growth outpaced increases in office employment from 1982 to 1987, resulting in a 30 percent office vacancy rate by 1987 for the combined Austin, Dallas, Houston and San Antonio areas. Failed commercial banks generally increased concentrations in construction and land development loans long after the decline in local real-estate markets.

— As commercial real-estate vacancy rates grew, failing commercial banks continued to fund completed construction projects, as evidenced by the growth in loans secured by nonresidential properties. Traditionally, long-term financing of completed commercial properties would have been taken over by nonbank financiers.

— Asset growth and increased investment in risky commercial real-estate development projects by failed Texas banks were funded by both insured and uninsured deposits.

— The frequency of examinations of failed banks in the Southwest has been the lowest for failed banks in the nation for most of the past decade. In addition, the number of bank examinations declined significantly in 1984 and 1985 for the nation, and for Texas, in particular.

— Once problems became apparent to regulators and the market, retrenchment began at most failing institutions, followed by resolution.

— Over the past decade, nine of the ten largest Texas bank holding companies were recapitalized with FDIC or other outside assistance. Equity capital ratios for the nine organizations were, on average, over 25 percent higher than those of their peers between 1980 and 1982. However, by 1987 this capital cushion had eroded, with these nine organizations holding a third less capital than their peers.

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The author would like to thank Arthur Murton, Maureen Muldoon, Jane Coburn, Michael Graves and Donald Inscoe of the Division of Research and Statistics for their suggestions and assistance. In addition, information and comments received from Division of Supervision staff, Robert Miailovich, Robert Walsh, and the staff of the FDIC's Dallas Regional Office were very helpful.

As in all such endeavors, any remaining faults are the responsibility of the author.

Introduction

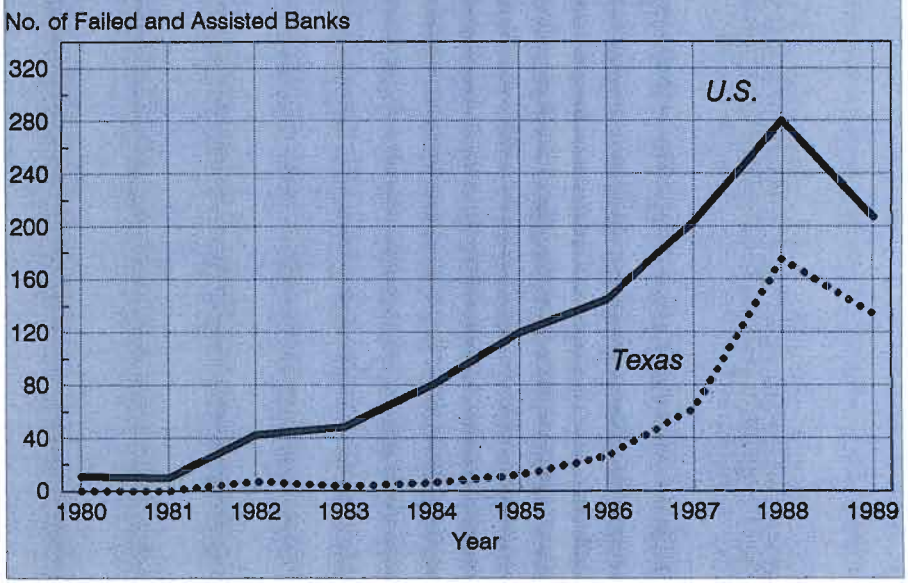
Over the past decade, 349 Texas commercial banks failed and an additional 76 required FDIC financial assistance. As shown in Figure 1A, the number of failed and assisted banks (hereafter denoted as failed banks) in Texas approximately doubled each year between 1983 and 1988, increasing from three failures in 1983 to 175 in 1988 (and 134 in 1989). These figures may be somewhat misleading because of the branch banking restrictions in Texas, which were not removed until 1987. However, with the failure of most of Texas' largest bank holding companies in 1988 and 1989, the data show a disproportionate amount of failed banks' assets among Texas banks (see Figure 1B).

The increase in failures among Texas commercial banks has increased resolution costs for the FDIC. Figure 1C shows FDIC loss reserves for banks that failed between 1985 and 1989. As expected, the cost of resolving failures in Texas has become a large portion of total resolution costs in recent years. FDIC loss reserves for Texas banks that failed in 1985 were $80.9 million, or 9.2 percent of total reserves. The situation changed dramatically by 1988, with FDIC loss reserves on Texas failed banks reaching $4.7 billion, or 88 percent of total FDIC loss reserves on failed banks that year. In 1989, FDIC loss reserves for Texas failed banks remained high at $4.6 billion, or 81 percent of total loss reserves for the year's failures.

Historically, the proportional cost of resolving bank failures decreases as bank asset size increases. Among banks that failed between 1985 and 1989, we find that for banks with assets of $30 million or less, FDIC loss reserves averaged 27.3 percent of bank assets, while for banks with assets of $1 billion or more, loss reserves averaged 10.8 percent of bank assets.

Figure 1D shows FDIC loss reserves as a percentage of failed-bank assets for Texas and the rest of the nation.

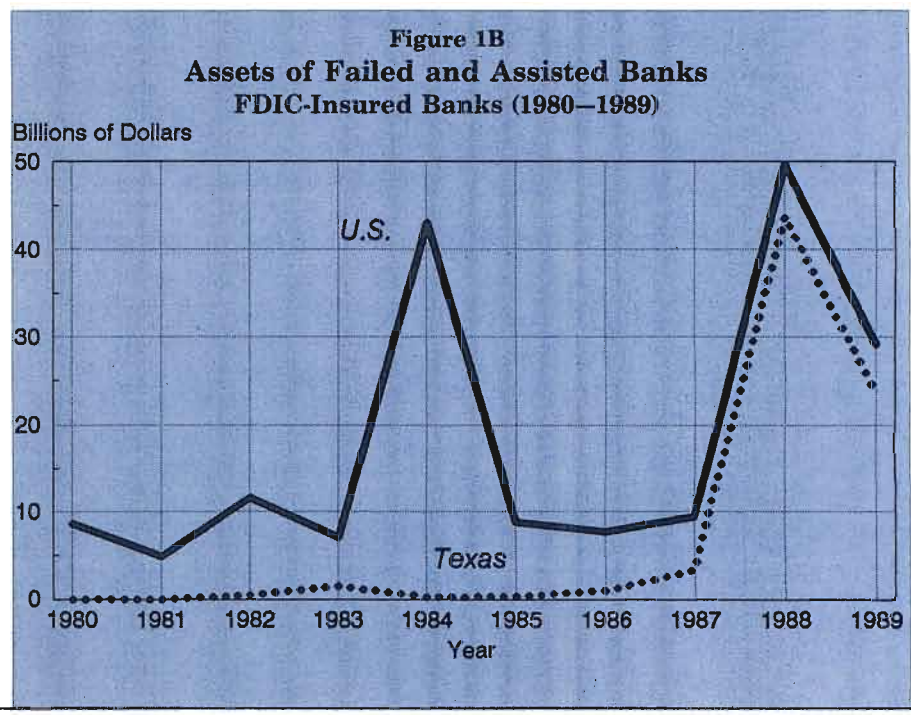
Figure 1A
Number of Failed and Assisted Banks
FDIC-Insured Banks (1980–1989)



The proportional cost figures for Texas failed banks have declined in recent years, primarily because recent failures in the state have involved large bank holding companies. In 1988, the failure of First RepublicBank and the assistance of First City Bancorporation comprised most of the total failed-bank assets in Texas that year. Similarly, the failures of MCorp and Texas American Bank comprised most of the failed-bank assets in Texas in 1989.

The high failure rates among Texas commercial banks are attributable to a combination of several developments. The first was the trend in crude-oil prices (and related products). The OPEC oil embargo of 1973 contributed to large increases in domestic crude-oil prices between January 1973 and June 1981. Crude-oil prices subsequently declined moderately from midyear 1981 to December 1985, then fell a dramatic 45 percent in 1986. Crude-oil prices

Figure 1B
Assets of Failed and Assisted Banks
FDIC-Insured Banks (1980–1989)



have fluctuated less in recent years, and as of July 1990 remained below 1980 price levels.

The second important development was the boom and bust in Texas real estate; especially, office and land development projects. Following the late 1970s boom in the energy markets, Texas office real estate grew rapidly, as did office employment. However, after the drop in oil prices in 1982, the expansion in office space outpaced the growth in office employment until 1987. Overbuilding in Texas eventually led to 25 percent to 30 percent office vacancy rates in the major metropolitan areas in Texas between 1986 and 1989.

Changes in the composition of the loan portfolios of Texas commercial banks constituted the third factor contributing to the high failure rates of the late 1980s. Concentrations in construction and land development projects among Texas banks grew from 3.5 percent of bank assets in 1978 to 8.3 percent of assets in 1984, and remained at high levels through 1986. Over this same period, nonperforming assets, comprised largely of nonperforming real-estate loans, grew steadily among Texas banks.[1] Concentrations in commercial and industrial loans (which include energy loans) followed oil-price movements, rising from 20.7 percent of Texas bank assets in 1978 to 27.8 percent in 1982. However, as oil prices declined, so too did related loan concentrations. As of 1989, commercial and industrial loans comprised 16.5 percent of Texas bank assets.

The final significant trend relates to bank examinations. The frequency of examinations of Texas commercial banks was among the lowest in the nation for the last decade. Bank examinations were least frequent in 1984 and 1985 across the country, as well as in Texas. The lengthening of the exam interval was due, in part, to hiring freezes and increased examiner workloads. These trends also apply to Texas commercial banks that failed during the past decade.

In the remainder of this study, the recent history of Texas commercial banks is analyzed, as it relates to increased bank-failure rates in the state. To begin, data are presented on the growth of the commercial banking industry in Texas over the last two decades. Next, financial and nonfinancial market events relevant to Texas commercial banking problems are summarized. Subsequent sections address the following topics: the activities of failed banks in four major metropolitan areas in Texas; the

Figure 1C
FDIC Loss Reserves
Failed and Assisted Banks

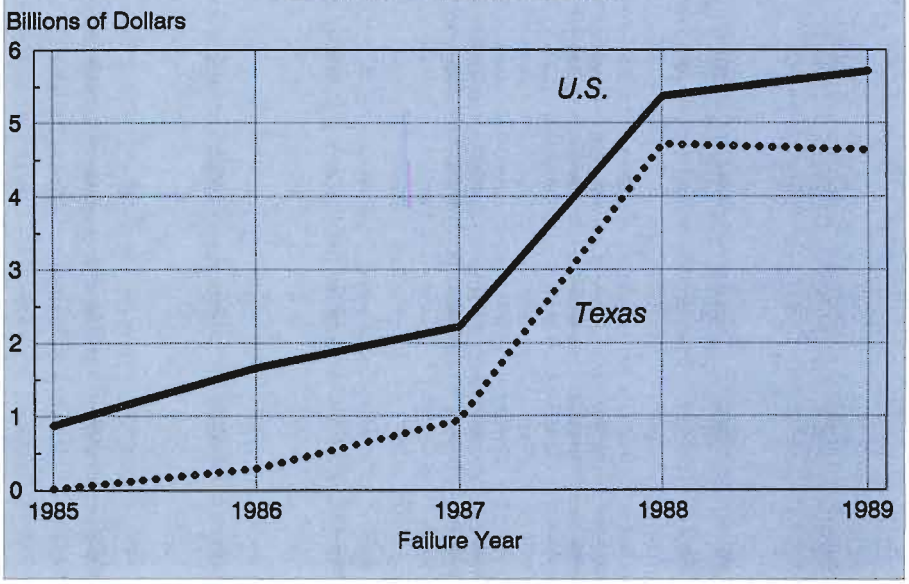
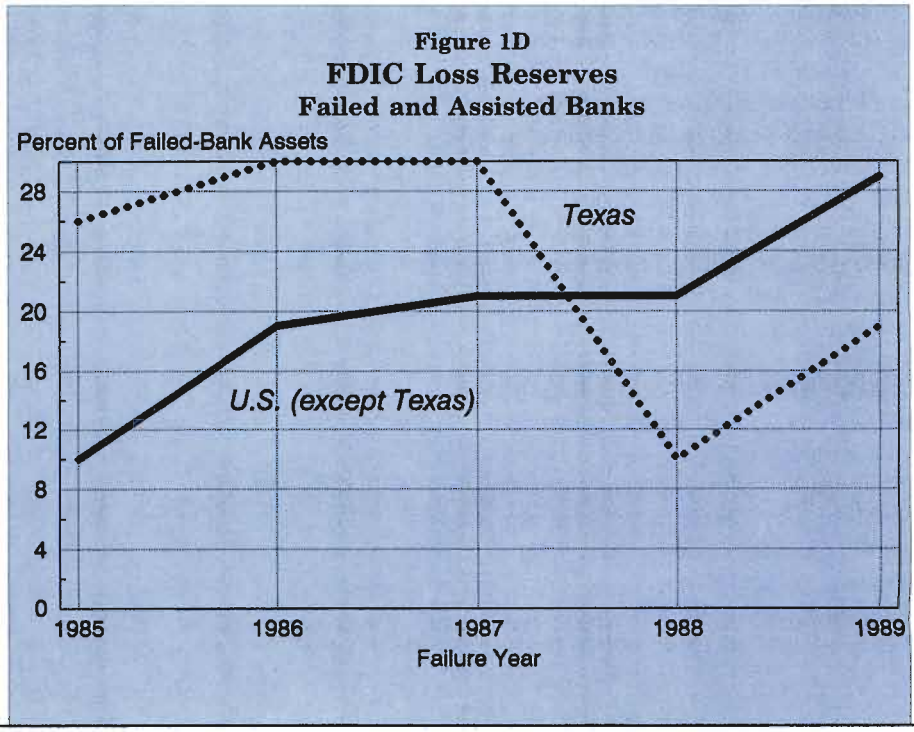
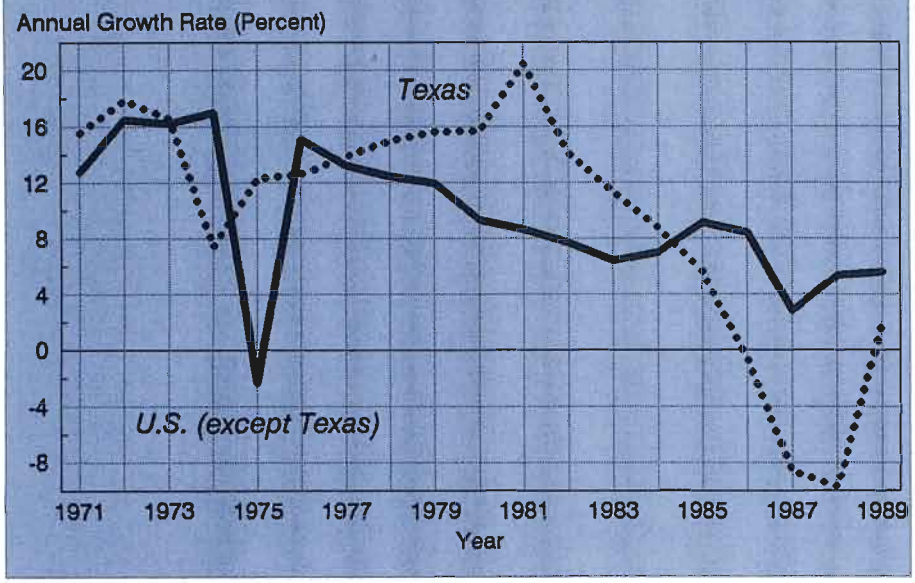


Figure 1D
FDIC Loss Reserves
Failed and Assisted Banks



[1] Nonperforming assets are defined as the sum of all loans and leases (hereafter denoted as loans) past due 90 days or more (excluding past due restructered loans), nonaccural loans, and other real-estate owned minus investments in real-estate ventures. Nonperforming real-estate loans are defined as the sum of real-estate loans past due 90 days or more plus nonaccural real-estate loans.

Figure 2A
Asset Growth Rates of FDIC-Insured Commercial Banks



experiences of the large bank holding companies in Texas that have failed in the past decade; and the supervisory activities of federal bank regulators. Finally, the role that the deposit insurance system may have played in the Texas banking crisis is discussed.

Growth Rates among Commercial Banks: Texas versus the U.S.

Banking activity in Texas increased greatly during the late 1970s and early 1980s. Although this paper focuses on FDIC-insured commercial bank activity, similar growth occurred among Texas thrifts. Texas commercial bank asset growth outpaced the national average from 1977 through 1984 (see Figure 2A). In 1981, Texas banks' asset growth reached a high of 20.5 percent, compared to 8.6 percent for all other U.S. banks.

Asset growth of Texas banks between 1977 and 1980 occurred primarily through expansion by existing banks. Subsequent asset growth was aided by a large increase in new bank charters (see Table 1 and Figures 2B and 2C).

Prior to 1987, Texas law prohibited branch banking. This resulted in the expansion of bank holding companies as a means to achieve an effective branch banking network in a unit banking state. Consequently, some of the increase in chartering in Texas prior to 1987 facilitated the funding of additional growth by bank holding companies. The newly chartered banks within a holding company would be used to gather deposits, which would be channeled to other banks through sales of federal funds or interbank deposits to finance additional lending. Much of the new chartering, however, involved small banks not affiliated with the large bank holding companies. Between 1980 and 1989, 673 banks were chartered in Texas, comprising 24 percent of all U.S. bank charters issued over this period. Of these 673 banks, 511 were national banks; 71 were state-chartered, Federal Reserve member banks; and 91 were state-chartered, nonmember banks.

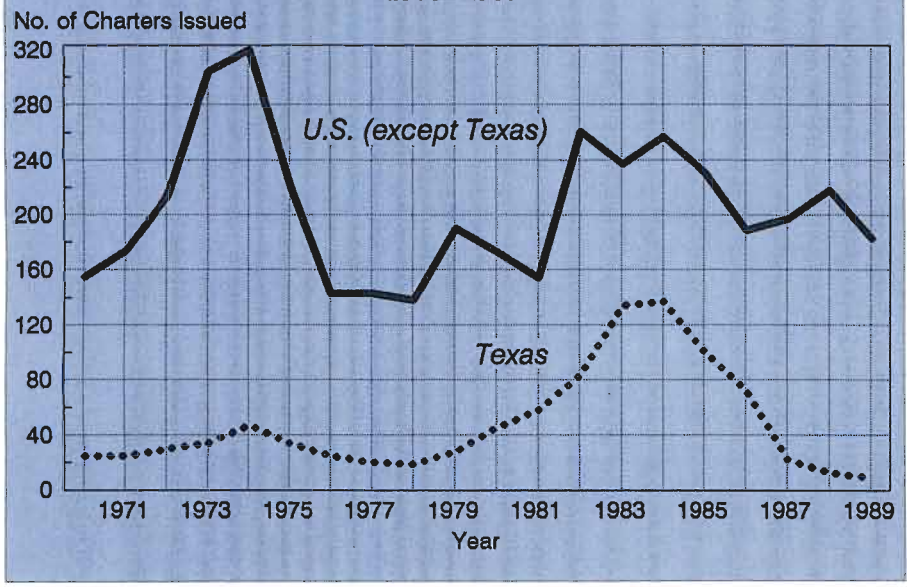
The major factor contributing to the growth of Texas commercial banks since 1974 has been the condition of domestic energy markets, gas and crude oil in particular. The importance of oil prices for the Texas economy has, however, changed over the past decade. A recent study by the Federal Reserve Bank of Dallas states that Texas nonagricultural employment follows oil-price

Table 1
New Commercial Bank Charters

Year	Texas		U.S. (except Texas)	
	Charters	Number of Banks*	Charters	Number of Banks*
1970	25	1,182	155	12,325
1971	25	1,207	174	12,410
1972	30	1,231	213	12,499
1973	34	1,259	304	12,715
1974	47	1,306	320	12,921
1975	34	1,336	221	13,047
1976	25	1,357	143	14,411
1977	20	1,377	143	13,035
1978	19	1,395	138	12,995
1979	28	1,422	190	12,942
1980	45	1,467	173	12,968
1981	58	1,523	154	12,892
1982	83	1,598	261	12,855
1983	134	1,727	237	12,741
1984	137	1,852	257	12,620
1985	100	1,934	231	12,459
1986	72	1,969	189	12,220
1987	22	1,765	197	11,930
1988	13	1,492	218	11,629
1989	9	1,313	183	11,392

* Financial statistics on banks failing/assisted within a given year were measured as of the prior year-end. For example, for the 62 failed and assisted banks in Texas in 1987, financial data were measured as of year-end 1986. This table includes Texas failed/assisted banks from 1985 to 1989.

Figure 2B
New Commercial Bank Charters
1970—1989

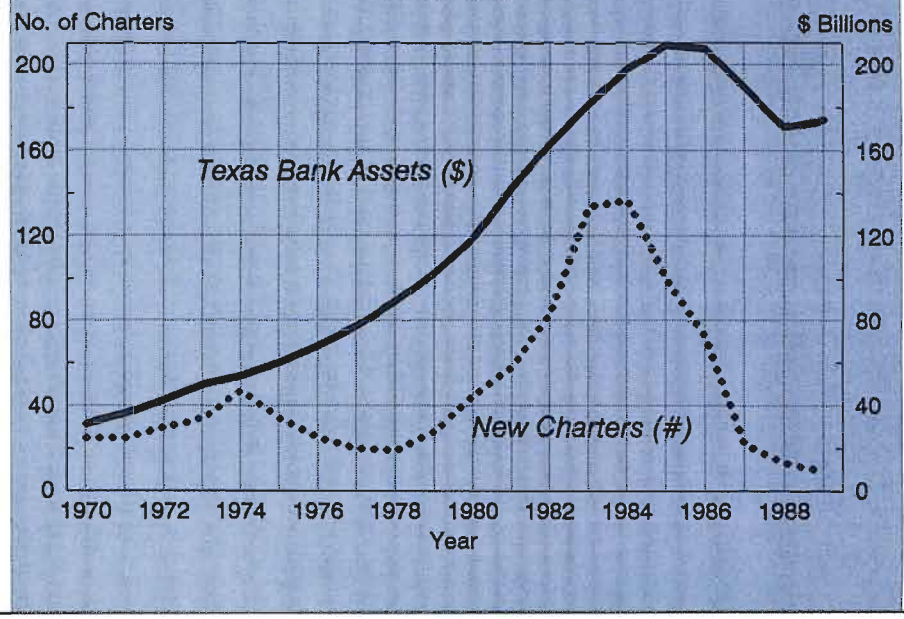


movements with a short lag.[2] In addition, the study concludes that inflation in oil prices after the OPEC oil embargo of 1973 led to increased dependency of the Texas economy on crude-oil prices until 1983. The study also finds that this dependency has mirrored the decline in oil prices since 1983.

Texas bank asset growth also followed oil prices, but with a lag. As oil prices rose between 1973 and 1981, so too, did Texas bank assets. The rapid inflation in oil prices in 1980 and 1981 led to accelerated growth in Texas bank assets. Mild deflation in oil prices between 1982 and 1985 brought Texas bank asset growth rates closer to those for other U.S. banks. The sharp decline in oil prices in 1986, and the subsequent failures of most of the state's largest banking organizations, led to a shrinkage of the Texas banking industry until 1989.

One question that is raised by these growth trends is whether Texas banking markets suffered from "overbanking." The term "overbanking" connotes an overall expansion of bank activities that was imprudent or unwarranted. Overbanking might therefore be characterized by excessive asset growth rates, rather than an increase in any specific type of lending (*e.g.*, growth in commercial real-estate loans). By definition, imprudent asset growth results from a lowering of credit standards by bankers searching for new business. Unfortunately, a concise measure of overbanking does not exist. Rapid increases in asset levels or new bank charters do not in themselves imply overbanking. Economic theory predicts that regardless of the degree of competitiveness in a market, an increase in demand for products results in increased output levels, other things being equal.[3] The relevant question in this context is whether the increase in commercial bank activity was imprudent, or merely an appropriate reaction to changes in market conditions. If Texas financial markets did suffer from overbanking, the result of increased competition and relaxed credit standards would be increased failure rates, including both new and established banks. However, since new institutions typically have greater difficulty facing economic stress, one would expect a higher failure rate among newer banks. This was indeed the case. Approximately, 142 institutions, or 21 percent of the Texas banks chartered since 1980, failed. This estimate excludes some of the newly chartered banks that merged or were acquired by another institution that subsequently failed.

Figure 2C
Texas Commercial Banks
1970—1989



[2] T. Fomby and J. Hirschberg, "Texas in Transition: Dependence on Oil and the National Economy," Federal Reserve Bank of Dallas, *Economic Review* (January 1989).

[3] An exception to this statement is the case of completely inelastic supply.

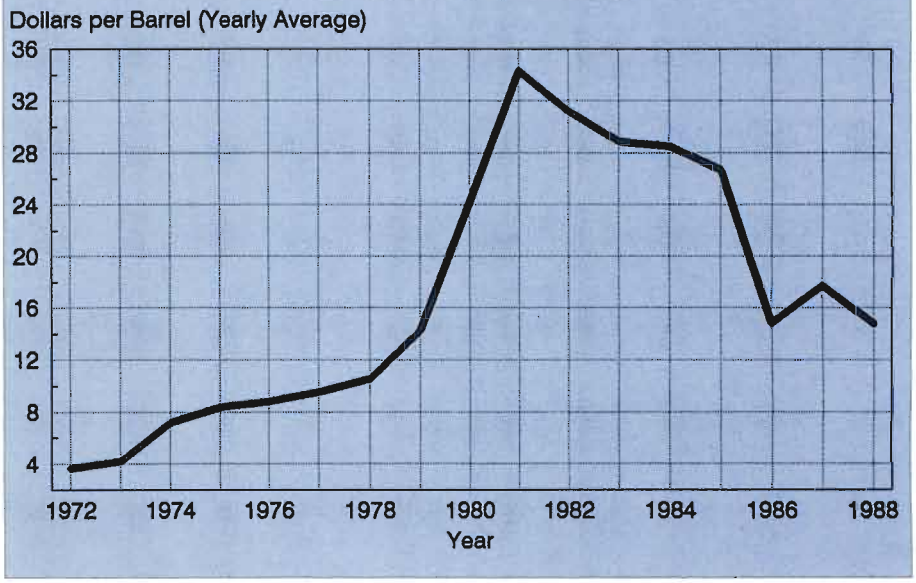
Given the changing structure of the Texas economy over the past decade, it would be difficult, if not impossible, to state how much the growth in the commercial banking industry was necessary. A simpler task, addressed below, is to examine specific lending practices and to relate them to events affecting the region's economy.

Condition and Performance Trends: Texas versus the U.S.

The high failure rates among Texas banks in the late 1980s have their roots in the OPEC oil embargo of 1973. The OPEC oil embargo of 1973 initiated a shortage of crude oil in the U.S. in the winter of 1974. As a result, the price of Texas crude oil more than doubled in January 1974. West Texas Intermediate crude-oil prices jumped from $4.31 per barrel in December 1973 to $10.11 per barrel in January 1974, an increase of 135 percent.[4] The influence of OPEC was, of course, reflected in all domestic crude-oil prices. Figure 3A shows the trend in the average annual domestic crude-oil refiner acquisition cost from 1972 through 1988. After the OPEC oil embargo, domestic crude-oil prices rose dramatically, with a 58 percent increase in the average cost of domestic crude oil between 1973 and 1974. Domestic crude-oil prices grew at a moderate rate until 1979, when another round of sharp price increases began. Average annual domestic crude-oil acquisition costs rose 23.5 percent in 1979, 55.7 percent in 1980, and 29.2 percent in 1981. Average crude-oil prices declined at a moderate rate between 1982 and 1985, followed by a 45.9 percent decline in 1986. Since 1986, oil prices have continued to fluctuate; however, they have remained below 1980 average prices. (Also see Table 5, Appendix A.)

[4] Source: *Oil and Gas Journal* Energy Database.

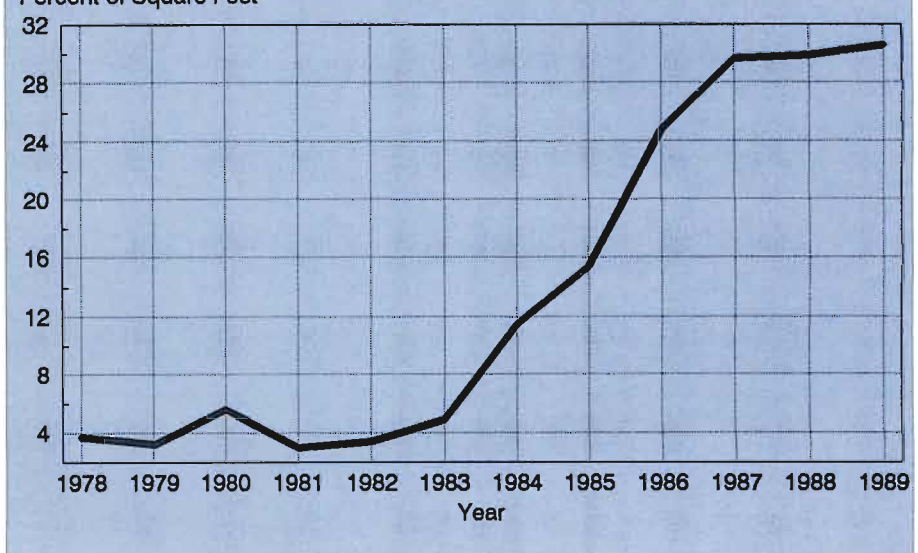
Figure 3A
Crude-Oil Refiner Acquisition Cost
Current Dollars, Domestic



The increase in oil prices had an obvious impact on Texas real-estate markets. Figure 3B shows trends in Texas office real-estate markets from 1978 to 1989. In 1981, office starts were more than double the level in 1980 for the combined Austin, Dallas, Houston and San Antonio areas. Obviously, 50 percent annual increases in crude-oil prices provided strong incentives for business expansion. However, such inflation in oil prices did not persist. Ultimately, the weakening of the OPEC oil cartel, in addition to domestic energy conservation, led to reductions in oil prices. The building trend in Texas, however, continued into 1986. The overbuilding in Texas commercial real estate resulted in rising office vacancy rates between 1981 and 1989. (Also see Table 6, Appendix A.)

Additional downward pressure on real-estate markets resulted from the Tax Reform Act of 1986 which greatly reduced the tax benefits of owning

Figure 3B
Average Office Vacancy Rate
Austin, Dallas, Houston and San Antonio



real estate, particularly properties generating losses. As a result, the values of such properties declined for both original owners and banks (thrifts) holding repossessed properties. The impact of the tax law changes was greatest in overbuilt areas where such properties were more prevalent.

The impact of the volatile energy and real-estate development markets on Texas banks can be seen in two reported bank loan categories. The first category, construction and land development loans, is comprised of short-term (60 months or less) credits secured by real estate. These include loans to commercial real-estate developers, as well as loans to oil and gas producers. The second relevant loan category, commercial and industrial loans, includes loans to mining, gas and oil producers (as well as to all other commercial firms) that are not secured by real estate.

Among Texas commercial banks, construction and land development loans rose steadily from 2.1 percent of Texas bank assets in 1976 to 4.1 percent in 1980, peaking at 8.3 percent in 1984 (see Figure 9B, Appendix A). These loan concentrations are distinct in two respects. First, Texas development loan concentrations were well above the national average between 1978 and 1987. Second, these loan concentrations remained high among Texas banks through 1987, despite increasing office vacancy rates and declining crude-oil prices. This trend was particularly apparent among failed Texas commercial banks, as construction and land development loan concentrations were unusually high between 1984 and 1988 (see Table 12, Appendix A).

Trends in commercial and industrial loan concentrations among Texas banks closely followed oil-price movements. Commercial and industrial loans rose from 20.7 percent of Texas bank assets in 1978 to 27.8 percent in 1982. However, as oil prices dropped after 1981, commercial and industrial loans also declined, falling to 21.4 percent of Texas bank assets in 1986 and 16.5 percent in 1989 (see Figure 10A, Appendix A).

The result of high loan exposures to risky economic sectors can be seen in the trend in Texas banks' nonperforming assets (see Figure 10B, Appendix A). Nonperforming asset data are not available prior to 1982. Nonperforming assets increased from 1.75 percent of Texas bank assets in 1982 to 6.6 percent in 1987. Among failed Texas banks, nonperforming assets remained extremely high between 1984 and 1988, averaging 10.4 percent of failed-bank assets. As a result of these trends, Texas commercial banks have experienced losses since 1986. The return on assets for the Texas banking industry reached a low of –1.40 percent in 1987 and remained poor at –0.31 percent in 1989. The reduction in losses in 1989 was due to increases in noninterest income and reduced loan-loss provisioning.

Major Metropolitan Areas

To gain more insight into the behavior of failed Texas commercial banks, trends in the portfolio composition of banks within four major metropolitan areas in Texas (*i.e.*, the Austin, Dallas, Houston, and San Antonio metropolitan areas) were reviewed. Specifically, changes in the portfolio composition of banks that failed between 1980 and 1989 were examined. The discussion focuses on the two types of loans most closely related to events in oil and real-estate markets: commercial and industrial loans, and loans for construction and land development. Although each of the four metropolitan areas studied had unique features, the overall behavior of banks was very similar. Therefore, findings across metropolitan areas may be summarized.

The first general finding was that the majority of banks in the sample reacted quickly to movements in oil prices. The increase in crude-oil prices between 1973 and 1981 was accompanied by increased concentrations in commercial and industrial loans among failed banks in each of the four areas considered. Commercial and industrial loan concentrations peaked in 1982 in the Dallas, Houston, and San Antonio areas, shortly after the initial decline in oil prices. The Austin area was unique in that commercial and industrial loan concentrations increased until 1984. In the Dallas, Houston, and San Antonio areas, commercial and industrial loan concentrations declined between 1982 and 1984, as oil prices continued to fall. Failed banks in all four areas had marked declines in commercial loan concentrations, after the sharp decline in oil prices in 1986. In sum, it appears that with the exception of Austin, this group of banks adjusted concentrations in energy loans to oil-price movements, albeit with a short lag. Possible reasons for the atypical behavior of the Austin market will be offered below.

The second general finding was that the majority of banks in the sample reacted slowly to changes in commercial real-estate markets. Over the past decade all four metropolitan areas experienced large increases in office vacancy rates. Concentrations of construction and land development loans grew among failed banks in the four areas long after the decline in commercial real-estate markets. This last result is due, in part, to the inertia created by banks fulfilling loan commitments in earlier periods, as development projects moved toward completion. Recent declines in construction loans among this group of banks appear to be due, in part, to a shifting (within the banks) of these loans from short-term development loans to long-term commercial property financing. In recent years, the combined 30 percent office vacancy rate in these four metropolitan areas helps to explain why banks have been unable to shift the financing of completed commercial properties to nonbank financiers.

For convenience, trends on loan concentrations for failed banks in the Dallas metropolitan area are presented in Figures 4A and 4B; trends for the three remaining areas are presented in Appendix B. Data on individual categories of nonperforming loans shown in Figures 4A and 4B are not available prior to 1985. Nonperforming real-estate loans or "bad real estate" is defined as the sum of real-estate loans past due 90 days or more plus nonaccrual real-estate loans. Similarly, nonperforming commercial and industrial loans or "bad commercial loans" include commercial and industrial loans past due 90 days or more plus nonaccrual commercial and industrial loans.

The preceding discussion raises questions regarding the comparative portfolio choices of Texas' healthy *versus* failed commercial banks (*i.e.*, banks which were still operating as of year-end 1989). A review of the loan concentrations of healthy banks within the four metropolitan regions discussed above indicated that, with the exception of the Austin area, healthy banks had, on average, lower concentrations of construction and land development loans over the entire 1978 to 1988 period. The healthy banks followed similar trends in construction loan concentrations as those of failed banks; however, construction loan concentrations were significantly lower for the healthy banks. As expected, the healthy banks also had much fewer nonperforming real-estate assets, again with the exception of Austin. The differences in commercial real-estate lending concentrations between these two groups of banks clearly became a crucial factor, as the real-estate boom turned into an overbuilding crisis.

The atypical behavior of the Austin market may be partially attributable to the fact that it is the state capital. The state and federal government, and related agencies, appear to have been important, stabilizing influences upon the area's economy. In Austin, government accounts for almost 30 percent of the city's jobs, an even greater proportion than in the Washington D.C. area.[5] In addition to the government, the State University and recently growing high-technology industries offer additional stability.

However, despite the diversity of the Austin economy, the area is presently experiencing difficulties. Indeed, the "healthy" bank group within the Austin area had high proportions of nonperforming real-estate assets as of year-end 1989.

Dallas-Area Failed and Assisted Commercial Banks

Figure 4A

Oil Prices and Commercial Lending

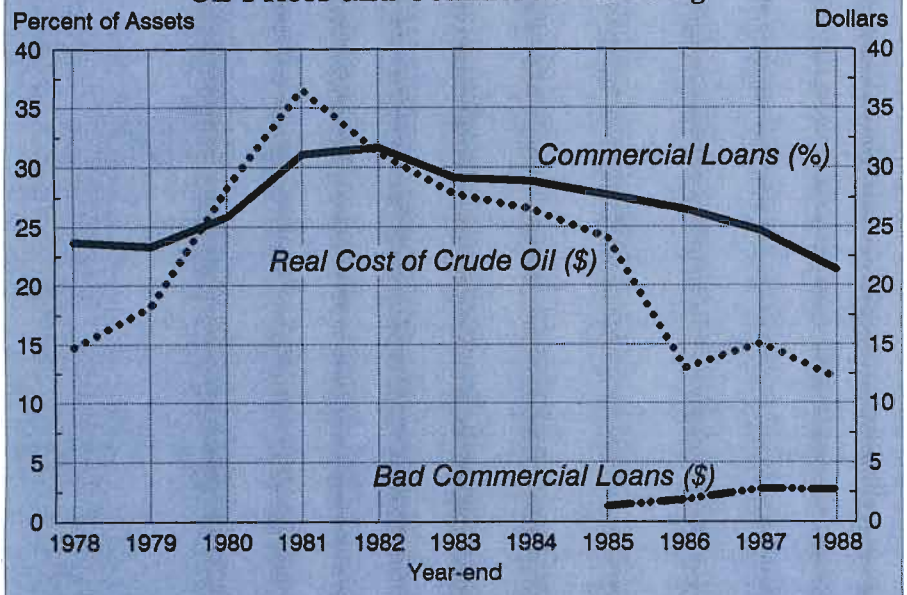
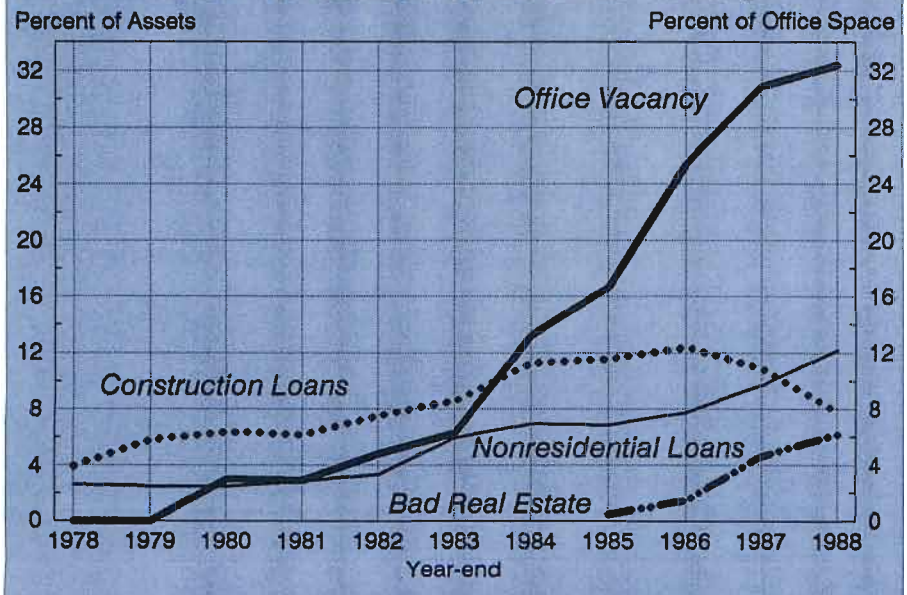


Figure 4B

Office Vacancies and Real-Estate Lending



[5] See *National Real Estate Index*, "2nd Quarter 1989 Trends," published by Liquidity Funds.

Texas Bank Holding Companies

Seven of Texas' largest bank holding companies as of year-end 1985 failed between 1987 and 1990. The failed holding companies are Interfirst Corporation, RepublicBank (with their unassisted merger in 1987, these two holding companies became First Republic Bancorporation, which failed in 1988), Texas American Bancshares, National Bancshares of Texas, MCorp, BancTexas, and First City Bancorporation. These holding companies comprised a large portion of the state's commercial bank assets. Thus, the preceding discussion provides a general background regarding the experiences of these bank holding companies. However, it is still beneficial to examine their operations on a case-by-case basis. The financial histories of these seven Texas bank holding companies are remarkably similar (Appendix C). Therefore, it is easy to construct a common history that summarizes the experiences of these seven holding companies.

The growth and profitability of all seven holding companies relied heavily upon the condition of domestic energy markets, particularly domestic oil. The dependency of these holding companies, and indeed all Texas banks and thrifts, on crude-oil markets was twofold. First, as direct lenders to oil producers and refiners, energy loan demand rose and fell with oil prices. Second, as discussed earlier, the entire Texas economy was largely dependent upon oil prices. The boom in oil markets fueled the state's economic growth, as evidenced by the buildup of commercial real estate in the mid-1980s. Consequently, these holding companies expanded quickly during the early 1980s. The most rapid growth occurred between 1976 and 1983, with five of the seven holding companies continuing their expansion until 1985.

Profits at these holding companies reached their highest rates between 1980 and 1982, as inflation in oil prices peaked. Profits subsequently declined between 1983 and 1985 with the mild deflation in oil prices. Soon after the decline in energy markets, these holding companies began to decrease concentrations in commercial and industrial loans. To replace the demand for energy loans, they rapidly increased lending to commercial real-estate developers. The growth in commercial real estate turned into overbuilding and rising vacancy rates between 1983 and 1985, when oil prices failed to rebound. After a sharp reduction in oil prices in 1986, these holding companies experienced heavy losses, which continued until their failure. Lending into declining commercial real-estate markets resulted in deteriorating asset quality. The severity of the situation was apparent by year-end 1986, when bank equity plus loss reserves barely exceeded nonperforming assets for all seven holding companies. Although some of the lead banks of these holding companies had been identified as problem banks as early as 1984, the remaining lead banks were not identified as problem banks until 1986 (First Republic Bancorporation was an exception, with a 3 rating in 1986, and a 5 rating in March 1988).

Bank holding company shareholders appear to have supported the shift toward commercial real-estate lending. Indeed, shareholders did not anticipate the consequences of increased lending to commercial real estate, as vacancy rates grew. Bank stock prices, however, quickly reacted to reductions in profits. In addition, uninsured depositors reacted more slowly than shareholders to the deteriorating condition of these banks. The slow reaction of uninsured depositors may have been due, in part, to their expectation that any failure-resolution transaction would have resulted in their full protection, as had been the case in the handling of Continental Illinois, the largest bank rescued to that point.

After 1986, the viability of these bank holding companies was questionable, given their capital levels and examiner ratings. As real-estate markets deteriorated further after 1986, the condition of these holding companies weakened further. Generally, after an examination resulting in a composite CAMEL rating of 5, the resolution process began. By that point, the financial condition of the holding company was well-known by the market, and most uninsured depositors had withdrawn their funds. This condition often resulted in liquidity problems, and as a result many of these holding companies were forced to replace lost deposit funding with borrowings from the Federal Reserve discount window as failure approached.

Bank Supervision: Bank Examination and Oversight

The exam records reviewed for this analysis indicate that bank examiners normally raised concerns over failed banks' safety-and-soundness prior to failure. In nearly 90 percent of the cases reviewed, examiners indicated a need for increased oversight as a result of their examinations. The frequency of examinations among banks in the troubled Southwest has been the lowest in the nation. Examination frequency in Texas has closely paralleled the pattern for the entire Southwest, declining sharply in the mid-1980s. A lapse in regulatory oversight, coincident with a recession in the Texas economy, may explain a portion of the increase in the failure rate among the state's commercial banks.

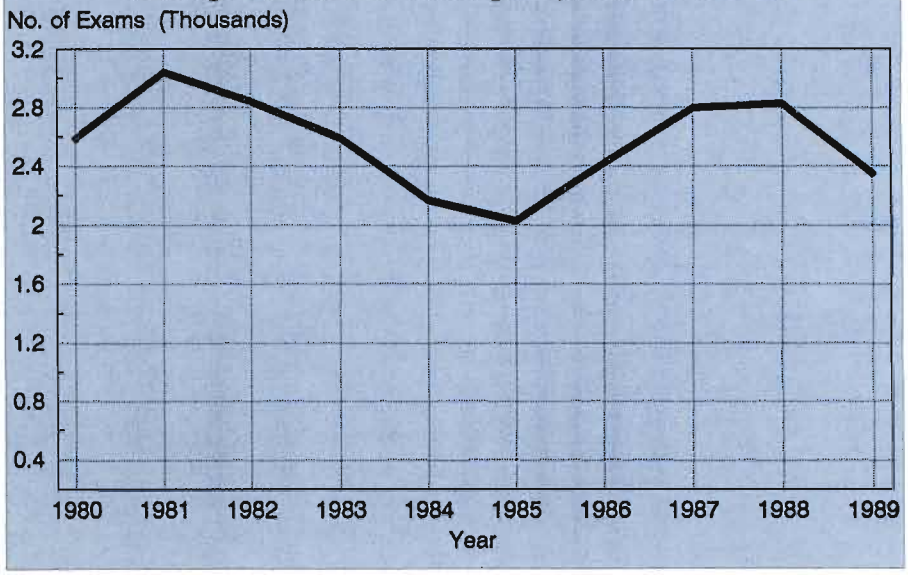
Exam Frequency

The exam files reviewed contain information from each of the three federal bank regulatory agencies, as well as state banking authorities. The frequency of bank examinations is dependent upon the policies of a bank's principal regulator. All nationally chartered banks are supervised and examined by the Office of the Comptroller of the Currency (OCC).

All state-chartered banks that are members of the Federal Reserve System are examined by both the Federal Reserve and state bank regulator. Finally, state-chartered banks that are not members of the Federal Reserve System are examined by both the FDIC and state authorities. Although banks are required to file periodic, detailed financial reports (monthly as well as quarterly reports are required), on-site examinations are the primary means of policing banking activity and providing regulatory guidance.

At present, there are four basic areas of focus for bank examinations. The first focuses on the bank's trust department, to determine whether it is being operated in accordance with established regulations and standards. Secondly, compliance examinations are designed to investigate whether the bank is abiding by a variety of measures designed to protect consumers, such as truth-in-lending requirements, civil rights laws, and community reinvestment regulations. A third area subject to review by examiners is the integrity of the bank's electronic data processing systems, denoted as EDP exams. Finally, safety-and-soundness examinations focus on five key areas affecting the health of the institution: capital adequacy, asset quality, management, earnings, and liquidity. A bank is rated from 1 to 5 in each area (1 representing the highest rating, 5 the lowest rating). After an overall evaluation of the condition of the bank is completed, a composite safety-and-soundness rating is also assigned, known as a CAMEL rating (an acronym derived from the five areas of review). A composite CAMEL rating of 1 is given to banks performing well-above-average. A rating of 2 is given to banks operating adequately within safety-and-soundness standards. A CAMEL rating of 3 indicates below-average performance and some supervisory concerns. Performance well-below-average yields a CAMEL rating of 4, indicating that serious problems exist at the bank which need to be corrected. Finally, a CAMEL rating of 5 indicates severely deficient performance and the need for quick corrective actions.[6] A serious deficiency in any of the areas covered by trust, compliance, EDP, and safety-and-soundness exams could lead to failure. However, because of its broad coverage, the focus of this study is the safety-and-soundness exam.

Figure 5
U.S. Commercial Banks
Average Number of Exams per Quarter (1980—1989)



The FDIC has established policies on exam frequency, which generally call for more frequent on-site examinations the worse the bank's last composite CAMEL rating. Bank safety-and-soundness examinations are usually carried out at the same time as trust, EDP, and compliance exams. In addition, agencies also use on-site visits to investigate specific areas, such as compliance with previous corrective actions requested by bank regulators, or investigation of suspected problems detected in offsite monitoring.

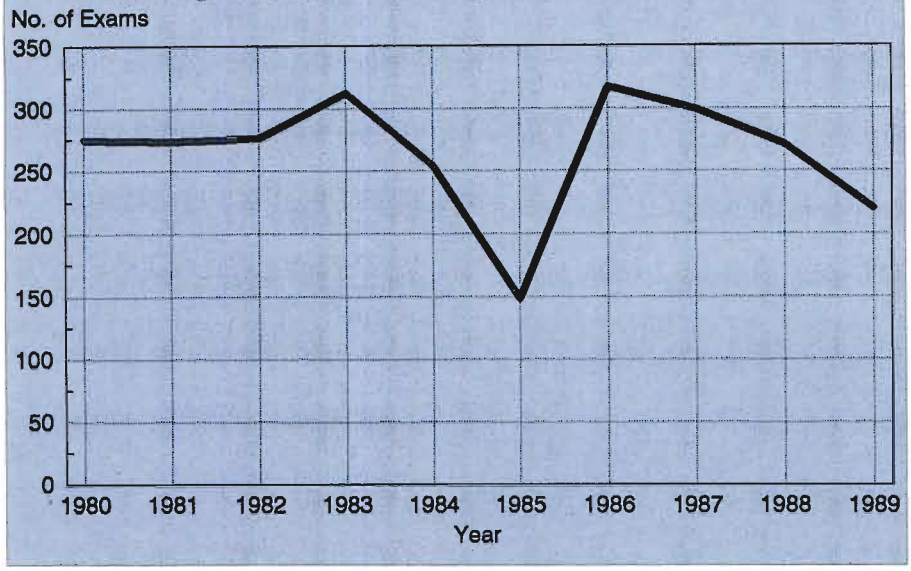
Specific policies on examination frequency have varied over time. For example, the *1986 Manual of Examination Policies* calls for banks rated 4 or 5 to be examined at least every 12 months, with on-site visits every three months. Banks rated 3 should be examined at least every 12 months, while those rated 1 or 2 should be examined at least every 36 months. These examination intervals may be lengthened if the FDIC regional director determines an extension is acceptable. At present, the FDIC has established a goal of

[6] See *Manual of Examination Policies* (1986), Federal Deposit Insurance Corporation, Division of Supervision.

Table 2
Median Exam Interval (Days)

Year	Failed and Assisted Banks	Healthy Banks
1981	365	393
1982	371	403
1983	357	397
1984	357	399
1985	377	457
1986	457	466
1987	365	405
1988	343	366

Figure 6
Texas Commercial Banks
Average Number of Exams per Quarter (1980–1989)



increasing the frequency of on-site examinations to at least once every two years for 1- or 2-rated institutions, and at least once a year for banks rated 3, 4, or 5.[7]

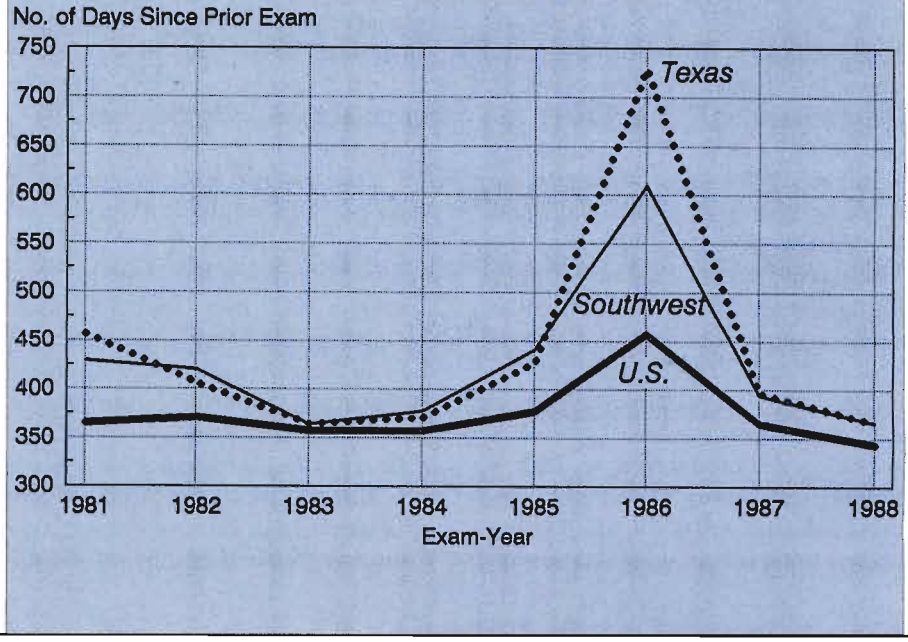
The frequency of bank safety-and-soundness examinations by all three federal bank regulators was reviewed. Because on-site visits are also used in detecting problems, these were included in the analysis, as well as full on-site examinations. Among the institutions that failed between 1980 and 1989, the median frequency of examinations was 365 days, compared to 403 days among banks that did not fail. Since failing banks are usually rated as supervisory concerns prior to their actual failure, examination frequency can be expected to be higher among these institutions than among healthier banks.

Exam frequency has varied significantly over time. Infrequent examinations pose less risk to the deposit insurer during periods of economic prosperity, when even poorly run firms may prosper. Table 2 shows the median examination interval, *i.e.*, the number of days since the last exam for banks examined within a given year. Exam frequency has, in general, been relatively stable since 1981, with 1985 and 1986 noted as exceptions. (Because of the sparseness of the data, information regarding 1980 exams is not presented.) The long interval in 1986 indicates an extended period between the exam that year, and the prior exam in 1984 or 1985.

Figures 5 and 6 provide additional information on bank examination frequency over time, showing the annual average number of exams per quarter for all banks (failed and healthy). The major result shown in Figures 5 and 6 is that fewer exams were conducted, on average, in 1984 and 1985 for both the nation and for Texas. Quarterly exam frequency data (not shown here) also indicate that there is seasonality in bank examinations, with fewer exams held in the fourth quarter than any other period. This latter result is primarily due to the decrease in the number of work days during the holiday season.

Regional economic trends are as significant as broader macroeconomic business cycles in influencing the health of a given region's businesses. It is therefore useful to know how the frequency of exams in specific regions has varied over time. An analysis of six geographic regions indicated that in all but one year, exam frequency was lowest in the Southwest, with exam frequency in Texas closely paralleling that trend. In addition, the lower frequency of exams in 1986 seems particularly acute among failed banks in Texas. Figure 7 shows the median number of days since a prior exam for banks examined in a given year.

Figure 7
Median Exam Period (Days)
Failed and Assisted Banks



[7] See *Deposit Insurance for the Nineties: Meeting the Challenge*, an unpublished 1989 study by the staff of the Federal Deposit Insurance Corporation.

Reasons for the Decline in Exam Frequency

There are several reasons for the reduction in bank examinations between 1981 and 1987. First and most important was a reduction in examination staff during this period resulting from a hiring freeze. Table 3 shows the number of bank examiners for each agency, and associated turnover rates in examination staff.

Table 3
Examination Staff and Turnover Rates

	Number of Staff			Turnover Rates		
Year	FRB	FDIC	OCC	FRB	FDIC	OCC
1987	954	1,909	2,016	13.0%	10.6%	7.6%
1986	914	1,726	1,812	17.0	9.8	12.4
1985	835	1,547	1,787	14.0	10.7	13.6
1984	820	1,389	1,706	13.0	9.0	15.1
1983	809	1,481	1,818	12.0	6.0	12.0
1982	804	1,551	1,642	12.0	7.1	12.7
1981	800	1,655	1,810	18.0	8.0	15.3
1980	836	1,698	2,037	15.0	8.9	11.7
1979	805	1,713	2,151	18.0	9.4	14.9
1978	744	1,760	2,060	18.0	8.0	15.1
1977	653	1,556	2,157	12.0	10.1	11.7
1976	724	1,644	2,166	12.0	8.2	13.9
1975	644	1,455	2,113	11.0	7.4	8.6

Note: Number of staff are approximate number of field examiners for each agency.

Source: FRB, FDIC, and OCC internal records.

Combined regulatory examiner staff levels declined 14.4 percent between 1980 and 1984, reaching their lowest levels in 1984. The staff reduction occurred almost entirely among FDIC and OCC examiners. These reductions were ill-timed because examiner workloads were increasing (particularly in the Southwest). Between 1983 and 1985, examiners were in the process of identifying those institutions adversely affected by the declining energy markets. This identification process is more difficult and time-consuming than subsequent monitoring of a known problem bank. In addition, FDIC exam staff were responsible for gathering information on potential acquirers of failed banks, as well as for preparing information for bidders on failed-bank assets. To compensate for the staff cutbacks, regulators concentrated their efforts on the larger banks, as well as those on the problem list. An analysis of the relationship between exam frequency and bank size and composite CAMEL ratings indicated that, nationally, there was a statistically significant increase in exam frequency associated with greater bank size and poorer safety-and-soundness ratings.

However, this policy was not adhered to strictly in Texas, where neither CAMEL ratings nor bank size was statistically significant in explaining examination intervals.

Despite the apparent national policy of concentrating examination resources on the largest banking institutions, there was still a substantial reduction in the assets of banks examined between 1981 and 1987, particularly in Texas. It also should be noted that the processing of exam data received by the FDIC from the OCC and state banking authorities is believed to have been incomplete between 1984 and 1985. This may be attributable to a manpower shortage at the FDIC, as well as changes in the type of reporting performed by the OCC. As a result, some of the reduction in the number of recorded exams between 1984 and 1985 is attributed to a lack of data entry. However, other data not subject to this bias, are in substantial agreement with the above findings.

Exam Results

The reason for concern over the frequency of bank examinations is the potential for deterioration in the condition of banks to persist unrecognized by bank supervisors. It is reasonable to expect that longer delays between exams will increase the chances of changes in composite CAMEL ratings, and perhaps increase the potential magnitude of these changes. Available data on failed and healthy banks are in agreement with these expectations. The correlation between absolute changes in composite CAMEL ratings and frequency of exams was 0.34 among failed banks, and 0.16 among healthy banks. Since the vast majority of failed banks had their composite CAMEL rating lowered prior to failure, these findings support the premise that infrequent examinations increase the potential for serious deterioration in the condition of banks to persist unrecognized by bank supervisors.

Unrecognized deterioration in the condition of a bank may occur even with timely exams, if bank examiners are not properly trained or sufficiently thorough in their audits. Judging the thoroughness of a bank exam is clearly a difficult task. With the benefit of hindsight it is easy to say that examiners should have been more diligent in their examination of a bank that subsequently failed. For a bank examination to be useful, however, it must search out *potential* sources of difficulty for a bank. For example, high concentrations of loans in traditionally risky areas such as construction and land development, poor liquidity, and inadequate capitalization are factors that can lead to failure. Yet these conditions appear before the actual failure. More specifically, the factors leading to bank failure do not usually arise overnight. Therefore, it is not unusual for failed banks to receive

low composite CAMEL ratings prior to failure. The CAMEL ratings shown in Table 4 are the most recent for banks as of January 1989 (*i.e.*, the last CAMEL rating for failed banks between 1980 and 1988, and the most recent CAMEL rating as of January 1989 for banks that failed in 1989).

Table 4
Last Composite CAMEL Rating for Failed /Assisted Banks

Composite CAMEL Rating	Percent	Cumulative Percent
1	1.9%	1.9%
2	9.3	11.2
3	8.5	19.8
4	27.1	46.9
5	53.1	100.0

Table 4 shows that 88.7 percent of the sample of failed banks were rated supervisory concerns prior to failure (*i.e.*, they had composite CAMEL ratings of either 3, 4 or 5). For comparison, using the most recent exam among healthy banks in the sample (as of January 1989), only 21.1 percent of the healthy banks were rated supervisory concerns. These statistics, although general in nature, indicate that difficulties in bank operations were usually recognized prior to failure. However, the data on exam frequency indicate that in some cases these difficulties might have been recognized sooner had bank examinations been more frequent.

Funding Bank Activities: The Role of Deposit Insurance

As discussed earlier, Texas banking activity increased dramatically over the last decade. The role that deposit insurance may have played in funding this growth, as well as the types of risks assumed by Texas banks, are examined next.

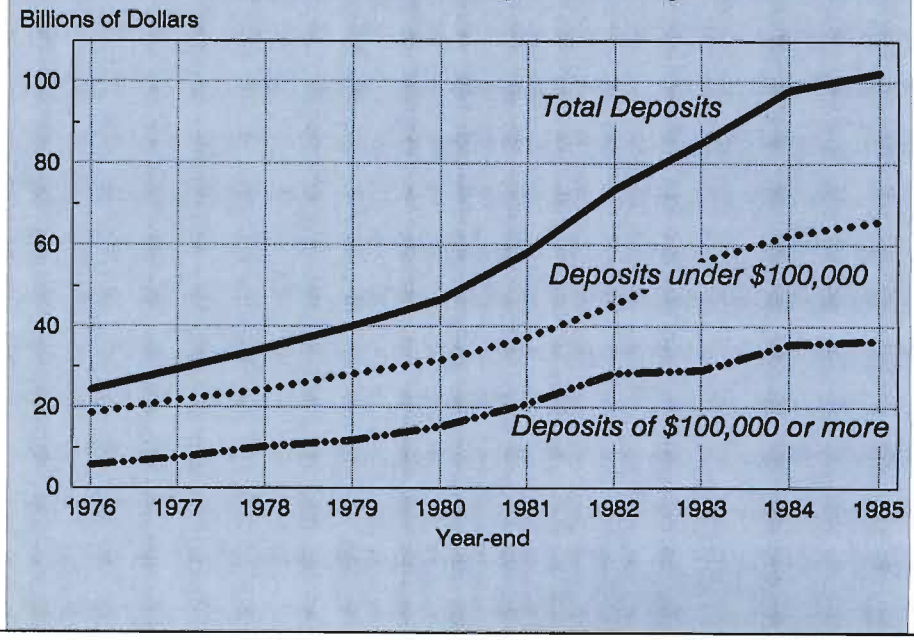
Some observers have argued that the availability of flat-rate deposit insurance permits bankers to fund greater levels of "risky" loans than would be otherwise possible. There are two reasons for this. First, insured depositors have little reason to discriminate among banks based upon perceived levels of risk in the institution. In the event a bank fails, insured depositors would only face the risk of possibly redepositing funds at lower interest rates at a successor/another institution. Second, if deposit insurance premiums do not rise with the riskiness of the bank, bankers will have incentives to exploit this flaw in the premium structure and to accept greater risks. This would be especially true of poorly capitalized or nearly insolvent banks, where shareholders have little to lose, but a great deal to gain, from risky decisions.

In order to relate the composition of bank financing to bank activity, the histories of nine Texas bank holding companies were reviewed. Seven of the nine holding companies failed; two were involved in unassisted mergers, but did not fail. The failed holding companies are Interfirst Corporation, RepublicBank, Texas American Bancshares, National Bancshares of Texas, MCorp, BancTexas, and First City Bancorporation. Interfirst and RepublicBank merged in 1987 to form First Republic Bancorporation, which failed in 1988. The holding companies involved in unassisted mergers are Texas Commerce Bank and Allied Bancshares.

The combined bank assets of these holding companies grew from $30.6 billion in 1976 to a peak of $134.6 billion in 1985. The average annual asset growth rate for this group was over 18 percent from 1976 to 1985, with a peak of 28 percent in 1981. Combined assets declined from 1986 to 1989. Figure 8 shows that growth was funded by both insured and uninsured deposits. Deposit accounts of $100,000 or more increased from 19.8 percent of liabilities in 1976 to 28.5 percent in 1981, and remained at high levels through 1988.

Deposit insurance coverage changed over this period as well. The deposit insurance limit in 1974 was $40,000 for most individual accounts and $100,000 for time and savings

Figure 8
The Nine Texas Bank Holding Companies
Member Banks' Deposit Funding



accounts of municipalities. The $100,000 limit was applied to individual retirement accounts in 1978, and was expanded to cover all accounts in 1980.[8]

The data show clearly that banking activity in Texas continued to expand after the initial decline in energy markets in 1982; however, expansion was halted with the sharp reduction in oil prices in 1986. Only two institutions, First City and BancTexas, stopped growing in total asset size after 1983.

The histories of the seven failed bank holding companies (see Appendix C) also show that both insured and uninsured deposits were used to fund increased investment in risky construction and land development projects between 1982 and 1989. As vacancy rates increased in the major metropolitan areas of Texas between 1982 and 1986, all seven holding companies increased construction and land development loans significantly (both in dollar terms and as a percent of bank assets). Uninsured depositors reacted very slowly to the deteriorating conditions of these holding companies. The collapsing commercial real-estate market led to severe asset quality problems for all seven holding companies by year-end 1986. The severity of the situation was evident in that capital plus loss reserves barely exceeded nonperforming assets for all seven holding companies at year-end 1986. In most instances, however, they were able to maintain the proportion of liabilities funded by deposit accounts of $100,000 or more through 1986.

The findings indicate that these holding companies did not have to rely solely upon insured depositors to fund risky investments in commercial real estate. Indeed, they were able to maintain relatively high proportions of uninsured liabilities through 1986. However, as failure became imminent, there was some loss of uninsured deposits, which was usually offset by borrowings from the Federal Reserve.

Given that uninsured depositors reacted slowly to the deteriorating conditions of these institutions, it would be interesting to be able to discover more about this group. Unfortunately, available financial data do not identify depositors in a detailed fashion. However, the data indicate that brokered deposits were not a significant source of funds for the seven holding companies as insolvency approached. The measure of brokered deposits used for this analysis does not, however, include funds obtained through a bank's money desk operations. However, it could be expected that some portion of these uninsured deposits were interbank deposits among members of a holding company. Further, correspondent bank balances associated with check clearing may have been another important source of funds.

[8] See *The First Fifty Years: A History of the FDIC 1933 - 1983* (Washington, D.C.: Federal Deposit Insurance Corporation, 1984).

Appendix A

Trends in Lending Activity: Texas *versus* the U.S.

Figure 9A
Construction Loans
FDIC-Insured Commercial Banks

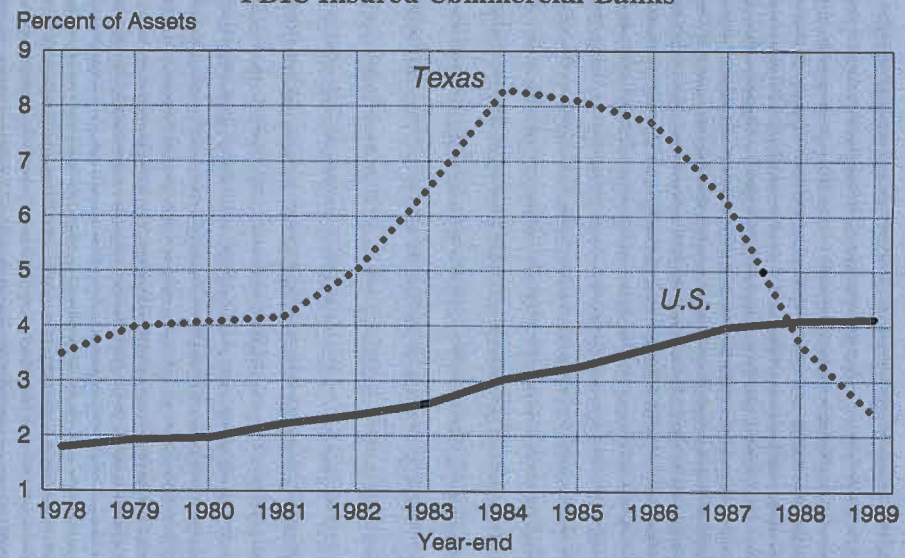


Figure 9B
Construction and Nonresidential Property
FDIC-Insured Commercial Banks

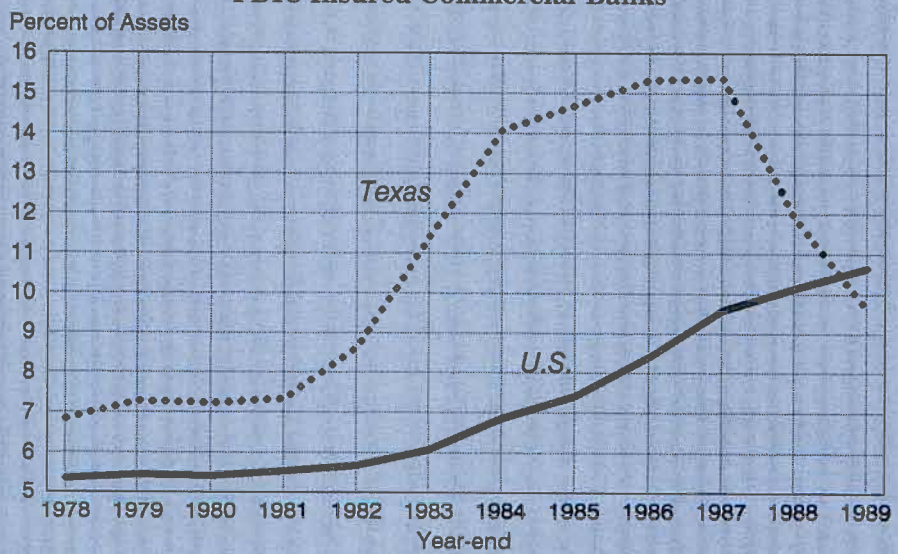


Figure 10A
Commercial and Industrial Loans
FDIC-Insured Commercial Banks

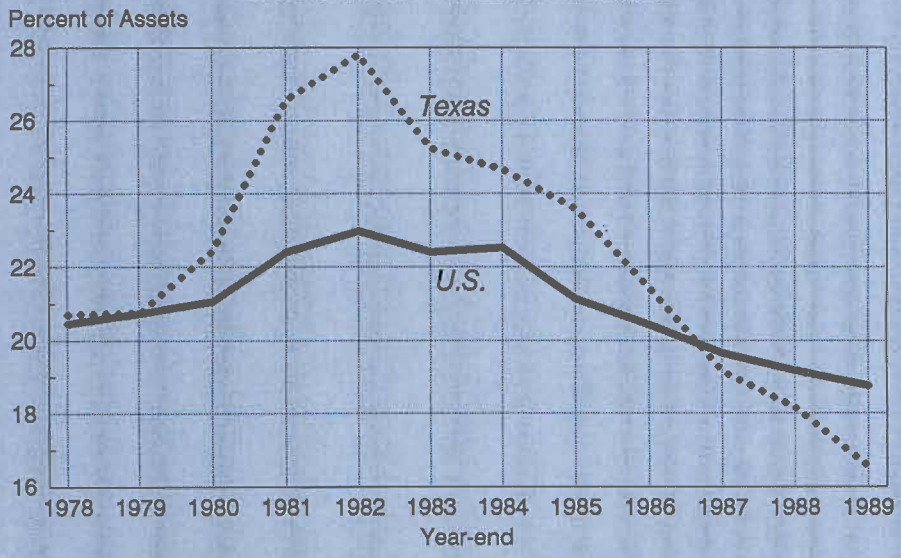


Figure 10B
Nonperforming Assets
FDIC-Insured Commercial Banks

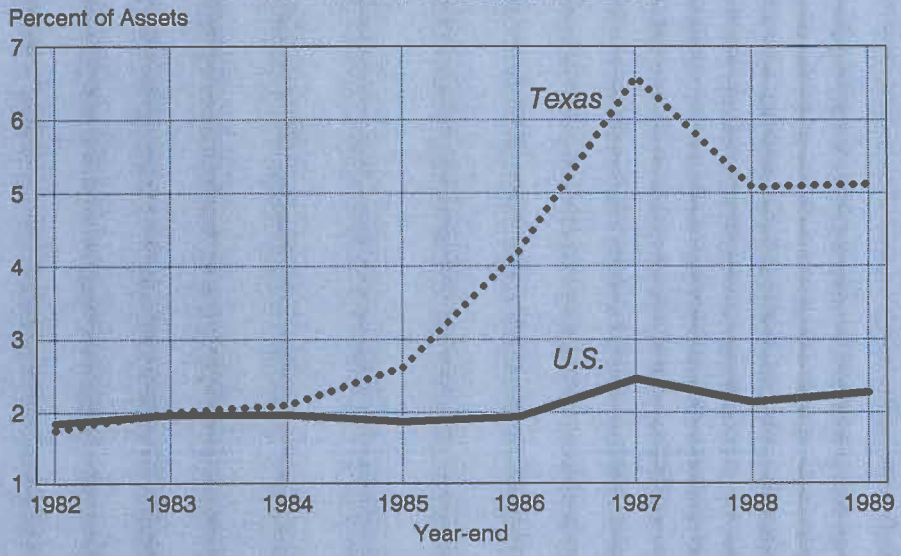


Table 5
Domestic Crude-Oil Refiner Acquisition Cost ($/Barrel)

Year	Current Dollars	Constant (1982) Dollars
1968	$3.21	$8.51
1969	3.37	8.47
1970	3.46	8.24
1971	3.68	8.29
1972	3.67	7.89
1973	4.17	8.42
1974	7.18	13.30
1975	8.39	14.15
1976	8.84	14.01
1977	9.55	14.19
1978	10.61	17.70
1979	14.27	18.16
1980	24.23	28.27
1981	34.33	36.52
1982	31.22	31.22
1983	28.87	27.79
1984	28.53	26.49
1985	26.66	24.04
1986	14.82	13.01
1987	17.76	15.09
1988	14.76	12.13

Source: Annual Energy Review 1988, Energy Information Administration.

Table 6
Texas Office Real-Estate Market Trends: Four City Total – Austin, Dallas, Houston, and San Antonio

Year	Office Starts (mil.sq.ft.)	Office Inventory (mil.sq.ft.)	Office Employment (thousands)	Office Vacancy Rate (average %)
1975	9.15	232.45	898	29.7%
1976	12.52	240.35	943	18.1
1977	15.26	248.77	1,003	7.4
1978	24.24	259.94	1,085	3.7
1979	25.54	276.75	1,155	3.2
1980	34.40	300.95	1,231	5.6
1981	70.75	326.60	1,316	8.0
1982	50.60	358.97	1,352	8.4
1983	37.60	415.70	1,353	4.9
1984	39.32	473.82	1,429	11.5
1985	68.58	510.84	1,487	15.4
1986	32.43	553.62	1,484	24.8
1987	7.16	578.59	1,485	29.7
1988	5.72	587.37	1,513	29.9
1989	5.02	593.43	1,536	30.6

Source: F.W. Dodge, Real Estate Analysis and Planning Service.

Table 7
Portfolio Composition of Texas Commercial Banks
(1984 - 1989)

Assets (% of assets)	12/84	12/85	12/86	12/87	12/88	12/89
Noninterest-bearing balances due	7.84%	8.09%	8.00%	7.43%	7.54%	7.29%
Interest-bearing balances due	5.03	5.49	5.16	4.02	3.52	3.31
Investment securities	15.52	14.66	14.40	16.82	20.60	22.44
Federal funds sold and repurchase agreements	6.50	7.39	10.84	10.85	8.69	11.21
Gross loans and leases	60.45	59.98	57.87	56.93	51.91	47.15
Less loan- and lease-loss reserve	(0.83)	(0.92)	(1.40)	(2.17)	(1.80)	(1.51)
Less transfer risk reserve	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Net loans and leases	59.61	59.06	56.46	54.76	50.10	45.64
Assets held in trading accounts	0.10	0.17	0.18	0.17	0.07	0.14
Premises and fixed assets	1.80	1.74	1.81	2.01	2.06	2.01
Other real-estate owned	0.28	0.49	1.03	1.77	1.88	2.12
Investments in unconsolidated subsidiaries	0.02	0.03	0.03	0.03	0.04	0.01
Customers' liability to bank	1.22	0.92	0.06	0.08	0.08	0.23
Intangible assets	0.08	0.07	0.07	0.19	0.08	0.14
Other assets	1.99	1.90	1.97	1.87	5.34	5.46
Liabilities (% of liabilities)						
Deposits	85.78	86.17	84.51	84.04	88.01	86.64
Federal funds purchased and repurchase agreements	9.10	8.67	11.29	11.67	7.20	8.26
Demand notes of the U.S. Treasury	0.49	1.47	1.66	1.54	1.24	0.95
Other borrowed money	1.30	0.81	0.76	1.07	1.68	1.99
Mortgage debt	0.16	0.14	0.13	0.12	0.14	0.12
Banks' liability on acceptances	1.31	0.99	0.06	0.09	0.08	0.24
Notes and subordinated debt	0.38	0.37	0.35	0.29	0.12	0.23
Other liabilities	1.49	1.39	1.24	1.19	1.52	1.57
Core deposits	51.23	52.09	54.00	56.76	63.89	66.82
Brokered deposits	2.33	1.85	1.24	0.43	1.14	0.91
Capital Accounts*						
Equity capital	6.50	6.57	5.98	5.08	4.71	4.60
Tangible capital	6.43	6.49	5.91	4.89	4.63	4.47
Primary + secondary capital	7.91	8.05	7.84	7.23	6.49	6.51

* As a percentage of appropriately adjusted assets.

Table 8
Income and Expenses of Texas Commercial Banks as a Percentage of Bank Assets (1984 - 1989)

Income & Expenses	12/84	12/85	12/86	12/87	12/88	12/89
Interest Income:						
Interest and fees on loans	7.13%	6.62%	5.81%	5.31%	4.94%	5.02%
Income from leases	0.02	0.02	0.02	0.01	0.01	0.02
Income from balances due at banks	0.48	0.44	0.38	0.36	0.28	0.27
Income from securities	1.49	1.37	1.22	1.25	1.46	1.83
Income from assets held in trading accounts	0.01	0.01	0.01	0.01	0.01	0.01
Income from federal funds sold	0.63	0.51	0.58	0.75	0.64	0.82
TOTAL INTEREST INCOME	9.75	8.97	8.02	7.69	7.35	7.97
Interest Expense:						
Expense on deposits	(5.57)	(5.05)	(4.46)	(4.16)	(4.12)	(4.63)
Expense on federal funds purchased	(0.93)	(0.66)	(0.65)	(0.71)	(0.49)	(0.64)
Expense on notes issued to U.S. Treasury	(0.13)	(0.12)	(0.10)	(0.13)	(0.17)	(0.21)
Expense on mortgage debt	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Expense on notes and subordinated debt	(0.04)	(0.03)	(0.03)	(0.03)	(0.01)	(0.01)
TOTAL INTEREST EXPENSE	(6.68)	(5.87)	(5.25)	(5.03)	(4.80)	(5.51)
NET INTEREST INCOME	3.07	3.10	2.78	2.66	2.55	2.46
Provisions for loan losses	(0.68)	(0.92)	(1.67)	(1.88)	(1.59)	(1.34)
Provisions for transfer risk	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Noninterest Income:	0.79	0.91	0.87	0.96	1.09	1.93
Gains (losses) on securities not held in trading accounts	0.01	0.11	0.20	0.02	0.00	0.05
Noninterest Expense:						
Salaries & employee benefits	(1.19)	(1.22)	(1.21)	(1.23)	(1.25)	(1.38)
Expenses on premises	(0.38)	(0.42)	(0.45)	(0.48)	(0.47)	(0.50)
Other noninterest expense	(0.88)	(1.00)	(1.14)	(1.49)	(1.52)	(1.52)
NET INCOME BEFORE TAXES AND EXTRAORDINARY ITEMS	0.75	0.56	(0.62)	(1.44)	(1.19)	(0.30)
Taxes	(0.11)	(0.08)	0.13	0.03	(0.04)	(0.03)
NET INCOME BEFORE EXTRAORDINARY ITEMS	0.64	0.48	(0.49)	(1.41)	(1.23)	(0.32)
Extraordinary items	0.00	0.01	0.01	0.01	0.01	0.02
NET INCOME (LOSS)	0.64	0.49	(0.49)	(1.40)	(1.22)	(0.31)

Table 9A
Selected Portfolio Concentrations of Texas Banks as a Percentage of Bank Assets (1978 - 1983)

Loan Concentrations	12/78	12/79	12/80	12/81	12/82	12/83
Loans secured by real estate:						
Construction and land development	3.50%	3.99%	4.07%	4.16%	5.02%	6.53%
Secured by farmland	0.56	0.49	0.46	0.34	0.34	0.39
Secured by 1-4 family residential properties	2.89	3.19	3.12	3.08	3.28	3.83
Secured by 5 or more family residential properties	0.19	0.19	0.20	0.23	0.30	0.45
Secured by nonfarm nonresidential properties	3.34	3.30	3.17	3.17	3.60	4.87
Loans for agricultural production	2.49	2.10	1.98	1.72	1.56	1.54
Commercial and industrial	20.70	20.76	22.44	26.57	27.81	25.23
Loans for personal expenditures:						
Credit cards and related plans plus other personal loans	12.61	12.60	10.76	9.42	8.78	8.46
Total Assets(in $ billions)	$88.9	102.8	118.9	143.2	163.4	181.9
Asset Quality						
Nonperforming assets	NA	NA	NA	NA	1.75%	2.00%

Table 9B
Selected Portfolio Concentrations of Texas Banks as a Percentage of Bank Assets (1984 - 1989)

Loan Concentrations	12/84	12/85	12/86	12/87	12/88	12/89
Loans secured by real estate:						
Construction and land development	8.30%	8.11%	7.70%	6.25%	3.66%	2.38%
Secured by farmland	0.40	0.47	0.52	0.59	0.62	0.56
Secured by 1-4 family residential properties	4.59	5.37	5.89	6.32	6.65	6.49
Secured by 5 or more family residential properties	0.52	0.57	0.62	0.72	0.65	0.51
Secured by nonfarm nonresidential properties	5.77	6.59	7.64	9.11	8.27	7.25
Loans for agricultural production	1.57	1.43	1.31	1.41	1.55	1.46
Commercial and industrial	24.67	23.58	21.41	19.14	18.16	16.54
Loans for personal expenditures:						
Credit cards and related plans	0.85	0.41	0.18	0.16	0.21	0.56
Other personal loans	7.96	7.94	7.35	7.12	7.61	7.57
Total Assets (in $ billions)	$197.8	208.9	207.5	189.5	171.0	174.1
Asset Quality						
Nonperforming assets	2.10%	2.61%	4.20%	6.58%	5.08%	5.12%

Note: The loan concentrations shown here do not comprise all categories of loans. These four categories of loans were selected because regional economic trends may affect their performance more than other reported loan categories.

Table 10
Portfolio Composition of Failed and Assisted Texas Commercial Banks*
(As of the Year-end Prior to Failure or Assistance)

Assets (% of assets)	12/84	12/85	12/86	12/87	12/88
Noninterest-bearing balances due	7.19%	7.57%	6.85%	8.60%	7.39%
Interest-bearing balances due	3.12	1.37	3.26	3.84	3.68
Investment securities	14.21	10.18	14.24	8.57	12.92
Federal funds sold and repurchase agreements	2.72	7.62	4.26	16.58	7.98
Gross loans and leases	67.54	66.98	66.87	59.46	62.64
Less loan- and lease-loss reserve	(2.02)	(3.16)	(4.65)	(3.63)	(4.58)
Less transfer risk reserve	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Net loans and leases	65.51	63.82	62.22	55.82	58.06
Assets held in trading accounts	0.00	0.00	0.08	0.49	0.08
Premises and fixed assets	2.92	3.69	2.82	1.69	2.17
Other real-estate owned	1.26	1.42	3.49	1.90	4.89
Investments in unconsolidated subsidiaries	0.00	0.00	0.10	0.02	0.24
Customers' liability to bank	0.00	0.00	0.01	0.08	0.16
Intangible assets	0.00	0.00	0.00	0.42	0.30
Other assets	3.06	4.33	2.66	1.99	2.13
Liabilities (% of liabilities)					
Deposits	94.51	96.56	92.02	71.18	80.87
Federal funds purchased and repurchase agreements	2.31	0.38	2.47	21.05	8.34
Demand notes of the U.S. Treasury	0.00	0.07	0.29	2.97	3.83
Other borrowed money	1.34	0.42	3.63	2.62	4.94
Mortgage debt	0.09	0.68	0.13	0.14	0.15
Banks' liability on acceptances	0.00	0.00	0.01	0.08	0.15
Notes and subordinated debt	0.19	0.14	0.04	0.63	0.42
Other liabilities	1.56	1.74	1.42	1.33	1.30
Core deposits	65.68	69.04	56.91	45.06	51.61
Brokered deposits	1.61	1.44	3.14	0.52	0.83
Capital Accounts**					
Equity capital	5.44	3.18	(0.91)	2.41	(1.58)
Tangible capital	5.44	3.18	(0.91)	2.00	(1.89)
Primary + secondary capital	7.39	6.11	3.43	5.97	2.88

* Financial statistics on banks failing/assisted within a given year were measured as of the prior year-end. For example, for the 62 failed and assisted banks in Texas in 1987, financial data were measured as of year-end 1986. This table includes Texas failed/assisted banks from 1985 to 1989.

** As a percentage of appropriately adjusted assets.

Table 11
Income and Expenses of Failed and Assisted Texas Commercial Banks*
(As of the Year-end Prior to Failure or Assistance)

Income & Expenses (% of assets)	12/84	12/85	12/86	12/87	12/88
Interest Income:					
Interest and fees on loans	9.15%	8.43%	7.75%	5.01%	6.39%
Income from leases	0.00	0.04	0.01	0.02	0.00
Income from balances due at banks	0.33	0.19	0.21	0.35	0.42
Income from securities	1.42	1.73	1.28	0.55	1.05
Income from assets held in trading accounts	0.00	0.00	0.02	0.01	0.01
Income from federal funds sold	0.39	0.29	0.28	1.17	0.66
TOTAL INTEREST INCOME	11.29	10.67	9.56	7.10	8.52
Interest Expense:					
Expense on deposits	(7.07)	(6.83)	(6.09)	(3.61)	(5.25)
Expense on federal funds purchased	(0.10)	(0.06)	(0.26)	(1.23)	(0.69)
Expense on notes issued to U.S. Treasury	(0.13)	(0.01)	(0.31)	(0.25)	(0.44)
Expense on mortgage debt	(0.01)	(0.05)	(0.01)	(0.01)	(0.02)
Expense on notes and subordinated debt	(0.02)	(0.03)	(0.00)	(0.06)	(0.04)
TOTAL INTEREST EXPENSE	(7.32)	(6.98)	(6.67)	(5.16)	(6.44)
NET INTEREST INCOME	3.96	3.69	2.89	1.94	2.08
Provisions for loan losses	(2.12)	(4.69)	(6.80)	(3.04)	(4.77)
Provisions for transfer risk	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Noninterest Income:	1.04	1.48	1.16	0.88	1.01
Gains (losses) on securities not held in trading accounts	(0.03)	0.68	0.77	0.03	0.08
Noninterest Expense:					
Salaries and employee benefits	(1.79)	(1.96)	(1.99)	(1.06)	(1.16)
Expenses on premises	(0.84)	(0.81)	(1.08)	(0.45)	(0.56)
Other noninterest expense	(1.66)	(2.33)	(3.02)	(1.68)	(2.80)
NET INCOME BEFORE TAXES AND EXTRAORDINARY ITEMS	(1.43)	(3.94)	(8.08)	(3.38)	(6.13)
Taxes	(0.06)	0.33	0.22	0.20	0.01
NET INCOME BEFORE EXTRAORDINARY ITEMS	(1.37)	(3.61)	(7.86)	(3.18)	(6.12)
Extraordinary items	0.00	0.05	0.00	0.00	(0.00)
NET INCOME (LOSS)	(1.37)	(3.55)	(7.86)	(3.18)	(6.12)

* Financial statistics on banks failing/assisted within a given year were measured as of the prior year-end. For example, for the 62 failed and assisted banks in Texas in 1987, financial data were measured as of year-end 1986. This table includes Texas failed/assisted banks from 1985 to 1989.

Table 12
Selected Loan Concentrations of Failed and Assisted Texas Banks as a Percentage of Bank Assets*
(As of the Year-end Prior to Failure or Assistance)

Loan Concentrations	12/84	12/85	12/86	12/87	12/88
Loans secured by real estate:					
Construction and land development	5.37%	2.34%	6.54%	8.71%	6.16%
Secured by farmland	1.76	1.11	0.34	0.31	0.33
Secured by 1-4 family residential properties	9.30	6.65	9.04	4.55	6.95
Secured by 5 or more family residential properties	2.82	0.83	1.32	0.85	0.88
Secured by nonfarm nonresidential properties	5.26	10.06	9.02	8.94	11.98
Loans for agricultural production	4.01	5.04	1.68	0.31	0.80
Commercial and industrial	21.50	27.73	23.25	21.50	20.52
Loans for personal expenditures:					
Credit cards and related plans plus other personal loans	14.32	12.01	10.95	5.98	6.29
Asset Quality (% of assets)					
Nonperforming assets	6.08	8.16	13.74	10.17	13.69
Components of nonperforming assets:					
Other real-estate owned	1.26	1.42	3.49	1.90	4.89
Past due and nonaccrual loans					
Secured by real estate	na	1.97	5.03	4.75	5.34
Commercial and industrial	na	4.58	4.90	2.59	2.82
Consumer loans	na	0.18	0.32	0.08	0.14
Farm loans**	na	[0.50]	[0.29]	[0.03]	[0.08]
All other loans	na	0.01	0.01	0.86	0.44
Total past due and nonaccrual	4.82	6.75	10.26	8.28	8.78

* Financial statistics on banks failing/assisted within a given year were measured as of the prior year-end. For example, for the 62 failed and assisted banks in Texas in 1987, financial data were measured as of year-end 1986. This table includes Texas failed/assisted banks from 1985 to 1989.

**Note: Small commercial banks also include past due and nonaccrual farm loans in the prior three loan categories above; therefore, for the groups of failed banks considered here, nonperforming farm loans overlap partially with other components of nonperforming assets.

Appendix B

Failed-Bank Lending Activity: Major Metropolitan Areas

Austin-Area Failed and Assisted Commercial Banks

Figure 11A

Oil Prices and Commercial Lending

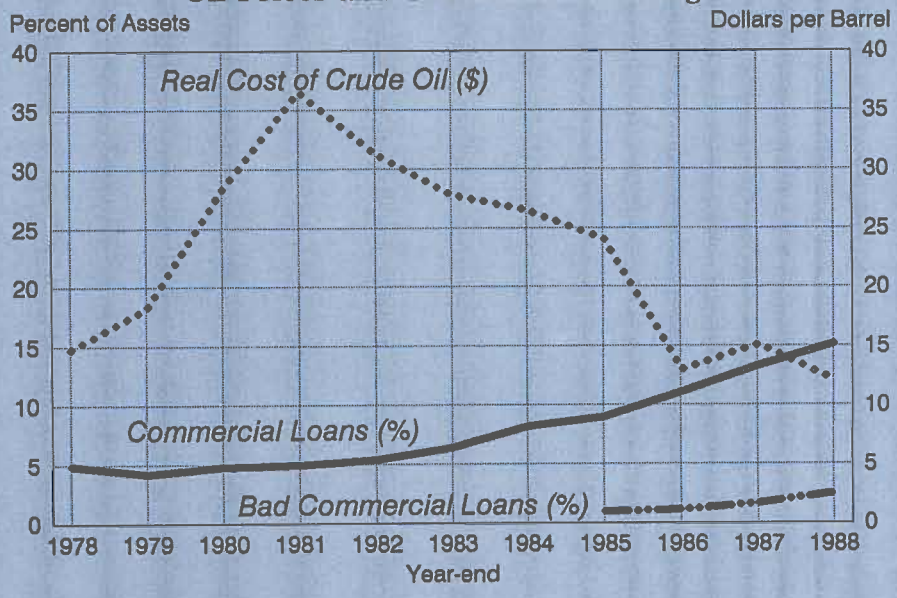
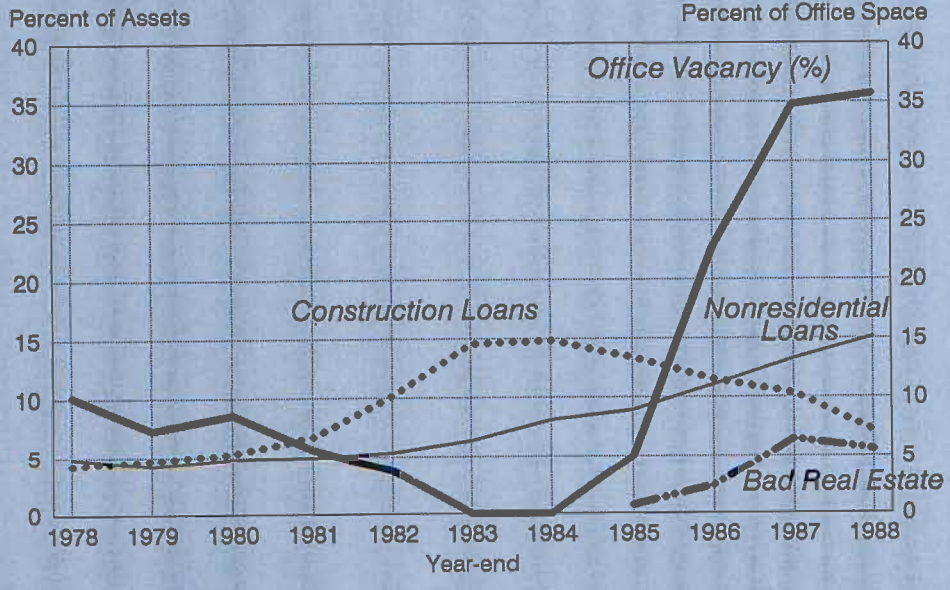


Figure 11B

Office Vacancies and Real-Estate Lending



Houston-Area Failed and Assisted Commercial Banks

Figure 12A
Oil Prices and Commercial Lending

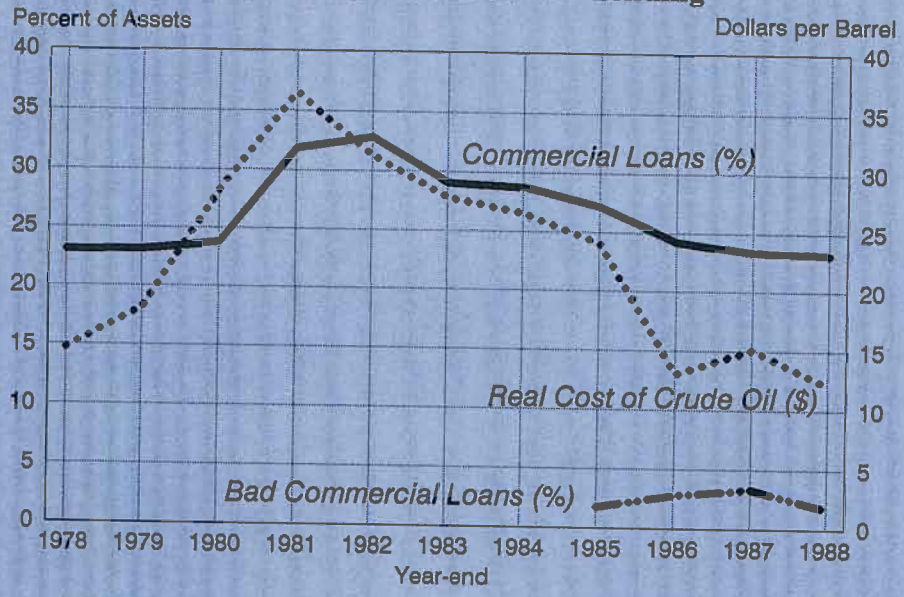
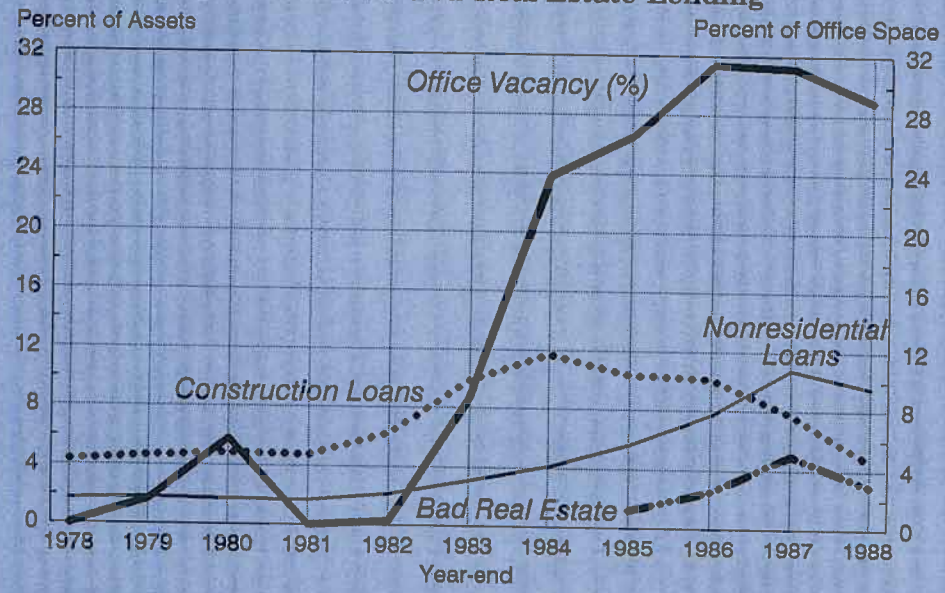


Figure 12B
Office Vacancies and Real-Estate Lending



San Antonio-Area Failed and Assisted Commercial Banks

Figure 13A

Oil Prices and Commercial Lending

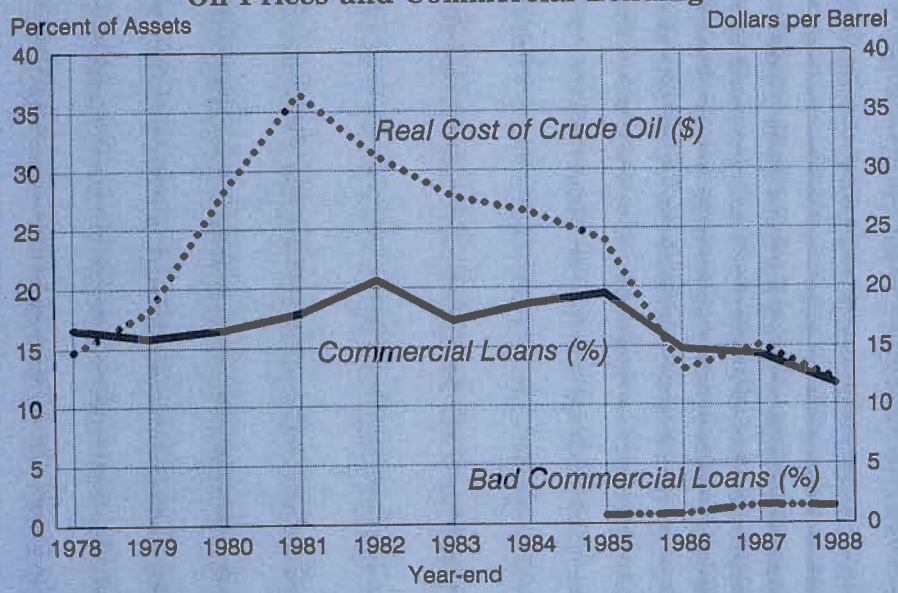
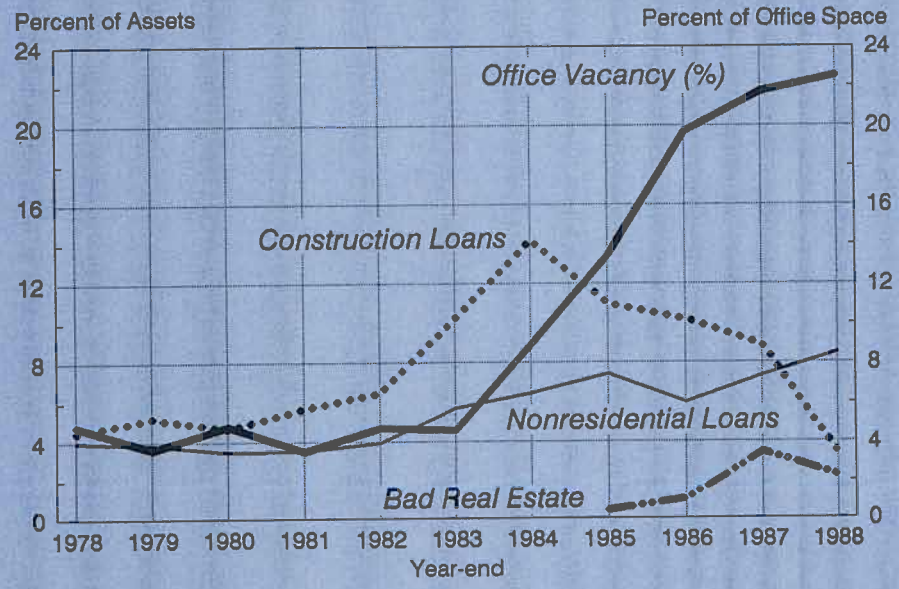


Figure 13B

Office Vacancies and Real-Estate Lending



Appendix C

Case Histories

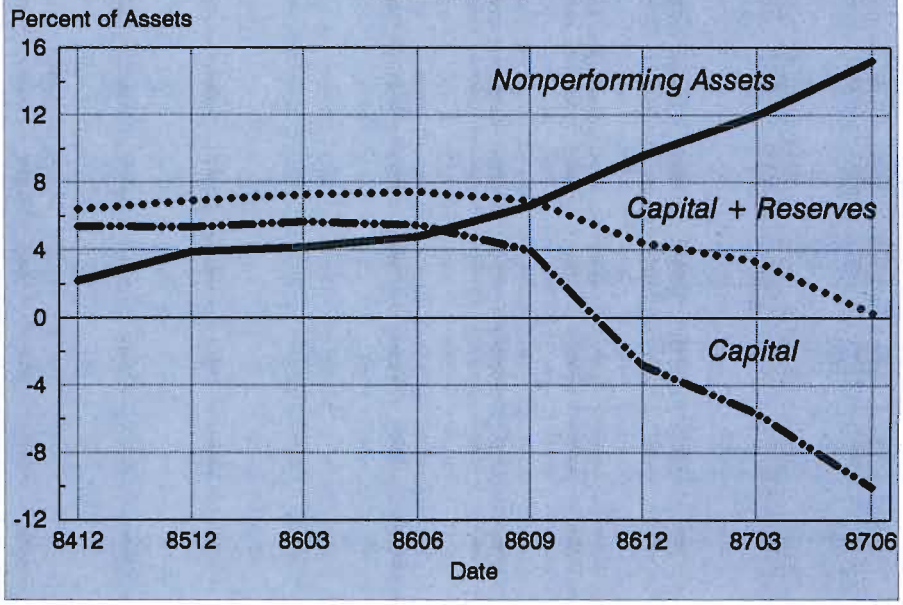
BancTexas Group, Inc. (Headquartered in Dallas)

BancTexas, a $1.2 billion institution with 11 bank subsidiaries, received $150 million in FDIC open-bank assistance in 1987. The open-bank acquisition of BancTexas by the Hallwood Group Inc. was announced on February 2, 1987 and completed on July 17, 1987. The assistance, however, proved to be insufficient. On January 26, 1990, the lead bank of BancTexas Group, Inc. (BancTexas, Dallas) was closed by the OCC. BancTexas, Dallas was acquired by Hibernia National Bank on January 26, 1990, requiring $69 million in FDIC assistance. The total FDIC assistance to BancTexas was $219 million, or 23.27 percent of the 1987 Texas failed-bank resolution costs of $941 million.[9]

BancTexas' rapid growth between 1980 and 1983 was funded by both insured and uninsured deposits, with deposits comprising 93.5 percent of liabilities in December 1980 and 92.2 percent of liabilities in December 1983. Deposits of $100,000 or more remained high, comprising 35 percent to 40 percent of liabilities over this period. Brokered deposits were not a significant source of funds, comprising approximately 1.7 percent of liabilities in 1983. Loan portfolio composition moved toward increased concentrations in commercial real estate during this growth period, while commercial and industrial loan concentrations declined. Bank capital and earnings were strong through 1982. In 1983, however, increased loan-loss provisioning and loan charge-offs reduced profitability.

[9] The 1990 FDIC assistance to BancTexas is added here to the prior 1987 assistance cost since one can reasonably argue that had the 1987 assistance been greater, subsequent assistance may not have been needed.

Figure 14A
BancTexas



After 1983, BancTexas' assets decreased. During this period of contraction, which lasted until failure in 1987, commercial real-estate loan concentrations increased. Commercial real-estate loans increased from 10.8 percent of assets in December 1983 to 16.6 percent of assets in June 1987. Nonperforming real-estate loans increased from 1.1 percent to 8.5 percent of assets between December 1985 and June 1987. Nonperforming commercial and industrial loans also rose from 1.9 percent to 3.3 percent of assets over this same period. The deterioration in asset quality resulted in increases in loan-loss provisions and charge-offs from 1983 until the open-bank assistance in July 1987.

One way to measure the potential capital impairment of a bank is to compare total nonperforming asset levels to the sum of equity capital and

Figure 14B
BancTexas
Market Value of Common Stock

reserves for loan and lease losses. Although nonperforming asset levels do not equal the potential losses on assets, some portion of nonperforming assets will ultimately be charged off. Therefore, an "adjusted" capital ratio was computed by deducting nonperforming assets (most of which were real-estate and commercial and industrial loans) from the sum of equity capital and reserves for loan losses. BancTexas' adjusted capital ratio (equity plus loss reserves minus nonperforming assets) became negative in December 1986, falling to –5.3 percent.

BancTexas' funding changed during the post-1983 period of decline. Deposits decreased from 92.2 percent to 76.9 percent of liabilities between December 1983 and June 1987. This decline was due, in part, to increases in other borrowings, which include discount window borrowings from the Federal Reserve. Other borrowings increased from 0.08 percent to 19.2 percent of liabilities between December 1983 and June 1987. Deposits of $100,000 or more remained high during this period, but did fall from 37 percent to 27.6 percent of liabilities between March and June 1987. The late reaction of depositors to BancTexas' financial condition indicates that they were not seriously concerned prior to the assistance agreement.

Figure 14B indicates the trend in BancTexas' market value from 1979 to 1989. The total market value of BancTexas' common stock peaked in June 1982, with shares trading at $337.50. Lower earnings, due to asset quality problems, decreased share prices to $1.63 as of July 1987. The trend in BancTexas' market value indicates that shareholders had discounted shares greatly prior to the announcement of open-bank assistance in February 1987.

First City Bancorporation (Headquartered in Houston)

First City Bancorporation was an $11.2 billion institution with 59 bank subsidiaries when it received FDIC 13(c) open-bank assistance in 1988. On September 9, 1987 the FDIC announced an assistance agreement with a group of private investors; this agreement was finalized and approved on March 20, 1988. The estimated cost to the FDIC of resolving this failure is presently $926 million, or 19.63 percent of the total 1988 Texas bank-failure costs of $4,717 million.

First City's pattern of growth and eventual failure is typical of most of the late 1980s Texas bank failures. First City grew rapidly during the pre-1981 boom in oil markets and continued its rapid growth through 1983. During this growth period, First City maintained capital ratios at or above five percent due to strong profitability and good asset quality. Profitability increased from 1976 through 1981, with return on assets rising from 0.66 percent to 1.07 percent. Growth was funded by both insured and uninsured deposits. Deposits of $100,000 or more comprised 25

Figure 15A
First City Bancorporation

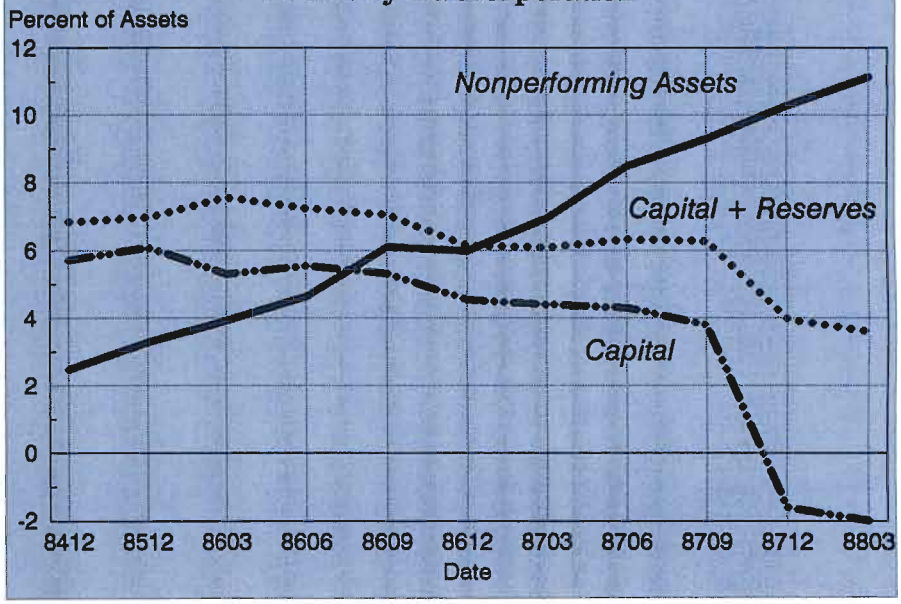
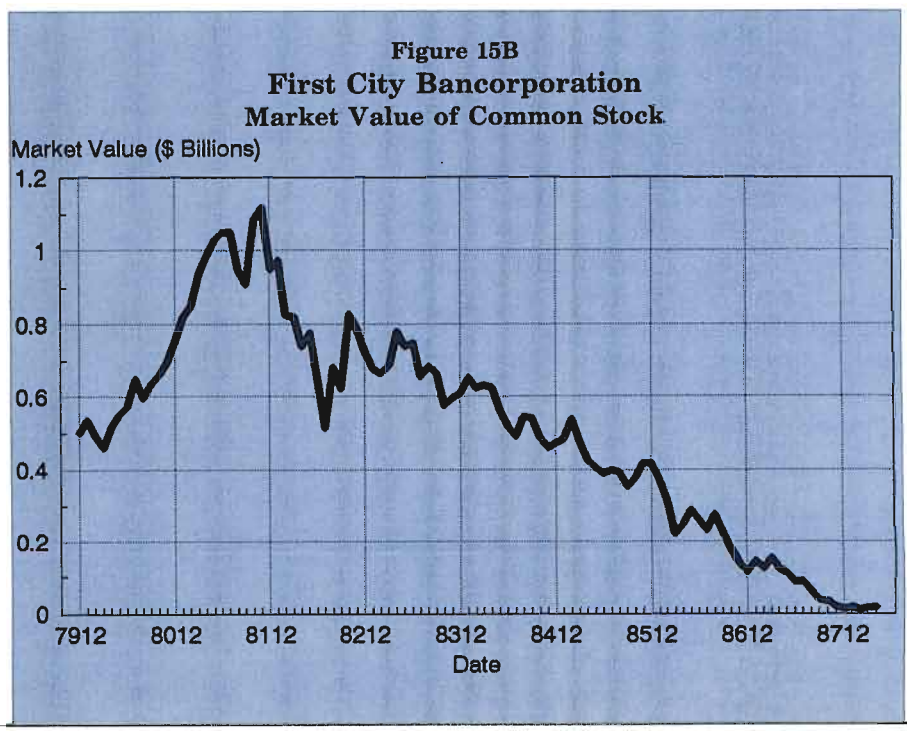


Figure 15B
First City Bancorporation
Market Value of Common Stock



to 30 percent of liabilities during the 1976 to 1983 period. Brokered deposits were also a significant source of funds, representing 7.3 percent of liabilities at year-end 1983.

During this growth period, First City increased its concentrations in both real-estate loans (construction loans in particular) and commercial and industrial loans. Between December 1976 and December 1983, commercial real-estate loans increased from 3.1 percent to 10.7 percent of bank assets, while commercial and industrial loans rose from 21.9 percent to 30.3 percent of assets. Although the decline in energy markets led directly to asset quality problems for First City, most of the increase in nonperforming assets was associated with commercial real-estate lending. As Texas commercial real-estate markets declined after 1983, so too did First City's earnings and assets. However, concentrations of loans in commercial real estate continued to rise, from 10.7 percent of bank assets in December 1983 to 15.8 percent of assets in March 1988. The concentration of lending to commercial real estate was ill-timed, however, as witnessed by the growth in nonperforming real-estate assets from 0.6 percent of assets in December 1985 to 4.04 percent of assets just prior to First City's failure in March 1988.

The decline in oil markets led to asset quality problems for First City in two ways. First, as oil prices declined there was a direct impact through increased nonperforming energy loans. Second, the dependency of the Texas economy upon oil markets linked the fates of the energy and commercial real-estate markets. The combined effects of declining energy and real-estate markets upon First City's capital adequacy were apparent in 1986. First City's adjusted capital ratio was only 0.17 percent of assets as of December 1986 and –0.91 percent as of March 1987 (see Figure 15A). Increased provisioning for loan losses and charge-offs resulted in heavy losses and declining capital for First City in 1986 and 1987. The continued decline in equity, in addition to increasing nonperforming assets, lowered this adjusted capital ratio to –8.48 percent by March 1988.

As First City's assets declined after 1983, the composition of its funding changed. Deposit funding, which was 85.4 percent of liabilities in December 1983, declined to 74.49 percent in March 1988. This decline in deposit funding was offset, in part, by increases in other borrowed money, which includes borrowings from the Federal Reserve. Deposit balances of $100,000 or more declined from 31.8 percent of liabilities in December 1983 to 25.6 percent in March 1988. Brokered deposits declined steadily from 7.3 percent to 0.49 percent of liabilities between December 1983 and September 1987. This decline in brokered deposits may be due, in part, to public perception of First City's problems, as well as management decisions to seek less-costly sources of funds.

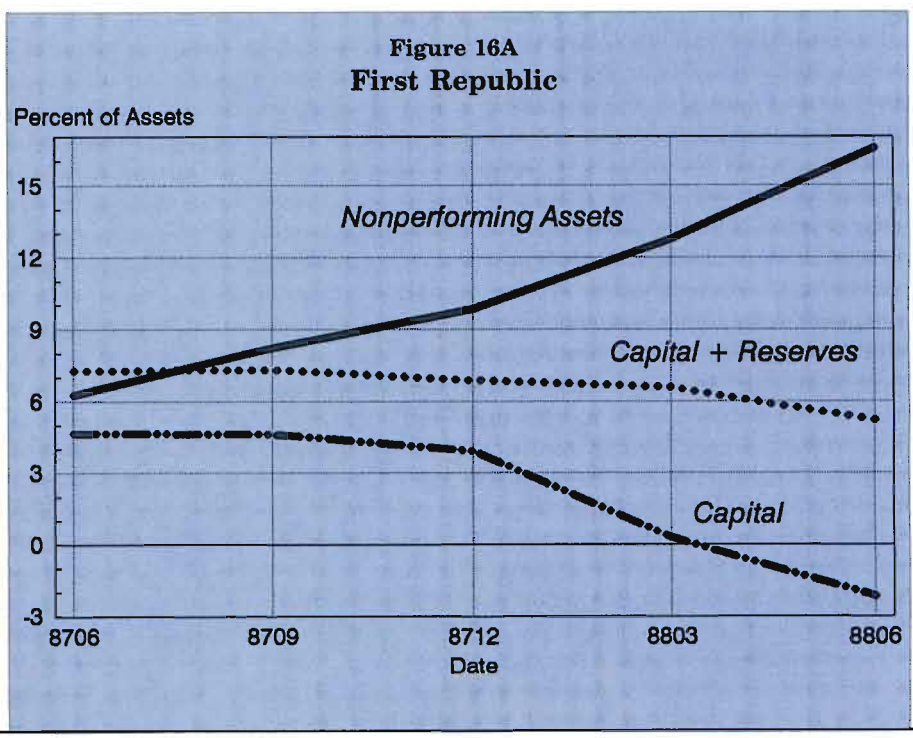
First City's stock prices closely followed the growth cycle described above. Figure 15B shows the trend in the market value of First City's common stock between 1979 and 1988. Share prices rose from $19.38 in December 1979 to a high of $38.50 in November 1981. As earnings declined from a peak in 1981, so too did First City's market value. Share prices were $3.38 at year-end 1986 and at the time of the announcement of the open-bank assistance in September 1988, shares were trading at $1.13.

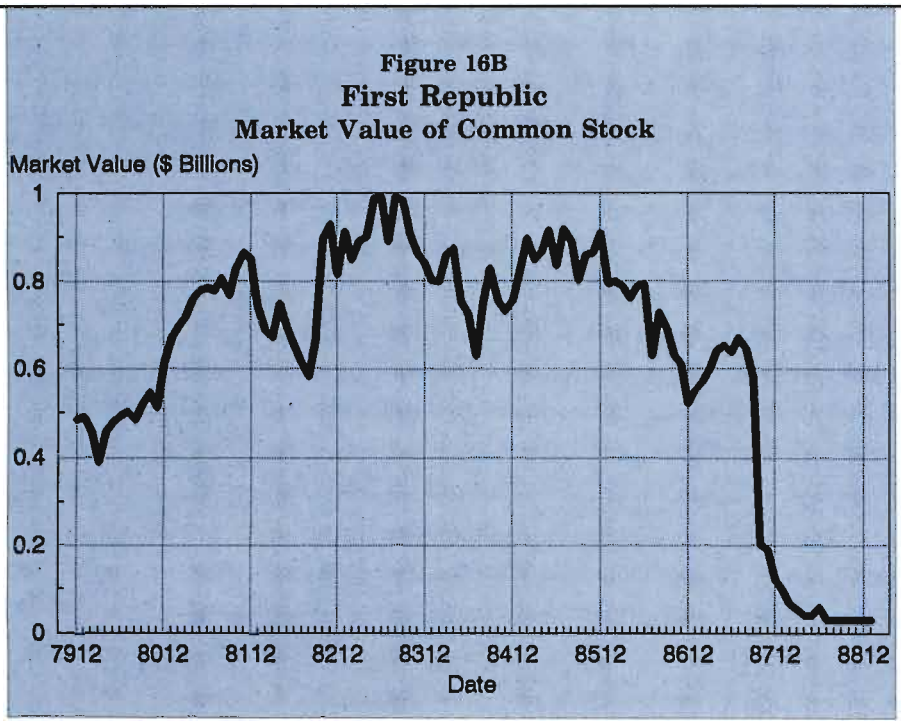
The data indicate that shareholders were aware of First City's credit quality problems well in advance of the announcement of open-bank assistance in September 1987. Further, the decline in deposit levels after 1983 may be due to some concern among depositors, as well as voluntary decisions by management. However, the fact that deposit balances of $100,000 or more were nearly 30 percent of liabilities in June 1987, indicates that uninsured depositors were not gravely concerned that they would suffer losses.

First Republic Bancorporation (Headquartered in Dallas)

First Republic was formed in the second quarter of 1987 with the merger of Interfirst and RepublicBank. In February 1988, First Republic experienced a deposit run. On July 29, 1988, First Republic was closed and merged into NCNB Texas National, a

Figure 16A
First Republic





bridge bank. The estimated failure-resolution cost for First Republic is $2,941 million, or 62.35 percent of the total 1988 Texas failed-bank resolution costs of $4,717 million.

The fate of First Republic can be traced to the impact that the declining oil and commercial real-estate markets had upon Interfirst and RepublicBank prior to merger. Interfirst Corporation grew rapidly with the boom in oil prices. Although it experienced peak growth prior to 1983, Interfirst continued to expand until 1985. Growth was funded by both insured and uninsured deposits, with balances of $100,000 or more comprising 25 percent of liabilities at the time of merger. Interfirst's financial performance was closely tied to energy prices. Interfirst experienced a loss in 1983 due to high loan-loss provisioning. Losses recurred in 1986 as oil prices fell sharply and continued until merger in 1987. Interfirst invested heavily in commercial real estate, yet, at the time of merger in June 1987, nonperforming commercial and industrial loans comprised over half of the nonperforming assets. The major difference between Interfirst and RepublicBank is that Interfirst's asset quality problems appeared or were recognized sooner than those of RepublicBank. Indeed, Republic Bank's history appears to be very similar to that of Interfirst, except that reported asset quality was better.

Subsequent to merger in midyear 1987, First Republic experienced declining assets, rising nonperforming assets, and near insolvency based on adjusted capital ratios. Nonperforming commercial real-estate loans dominated asset quality problems by the time of failure in July 1988. In addition, First Republic relied upon Federal Reserve discount window borrowings, as indicated by the increase in other borrowed money from 0.94 percent of liabilities in December 1987 to 9.19 percent in June 1988. Further, there is some evidence of flight of uninsured deposits as accounts of $100,000 or more fell from 42.4 percent of liabilities in December 1987 to 18.98 percent in June 1988.

MCorp (Headquartered in Dallas)

On March 28, 1989, 20 of the 25 MCorp banking subsidiaries, with assets of $15.4 billion, were declared insolvent by the OCC. A bridge bank, wholly owned by the FDIC, was formed. Banc One of Ohio subsequently acquired the bridge bank in July 1989. The estimated resolution cost for the MCorp failure is $2,644 million, or 57.07 percent of the total 1989 Texas bank-failure costs of $4,633 million.

As with most other Texas banks, MCorp grew rapidly between 1976 and 1983. However, unlike First City and BancTexas, MCorp's growth continued until 1986. During the 1976 to 1986 period, growth was funded with both insured and uninsured deposits. Deposits comprised over 80 percent of liabilities throughout this period.

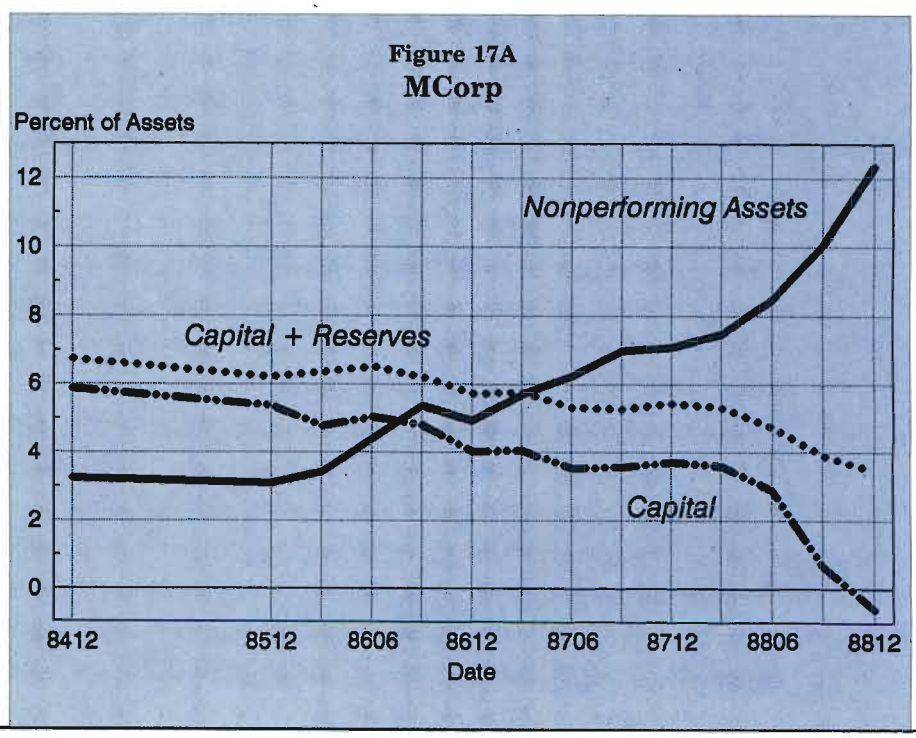
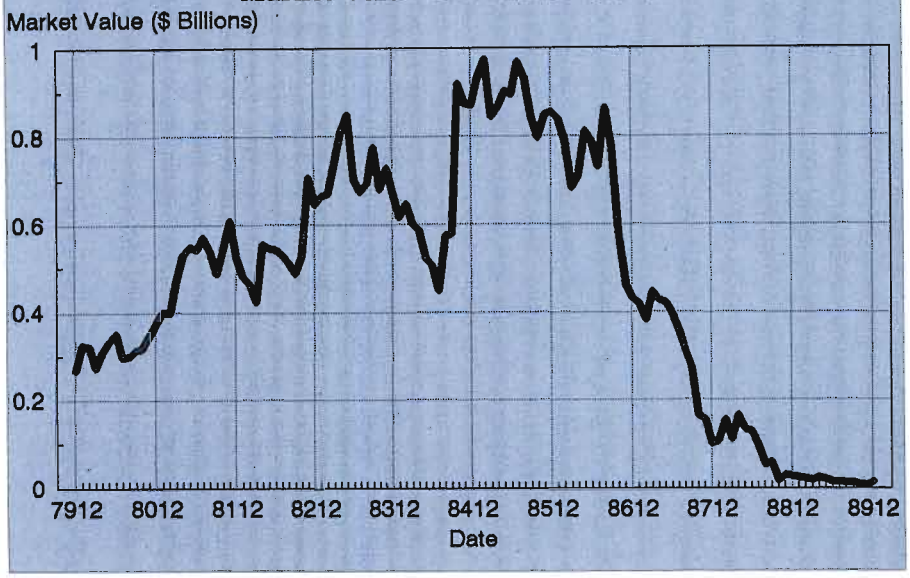


Figure 17B
MCorp
Market Value of Common Stock



Further, deposits of $100,000 or more increased from 23.36 percent of liabilities in December 1976 to 38.46 percent in December 1986. Brokered deposits were 7.88 percent of liabilities in December 1983, yet fell soon afterward to 1.05 percent at year-end 1984, and remained low thereafter. During this growth period, commercial real-estate loan concentrations increased from 6.1 percent of assets in December 1976 to 24.6 percent in December 1986. Commercial and industrial loan concentrations remained at about 20 percent of assets over the entire growth period. Profitability rose steadily from 1976 to 1981, then declined somewhat from 1982 to 1985. Losses were reported from 1986 through 1988. Loan-loss provisions and loan charge-offs rose in 1982 and remained high until MCorp's failure in 1989. Despite asset quality problems, MCorp was able to maintain equity capital levels in excess of five percent until 1986.

MCorp's asset quality problems became obvious in 1986. Its adjusted capital ratio, as defined above, was 0.82 percent in December 1986 and –0.97 percent in June 1987. As MCorp declined in size after 1986, loan concentrations in commercial real estate remained at about 18 percent of assets. The declining commercial real-estate markets in Texas led to increased nonperforming real-estate loans, additional loan charge-offs, losses, and insolvency. Deposit funding remained nearly 80 percent of liabilities during the post-1986 contractionary period and interestingly, deposits of $100,000 or more reached 46.48 percent of liabilities in December 1988. Other borrowed money, which includes discount window borrowings from the Federal Reserve, rose to 6.65 percent of liabilities just prior to MCorp's failure.

These trends show clearly that MCorp rose with the boom in oil prices in the late 1970s and early 1980s. However, MCorp increased its lending to commercial real estate, both in dollar terms and as a percent of assets, until 1986. Asset quality problems resulted from the declining oil and real-estate markets and led to insolvency in 1988.

The trend in total market value of MCorp's common stock indicates that shareholders supported MCorp's growth through 1986 (see Figure 17B). Indeed, peak market value occurred in February 1985, when shares were trading at $23.25 per share. Losses in 1986 helped drive share prices down to $10.13 in December 1986. After the October 1987 stock market crash, MCorp's common stock fell to $2.38 per share at year-end 1987.

As MCorp's asset quality problems became apparent in 1986, shareholders discounted earnings more heavily. Despite growth in market value over the 1981 to 1985 period, investors reacted to the high losses and loan charge-offs from 1986 to 1988. Deposit levels also fell prior to failure; however, deposits of $100,000 or more comprised 47.4 percent of liabilities in December 1988.

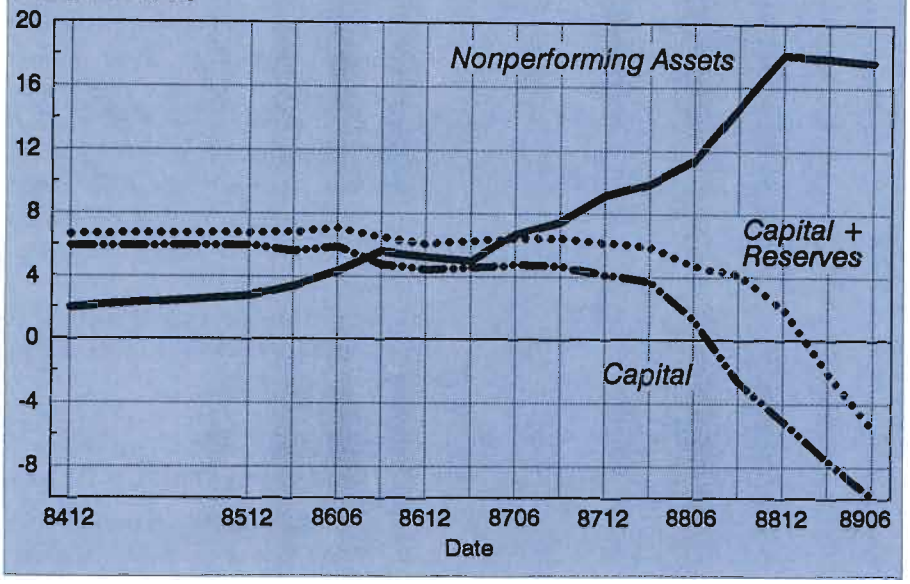
Texas American Bancshares (Headquartered in Fort Worth)

The 24 bank subsidiaries of Texas American Bancshares (TAB) were merged into Texas American Bridge Bank, NA in July 1989. The bridge bank was acquired by Deposit Guarantee Bank of Dallas on July 20, 1989 (renamed Team Bank), after an earlier agreement for an open-bank acquisition by Carl Pohlad, announced in May 1988, fell through. The estimated failure-resolution cost for TAB is $898 million, or 19.38 percent of total 1989 Texas failed-bank resolution costs of $4,633 million.

TAB grew with the boom in oil prices in the late 1970s and early 1980s, and subsequently fell with the oil-price collapse. TAB's growth, which was greatest during the 1976 to 1983 period, continued until early 1986. During its growth period, TAB relied upon both insured and uninsured deposits for funding. Deposits comprised between 80 percent and 90 percent of liabilities from 1976 until June 1989. During the 1976 to 1986 period, deposits of $100,000 or more increased from 20 percent to 30 percent of liabilities. Further, brokered deposits increased from 2.3 percent of liabilities in 1983 to 6.1 percent in 1985.

Portfolio composition during the 1976 to 1985 period shifted heavily toward commercial real-estate lending. Commercial real-estate loans increased from 6.5 percent to 24.1 percent of assets, while commercial

Figure 18A
Texas American Bancshares



and industrial loans rose from 21.6 percent to 25.9 percent of assets. Profitability was high between 1978 and 1982, with peak profitability in 1981 and 1982 (return on assets was 1.04 percent in 1981 and 1.05 percent in 1982). In 1983, however, both loan-loss provisions and loan charge-offs more than doubled, thus signaling the beginning of asset quality problems that only worsened in subsequent years. As a result, bank capital, which had been well over six percent between 1976 and 1982, began to decline.

Beginning in 1986, TAB's assets began to decrease. During this contractionary period, deposits accounted for about 80 percent of liabilities, with accounts of $100,000 or more and brokered deposits declining as TAB approached failure. Federal Reserve discount window borrowings were not relied upon at the time of failure. During its contractionary period, TAB decreased its concentrations of commercial real-estate loans and commercial and industrial loans somewhat. Commercial real-estate loans fell from 24.1 percent to 20.6 percent of assets between 1985 and 1988, while commercial and industrial loans fell from 25.9 percent to 19.7 percent of assets. Asset quality continued to decline, however, with problem commercial real-estate loans comprising most of TAB's nonperforming assets. In 1986, TAB again sharply increased annual loan-loss provisions and charge-offs, resulting in losses that would continue until TAB's failure.

Figure 18B
Texas American Bancshares
Market Value of Common Stock

As with the other failed Texas bank holding companies, the extent of TAB's asset quality problems could be seen in 1986. TAB's adjusted capital ratio fell to 0.92 percent in December 1986 and –0.32 percent in June 1987. Although TAB's failure appears to have been ultimately due to the decline in Texas commercial real-estate markets, its problems began with the decline in oil markets after 1981.

TAB's market value closely followed its profitability. TAB's common stock increased from $18.73 per share at year-end 1979 to $40.88 per share at year-end 1984. An earnings drop in 1985, and subsequent losses in 1986 through 1988, lowered TAB's market value. At the time of the announced (attempted) open-bank assistance in May 1988, shares were trading at $1.88 per share.

TAB's market value declined quickly with the heavy losses from 1986 through June 1989 (last financial report filed). Depositors, however, reacted much more slowly to TAB's deteriorating financial condition. Deposits of $100,000 or more remained at 30 percent of liabilities in June 1988, despite the fact that TAB's condition warranted open-bank assistance at that time. In an open-bank assistance transaction, uninsured depositors would have been protected from losses. As the announced assistance failed to work, uninsured depositors reacted. Deposit

balances of $100,000 or more fell to 24.4 percent of liabilities in March 1989 and 21.47 percent in June 1989, just prior to the closure of the banks in July.

National Bancshares of Texas (Headquartered in San Antonio)

Nine of the 12 banking subsidiaries of National Bancshares of Texas (NBC) were closed on June 1, 1990. The nine banks, with assets of $1.6 billion, were acquired by NCNB of Dallas. NBC had sought government assistance in April 1988. Two prior attempts at open-bank assistance acquisitions, one in 1988 and a second in 1989, had been unsuccessful. Although NBC is not part of the 1980 to 1989 failed-bank sample considered in this study, the fact that the resolution process for NBC began in 1988 warrants its inclusion here. The resolution cost for NBC is estimated to be $263 million, or 5.68 percent of total 1989 Texas failure-resolution costs of $4,633 million.

NBC experienced a period of rapid growth between 1976 and 1983, with expansion continuing through 1986. Asset growth was funded by both insured and uninsured deposits. Deposits comprised about 90 percent of liabilities through June 1989. Deposits of $100,000 or more comprised 25 percent to 30 percent of liabilities during this growth period but declined thereafter. Brokered deposits were at or near zero through 1986.

During NBC's expansion, portfolio composition shifted toward greater commercial real-estate lending, increasing from 5.8 percent of assets in December 1976 to 16.3 percent in December 1986. Commercial and industrial loans increased from 12.2 percent to 22.2 percent of assets between 1976 and 1981, and remained at about 22 percent through 1986. Bank profits were high during this period, with return on assets reaching 1.22 percent in 1981. Despite increased loan-loss provisions and charge-offs in 1982, NBC maintained healthy profits (return on assets of 1.07 percent). Profitability remained strong through 1985, even though loss provisions remained high. As a result, bank capital was over seven percent of assets for most of the growth period. However, in 1986 asset quality declined sharply. Nonperforming assets increased from 2.37 percent to 5.83 percent of assets between 1985 and 1986. Further, loan-loss provisions and loan charge-offs tripled in 1986 to 2.05 percent and 1.57 percent of assets, respectively. The decline in asset quality resulted in large losses in 1986, which only worsened in subsequent periods. In addition, NBC's adjusted capital ratio was only 0.94 percent in December 1986, falling to –0.08 percent in June 1987.

After 1986, NBC declined in size. During this contractionary period NBC maintained deposit liabilities of about 90 percent. Because of early intervention by the FDIC in 1988, there was no increase in Federal Reserve Bank borrowings prior to attempted resolutions. Deposits of $100,000 or

Figure 19A
National Bancshares of Texas

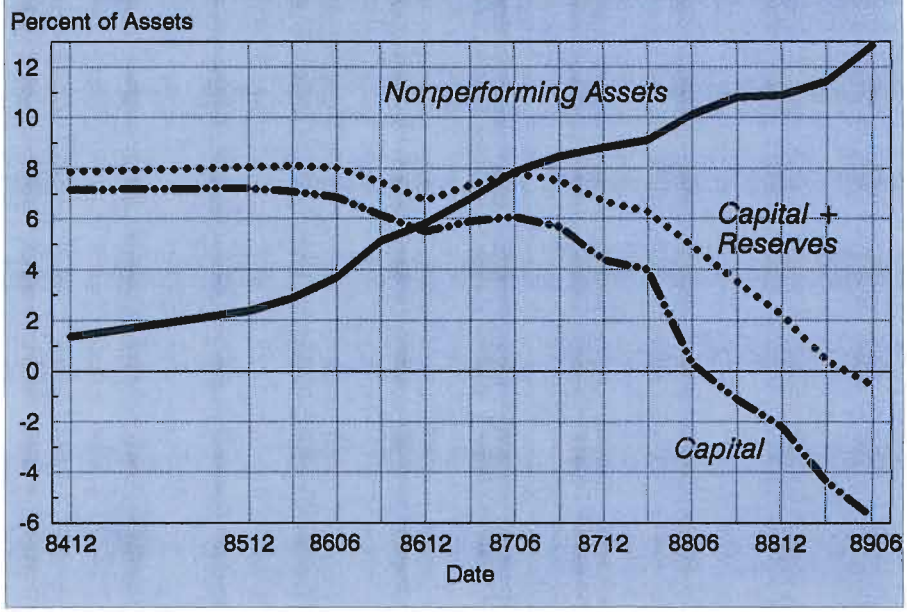
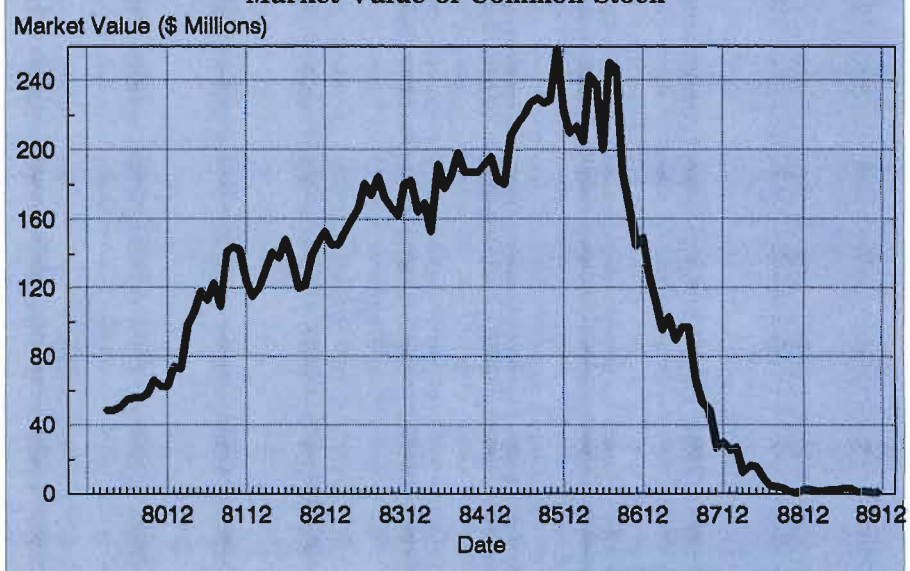


Figure 19B
National Bancshares of Texas
Market Value of Common Stock



more declined from 29.5 percent of liabilities in December 1986 to 17.5 percent in June 1989. NBC increased its concentration of brokered deposits during this period to 3.95 percent of liabilities as of June 1989. Commercial real-estate loan concentrations continued to rise, while commercial and industrial loan concentrations fell.

NBC reached peak market value in December 1985. Growth in equity value was supported by strong earnings through 1985 and relatively low nonperforming assets (2.37 percent of assets in December 1985). However, as seen in Figure 19B, its market value fell rapidly in 1986. Common stock fell from $23.75 per share in December 1985 to $12.25 per share in December 1986. Severe losses from 1986 through 1988 reduced share price to $2.25 in December 1987. At the time of the attempted open-bank assistance in May 1988, shares were trading at $1.38. However, open-bank assistance failed to work, and NBC was trading at 3 cents per share at year-end 1988.

NBC's shareholders reacted quickly to the decline in earnings in 1986. Further, it appears that depositors also reacted to NBC's problems. Deposit balances of $100,000 or more were approximately 30 percent of liabilities through 1986, but fell to 22.91 percent in December 1987 and to 17.54 percent in June 1989.