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# ***Is the Banking Industry in Decline? Recent Trends and Future Prospects from a Historical Perspective***

*"Banking is essential to a modern economy. Banks are not."*  
—Edward Furash (1993)

**C**OMMERCIAL BANKS ENJOYED record profits in 1992 and during the first half of 1993. Many observers believe the industry's future may be far less bright, however, if banks continue to lose market share to other intermediaries and providers of transaction services. Some policy makers, including Federal Reserve Board Chairman Alan Greenspan and Comptroller of the Currency Eugene A. Ludwig, have questioned whether banks will be able to maintain their role as providers of financial services in the future without significant changes in regulation.<sup>1</sup>

A shrinking banking industry may reflect a reallocation of resources toward more efficient uses, and, hence, should not necessarily be viewed as undesirable. But, because banks are heavily regulated, policy makers need to consider whether their policies are either hastening or interfering with changes in the size and structure

of the industry. Such changes may impose significant social costs, since commercial banks are at the heart of the payments system and continue to be important sources of credit for small firms and other borrowers. Furthermore, changes in the size or importance of the banking industry might also affect the ability of the Federal Reserve to implement monetary policy, since monetary policy is conducted primarily by altering commercial bank reserve balances.<sup>2</sup>

The banking industry has been on a roller coaster ride since 1980. From World War II through the 1970s, banks generally had stable earnings and no more than 10 bank failures occurred in any year. The banks that did fail were usually tiny and largely unnoticed. The number of failures rose sharply in the 1980s, reaching 206 in 1989. Although the number of failures has since declined and bank profits have

<sup>1</sup>Greenspan (1993); Ludwig's remarks before the Merrill Lynch Financial Services Conference are reported in Bureau of National Affairs (1993).

<sup>2</sup>Duca (1993) investigates the impact of a diminishing role for banks on monetary aggregates and the implications for Federal Reserve control of the money supply.

recently been high, the size and structure of the industry have continued to change dramatically.

The upheaval of the past 10 years and uncertain outlook for the industry's future make this an appropriate time to put recent changes in the size of the banking industry in a longer-term perspective. This article first examines the apparently diminishing role of commercial banks as intermediaries and providers of transaction services. Commercial bank shares of U.S. financial assets, commercial lending and transaction accounts have fallen in recent years, which some observers believe reflects an industry in long-term decline. Others, however, argue that banks will remain central to the payments system and important lenders for large classes of borrowers, and note that banks are generating an increasing amount of their income from "off-balance-sheet" activities. This article presents some evidence on both sides of the debate and addresses two major policy changes that many observers believe are needed for banks to remain prominent providers of financial services in the future: 1) removal of limits on branch banking and 2) relaxation of restrictions on the services that banks may offer.

## IS THE ROLE OF COMMERCIAL BANKS DECLINING?

Commercial banks specialize in the evaluation of credit risks and monitoring of borrowers, as well as clearing transactions. Traditionally, they have been important sources of loans for firms, households and even governments. In addition, banks are integral to the payments system, issuing most of the nation's transaction deposits and clearing domestic and international payments. As of December 31, 1992, the 11,461 U.S. commercial banks and trust companies whose deposits are insured by the FDIC held \$3,506

billion of assets, \$2,699 billion of deposits and employed 1,477,827 people.<sup>3</sup>

Although commercial banks remain the largest single class of financial institutions in terms of assets, banks have lost market share to other intermediaries and providers of transaction services.<sup>4</sup> Dramatic improvements in communications and computer technology have reduced the cost of performing information-intensive activities, and thereby permitted growing roles for firms and markets that provide specialized financial services. They have also subjected American banks to increased competition from foreign lenders, as have reductions in government barriers to the flow of goods and capital between countries.<sup>5</sup>

Figures 1 and 2 illustrate the declining market share of banks as intermediaries. Figure 1 shows that commercial banks' share of financial assets held by all financial institutions has fallen since the early 1970s. Indeed, the trend has been downward since World War II. Commercial bank loans as a share of the short-term debt of nonfinancial corporations has similarly declined, as figure 2 illustrates.<sup>6</sup>

One rapidly growing source of funds for large corporations is the commercial paper market, which has expanded rapidly since the 1960s. Many corporations, especially established firms with good credit histories, have discovered that they can acquire short-term funds less expensively by issuing commercial paper than by borrowing from banks. Figure 3 shows that the ratio of commercial paper outstanding issued by nonfinancial corporations to the commercial and industrial (C&I) loans of banks has risen markedly since 1980.<sup>7</sup>

While facing new competition for borrowers from the commercial paper market and from nonbank lenders, banks have also faced greater competition for funds. In the 1960s, the expand-

<sup>3</sup>Federal Deposit Insurance Corporation (1992).

<sup>4</sup>At the end of 1992, U.S. commercial banks had total financial assets of \$2,774.6 billion, while thrift institutions had \$1,345.3 billion, life insurance companies had \$1,622.8 billion, other insurance companies had \$624.4 billion, private pension funds had \$2,349.4 billion, state and local government employee retirement funds had \$972.3 billion, finance companies had \$807.1 billion, mutual funds had \$1,050.2 billion and money market mutual funds had \$543.6 billion. The source of these data is the Board of Governors of the Federal Reserve System's *Flow of Funds*.

<sup>5</sup>See Edwards (1993, pp. 9-11), Barth, Brumbaugh and Litan (1992, pp. 59-64) and Kaufman (1991) for further discussion of the sources of increased competition for commercial

banks. Aguilar (1990) documents the growth during the 1980s of bank services provided by nonbank firms.

<sup>6</sup>At the end of 1992, nonbank private financial institutions had total financial assets of \$10,012.0 billion. Commercial bank loans to nonfinancial corporations totaled \$518.5 billion, while the sum of loans and other short-term paper of nonfinancial corporations was \$888.0 billion. The source of these data is Board of Governors of the Federal Reserve System, *Flow of Funds*.

<sup>7</sup>At the end of 1992, C&I loans totaled \$597.6 billion and outstanding commercial paper of nonfinancial corporations was \$107.1 billion (Board of Governors of the Federal Reserve System, *Flow of Funds*). Hahn (1993) provides a description of the commercial paper market.

Figure 1  
**Commercial Banking Industry Share of U.S. Financial Assets**

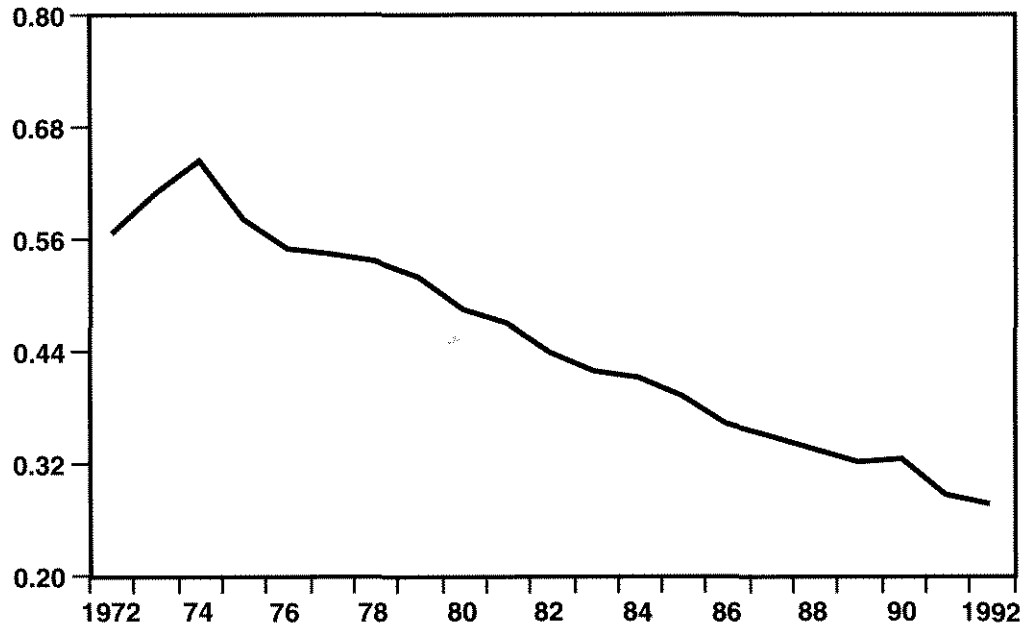
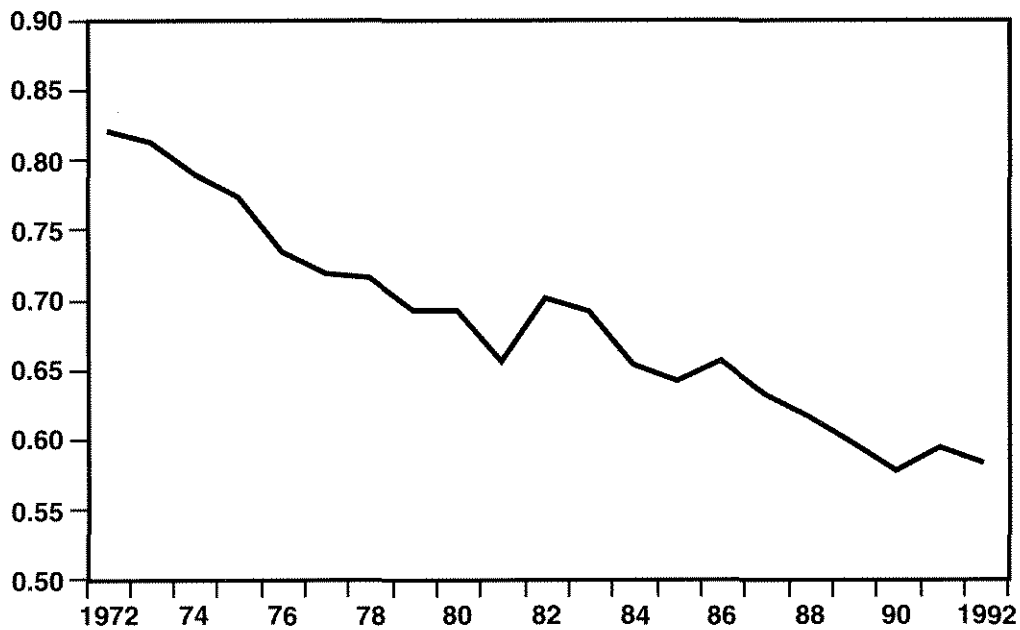
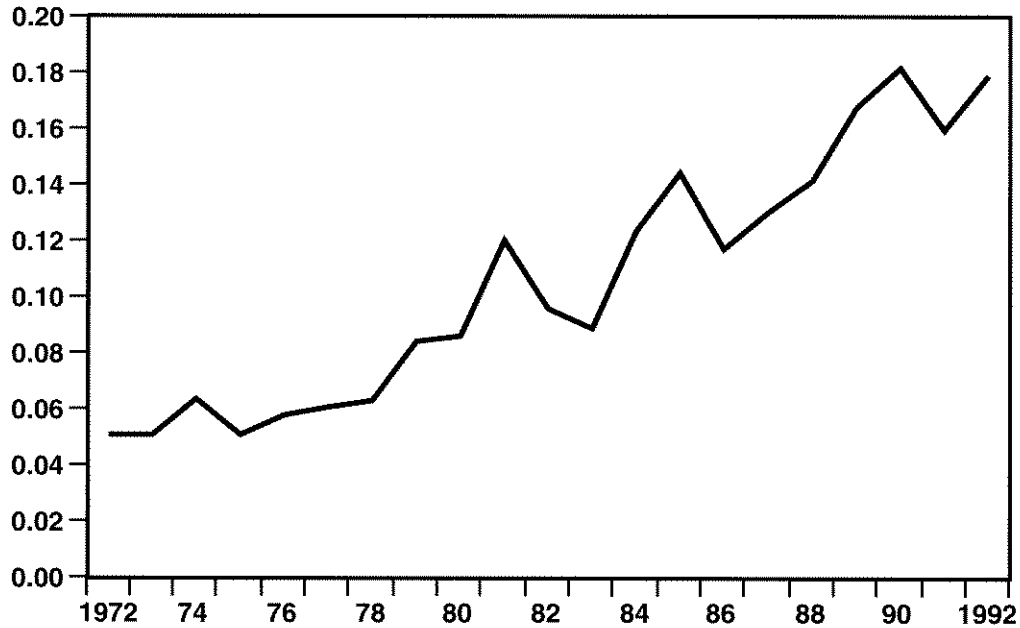


Figure 2  
**Commercial Bank Loan Share of All Short-Term Debt of Nonfinancial Corporations**



**Figure 3**  
**Ratio of Commercial Paper of Nonfinancial Corporations to Commercial Bank C & I Loans**



ing money market offered corporations and wealthy individuals new alternatives to bank deposits. Inflation and rising interest rates caused extensive deposit outflows from banks because the rates that banks were permitted to pay depositors were limited by interest rate ceilings. Banks responded by introducing negotiable certificates of deposit, which were not subject to rate ceilings. Many banks also adopted the one-bank holding company organizational form to acquire funds from the money market by issuing debt instruments through the holding company. Still, commercial banks were unable to maintain their share of the market for financial assets.

The money market mutual fund was perhaps the most important financial innovation affecting the ability of banks to compete for deposits. Introduced in the 1970s, money market mutual funds offer small depositors the opportunity to hold highly liquid accounts yielding market interest rates. Although uninsured and with minimum transaction amounts, money market mutual funds grew rapidly in the 1970s and early 1980s as reserve requirements and interest rate ceilings left banks competitively disadvantaged. Commercial banks also lost their monopoly on the issuance of insured transaction

accounts when thrifts and credit unions began offering share accounts, often on more favorable terms than banks were permitted to provide. Deregulation of deposit interest rates in the 1980s enabled commercial banks to compete for funds, but did not reverse the declines in bank market shares for transaction accounts. Access to the payments system remains almost exclusively the domain of commercial banks; mutual funds, thrifts and other financial institutions issuing transaction accounts must ultimately rely on banks to make payments. Nonetheless, increased competition for transaction account customers helps explain why the banking industry's share of aggregate financial assets has fallen.

Increased competition for traditional bank services affecting both the asset and the liability sides of bank balance sheets has caused numerous observers to be pessimistic about the future of the banking industry. Edwards (1993) goes so far as to argue that "if our financial markets and institutions were being created for the first time in 1990, banks might not be among the surviving institutions." Others, such as Barth, Brumbaugh and Litan (1992), Gorton and Rosen (1992) and Kaufman (1991) contend that government policies that restrict the geographic location and services that banks can provide and impose

regulations (such as minimum capital and reserve requirements and community investment mandates) that are not placed on other intermediaries hamper the ability of banks to compete. These researchers argue that the banking industry is destined to decline substantially in the future without significant regulatory changes.

Other researchers are more sanguine about the banking industry's future. Boyd and Gertler (1993), for example, argue that much of the increased risk-taking by banks and their subsequent poor performance during the 1980s can be attributed to the failure-resolution policy known as "too-big-to-fail." To reduce the possibility that the failure of a very large bank could lead to a systemic crisis, with depositor runs on many banks, regulators adopted a policy that tended to protect all of the depositors and often other creditors of large banks that failed. In contrast, uninsured depositors of small banks that failed were less frequently protected from loss, and the assets of such institutions were more often liquidated.

Although the "too-big-to-fail" policy was implemented to limit the repercussions stemming from the failure of very large banks, Boyd and Gertler (1993) contend that the policy encouraged large banks to assume greater risks than they would have otherwise. The consequence was that banks with more than \$10 billion in assets had the lowest average profit rate during 1983–91 of any size class, regardless of location. Boyd and Gertler thus applaud recent increases in bank capital requirements and restrictions on the use of the "too-big-to-fail" closure policy imposed by the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), because both changes should limit the incentive for large banks to take excessive risks.<sup>8</sup>

Boyd and Gertler point out that many banks are now generating substantial earnings from non-traditional, or off-balance-sheet, sources. The unique position of banks in the payments system and their access to the federal lender of last resort enhances the role of banks in providing services to nonbank lenders and financial

markets. Ironically, banks have played a significant role in the development of new financial markets and services that compete in traditional bank niches. For example, bank loan guarantees to issuers of commercial paper have spurred the growth of the commercial paper market. Because many such lines of credit are provided to back finance company issues of commercial paper, the decline of bank loans relative to commercial paper issues overstates the decline of the commercial banking industry's role in intermediation.<sup>9</sup>

Other off-balance-sheet activities that provide income for banks include loan sales, loan servicing, mutual fund sales and participation in the markets for derivative securities, such as options and swaps.<sup>10</sup> Many banks originate and then sell loans to third parties before they come due. Often home mortgages or other common loan types are bundled and sold in secondary markets, a practice known as securitization. The fee income that banks generate from issuing letters of credit, providing loan commitments, securitization and dealing in foreign exchange and derivative securities has increased more rapidly in the last decade than interest income, as figure 4 illustrates.

The unique position of banks in the payments system and their access to the Federal Reserve discount window also suggest that banks could remain important lenders in the future. By monitoring transaction accounts, or by requiring that borrower receipts and payments be processed by the bank, for example, banks can acquire useful information about current and potential borrowers. Even though specialty lenders and financial service firms, such as mutual funds, provide some intermediation services at lower cost, banks may continue to have an advantage for loans that are especially information-intensive.<sup>11</sup>

## SHOULD BANKS BE GIVEN GREATER POWERS?

Despite the advantages of access to the payments system and Federal Reserve discount win-

<sup>8</sup>Wall (1993) describes how the "too-big-to-fail" policy and the likelihood of systemic risk will likely change under FDICIA.

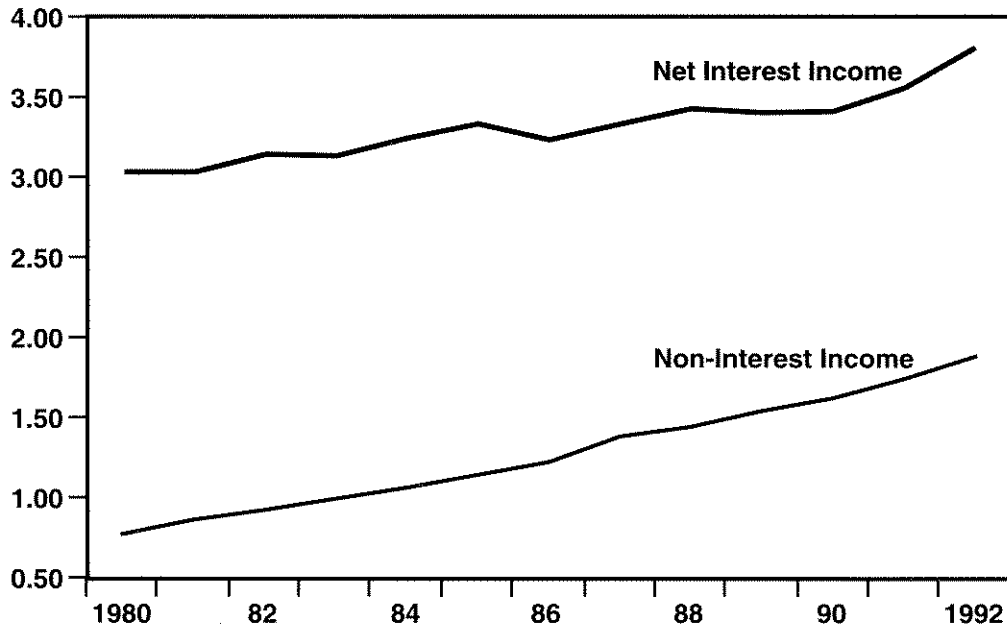
<sup>9</sup>Remolona and Wulfekuhler (1992) report that finance company lending shares increased the most in niches, such as lease financing, where finance companies have traditionally played a major role, which also suggests that the large gains made by finance companies during the 1980s may not signal a long-run trend.

<sup>10</sup>See Napoli (1992) for a discussion of derivative securities markets.

<sup>11</sup>Using data from 1978–92, Pulley and Humphrey (1993) estimate that the economies from supplying loan and transaction services jointly are small.

## Figure 4 Banking Industry Income

Income as a percentage of assets



dow, and the substantial growth of income from off-balance-sheet activities, many observers, including Boyd and Gertler, advocate significant changes in bank regulation. Most state restrictions on branching have already been removed and regulators allow banks to sell mutual funds and offer other securities services. Interstate branching remains largely prohibited, however, as do commercial bank underwriting and ownership of most corporate securities.<sup>12</sup> In addition, banks are largely prohibited from offering a variety of related financial services, including insurance and real estate services.<sup>13</sup> Advocates for further reduction of restrictions on branching and the services that banks are permitted to offer argue that deregulation would enable banks to achieve greater diversification and, hence, reduce their chance of failure. Proponents also contend that large, diversified banks would be more efficient and provide financial services at

lower cost to the public than presently available, though critics rebuff many of these claims.

A review of all of the arguments in favor of and against expanded branching authority and deregulation of bank assets and services is beyond the scope of this article. The following sections, however, will describe the evolution of branching laws and restrictions on bank services in the United States, focusing especially on historical lessons that could inform the current debate on these issues.

### BRANCH BANKING

Unlike the United States, most countries have a small number of commercial banks, nationwide branching and virtually no bank failures. The high costs of communication and transportation may have made it difficult to operate vast branch banking networks in the United States during

<sup>12</sup>Several states have recently enacted or are considering reciprocal legislation that would permit branch offices of out-of-state banks based in states with similar laws. The privilege, however, applies only to state-chartered banks that are not members of the Federal Reserve System.

<sup>13</sup>Barth and Brumbaugh (1993) provide an up-to-date summary of commercial bank powers at both the state and national levels.

the 19th century, but today the main impediment to branching is government regulation.<sup>14</sup>

Where permitted, banks might operate branches to capture economies of scale, diversification opportunities or lower overhead costs. States that allow branch banking tend to have fewer banks (but not fewer bank offices) per capita than states that restrict branching.<sup>15</sup> A bank locates in a particular market only if there appears to be sufficient demand for it to operate at a profitable scale. Because the minimum profitable scale for a branch is smaller than for an independent bank, in the absence of branching restrictions, small markets that are served by one or two independent banks might instead be served by several branch offices.

Proponents of easing branch banking restrictions contend that branching affords banks greater opportunity to diversify and, hence, lessens their chance of failure. Banks whose assets are comprised largely of loans in a particular region could be pulled down by an adverse local economic shock, whereas a bank with loans in several regions could withstand a downturn in the economy of any one region it serves. Branching restrictions do not necessarily prevent banks from diversifying geographically. Banks sometimes purchase loans made by banks in other locations. In addition, multiple bank holding companies and limited facility branches, such as loan production offices, are often permitted where full-service branches are not, including across state lines.<sup>16</sup> Nonetheless, branching restrictions limit flexibility and increase the cost of diversification, and proponents, such as Kaufman (1993), argue that interstate branching would "permit even greater geographic and product diversification than interstate holding company banking and improve bank safety." Similarly, Clair and O'Driscoll (1991) argue that branching restrictions explain why Texas had so many bank failures during the 1980s while the banking industry as a whole had record profits. Such arguments were also made in the 1920s, when thousands of unit

banks failed in rural farming states, even as the banking industry as a whole was profitable.<sup>17</sup>

### **Banking Before World War II**

The geographic dispersion of American banking markets and restrictions on branch banking have a long history. In the 19th century, sparsely populated states often permitted banks to operate with little capital to ensure the presence of banking facilities in rural areas. Branch banking networks could have met the demand for bank offices, but fears that branching would reduce competition and pull savings away from rural areas to urban centers made branching politically unfeasible. Calomiris (1992a) argues that agricultural landowners had an incentive to favor unit banking to ensure that local banks would continue to lend to them following an adverse local shock. Branch banking organizations, by contrast, could close offices or restrict loans to areas experiencing distress. In agricultural states, the interests of farmers thus tended to coincide with those of community bankers and state regulators to favor restrictions on branching. Consequently, reductions in minimum capital requirements were almost always the policy response to increased demand for banking facilities.<sup>18</sup>

Figure 5 plots the number of U.S. commercial banks at the end of each year since 1900, and the number of branch offices since 1920. The number of banks increased dramatically after 1900, when the Gold Standard Act halved the minimum capital requirement from \$50,000 to \$25,000 for chartering national banks in towns smaller than 3,000 persons. Many states responded by reducing minimum capital requirements for state-chartered banks to as low as \$5,000. The lowering of this barrier and generally strong economic growth encouraged the entry of many new banks. The strict limits on branching imposed by the federal government and by most states meant that new banks, rather than new branches of existing banks, largely met increases in the demand for banking services.

<sup>14</sup>Branch banking networks operated in several Southern states before the Civil War, and the First and Second Banks of the United States operated branches in several cities. Branching was not widespread, however, and in many states banks did not operate branches even where they were not prohibited.

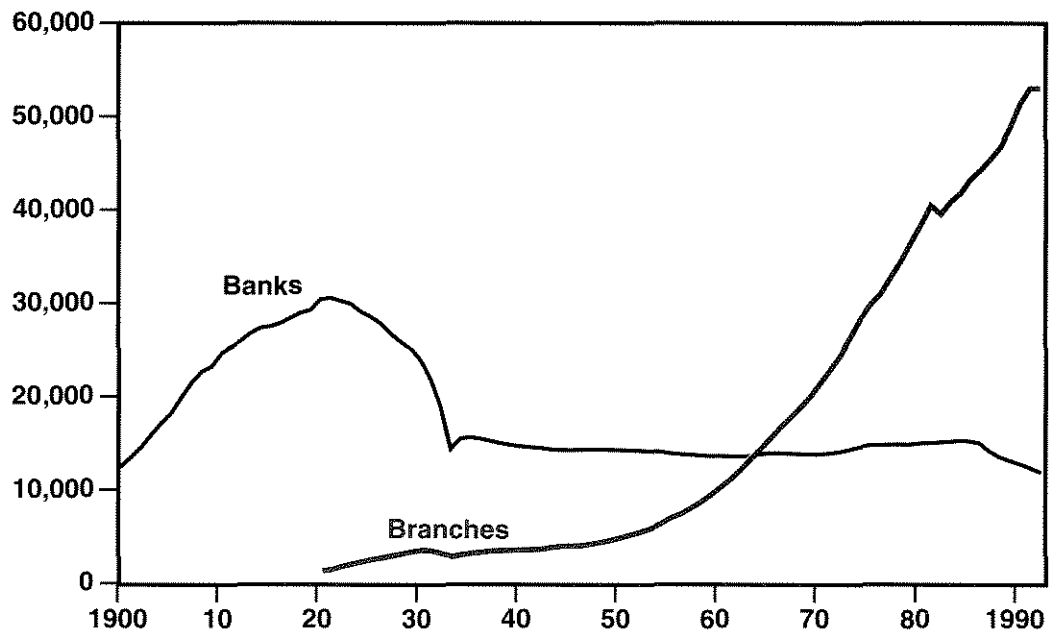
<sup>15</sup>Evanoff (1988) found that in 1980 the number of bank offices per square mile was higher in both urban and rural areas of states permitting branching than in unit banking states. He found, however, more bank offices in states permitting limited branching than in states permitting state-wide branching.

<sup>16</sup>See Hanweck (1992) for a discussion of policy issues pertaining to interstate banking.

<sup>17</sup>For example, the Comptroller of the Currency, John W. Pole, cited the widespread failures of "one-crop" and "fair-weather" banks, i.e., small, undiversified farming banks, as evidence of the need for branch banking. See his testimony in U.S. House of Representatives (1930).

<sup>18</sup>See also White (1982).

**Figure 5**  
**Number of Commercial Banks and Branches**



The rapid increase in the number of banks continued through 1920. The increase was especially large between 1914 and 1920 in agricultural states, where wartime demand for farm products, dispersed populations and strict prohibitions on branching encouraged a plethora of small unit banks. The number of banks and aggregate bank assets also grew rapidly in the eight states that adopted deposit insurance systems. Because insurance premiums were low and unrelated to the probability of failure, deposit insurance encouraged greater investment in commercial banks than would have otherwise occurred.<sup>19</sup>

In 1921, the number of commercial banks reached 30,456, an all-time peak. By then, the shock that would bring about widespread bank failures and reduce the number of banks had already occurred. The wartime increase in commodity prices reversed in mid-1920, and the All Commodities Price Index declined 36.8 percent between 1920 and 1921.<sup>20</sup> A sharp increase in

loan defaults and bank failures in agricultural states followed. Between 1921 and 1929, 5,712 banks suspended operations, including 976 banks in the peak failure year of 1926.<sup>21</sup> As in the 1980s, bank failures in the 1920s were regionally concentrated. Rural areas, especially in the Midwest and the South, suffered high failure rates while failure rates were low in urban areas, the Northeast and the West Coast.

While the number of commercial banks declined, the number of branch bank offices rose during the 1920s, from 1,281 in 1920 to 3,353 in 1929. Before 1920, many state banking laws were silent on the issue of branch banking, though administrative or judicial interpretation, or simply custom, prevented branching. By 1924, however, many state legislatures had considered the issue, with Arizona, California, Delaware, Georgia, Maryland, North Carolina, Rhode Island, South Carolina, Tennessee and Virginia permitting state-wide branching, and nine others permitting limited branching. Other states either

<sup>19</sup>Oklahoma initiated deposit insurance in 1908 and was followed by Kansas, Nebraska, South Dakota and Texas in 1909, Mississippi in 1914, and North Dakota and Washington in 1917. See Calomiris (1992b) and Wheelock (1993) for evidence that deposit insurance strongly influenced the growth of bank assets and the number of banks per capita before 1920.

<sup>20</sup>U.S. Department of Commerce (1960), series E13.

<sup>21</sup>Board of Governors of the Federal Reserve System (1943).



prohibited all branching or had no law either allowing or prohibiting branching. Where branching was permitted, only state-chartered banks that were not members of the Federal Reserve System could establish branches. The National Bank Consolidation Act of 1918, however, permitted national banks to keep branches acquired through consolidation with state-chartered banks. Later, the McFadden Act of 1927 permitted national banks to establish branches within their home-office cities in states that granted the same privilege to state-chartered banks.<sup>22</sup>

Despite increased branching, differences in branch banking laws explain little of the variation in bank failure rates across states during the 1920s. Alston, Grove and Wheelock (1993) find that a state's failure rate was determined mainly by the severity of agricultural distress it suffered, and that distress had a greater impact on failure rates in states having deposit insurance systems. Differences in the extent of branch banking and other suggested causes of failure account for comparatively little of the variation in failure rates across states. The lack of an apparent relationship between branching and performance in the 1920s probably reflects the limited extent of branching in the Midwest and the South, where the worst of the agricultural collapse was felt. Furthermore, state economies in the Midwest and the South were not sufficiently diverse to provide banks with much protection from a general collapse of commodity prices, even where statewide branching was permitted. Interstate branching, however, might have allowed sufficient diversification to limit failures. Canada, which also experienced sharp income declines in commodity-producing regions, had nationwide branch banking and just one bank failure in the 1920s.<sup>23</sup>

The Great Depression ushered in further waves of bank failures, and though initially concentrated in farming areas, failures later spread through-

out the country. From 1930 to 1933, 9,096 banks suspended operations. In 1933 alone, 4,000 banks closed, including 2,122 that closed during the Bank Holiday in March 1933 and never re-opened.<sup>24</sup> Between December 1929 and December 1933, the number of commercial banks in the United States declined 43 percent, from 24,970 to 14,207.

Major banking legislation was enacted during the Depression, beginning with the Banking Act of 1933 (also known as the Glass-Steagall Act after its principal authors). This legislation introduced federal deposit insurance, imposed limits on the interest rates that banks were permitted to pay depositors and constrained bank activities in numerous ways. Though Senator Carter Glass believed that banks should be restricted to making short-term commercial loans, he was an advocate of branch banking. On this issue he was in the minority, and except for a provision in the Banking Act of 1933 providing national banks with all branching authority granted to state-chartered banks, branching was largely ignored in banking legislation during the 1930s. The large money center banks that tended to favor liberal branching laws and authority to perform a broad array of securities services, and which opposed deposit insurance, were widely viewed as the villains that caused the Great Depression. Little wonder that New Deal banking legislation enacted deposit insurance and curbs on bank securities activities, without expanding the opportunities for branching.<sup>25</sup>

### ***Banking Since World War II***

The number of banks changed relatively little in the 50 years following passage of the Banking Act of 1933. Since 1984, however, when the number of commercial banks in the United States reached a post-World War II peak of 15,126, the number of banks has fallen 25 percent to 11,406 firms, and today there are fewer commercial banks in the United States than at any other time in the 20th century.<sup>26</sup>

<sup>22</sup>See White (1983) for further detail about branch banking in the United States during the 1920s.

<sup>23</sup>For comparison of the U.S. and Canadian experiences, see White (1983) or Bordo, Rockhoff and Redish (1993).

<sup>24</sup>Federal Reserve *Bulletin*, December 1937, p. 1208.

<sup>25</sup>Burns (1974) examines the politics involved in New Deal banking legislation.

<sup>26</sup>The shaded insert on p. 12 presents an accounting of changes in the number of banks since 1984, highlighting the contribution of Texas and discussing other changing aspects of market structure.

## Recent Changes in Bank Market Structure

The accompanying table shows the contributions made by new entrants, closures and mergers to annual changes in the number of insured commercial banks in the United States from 1980 to 1992.<sup>1</sup> The net change in the number of banks equals the number of new banks less those which ceased operations, converted to branches of other banks or consolidated. Because any of the categories could reflect the resolution of a bank failure, I also list the total number of failures in each year.<sup>2</sup> Despite rising failures, the number of insured commercial banks increased through 1984 because the number of new banks exceeded those closed, converted to branches of other banks or consolidated. After 1984, however, the number of new bank charters declined while failures continued to rise. Although failures have dropped off recently, large numbers of banks—both failed and solvent—continue to be converted to branches of other banks. Consequently, the number of commercial banks has continued to decline by several hundred banks per year since the mid-1980s.

Texas accounts for much of the recent fluctuation in the number of banks in the United States. Between 1980 and 1989, 24 percent of all new U.S. bank charters were issued in Texas, and the state accounted for over half of all new charters during 1983 and 1984.<sup>3</sup> The energy boom of the 1970s became the real estate boom of the 1980s, and Texas enjoyed several years of strong economic growth. Existing banks grew rapidly and many new banks opened. Because the state strictly limited branching prior to 1987, almost all new bank offices were either independent unit banks or members of bank holding companies.

Disinflation and declining petroleum prices eventually brought a collapse of the commercial real estate market throughout the Southwest, increasing loan defaults and commercial bank failures. Texas alone had one-third of all U.S. bank failures during the 1980s, and over half of all U.S. failures in 1988 when 175 Texas banks failed.<sup>4</sup>

Throughout the United States, many of the banks that have failed or been absorbed by other commercial banks have been small. Between 1984 and 1992, the number of banks with less than \$50 million of assets (in 1984 prices) declined by 2,525, from 9,217 to 6,692, accounting for 86 percent of the total decline in the number of insured commercial banks.<sup>5</sup> The share of total U.S. bank assets held by small banks has also declined, from 8.6 percent in 1984 to 6.3 percent in 1992, while their share of U.S. bank equity has fallen from 12.6 percent to 8.1 percent.

Accompanying the increase in branching has been a growing affiliation of banks with holding companies. Although bank holding companies have existed since the 1920s, the number of banks affiliated with holding companies has increased sharply in recent years. In 1970, 1,069 commercial banks (7.9 percent of all banks) were members of multi-bank holding companies, whereas in 1992, 3,501 banks (30.8 percent) belonged to multi-bank holding companies. Holding company banks are typically larger than other banks, and during 1970–92 the share of total commercial bank assets held by banks affiliated with multi-bank holding companies increased from 30.2 percent to 73.7 percent.<sup>6</sup>

<sup>1</sup>The sources of these data are the Board of Governors of the Federal Reserve System (1991a, 1991b, 1992, Table 72) and the Board of Governors of the Federal Reserve System (1993, Table 15).

<sup>2</sup>Failure data since 1986 reflect only banks closed because of financial difficulty and not those receiving open bank assistance. The sources of these data are Federal Deposit Insurance Corporation (1991, Table A) and Federal Deposit Insurance Corporation (1992).

<sup>3</sup>O'Keefe (1990, p. 4).

<sup>4</sup>Horvitz (1992) examines the causes of Texas bank and thrift failures.

<sup>5</sup>Because data on the number of banks by asset size are not published, these figures were computed directly from the quarterly call reports for insured commercial banks and limited to the 50 states. There were 14,348 banks in this category in 1984 and 11,406 in 1992. The asset cutoff point of \$50 million in 1984 was adjusted for inflation by the GDP (gross domestic product) deflator. In 1992 the cutoff point was \$66.275 million.

<sup>6</sup>Bank holding company data are an unpublished series from the Board of Governors of the Federal Reserve System.

Table

**Determinants of Changes in the Number of Insured Banks**

Year	New Banks	Ceased Operations	Converted to Branches	Other Consolidations	Net Change	Failures
1980	206	-3	-117	-15	71	10
1981	199	-2	-196	-21	-20	10
1982	316	-6	-247	-28	35	42
1983	366	-7	-300	-35	24	48
1984	400	-2	-345	-2	51	79
1985	318	-50	-309	-38	-79	120
1986	248	-168	-301	22	-199	138
1987	212	-207	-528	41	-482	184
1988	228	-225	-587	6	-578	200
1989	201	-242	-392	19	-414	206
1990	163	-175	-373	30	-355	168
1991	103	-126	-409	33	-399	124
1992	78	-133	-415	8	-462	120

Economists usually attribute the stability of the banking industry from the mid-1930s to 1980 to the system of deposit insurance and regulation imposed on banks, and the generally steady growth of the U.S. economy.<sup>27</sup> Deposit insurance and controls on entry to the industry made bank charters valuable, and deposit interest rate controls stabilized the largest component of bank costs. But, over time, rising inflation and higher interest rates, coupled with greater competition among banks and from non-bank intermediaries, increasingly threatened the stability of the banking system.

Rapid improvements in computer and communications technology began to seriously erode traditional bank niches in the 1960s. Nonbank sources of intermediation, such as the commercial paper market, grew rapidly in this decade, while deposit interest rate ceilings hampered the ability of banks to compete for funds against the expanding money market. The introduction of money market mutual funds and transaction accounts at thrifts in the 1970s, and ever-increasing market interest rates, led Congress to enact the Depository Institutions Deregulation and Monetary Control Act of 1980, which deregulated deposit interest rates. Though it helped banks compete for deposits, the legislation came at a time when market rates were exceptionally

high. So, banks experienced sharp increases in the cost of funds and many suffered substantial losses.

As competition from nonbank intermediaries grew, the commercial banking industry itself became increasingly competitive. In the 1960s, regulators began issuing new bank charters more freely, and many states reduced barriers to branching and interstate holding companies. As their charter values declined, banks had an incentive to increase their assets-per-dollar-of-equity and to make increasingly risky loans.<sup>28</sup> Increased competition benefited consumers of banking services, but left the banking system more vulnerable to exogenous economic shocks.

Declining agricultural income and a collapse of agricultural and energy prices in the early 1980s resulted in the insolvency of many banks during the subsequent decade. Many farmers who had borrowed to buy land in the 1970s were unable to repay their loans when incomes fell, resulting in the failure of many agricultural lenders. Similarly, the economic boom in Texas, Louisiana, Oklahoma and other energy producing states that accompanied rising energy prices in the 1970s gave way to falling incomes in the 1980s. Banks lent heavily to energy producers and later to real estate developers in these states, and profited from the fortunes of their borrow-

<sup>27</sup>Friedman and Schwartz (1963) attribute much of the decline in failures and absence of banking panics after 1933 to deposit insurance. More recently, scholars such as Keeley (1990) and Flood (1993) note the importance of regulations that encouraged banks to act conservatively and offset the incentive for excessive risk-taking created by deposit insurance.

<sup>28</sup>When deposit insurance premiums are unrelated to risk, banks have an incentive to take greater risks than they otherwise would. A decline in charter value magnifies this incentive. See Keeley (1990).

ers. When incomes realized from real estate development failed to meet expectations, borrowers defaulted on their loans and many banks became insolvent. A similar phenomenon occurred in New England in 1990–92, when a collapse of local real estate markets led to the failure of numerous commercial banks.

While the number of commercial banks remained fairly constant until the 1980s, the number of branch bank offices has increased dramatically over the entire post-World War II era. The initial surge in branches accompanied the great population migration from central cities to suburbs following the war. And, since 1970, the number of branch offices has more than doubled, from 21,424 to 53,744 in 1992, while the percentage of banks with multiple offices has increased from 29 to 57 percent. Since 1984, the total number of bank offices (banks plus branches) has increased, despite a 25 percent decline in the number of banks, because the number of branch offices has risen from 41,740 to 53,744.

In the 1920s, branch banking was too limited to prevent widespread bank failures in areas suffering sharp income declines. The high number of failures in agricultural and energy-producing states since 1980 suggests that, despite the large increase in the number of branch banks in recent years, branching may still be too limited to protect the banking system from regional or sectoral shocks. As in the 1920s, many of the states experiencing the greatest economic distress in the 1980s also had the most restrictive branching laws. Even states that permit statewide branching, such as Arizona and Connecticut, have had relatively high failure rates since 1980, suggesting again that statewide branching alone may not result in enough diversification to prevent high numbers of bank failures.

Figures 6–8 provide a rough indication of the impact of state branching laws during the 1980s. Figure 6 shows states classified according to whether they permitted statewide branching, permitted limited branching or prohibited all branching, as of December 31, 1979.<sup>29</sup> Figure 7 shows that states tended to have more banks

per 1,000 inhabitants if they limited branching, or prohibited it altogether, than if they permitted statewide branching. No such clear correlation between branching restrictions and bank failure rates is apparent, however. Figure 8 plots the average annual bank failure rate during 1980–92 for each state. Among the 48 continental states, Texas had the highest average failure rate, a relatively high number of banks per capita in 1980, and in 1980 prohibited all branching. Other states with high failure rates, however, such as Arizona, Oregon, Utah, New Hampshire, Connecticut and Massachusetts, permitted at least some branching in 1980 and had low numbers of banks per capita. Moreover, the average failure rates in some unit banking states, such as Montana, North Dakota and Illinois, were low.<sup>30</sup>

The lack of an obvious relationship between state branching laws and bank failure rates is not surprising for two reasons. First, failures will not be high unless borrowers are unable to repay their loans. In Texas, for example, real estate developers and energy producers suffered sharp income declines and defaulted on loans. There were fewer loan losses and consequently lower bank failure rates in other states, including most unit banking states. Second, statewide branching will not prevent failures if the timing and extent of economic distress is similar throughout a state. Texas banks were able to achieve a measure of geographic diversification through multi-bank holding companies, and undoubtedly statewide branching would have enabled even more diversification. The collapse of energy and real estate prices affected the entire state, however, and, thus, many banks would likely have failed even if statewide branching had been permitted. New England banks suffered a similar fate in 1990–92 when the diversification permitted by statewide branching and regional interstate holding companies again was insufficient to prevent numerous failures following collapse of the region's real estate market.<sup>31</sup>

Banks have avenues for geographic diversification even where branching is prohibited, and may not take advantage of greater diversification

<sup>29</sup>The source of this information is the Conference of State Bank Supervisors (1980). South Dakota is listed in this source as having unlimited statewide branching. After July 1, 1969, however, branch banks could be established only through merger.

<sup>30</sup>The coefficient of correlation between the number of banks per capita a state had on December 31, 1979, and its average annual bank failure rate during 1980–92 is  $-0.17$ .

<sup>31</sup>Randall (1993) investigates the causes of recent New England bank failures.



Figure 6  
**State Branching Laws on December 31, 1979**

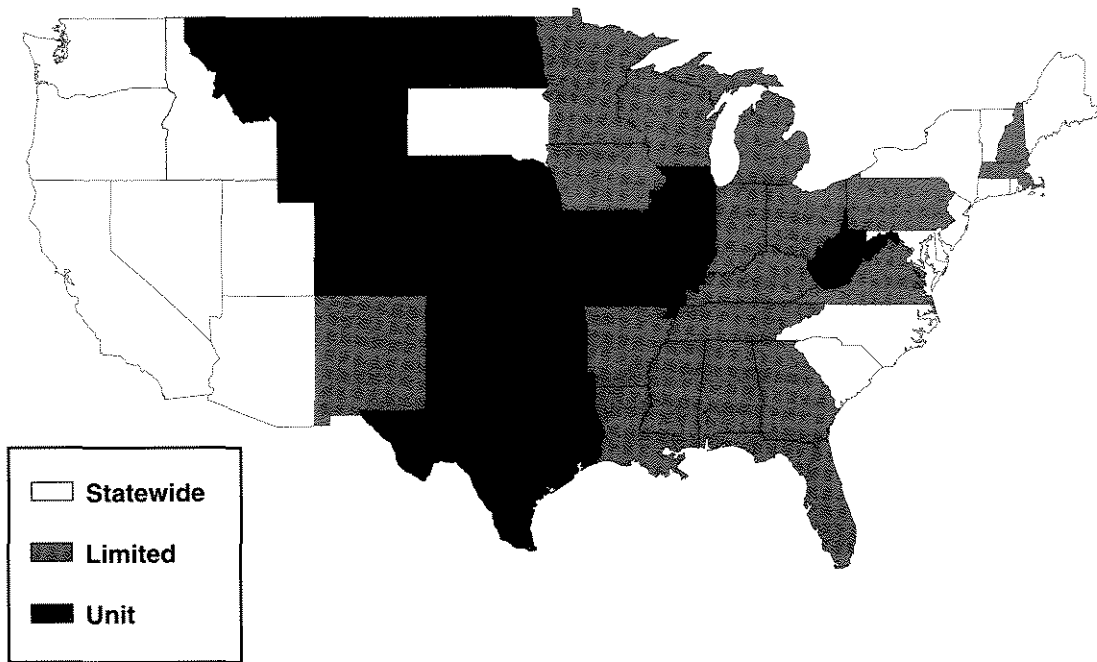
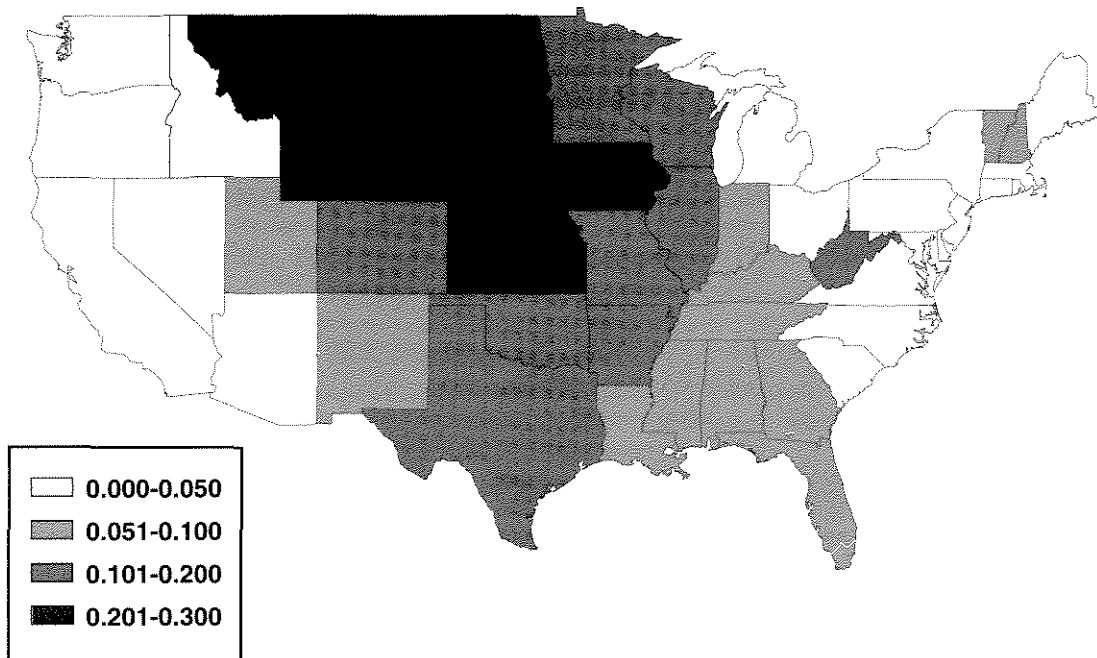
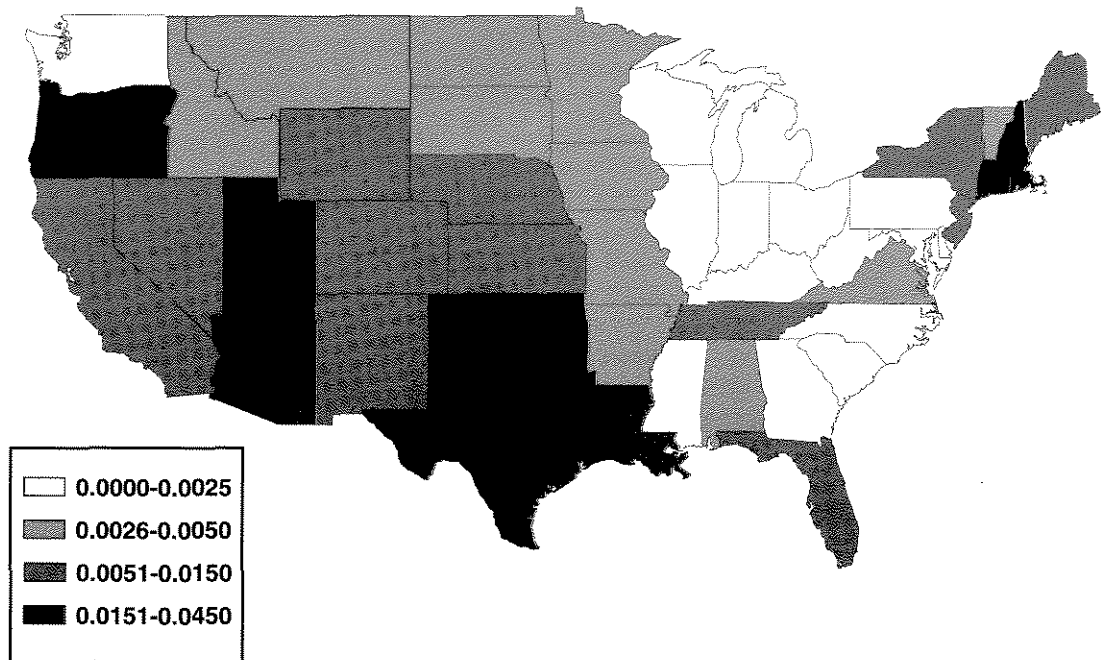


Figure 7  
**Banks Per 1,000 Persons on December 31, 1979**



**Figure 8**  
**Average Commercial Bank Failure Rate, 1980-1992**



opportunities if they are available, but most observers accept the argument that the freedom to branch makes diversification easier. Further liberalization of branching laws might lead to further declines in the number of banks and to larger average bank size, however, and today the debate about branch banking centers largely on the issues of service, competition and the efficiency of large banks.

Larger average bank size might reduce industry costs because of economies of scale, i.e., that average unit cost declines as total firm output rises. A widely cited study by Boyd and Graham (1991) suggests, however, that large banks may not be more efficient than small banks. They find that between 1976 and 1987, banks with assets in the range of \$25-\$100 million had a higher average rate of return on assets than

either smaller or larger banks. Between 1988 and 1990, those in the \$100-million-to-\$1-billion class had the highest average rate of return. Moderate-size banks also had the highest average returns on equity. Not only have larger banks been less profitable, but Boyd and Graham also find that they tend to have lower equity/asset ratios, implying that large banks are generally less well protected against insolvency. Because their evidence comes from a period when interstate branch banking was almost entirely prohibited, however, the usefulness of their evidence for indicating whether or not interstate branching networks would be efficient may be limited.<sup>32</sup> Their apparent success in the South before the Civil War, and the prevalence of large branching organizations in other countries, suggest that such organizations can be profitable.<sup>33</sup>

<sup>32</sup>Furthermore, large banks may be less profitable because they tend to operate in more competitive markets than small banks. Like Boyd and Graham (1991), however, most studies, such as those surveyed by Humphrey (1990), find that scale economies are exhausted for banks of relatively modest size and that the largest banks in the United States are less efficient than smaller banks. These studies tend to focus on the entire banking firm, though, and Toevs (1992) finds evidence of substantial scale economies for individual banking functions.

<sup>33</sup>Moreover, Calomiris and Schweikart (1988) find that interstate branching organizations in the South withstood financial distress better than unit banks in Northern states. Similarly, Canada, whose banking system is comprised of a few large banks with nationwide branches, did not experience the extent of financial disruption present in the United States during the Great Depression. See Haubrich (1990) and Kryzanowski and Roberts (1993).

Increased branching within states explains some of the recent decline in the number of banks in the United States. Interstate branching would likely cause further consolidation. If branching leads to greater diversification of bank assets, or if large branching networks are able to deliver banking services more efficiently than is presently possible, then expanded branching powers might strengthen the industry and help it cope with increased competition. Moreover, because the fixed costs of operating a branch office are low, consumers would likely benefit from increased competition if banks were given greater authority to branch.<sup>34</sup> The experience with branch banking in the United States is perhaps still too limited to show clearly how much the size and structure of the American banking system would change if interstate branching becomes a reality. The rapid growth of branch banks in recent years, however, indicates that banks have responded to the easing of branching restrictions and that further easing would likely lead to further extensions of branching networks.

## FINANCIAL SERVICES

The consequences of permitting commercial banks to sell insurance, underwrite corporate securities or offer a variety of other financial services are perhaps even less certain than the implications of interstate branching. The Banking Act of 1933 forced the separation of commercial and investment banking, and though financial innovation and regulatory interpretation has, over time, expanded the securities activities of banks, strict limits on many securities-related services remain.<sup>35</sup> For example, banks are largely prohibited from underwriting, distributing and owning securities issued by private corporations. Researchers have conjectured how authority to offer a variety of financial services might alter banking markets in the United States by simulating mergers of commercial banks and other financial service firms, and by studying banks engaged in such activities in

other countries.<sup>36</sup> This section reviews a third research area which examines the performance of U.S. commercial banks with securities operations prior to the Banking Act of 1933.

In the United States, commercial banks became involved in the securities business on a large scale during World War I, when many banks invested in and sold war bonds. The success of war bond drives and the growing interest of the public in securities ownership led many banks to offer an increasing variety of investment services. Commercial banks also experienced a decline in commercial loan demand much like that of recent years, as more and more firms found that issuing securities in the money and capital markets was less expensive than borrowing from banks.<sup>37</sup> Furthermore, the promise of high returns drew many bank depositors to securities markets, and, thus, banks experienced increased competition for funds that is again very reminiscent of recent experience. In the 1920s, banks responded to increased competition by offering a variety of securities services, such as underwriting, distribution and brokerage services. Following waves of bank failures in the early 1930s, Congress imposed strict limits on the securities activities of banks, however, because commercial bank involvement with securities was widely thought to have been an important cause of the banking crisis.

Senator Carter Glass and other proponents of the Banking Act of 1933 viewed bank ownership of securities and bank lending to investors on security collateral as harmful to banks, depositors and the economy. Security underwriting and ownership had increased bank risk, they charged, and made it more likely that a collapse of security prices, such as the stock market crash in October 1929, would cause widespread bank failures. Glass (1933) argued that by making loans on security collateral, underwriting new issues and trading in securities, banks had fueled security speculation, drawn funds away from "legitimate" uses and contributed to instability of both securities markets and the banking system:

<sup>34</sup>Calem (1993) argues that interstate branching would increase competition and improve access to banking services for consumers.

<sup>35</sup>Kaufman and Mote (1990) describe the expansion of bank securities activities since 1933 and argue that liberal interpretation by regulators and the courts have permitted banks to offer a variety of securities services. Benston (1990) also details the securities activities that banks are permitted to perform under federal law.

<sup>36</sup>See Boyd and Graham (1988) and Benston (1990).

<sup>37</sup>See Currie (1931).

There seems to be no doubt that a large factor in the overdevelopment of security loans—and in the dangerous use of the resources of bank depositors for the making of speculative profits, with the risk of hazardous losses—has been the perversion of national and state banking laws. The greatest danger is seen in the growth of 'bank affiliates' which devote themselves in many cases to perilous underwriting operations, stock speculation, and maintaining a market for the bank's own stock...

Supporters of the Banking Act of 1933 also alleged widespread abuses of fiduciary responsibility by banks that underwrote and distributed securities. Such allegations included misrepresentations to unsophisticated customers about the risk of securities, the sale of low-grade securities to bank trust accounts, the disposal of non-performing loans via securitization and manipulation of a bank's own stock.

Today, the most vigorous opponents of expanded powers for banks are securities dealers, insurance agents and others with a financial interest in limiting competition, though economists have not reached a consensus on the appropriate activities of banks, particularly their use of government-insured deposits.<sup>38</sup> This section reviews recent research on commercial bank securities activities before 1933. This research generally finds little support for the arguments used to justify the separation of commercial and investment banking in the 1930s, which is significant because many of these arguments are still used to justify their continued separation.

Early studies of bank involvement in the securities business generally accepted the view that such activities increased bank risk and were subject to abuse.<sup>39</sup> This view remained largely unchallenged for many years and was the basis of regulatory and court decisions further defining bank securities-related activities. Recent re-examinations of bank securities operations in the period before 1933, however, have found little evidence of increased risk to the banking system or abuse.

<sup>38</sup>Some economists favor so-called "narrow" banking proposals by which banks are restricted in their use of insured deposits to a limited number of very safe assets. See Spong (1993) for a discussion of narrow banking. Other economists prefer the opposite extreme of universal banking, by which banks are permitted to hold a variety of assets and offer securities, insurance, real estate and other financial services. See Benston (1990) for arguments in favor of universal banking.

White (1986) investigates whether security operations increased the probability of commercial bank failure during the Great Depression. In these years, most bank securities operations were conducted by in-house bond departments or separate security affiliates. Affiliates were separately incorporated entities but typically had the same shareholders as the parent bank. During the Great Depression, the failure rate of the 145 national banks operating bond departments in 1929 was 7.6 percent, and the failure rate of the 62 national banks operating securities affiliates was 6.5 percent. By contrast, 26.3 percent of all national banks failed between 1930 and 1933, and, hence, national banks with securities operations had a substantially lower failure rate than other national banks. White suggests that economies of scale and greater opportunities for diversification might explain the difference in failure rates since banks with securities operations were typically larger than other banks.<sup>40</sup>

Proponents of separating commercial and investment banking frequently claimed that variability in the earnings of securities affiliates caused excessive fluctuations in the earnings of their parent banks. Nevertheless, White found no significant correlation between the rates of return of securities affiliates and those of their parent banks. His evidence casts doubt on the validity of the argument that securities activities increase the risk of bank failure.

Benston (1990) addresses a second justification for the separation of commercial and investment banking—that the commingling of investment and commercial banking activities produces significant conflicts of interest. The original proponents of separating commercial and investment banking charged that commercial banks had taken advantage of small, unsophisticated investors who trusted banks to give them prudent advice about securities. Today, similar arguments are made in favor of limiting bank involvement with securities and mutual funds. Proponents of maintaining the status quo note a possible conflict between an investment bank's desire to promote securities it underwrites and a commercial bank's

<sup>39</sup>The most comprehensive of such studies is Peach (1941).

<sup>40</sup>White also estimates a probit regression model in which he finds that, after controlling for various financial measures reflecting management, banks with securities affiliates had a significantly lower chance of failure than other banks, while banks with an active bond department had neither a greater nor lesser chance of failure.



duty to provide disinterested investment advice. Other arguments suggest the temptations a commercial bank might have to underwrite securities so a borrower can repay unprofitable loans, or to place unsold securities in the bank's trust accounts. Benston, however, contends that when commercial banks were allowed to deal in securities, conflicts of interest did not lead to widespread abuses. Moreover, he argues that many of the conflicts cited by critics of commercial banks were or could be eliminated through regulation. For example, when commercial banks were permitted to sell securities, their securities affiliates were prohibited from selling to the trust accounts of the parent bank.

Benston points out that potential conflicts of interest exist with nearly all financial transactions, and the separation of commercial and investment banking does not guarantee disinterested advice from either commercial or investment banks. For example, a commercial bank might attempt to persuade a customer to borrow from the bank rather than issue securities through an underwriter, or steer customers seeking investment advice to a particular securities dealer if the dealer maintains a large deposit with the bank. Similarly, securities firms might attempt to persuade investors to buy securities they underwrite rather than those underwritten by another firm, or induce small savers to buy securities instead of bank certificates of deposit.

Benston contends that conflicts of interest are likely to be less prevalent for commercial banks with securities operations than for specialized securities firms. For example, a potential borrower might get better advice from a bank than a securities firm about whether to take a loan or issue securities if the bank could offer both. Similarly, there would seem to be less potential for biased advice to an investor from a bank that could provide a variety of investments, from insured deposit accounts to mutual funds to individual securities.

Kroszner and Rajan (1993) examine one element of the conflict-of-interest argument. They compare the performance of securities underwritten by commercial banks with those underwritten by investment banks during the 1920s as a measure of whether commercial banks were

able to fool the public into buying low-quality securities. Among a matched sample of bonds underwritten by commercial banks or their securities affiliates and bonds underwritten by investment banks, Kroszner and Rajan find that securities underwritten by commercial banks had the lower default rate. The default rate of low-grade securities underwritten by commercial banks was especially low relative to that of investment banks. Commercial banks also tended to underwrite higher-quality securities than investment banks. Kroszner and Rajan suggest that securities markets may have forced commercial banks to issue more high-grade, safe securities because of possible conflicts of interest for commercial banks involved in underwriting. If true, their evidence indicates that the investing public disciplined commercial banks with respect to the securities they underwrote. So, even if potential conflicts of interest between commercial and investment banking exist, Kroszner and Rajan conclude that repeal of legal constraints on commercial bank underwriting would not likely harm the public.

Proponents of allowing banks to offer securities services point to potential benefits for the economy. Banks offering securities services might benefit from economies of scope. Economies of scope exist if the total cost of providing a variety of services within a single firm is lower than if the services are provided by different firms. An important function of banks is to gather and evaluate information about potential borrowers and provide access to the payments system. Commercial banks might be able to underwrite securities, sell insurance, offer real estate services and provide other financial services at lower cost to consumers than currently available because of economies in the processing and use of financial information.<sup>41</sup>

Calomiris (1993) argues that, historically, branching restrictions and regulations limiting the scope of banking activities significantly increased the cost of capital for U.S. firms. Because of their comparative advantage as evaluators of information about potential borrowers, commercial banks have tended to be the principal lenders to new firms. As firms mature and their creditworthiness becomes widely known, they tend to borrow relatively less from

<sup>41</sup>Mester (1987) provides an introductory discussion of economies of scope in banking. Pulley and Humphrey (1993) find little evidence of economies of scope in the joint pro-

duction of loans and deposits by U.S. banks during 1978-92, but do not address the possibility of significant economies in providing loan and securities services.

commercial banks and issue more securities through investment banks. Banks that provide both loans and underwrite security issues could economize on the gathering of information about firms and accelerate the process by which a firm moves from relatively high-cost borrowing in the form of bank loans to lower-cost placement of debt and equity. If commercial banks were permitted to provide both loans and underwrite securities, they could provide a firm's financing needs over its entire life cycle. Banks could then spread the cost of acquiring and evaluating information about a new firm over many years and reduce the cost of credit for firms in their early years when investment needs are high and cash flow is low. Restrictions on branching, on the other hand, "implied a mismatch between the scale and scope of firms and those of their bankers."<sup>42</sup> Such restrictions impeded banks from achieving the size necessary to finance the borrowing needs of large firms. They also precluded a potentially very efficient means of financing industrial development—the placement of corporate securities underwritten by commercial banks through their branch offices. Moreover, branching restrictions probably increased the cost of transactions because firms operating in multiple markets were forced to rely on different banks in each market for payments services.

The United States remains a long way from having a system of universal banking, and any significant change in regulation, such as repeal of restrictions on the securities activities of commercial banks, requires careful study of numerous issues. Recent research suggests that many of the arguments for separating commercial and investment banking, which once seemed compelling, are not supported by historical evidence. The historical record is silent on some issues, however, such as the question of what securities activities commercial banks should be permitted to fund with insured deposits. Leaving aside these issues, removal of legal restrictions on bank securities activities would likely strengthen the industry by allowing it to compete more effectively with other intermediaries and banks in other countries. Broadening securities powers would probably favor larger banks, however, and might also encourage further consolidation of the industry.

## CONCLUSION

Although the number of commercial banks has declined sharply since 1984, by other measures, such as the number of bank offices and total bank assets relative to gross national product (GNP), the banking industry has not been shrinking. Some economists contend that the banking industry has excess capacity. Even more argue that without significant changes in regulation, the banking industry is destined to wither. The relaxation of restrictions on interstate branching and the securities activities that commercial banks are permitted to perform are two of the most frequently proposed regulatory changes that proponents view as necessary to preserve the health of the banking industry.

History provides useful evidence about the efficacy of branch banking and the securities activities of commercial banks. The United States experienced a high number of bank failures in the 1980s because its banks were not sufficiently diversified. As in the 1920s and other decades when failures were high, a lack of geographic diversification left many banks vulnerable to economic downturns. The strongest argument in favor of interstate branch banking is that it enhances the ability of banks to diversify across regions so that they can offset losses in some regions with profits in others. Questions about the technical efficiency of large branching networks and the effects of interstate branching on competition and access to banking services remain controversial.

Perhaps even more controversial is the debate about the separation of commercial and investment banking. Securities activities continue to be widely viewed as too risky for commercial banks, though, ironically, many commentators who hold this view also complain that banks are not making enough loans. Evidence from the era before legal separation of commercial and investment banking indicates that commercial banks with securities operations were better diversified and less likely to fail than other banks. Moreover, it appears that commercial banks underwrote higher-quality securities than investment banks. Although the historical record cannot address all issues of relevance today, the evidence generally supports the view that banks would benefit from an increased variety of financial services.

<sup>42</sup>Calomiris (1993).

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