169 Bank Mergers and Industrywide Structure, 1980–94

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The period from 1980 to 1994 was one of record merger activity for banks. Indeed, this period was marked not only by a record number of bank mergers but also by a remarkable number of very large mergers including several that surpassed the size of all past bank mergers. These mergers played a major role in the beginning of what portends to be a long-term restructuring of the banking industry.

This paper presents data on all bank mergers for the period, including the number, sizes, locations, and types for more than 6,300 bank mergers and the identification of the largest mergers. The paper also briefly examines changes in structure and performance of the banking industry, including data on branches, ATMs, and bank stock prices, and makes some comparisons of data from this period with data from 1960–82, a period covered in an earlier study.[1]

The purpose of this basically descriptive paper is fourfold: (1) to bring together in one place data on all bank mergers from 1980 through 1994; (2) to discuss the patterns and trends in bank mergers; (3) to place bank mergers in the context of industrywide structure and performance during the period; and (4) possibly to generate some ideas about bank strategy, about research into the causes and effects of bank mergers, and about the implications of bank merger policy for future banking structure.

Background

As the data in this paper will show, during the 1980s merger activity reached record levels in the banking sector as it did in the industrial sector. For at least three reasons, the activity in banking appears to be not just a temporary response to more cautious antitrust enforcement and general economic conditions of the 1980s but a tendency that is likely to persist and to result in a restructuring of the industry.[2]

First, the removal of the legal restraints on geographic expansion by banks, both within and across states, that began in the 1980s culminated with passage of federal interstate banking legislation—the Interstate Banking and Branching Efficiency Act (1994).[3] These developments have opened up many opportunities for bank expansion by merger and by the establishment of new banks, and they have probably also created incentives for mergers intended to make banks attractive targets or, conversely, too large to be acquired. Moreover, the opportunities for expansion have only begun to be exploited. Indeed, projections of U.S. banking structure, which are based on observed structural change associated with earlier geographic expansion opportunities provided by the states, suggest a substantial consolidation of the banking industry over the next ten to twenty years primarily in response to the new opportunities for geographic expansion.[4]

Second, profitability in banking declined substantially during the 1980s. Some bankers and industry observers believe that this decline was not just cyclical in nature or due to the remarkable series of problem loan areas (petroleum, agricul-

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1. Stephen A. Rhoades, *Mergers and Acquisitions by Commercial Banks, 1960–83*, Staff Studies 142 (Board of Governors of the Federal Reserve System, 1985).

2. The various forces affecting antitrust policy toward mergers in the 1980s are discussed in some detail in Stephen A. Rhoades and Jim Burke, ‘‘Economic and Political Foundations of Section 7 Enforcement during the 1980s,’’ *Antitrust Bulletin* (Summer 1990), pp. 373–446.

3. Reduction of restrictions on geographic expansion by the states is described in Dean F. Amel, ‘‘State Laws Affecting the Geographic Expansion of Commercial Banks,’’ Working Paper (Board of Governors of the Federal Reserve System, Division of Research and Statistics, Financial Structure Section, September 1993) and Donald T. Savage, ‘‘Interstate Banking: A Status Report,’’ *Federal Reserve Bulletin* (December 1993), pp. 1075–89.

4. Timothy Hannan and Stephen A. Rhoades, ‘‘Future U.S. Banking Structure: 1990 to 2010,’’ *Antitrust Bulletin* (Fall 1992), pp. 737–98.

ture, developing countries, and real estate) that plagued the industry. Rather, they propose that the decline reflects excess capacity due to increasing competition from and loss of business to nonbank competitors and international banks.[5] Mergers are, of course, one possible vehicle for reducing excess capacity.[6]

Third, antitrust policy toward mergers would not inhibit a large-scale consolidation of the industry according to a simulation of all horizontal bank mergers (these are ''in-market'' mergers, in which both firms have offices in the same market) that would be acceptable under the Justice Department's numerical merger guidelines.[7] For example, the simulation, which is designed to reflect the largest possible number of mergers within local markets, indicates that the average number of banking organizations remaining in metropolitan statistical areas (MSAs) and non-MSA banking markets would be three. This simulation does not even account for the economic factors that mitigate the anticompetitive structural effect of a substantial number of mergers and allow them to be approved even though they exceed the numerical guidelines. Thus, an even greater industrywide consolidation than is suggested by this simulation is theoretically possible under current antitrust laws and guidelines.

Data Construction

The merger data presented in this paper are constructed in essentially the same manner as the data for the earlier study covering 1960–82.[8] The main additions to the current data are a listing by year, name, and size of all mergers involving large banks from 1980 to 1994, a listing of the largest mergers since 1954, and industrywide data on structure and performance.

As all bank mergers must be approved by one of the three federal bank regulators, three sources provide the universe of what are termed bank mergers. The Office of the Comptroller of the Currency (OCC) reports its merger decisions quarterly in the *Quarterly Journal*, the Federal Deposit Insurance Corporation (FDIC) reports annually in *Merger Decisions*, and the Board of Governors of the Federal Reserve System (FRB) reports monthly in the *Federal Reserve Bulletin*. However, a substantial portion (probably the majority) of the mergers in these sources are merely corporate reorganizations of one kind or another and have little meaning for analytical purposes.[9] This paper is intended to present data only on ''meaningful'' bank mergers, that is, mergers that bring together under common ownership operating banks that had been independent of one another.

Through the years, the FRB and OCC have published descriptive material on fewer and fewer of their merger decisions. Consequently, it has become impossible, in the majority of cases, to determine from their publications whether a merger is a meaningful merger that should be included in this compilation, is simply a corporate reorganization, or has some other attribute that results in exclusion from the database.[10] Therefore, for both the FRB and the OCC, one must examine the agency records on each case to determine whether publicly reported merger approvals involve meaningful mergers. The FDIC provides at least brief descriptions of its merger decisions, which are generally sufficient to determine whether a merger is simply a corporate reorganization. Upon reviewing records for all of the FRB and OCC decisions and all FDIC merger write-ups, we found that nearly one-third of roughly 20,000 decisions were meaningful mergers and met other criteria for inclusion in this paper.

The criteria used for including a merger in this compilation are the same as in the earlier paper.[11]

5. Not all data or analyses support the view that banking is a declining industry. For example, profitability in banking rose to record levels during the early 1990s. See John H. Boyd and Mark Gertler, ''Are Banks Dead? Or Are the Reports Greatly Exaggerated?'' Federal Reserve Bank of Minneapolis, *Quarterly Review*, vol. 18 (Summer 1994), pp. 2–23; and Mark Levonian, ''Why Banking Isn't Declining,'' Federal Reserve Bank of San Francisco, *FRBSF Weekly Letter* (January 20, 1995).

6. Whether excess capacity exists in both retail and wholesale banking and whether mergers are the only or best solution if it does are issues open for debate. For more on the excess capacity issue in banking and other financial industries, see *Studies on Excess Capacity in the Financial Sector* (Federal Reserve Bank of New York, July 1993).

7. Stephen A. Rhoades, ''Consolidation of the Banking Industry and the Merger Guidelines,'' *Antitrust Bulletin* (Fall 1992), pp. 689–705.

8. Stephen A. Rhoades, *Mergers and Acquisitions.*

9. Corporate reorganizations and associated mergers may take various forms, including the creation of phantom banks. They also cover chain banking situations in which an individual who owns two or more banks forms a bank holding company to acquire the banks and continues to own and control them through the company.

10. The few merger cases involving a denial or a significant issue at the Federal Reserve are described at length in the *Federal Reserve Bulletin*.

11. Criteria for inclusion are explained in greater detail in the earlier paper.

Bank mergers are included in our database if the following criteria are met:

- The acquired and acquiring firms are not commonly owned in some form before the acquisition, that is, the merger is not simply a corporate reorganization.[12]
- The acquired bank is an active operating entity rather than a *de novo* (newly established) or non-operating bank.
- Both parties are either bank holding companies or commercial banks.
- Both parties own U.S. domestic banks (although these banks may be foreign owned).
- The target is a healthy bank and not a failing firm or one judged likely to fail based on the regulator's description of the case.

Three other rules govern the treatment of mergers in the study. First, mergers are recorded for the year in which they are approved by a regulator, even though a very small portion would be consummated early in the year after approval. Second, the larger party is generally treated as the acquiring firm even though in rare situations it is not. Third, when a multibank holding company is acquired, each commercial bank in that holding company is treated as a separate acquisition.

Merger Data

Over the twenty-three years from 1960 through 1982, an average of 190 mergers occurred each year, with usually less than 150 each year during the 1960s. Although merger activity picked up during the 1970s, probably in response to amendments to the Bank Holding Company Act (1970) and to bank holding company legislation at the state level, it was not nearly so intense as that during the 1980s.

The number and size of bank mergers from 1980 through 1994 reached record levels. A total of 6,347 mergers took place over the period (equal to about 43 percent of all banks in existence in 1980) with an average of 423 mergers per year. Several of the largest bank mergers in U.S. banking history, including Chemical Corp.–Manufacturers Hanover and BankAmerica–Security Pacific, occurred during the period.

Acquisitions by State and Year

As tables 1 and 2 show, total bank mergers increased during the 1980s until 1987, when a record 649 mergers occurred and total bank assets acquired reached $123.3 billion. In 1989, total bank mergers fell to 350 as the financial condition of many banks seriously deteriorated, but in 1992 they began rising again.

The substantial increase in bank mergers during the 1980s can probably be explained largely in the same way as the growth that appeared in the 1970s. State and federal legislation around 1970 multiplied opportunities and incentives for geographic expansion, particularly for bank holding companies, and thus provided the impetus for more bank mergers. Around 1980, new opportunities for geographic expansion emerged with a remarkable increase in the number of states that reduced branching restrictions or permitted multibank holding companies to form. For example, twenty-two states during the 1980s reduced branching restrictions compared with only six states during the 1970s.[13] Similarly, eleven states passed legislation permitting multibank holding companies during the 1980s whereas only three did so during the 1970s.[14]

Further expansion opportunities arose during the 1980s as most states passed laws allowing acquisition of home-state banks by out-of-state banking organizations.[15] Many of these interstate banking laws originally required reciprocal treatment from other states and applied to a limited number of contiguous or nearby states under the umbrella of a regional compact. These laws, and the serious

12. The words "merger" and "acquisition" are used interchangeably in this paper despite differences in the manner in which the two forms of consolidation combine firms legally. We assume that owner control can be exercised when ownership of 25 percent is achieved. This cutoff percentage was selected because, under the Bank Holding Company Act (1956), a bank is not regarded as a subsidiary of a bank holding company unless the company owns at least 25 percent.

13. Branch banking is a relatively efficient vehicle for nonmerger geographic expansion compared with expansion by bank holding companies. Bank holding companies must obtain a new bank charter and set up a whole corporate structure whereas branch banks simply must seek regulatory approval to establish a branch of the existing bank, which will be operated by a manager with no new corporate structure. Thus, there is less incentive to expand by merger when branching is permitted than when the bank holding company is the only vehicle for expansion. Nevertheless, reduction of branching restrictions probably provided some impetus for mergers because it expanded the geographic area in which banking organizations could operate, and it probably drew the attention of bankers to the opportunities for expansion.

14. See Dean F. Amel, "Trends in Banking Structure since the Mid-1970s," *Federal Reserve Bulletin* (March 1989), pp. 120–33.

15. See Savage, "Interstate Banking."

1. Number of acquisitions, by state and year of acquisition approval, 1980–94

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	Total
Alabama	4	4	18	10	5	16	13	7	4	4	1	2	2	4	7	101
Alaska	0	0	1	1	0	2	0	3	0	1	0	0	1	0	1	10
Arizona	0	0	2	0	1	0	8	7	3	2	5	0	4	2	4	38
Arkansas	0	0	0	7	13	1	2	4	2	4	10	5	6	12	10	76
California	8	13	8	12	3	3	5	15	19	9	17	14	8	12	12	158
Colorado	1	14	6	2	7	3	2	17	24	14	8	50	11	28	16	203
Connecticut	1	5	6	3	4	4	3	1	4	1	0	4	1	0	2	39
Delaware	0	1	1	3	0	0	0	3	0	3	2	2	0	0	0	15
District of Columbia	0	1	0	0	0	1	3	0	1	0	1	2	3	3	0	15
Florida	12	15	56	42	37	39	19	15	15	14	8	12	3	18	15	320
Georgia	9	12	15	20	35	46	40	20	8	8	5	11	7	8	18	262
Hawaii	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Idaho	1	0	0	1	1	0	1	0	0	2	2	1	4	1	2	16
Illinois	1	1	34	49	72	33	80	63	52	44	38	46	33	27	69	642
Indiana	0	0	6	7	7	20	74	36	24	13	14	6	38	8	6	259
Iowa	10	11	10	13	10	7	5	10	7	3	20	4	27	3	8	148
Kansas	1	0	1	6	2	16	6	5	13	16	17	12	35	19	20	169
Kentucky	0	1	3	1	2	24	23	16	19	12	6	8	8	11	19	153
Louisiana	0	0	1	2	5	14	4	2	6	5	4	5	3	3	19	73
Maine	0	2	0	7	2	2	3	1	1	0	0	1	0	0	1	20
Maryland	2	10	3	5	4	2	7	3	2	3	3	2	0	5	8	59
Massachusetts	8	9	8	6	2	1	8	8	4	0	1	3	1	4	1	64
Michigan	9	25	6	17	5	10	24	20	8	7	1	4	12	4	7	159
Minnesota	1	5	7	7	2	7	11	15	15	20	12	13	31	24	15	185
Mississippi	4	8	6	3	6	7	8	10	2	2	1	1	1	1	8	68
Missouri	11	22	19	28	10	10	14	16	25	9	6	9	22	14	13	228
Montana	1	2	1	2	0	1	2	0	1	2	3	0	0	2	2	19
Nebraska	0	1	0	1	9	4	6	5	11	16	10	9	10	14	4	100
Nevada	0	0	0	0	0	1	0	1	1	0	1	0	3	2	0	9
New Hampshire	3	5	3	0	4	5	3	3	1	2	0	2	0	0	1	32
New Jersey	12	23	17	12	10	6	7	3	13	1	1	3	2	6	4	120
New Mexico	1	3	1	2	0	2	0	1	2	0	3	6	13	14	2	50
New York	8	7	7	5	11	0	4	12	15	11	0	1	7	1	7	96
North Carolina	4	8	4	7	8	4	6	3	1	1	2	3	2	8	2	63
North Dakota	1	3	1	0	0	2	0	2	0	4	3	3	4	7	3	33
Ohio	18	19	19	17	14	16	10	4	10	6	5	7	4	3	3	155
Oklahoma	0	0	0	2	11	2	7	6	10	10	13	12	16	24	13	126
Oregon	2	1	3	1	0	3	4	6	0	3	2	1	2	2	5	35
Pennsylvania	15	3	12	23	17	26	35	12	10	1	7	2	12	9	13	197
Rhode Island	0	0	1	0	2	0	0	1	1	0	0	0	1	0	0	6
South Carolina	1	3	9	4	0	3	8	4	4	0	1	4	1	3	5	50
South Dakota	0	2	3	6	1	4	3	2	5	3	1	3	3	3	3	42
Tennessee	0	2	8	7	8	8	31	35	16	4	6	3	10	13	5	156
Texas	16	80	79	47	79	23	16	195	35	54	82	47	26	69	43	891
Utah	0	2	2	0	1	2	0	1	1	1	1	0	0	4	3	18
Vermont	1	0	0	1	1	3	1	3	0	3	0	0	0	1	0	14
Virginia	8	9	18	9	5	10	11	5	0	5	4	2	2	6	7	101
Washington	4	7	4	8	2	2	2	6	4	4	3	0	7	3	2	58
West Virginia	0	0	2	11	9	22	15	19	18	11	6	10	8	20	5	156
Wisconsin	12	15	8	8	13	58	37	23	49	12	23	9	5	9	28	309
Wyoming	0	5	1	3	1	0	2	0	2	0	6	1	2	2	4	29
Total	**190**	**359**	**420**	**428**	**441**	**475**	**573**	**649**	**468**	**350**	**366**	**345**	**401**	**436**	**446**	**6,347**

consideration given in the early 1980s to federal legislation allowing interstate banking, gave the industry clear signals that the move toward interstate banking in the United States was under way. Many banks likely responded to these events by undertaking a merger program to position themselves vis-à-vis current competitors: to become large enough to deal with large entrants from elsewhere in the state or out of state or to be an attractive acquisition target for which a premium would be paid or to become too large to be acquired easily. In sum, increased opportunity for geographic expansion was probably the main reason for the growth in bank mergers during the 1980s. However, a likely contributing factor to the record merger activity in banking, as well as in the industrial sector, was the decidedly more favorable antitrust climate for mergers during the 1980s.

Four states accounted for 34 percent of the period's 6,347 bank mergers—Texas with 891 mergers, Illinois with 642, Florida with 320, and Wisconsin with 309. Four other states had between 200 and 300 mergers and accounted for another 15 percent of all mergers—Georgia (262), Indiana (259), Missouri (228), and Colorado (203). As in 1960–82, the merger-active states were those with relatively large numbers of banks and restrictive branching laws. Because bank holding companies must obtain a new charter and establish a new bank for *de novo* expansion, and therefore face higher costs than branch banks do, they have a greater incentive to expand by merger.

Almost $1.2 trillion in banking assets were acquired from 1980 through 1994 (table 2). These acquired assets equaled nearly 80 percent of total domestic U.S. banking assets in nominal terms at the beginning of the period. Even after adjustment for inflation, assets acquired over the period equaled 55 percent of all domestic banking assets in 1980.[16] In contrast, during 1960–82, when 4,373 mergers occurred, only $163 billion in banking assets were acquired.[17] The dramatic increase during the 1980s in the assets acquired relative to the number of mergers reflects the occurrence of several of the largest mergers in U.S. banking history and of a substantial number of mergers of major regional banking organizations. This was indeed a period of banking megamergers.

The Megamergers

As remarkable as the record number of bank mergers from 1980 through 1994 may be, perhaps even more remarkable is the large size of many of these mergers. The eight largest mergers of banking organizations in U.S. banking history, shown in table 3, occurred during the period.[18] The BankAmerica–Security Pacific merger in 1992 clearly dominates the list in terms of the sizes of the acquirer, the target, and the combined firm. Even compared with some of the very large mergers of the 1950s and 1960s, which included Bank of the Manhattan Co.–Chase National Bank and Manufacturers Trust Co.–Hanover Bank, the recent mergers, particularly those in 1991 and 1992, stand out. The proposed merger of Chase Manhattan and Chemical Banking, which was announced on August 28, 1995, will surpass all of the others, including several other exceptionally large bank mergers announced during 1995.[19]

In table 3, the asset sizes of the mergers are shown in nominal and constant dollars (1987). The exceptionally large size of the more recent mergers holds even after one accounts for inflation. After being deflated with the GDP implicit price deflator, as indicated in the notes to the table, the very large mergers over 1980–94 are relatively large by most measures, and several of them are much larger than any previous banking mergers. In real terms, the mergers of BankAmerica and Security Pacific, Chemical Bank and Manufacturers Hanover, and NCNB and C&S/Sovran again stand out whether measured by the size of the target firm or by the total combined firm.

A different perspective on the size of these very large bank mergers is gained by looking at the sizes of the mergers relative to the size of the entire banking industry (see last column of table 3). By this measure, the 1955 mergers of Chase National Bank with Bank of the Manhattan Co. and of National City Bank of New York with First National Bank of New York, respectively equaling 3.6 percent and 3.4 percent of industry assets, were more significant than several of the recent large mergers. But here again, the large mergers in 1991 and 1992 are extraordinary, with

16. The gross domestic product (GDP) implicit price deflator is used with 1980 as the base year.

17. The dollar volume of the mergers from 1960 to 1982 remains relatively small even after adjusting the data to 1980 dollars. A total of $232.4 billion dollars (inflation adjusted) were acquired in the 4,373 mergers during that period.

18. To illustrate the total magnitude of these large mergers, the asset data in table 3 are for the consolidated banking and nonbanking assets of the target firm as well as of the acquiring firm. Data in all other tables focus on the assets of individual target banks so as to provide information on the absorptions of commercial banks and on their locations.

19. Other exceptionally large bank mergers announced during 1995 included at least five that would result in banking organizatons that would be among the ten largest in the country: Nationsbank–Bank South, First Union–First Fidelity, NBD–First Chicago, First Bank System–First Interstate, and Fleet–Shawmut.

2. Bank assets acquired, by state and year of acquisition, 1980–94

Millions of dollars

State	1980	1981	1982	1983	1984	1985	1986	1987
Alabama	86	88	560	284	235	1,550	580	691
Alaska	0	0	48	55	0	444	0	642
Arizona	0	0	42	0	10	0	6,855	205
Arkansas	0	0	0	932	592	33	17	216
California	550	1,219	810	4,320	136	47	18,737	1,881
Colorado	14	482	393	325	274	267	30	1,168
Connecticut	32	194	1,797	1,053	7,633	288	626	98
Delaware	0	455	30	517	0	0	0	1,340
District of Columbia	0	13	0	0	0	925	837	0
Florida	599	1,556	5,063	2,585	4,352	8,397	2,760	1,186
Georgia	217	320	703	933	1,724	13,541	4,796	2,831
Hawaii	0	0	0	0	0	0	0	0
Idaho	24	0	0	59	19	0	57	0
Illinois	38	148	2,165	2,708	6,332	2,258	5,799	7,130
Indiana	0	0	216	258	263	1,786	8,839	6,836
Iowa	292	344	206	444	230	162	190	369
Kansas	39	0	57	328	190	1,221	143	114
Kentucky	0	31	438	7	43	1,578	1,706	5,728
Louisiana	0	0	84	808	2,091	4,619	258	138
Maine	0	92	0	605	837	719	735	813
Maryland	35	347	49	500	226	1,956	4,018	366
Massachusetts	513	878	1,289	889	329	55	2,344	4,315
Michigan	683	2,466	571	2,495	179	2,346	3,437	1,512
Minnesota	46	98	105	92	52	99	420	510
Mississippi	66	216	231	180	391	376	853	973
Missouri	453	997	673	2,096	507	602	1,064	370
Montana	8	69	18	37	0	12	143	0
Nebraska	0	28	0	34	1,074	145	122	45
Nevada	0	0	0	0	0	181	0	490
New Hampshire	55	116	54	0	198	295	141	488
New Jersey	884	5,374	2,907	2,551	4,210	2,926	1,626	269
New Mexico	10	100	19	78	0	92	0	15
New York	1,885	4,671	774	1,231	5,057	0	134	9,631
North Carolina	95	955	566	821	560	2,880	377	121
North Dakota	5	41	25	0	0	40	0	68
Ohio	652	1,400	3,351	2,462	7,680	4,327	820	228
Oklahoma	0	0	0	64	4,616	129	138	99
Oregon	141	159	51	6	0	60	124	1,233
Pennsylvania	623	268	3,945	10,172	5,506	2,650	11,281	872
Rhode Island	0	0	160	0	2,027	0	0	43
South Carolina	21	445	643	307	0	1,956	3,456	418
South Dakota	0	20	65	155	21	56	34	41
Tennessee	0	180	1,113	416	225	790	7,119	5,512
Texas	886	3,710	9,967	2,301	10,518	914	517	51,042
Utah	0	33	60	0	6	363	0	26
Vermont	44	0	0	32	56	258	18	285
Virginia	332	355	937	5,586	234	603	637	261
Washington	232	5,639	92	262	361	78	98	10,607
West Virginia	0	0	160	694	285	1,299	1,211	1,130
Wisconsin	620	385	416	277	532	3,796	1,300	938
Wyoming	0	177	17	88	8	0	14	0
Total	**10,182**	**34,068**	**40,872**	**50,047**	**69,820**	**67,120**	**94,407**	**123,292**
(Total in 1980 dollars)	(10,182)	(30,971)	(34,933)	(41,022)	(54,976)	(50,848)	(69,931)	(88,699)

BankAmerica–Security Pacific equaling 6.4 percent; Chemical Bank–Manufacturers Hanover, 4.6 percent; and NCNB–C&S/Sovran, 4.0 percent of total industry assets. These were followed in 1995 by the announcement to merge Chase Manhattan and Chemical Banking, which would result in a banking organization with 8.7 percent of total U.S. banking assets.

2. Continued

Millions of dollars

State	1988	1989	1990	1991	1992	1993	1994	Total
Alabama	129	76	26	84	55	280	743	5,465
Alaska	0	779	0	0	200	0	861	3,028
Arizona	1,059	73	80	0	8,110	10,481	804	27,720
Arkansas	35	148	762	479	369	1,028	968	5,580
California	9,612	1,284	4,238	875	46,551	1,720	1,639	93,618
Colorado	2,098	191	237	6,478	1,619	6,680	883	21,139
Connecticut	10,422	51	0	7,570	132	0	75	29,972
Delaware	0	2,388	244	1,186	0	0	0	6,160
District of Columbia	164	0	29	1,602	67	3,884	0	7,521
Florida	1,646	10,042	8,445	7,360	5,834	2,844	1,214	63,884
Georgia	402	317	226	13,835	341	1,029	946	42,160
Hawaii	0	0	812	0	0	0	305	1,117
Idaho	0	76	407	77	882	50	1,250	2,901
Illinois	2,788	6,945	2,240	4,969	4,153	2,235	26,060	75,968
Indiana	1,723	1,079	1,095	1,752	17,193	699	3,498	45,237
Iowa	266	76	2,803	70	1,751	349	509	8,060
Kansas	332	470	367	428	2,575	1,282	1,073	8,621
Kentucky	5,676	856	487	817	1,998	922	5,464	25,751
Louisiana	582	1,525	105	293	81	576	3,152	14,312
Maine	47	0	0	1,046	0	0	2,612	7,506
Maryland	85	4,685	4,778	4,437	0	13,459	3,966	38,906
Massachusetts	2,360	0	475	13,738	261	3,411	44	30,901
Michigan	527	593	14	254	13,941	462	1,357	30,836
Minnesota	580	811	620	300	3,099	1,011	432	8,276
Mississippi	204	440	116	24	40	168	2,711	6,990
Missouri	5,346	225	140	1,549	2,024	2,284	767	19,096
Montana	17	57	115	0	0	330	825	1,632
Nebraska	212	532	294	251	409	3,329	102	6,578
Nevada	675	0	11	0	4,622	222	0	6,202
New Hampshire	106	278	0	114	0	0	161	2,008
New Jersey	9,391	1,229	65	1,745	1,129	5,024	2,883	42,214
New Mexico	40	0	78	1,119	3,237	3,102	197	8,088
New York	17,747	2,471	0	38,392	6,611	1,120	14,523	104,247
North Carolina	23	50	108	167	82	422	105	7,332
North Dakota	0	86	29	41	351	307	152	1,144
Ohio	823	1,214	160	2,206	8,130	102	230	33,786
Oklahoma	444	140	430	1,437	1,323	2,259	931	12,009
Oregon	0	67	58	13	1,453	53	2,526	5,945
Pennsylvania	1,635	78	6,229	1,507	5,661	2,875	5,190	58,492
Rhode Island	657	0	0	0	86	0	0	2,973
South Carolina	143	0	68	11,125	38	103	1,171	19,893
South Dakota	204	50	40	109	75	115	52	1,037
Tennessee	1,275	82	225	5,203	721	2,653	314	25,828
Texas	1,586	1,705	3,828	2,413	8,664	12,654	4,651	115,356
Utah	10	30	187	0	0	989	1,379	3,084
Vermont	0	66	0	0	0	73	0	831
Virginia	0	542	211	14,268	77	9,556	638	34,238
Washington	118	192	119	0	10,745	106	6,836	35,485
West Virginia	911	814	264	692	472	1,737	209	9,876
Wisconsin	5,546	573	2,030	248	185	997	5,965	23,808
Wyoming	63	0	446	14	72	70	1,383	2,352
Total	**87,709**	**43,386**	**43,741**	**150,286**	**165,421**	**103,052**	**111,759**	**1,195,161**
(Total in 1980 dollars)	(60,489)	(28,732)	(27,684)	(91,638)	(97,882)	(59,914)	(63,499)	(811,400)

NOTE. Based on domestic banking assets from Reports of Condition and Income (Call Reports). The total across years (last row) will not necessarily be equal to the total across states (last column) due to rounding.

The consummation of several of the largest mergers in U.S. banking history during 1980–94 clearly helps to explain the exceptionally large amount of banking assets ($1.2 trillion) acquired during this period. Another important contributing factor was the large number of mergers that were

3. Large mergers of commercial banking organizations, 1954–92

Billions of dollars except as noted

Merger	Effective date	Assets[1] Acquiring Nominal	Assets[1] Acquiring Constant[2]	Assets[1] Target Nominal	Assets[1] Target Constant[2]	Assets[1] Total Nominal	Assets[1] Total Constant[2]	As a percentage of total U.S. bank assets[3]
Chemical Bank & Trust Co.–Corn Exchange B&T Co.	10/15/54	2.0	0.6	.8	4.0	2.8	13.5	1.4
National City Bank of New York–First National Bank of New York	3/30/55	6.3	28.7	.7	3.2	7.0	31.9	3.4
Bank of the Manhattan Co.–Chase National Bank	3/31/55	1.7	7.6	5.9	26.9	7.6	34.5	3.6
Bankers Trust Co.–Public National Bank & Trust Co.	4/8/55	2.3	9.9	.6	2.5	2.9	12.4	1.4
Manufacturers Trust Co.–Hanover Bank	9/8/61	3.8	14.8	2.2	8.3	6.0	23.1	2.2
Wells Fargo–Crocker National	4/29/86	29.4	30.3	19.2	19.8	48.6	50.1	2.0
Chemical Bank–Texas Commerce	3/25/87	60.6	60.6	19.2	19.2	79.8	79.8	3.2
Republic Bank Corp.–Interfirst Corp.	4/29/87	21.9	21.9	18.0	18.0	39.9	39.9	1.6
Bank of New York–Irving Bank Corp.	2/25/88	23.1	22.2	23.5	22.6	46.6	44.8	1.8
C&S–Sovran (Avantor Financial Corp.)	7/24/90	23.3	20.6	25.5	22.6	48.8	43.2	1.7
Chemical Bank–Manufacturers Hanover	11/29/91	74.1	62.8	61.3	52.0	135.4	114.8	4.6
NCNB–C&S/Sovran	12/4/91	69.1	58.6	49.1	41.6	118.2	100.2	4.0
BankAmerica–Security Pacific	3/23/92	115.5	95.5	76.4	63.1	191.9	158.6	6.4
MEMO: Announcement of Chase Manhattan–Chemical Banking merger	8/28/95	(120.7)	(95.7)	(185.3)	(146.9)	(306.0)	(242.7)	(8.7)

1. Total consolidated assets from the Bank Holding Company annual report.

2. Price index is from the Economic Report of the President, 1995, table B–3; it is the GDP implicit price deflator, 1987=100. The GDP implicit price deflator is not provided before 1959. The index was adjusted before 1959 in line with the consumer price index.

3. Neither the assets for the banking organization nor the total assets for the industry are deflated. Total U.S. banking assets are calculated from Call Reports after 1961 and from *Moody's Bank and Finance Manuals* in 1961 and earlier.

less than record-sized but quite large by historical standards. In these mergers, both the acquiring firm and the target bank had deposits greater than $1 billion. Mergers of this size were almost unheard of before 1980, but the number of them grew rapidly during the 1980s (table 4). The data are impressive: No such mergers in 1980, one in 1981, two in 1982, five in 1983, and then fourteen or more in all but two years from 1987 to 1994. The result was a total of 142 mergers in which both the acquiring firm and the target bank held more than $1 billion in deposits.

There were eighty interstate mergers during 1980–94, which accounted for 56 percent of all large mergers. The increasing opportunities for interstate banking due to regional compacts and other state initiatives created many more opportunities for large banks to merge.

All of the large mergers from 1980 through 1994 are identified in terms of year, name, and size in table 5. In 142 mergers, the acquiring firm and target bank had more than $1 billion in assets. To maintain consistency with the method for documenting merger activity used elsewhere in this paper, each bank of an acquired multibank holding company is treated in the table as a separate acquisition. Consequently, the table does not show mergers in which the total banking assets of an acquired bank holding company are greater than $1 billion if none of the bank holding company's individual banks has more than $1 billion in assets. As might be expected, the acquiring firms are generally much larger than the $1 billion asset minimum size for inclusion. Thirty-two of the individual target banks, with more than $5 billion of assets, are substantially larger than the minimum size for inclusion. Such a large number of major mergers, including several record breakers during 1980–94, explains the extraordinary amount of banking assets acquired in this relatively short period.

Mergers by State and Asset Size

In spite of the substantial number of large mergers during 1980–94, the vast majority of acquired firms, as in earlier periods, were small (table 6). Thirty percent (1,900) of all acquired banks held assets of $25 million or less, and about 75 percent (4,731) held $100 million or less. In contrast to 1960–82, when only 6 banks with more than $1 billion in assets were acquired, 168 such banks were acquired during 1980–94. About 30 percent of the large targets were located in only four states (New Jersey, New York, Pennsylvania, and Texas), but the large acquisitions were still widespread, occurring in thirty-nine states. This finding indicates that the great increase in larger mergers during 1980–94 was an industrywide phenomenon and not associated primarily with events, economic conditions, or the banking environment in a few states.

As in 1960–82, acquiring firms in 1980–94 tended to be large (table 7). About 48 percent (3,072) of all acquisitions were made by firms with more than $1 billion in assets and about 26 percent (1,643) by firms with more than $5 billion in assets. In contrast, only about 4 percent (267) of acquisitions were made by banking organizations with assets of $25 million or less, and about 24 percent (1,495) were made by organizations with assets of $100 million or less even though firms in the latter size class accounted for 71 percent of the total number of banking organizations in 1987 (the midpoint of this period). In many states, large banking firms played the major role in merger activity. But in Minnesota, Montana, Nebraska, North Dakota, South Dakota, Vermont, and West Virginia, smaller firms accounted for much of the merger activity. These states generally do not have a significant number of larger banking organizations; yet during the period discussed, many of them had a substantial number of mergers: Minnesota had 185, Nebraska had 100, and West Virginia had 156. These data suggest that the motivation for and the capability of merging during 1980–94 were widespread in the banking industry and not phenomena confined to large firms or to certain areas of the country.

Mergers by Year and Asset Size

As shown in tables 8 and 9, acquired banks are generally small, with 75 percent for the period having assets of $100 million or less. In the individual years, the percentage of acquired banks with $100 million or less was of roughly this order of magnitude, ranging from a high of 85 percent in 1981 to a low of 66 percent in 1987, 1992, and 1994. Most of the very large acquired banks (more than $5 billion) were acquired in the second half of the period; 1991 and 1992 alone accounted for nearly half (fifteen) of the thirty-four very large acquired banks.

Not surprisingly, just as in 1960–82, acquiring firms were predominantly large; this tendency generally held up through the entire period (table 9). Notable exceptions to this tendency appeared in 1989 and 1990, when firms with less than $1 billion in assets were responsible for a larger proportion of mergers (roughly two-thirds rather than the more typical one-half), and in 1987, when firms with less than $1 billion accounted for only about one-third of the mergers. No explanation is apparent. Perhaps the difference in proportion results simply from chance rather than from a significant underlying cause.

4. Number of mergers of commercial banking organizations in which both the acquiring firm and the target bank had more than $1 billion in assets, 1980–94

Year	Total	Interstate
1980	0	0
1981	1	0
1982	2	0
1983	5	0
1984	6	0
1985	9	4
1986	9	6
1987	18	11
1988	14	7
1989	3	2
1990	6	2
1991	16	12
1992	23	15
1993	15	10
1994	15	11
Total	**142**	**80**

NOTE. Does not include acquisitions of thrift institutions or failing firms. Summarized from table 5.

5. Bank mergers and holding company acquisitions among large banking organizations, 1980–94

Assets in millions of dollars

Year	Number	Acquired Bank	Assets	Acquiring Organization	Assets
1980	0	. . .	. . .	. . .	. . .
1981	1	City National Bank of Detroit	1,006	First American Bank Corporation	2,391
1982	2	Union Commerce Bank	1,203	Huntington Bancshares Incorporated	3,088
		Austin National Bank	1,007	Interfirst Corporation	14,997
1983	5	Winters National Bank and Trust Company	1,144	Banc One Corporation	5,197
		New Jersey Bank (NA)	1,258	Midlantic Banks Inc.	3,973
		Girard Bank	3,954	Mellon National Corporation	16,883
		First & Merchants National Bank	2,743	Virginia National Bank	3,810
		Provident National Bank	2,777	Pittsburgh National Corporation	6,643
1984	6	Lincoln First Bank, NA	4,118	Chase Manhattan Corporation	51,126
		The First National Bank of Allentown	1,124	Meridian Bancorp, Incorporated	3,758
		American National Bank & Trust Company of Chicago	2,574	First Chicago Corporation	23,267
		Bank of the Southwest NA	3,218	Mercantile Texas Corporation	11,346
		BancOhio National Bank	5,802	National City Corporation	6,379
		Fidelity Union Bank	3,375	First National State Bancorporation	6,153
1985	9	Heritage Bank NA	2,013	Midlantic Banks Inc.	6,680
		(I) Union Trust Company of Maryland	1,939	Bank of Virginia Company	3,758
		(I) Colonial Bank	1,332	Bank of Boston Corporation	13,794
		(I) Rhode Island Hospital Trust National Bank	1,830	Bank of Boston Corporation	13,794
		(I) The Connecticut Bank and Trust Company, NA	5,394	Bank of New England Corporation	5,532
		Northeastern Bank of Pennsylvania	1,192	PNC Financial Corp.	12,196
		First National Bank of Shreveport	1,079	Louisiana National Bank of Baton Rouge	1,057
		Central National Bank of Cleveland	2,386	Society Corporation	5,766
		The Northwestern Bank	2,743	First Union National Bank	6,619
1986	9	(I) Suburban Bank	3,287	Sovran Financial Corporation	9,457
		(I) Merchants Bank, NA	1,331	Fidelcor, Incorporated	5,373
		Industrial Valley Bank & Trust Company	2,161	Fidelcor, Incorporated	5,373
		(I) The Arizona Bank	3,938	Security Pacific Corporation	38,647
		(I) Third National Bank in Nashville	2,537	Suntrust Banks Incorporated	19,328
		(I) American National Bank & Trust Company	1,032	Suntrust Banks Incorporated	19,328
		(I) Bankers Trust of South Carolina	1,913	NCNB Corporation	13,536
		Lloyds Bank California	2,601	Golden State Sanwa Bank	1,540
		Crocker National Bank	16,957	Wells Fargo & Company	22,561
1987	18	(I) American Fletcher National Bank & Trust Company	4,046	Banc One Corporation	13,070
		(I) Citizens Fidelity Bank & Trust Company	4,251	PNC Financial Corporation	22,937
		Patriot Bank NA	1,101	Bank of New England Corporation	21,675
		Guaranty Bank & Trust Company	1,029	Bank of New England Corporation	21,675
		(I) Texas Commerce Bank—Austin, NA	1,370	Chemical New York Corporation	45,168
		(I) Texas Commerce Bank NA	10,119	Chemical New York Corporation	45,168
		Interfirst Bank Dallas, NA	7,380	RepublicBank Corporation	22,325
		Interfirst Bank Fort Worth, NA	1,402	RepublicBank Corporation	22,325
		Long Island Trust Company, NA	1,807	The Bank of New York Company, Incorporated	16,187
		(I) Rainier National Bank	7,255	Security Pacific Corporation	45,292
		(I) Commerce Union Bank	2,376	Sovran Financial Corporation	14,445
		(I) Peoples National Bank of Washington	2,428	U.S. Bancorp	8,568
		(I) Delaware Trust Company	1,131	Meridan Bancorp, Incorporated	6,529
		(I) Norstar Bank of Long Island	1,483	Fleet Financial Group, Incorporated	8,498
		(I) Norstar Bank of Upstate New York	3,399	Fleet Financial Group, Incorporated	8,498
		(F) National Bank of Georgia	1,600	Credit and Commerce American Holdings, NV	7,019
		(I) Atlantic National Bank of Florida	3,752	First Union Corporation	6,625
		(F) United Bank of Arizona	2,102	Standard Chartered PLC	9,023

5. Continued

Assets in millions of dollars

Year	Number	Acquired Bank	Assets	Acquiring Organization	Assets
1988	14	(F) The First Jersey National Bank	2,689	National Westminster Bank PLC	10,171
		(F) First Jersey National Bank/South	1,209	National Westminster Bank PLC	10,171
		(I) Connecticut National Bank	10,119	Shawmut Corporation	10,798
		Arlington Trust Company	1,340	Shawmut Corporation	10,798
		(I) Marine Bank, NA	1,641	Banc One Corporation	18,610
		Irving Trust Company	14,074	The Bank of New York Company, Incorporated	18,369
		(I) First National Bank of Louisville	3,950	National City Corporation	14,878
		(I) Central Bank of Denver	1,295	First Bank System, Incorporated	22,151
		(I) Horizon Bank, NA	1,726	Chemical Banking Corporation	61,729
		(I) Princeton Bank	1,423	Chemical Banking Corporation	61,729
		Union Bank	8,903	California First Bank	5,570
		Barclays Bank of California	1,314	Wells Fargo Bank, NA	39,799
		The Hibernia Bank	1,566	Security Pacific National Bank	34,482
		(I) Allied Bank of Texas	4,913	First Interstate Bancorp	47,641
1989	3	(I) Bank of Delaware	1,906	PNC Financial Corporation	39,731
		(F) First National Bank of Central Jersey	1,229	National Westminister Bank PLC	17,073
		(I) Norstar Bank, NA	1,405	Fleet Financial Group, Incorporated	8,495
1990	6	First Pennsylvania Bank NA	5,651	Corestates Financial Corporation	16,053
		Equitable Bank, NA	4,624	MNC Financial, Inc.	15,767
		(I) Florida National Bank	7,815	First Union Corporation	29,167
		Central Bank	1,094	Bank of the West	1,903
		(F) Exchange National Bank of Chicago	2,517	Algemene Bank Nederland, NV	3,158
		(I) Commercial National Bank in Shreveport	1,041	Deposit Guaranty Corporation	3,652
1991	16	First National Bank of Toms River	1,647	First Fidelity Bancorporation	11,586
		(I) The Connecticut Bank & Trust Company, NA	7170	Fleet/Norstar Financial Group, Incorporated	29,141
		(I) Bank of New England NA	13,369	Fleet/Norstar Financial Group, Incorporated	29,141
		(I) Maine National Bank	1,046	Fleet Bank Maine	1,809
		(I) The Citizens & Southern National Bank of Georgia	13,249	NCNB Corporation	68,454
		(I) The Citizens & Southern National Bank of South Carolina	4,099	NCNB Corporation	68,454
		(I) Citizens & Southern National Bank of Florida	6,504	NCNB Corporation	68,454
		(I) Sovran Bank, NA	14,259	NCNB Corporation	68,454
		(I) Sovran Bank/Maryland	4,392	NCNB Corporation	68,454
		(I) Sovran Bank/Central South	5,128	NCNB Corporation	68,454
		(I) Sovran Bank/DC National	1,094	NCNB Corporation	68,454
		(I) United Bank of Denver NA	2,844	Norwest Corporation	25,922
		The Central Trust Company of Northeastern Ohio, NA	1,001	Banc One Corporation	44,008
		(F) The York Bank & Trust Company	1,439	Allied Irish Banks Limited	
		(I) The South Carolina National Bank	6,906	Wachovia Corporation	25,681
		Manufacturers Hanover Trust Company	38,392	Chemical Banking Corporation	69,054
1992	23	Central Trust Company	1,145	Manufacturers & Traders Trust Company	7,032
		(I) Security Pacific Bank Oregon	1,427	BankAmerica Corporation	104,541
		(I) Security Pacific Bank Washington, NA	6,951	BankAmerica Corporation	104,541
		(I) Security Pacific Bank Arizona	6,292	BankAmerica Corporation	104,541
		Security Pacific National Bank	45,996	BankAmerica Corporation	104,541
		(I) Security Pacific Bank, NA	1,550	BankAmerica Corporation	104,541
		(I) Valley Bank of Nevada	3,163	BankAmerica Corporation	104,541
		(I) Puget Sound National Bank	3,122	Keycorp	22,651
		Ameritrust Company, NA	7,915	Society Corporation	15,143
		(I) First Security National Bank & Trust Company of Lexington	1,287	Banc One Corporation	46,329
		(I) Team Bank	5,608	Banc One Corporation	46,329
		(I) Merchants National Bank & Trust Company of Indianapolis	3,414	National City Corporation	25,354
		First Florida Bank, NA	5,763	Barnett Banks, Incorporated	32,680

5. Continued

Assets in millions of dollars

Year	Number	Acquired Bank	Assets	Acquiring Organization	Assets
1992 continued		(I) Sunwest Bank of Albuquerque, NA	1,938	Boatmen's Bancshares, Incorporated	17,932
		(I) First Peoples Bank of New Jersey	1,075	Corestates Financial Corporation	19,780
		Marquette Bank Minneapolis, NA	2,264	First Bank System, Incorporated	18,674
		Security Bank & Trust Company	1,568	First of America Bank Corporation	14,662
		(I) INB National Bank	4,811	NBD Bancorp, Incorporated	27,782
		(I) Gainer Bank, NA	1,835	NBD Bancorp, Incorporated	27,782
		Manufacturers Bank, NA	10,781	Comerica Incorporated	14,227
		(I) Affiliated Bank	1,627	Comerica Incorporated	14,227
		(I) Hibernia National Bank in Texas	1,035	Comerica Incorporated	14,227
		Equibank	3,150	Integra Financial Corporation	8,757
1993	15	(I) Colorado National Bank	2,271	First Bank System, Inc.	22,918
		Missouri Bridge Bank, NA	1,711	Boatmen's First National Bank of Kansas City	3,159
		(I) First National Bank in Albuquerque	1,283	First Security Corporation	7,619
		(I) The Valley National Bank of Arizona	10,074	Banc One Corporation	68,975
		(I) National Community Bank of New Jersey	4,015	The Bank of New York Company, Inc.	32,279
		South Shore Bank	1,279	Bank of Boston Corporation	26,695
		New First City, Texas—Houston, NA	3,827	Texas Commerce Bank NA	9,812
		New First City, Texas—Dallas, NA	1,170	Texas Commerce Bank, NA	3,033
		(I) Dominion Bank, NA	5,787	First Union Corporation	62,777
		(I) First American Bank of Virginia	2,390	First Union Corporation	62,777
		(I) First American Bank of Maryland	1,042	First Union Corporation	62,777
		(I) Dominion Bank of Middle Tennessee	1,493	First Union Corporation	62,777
		(I) Maryland National Bank	11,997	Nationsbank Corporation	127,724
		(I) American Security Bank, NA	3,673	Nationsbank Corporation	127,724
		Commonwealth Bank	2,052	Meridian Bancorp, Inc.	12,061
1994	15	(I) Key Bank of Washington	6,772	Society Corporation	25,897
		(I) Key Bank of New York	13,608	Society Corporation	25,897
		(I) Key Bank Maine	2,612	Society Corporation	25,897
		(I) Key Bank of Idaho	1,180	Society Corporation	25,897
		(I) Key Bank of Oregon	2,313	Society Corporation	25,897
		(I) Key Bank of Wyoming	1,268	Society Corporation	25,897
		(I) Key Bank of Utah	1,182	Society Corporation	25,897
		(I) Liberty National Bank and Trust Company of Kentucky	3,563	Banc One Corporation	78,647
		(I) Suntrust Bank	1,955	Union Planters Corporation	6,039
		Bucks County Bank and Trust Company	1,227	Corestates Financial Corp	21,829
		First Eastern Bank NA	2,034	PNC Bank, NA	40,474
		Lake Shore National Bank	1,071	First Chicago Corporation	38,807
		(I) Continental Bank, NA	17,989	BankAmerica Corporation	158,125
		Citizens First National Bank of New Jersey	2,558	National Westminster Bank NJ	7,043
		(I) The Bank of Baltimore	2,238	First Fidelity Bank, NA, New Jersey	20,039

NOTE. Defined as holding company to bank acquisitions or bank-to-bank mergers where both the acquiring and acquired control over $1 billion in assets. The asset data for acquired firms are for individual banks. Thus, if a bank holding company is acquired, it must have at least one bank with assets of $1 billion or more to appear on the list. This focus on the acquisition, or absorption, of U.S. commercial banks is consistent with the data presented in all other tables except table 3. Because this approach focuses strictly on bank assets, summation of the banks' assets that are acquired by the same holding company may not reflect the total asset value of that acquisition. For example, BankAmerica Corporation acquired Security Pacific Corporation (1992) in a transaction with a total asset value of $191.9 billion (BankAmerica with $115.5 billion and Security Pacific with $76.4 billion). However, upon summation of the five observations given in this table, Security Pacific's total asset value would be only $62.2 billion. The remaining $14.2 billion of Security Pacific's assets would be found in its banks with less than $1 billion in assets (for example, Security Pacific Bank Alaska, NA, or Security Pacific Bank Idaho, NA) or in its nonbanking subsidiaries. In a manner consistent with all data collection for this study, this table does not reflect holding company acquisitions of thrift institutions, acquisitions by large foreign banking institutions, or assisted transactions.

(I) Interstate transaction.

(F) Acquisition of U.S. bank by a foreign organization that owns a U.S. chartered bank.

SOURCE. Call Reports.

6. Number of acquired banks, by state and asset–size class, 1980–94

State	Asset–size class of acquired banks (millions of dollars)									All
	0–10	11–25	26–50	51–100	101–200	201–500	501–1,000	1,001–5,000	More than 5,000	
Alabama	3	38	30	21	6	2	1	0	0	101
Alaska	0	0	1	2	3	2	2	0	0	10
Arizona	3	10	9	5	1	2	3	3	2	38
Arkansas	7	23	16	16	7	6	1	0	0	76
California	3	26	31	45	27	14	4	5	3	158
Colorado	32	44	43	44	24	12	0	4	0	203
Connecticut	0	3	8	12	5	3	4	1	3	39
Delaware	0	1	2	1	4	4	1	2	0	15
District of Columbia	0	3	3	1	2	2	2	2	0	15
Florida	9	59	89	63	58	29	7	2	4	320
Georgia	13	64	79	63	27	8	4	2	2	262
Hawaii	0	0	0	0	0	1	1	0	0	2
Idaho	0	3	0	6	3	3	0	1	0	16
Illinois	49	144	151	135	107	44	7	4	1	642
Indiana	7	37	46	80	47	31	5	6	0	259
Iowa	13	64	39	13	13	5	1	0	0	148
Kansas	42	46	22	33	20	6	0	0	0	169
Kentucky	6	27	32	38	35	11	0	4	0	153
Louisiana	3	5	11	20	11	15	6	2	0	73
Maine	0	0	9	2	2	1	4	2	0	20
Maryland	2	12	10	9	11	6	1	7	1	59
Massachusetts	0	7	9	13	7	16	7	4	1	64
Michigan	5	24	32	41	35	13	6	2	1	159
Minnesota	30	71	56	17	8	2	0	1	0	185
Mississippi	6	15	18	9	13	6	0	1	0	68
Missouri	29	81	47	34	22	9	4	2	0	228
Montana	2	9	2	2	1	3	0	0	0	19
Nebraska	27	34	21	8	4	3	1	2	0	100
Nevada	0	1	1	0	2	2	2	1	0	9
New Hampshire	3	4	13	6	4	2	0	0	0	32
New Jersey	1	7	25	27	23	14	11	12	0	120
New Mexico	1	9	9	18	7	3	1	2	0	50
New York	4	11	16	16	9	19	9	9	3	96
North Carolina	5	9	18	19	5	5	0	1	0	62
North Dakota	5	14	9	1	4	0	0	0	0	33
Ohio	7	37	42	27	13	19	4	4	2	155
Oklahoma	19	36	30	20	9	8	2	2	0	126
Oregon	2	14	10	3	3	0	1	2	0	35
Pennsylvania	5	28	40	41	34	21	13	14	1	197
Rhode Island	0	0	1	1	2	0	1	1	0	6
South Carolina	3	11	7	15	6	4	1	3	1	51
South Dakota	5	27	6	4	0	0	0	0	0	42
Tennessee	6	24	45	37	24	13	2	4	1	156
Texas	47	197	250	180	125	66	14	9	3	891
Utah	4	3	3	3	2	1	1	1	0	18
Vermont	0	5	4	3	2	0	0	0	0	14
Virginia	6	28	19	27	10	5	0	4	2	101
Washington	1	18	16	10	3	2	1	4	3	58
West Virginia	2	36	44	52	16	6	0	0	0	156
Wisconsin	28	72	86	67	33	16	6	1	0	309
Wyoming	5	9	9	2	2	1	0	1	0	29
Total	**450**	**1,450**	**1,519**	**1,312**	**841**	**466**	**141**	**134**	**34**	**6,347**

7. Number of acquiring organizations, by state and asset–size class, 1980–94

State	Asset–size class of acquiring organization (millions of dollars)									All
	0–10	11–25	26–50	51–100	101–200	201–500	501–1,000	1,001–5,000	More than 5,000	
Alabama	1	4	14	11	6	5	7	47	6	101
Alaska	0	0	0	1	0	0	2	1	6	10
Arizona	0	1	1	3	2	1	3	14	13	38
Arkansas	0	4	4	13	8	13	5	27	2	76
California	0	3	5	22	31	28	16	22	31	158
Colorado	5	16	8	17	10	12	0	54	81	203
Connecticut	0	0	2	1	2	3	3	15	13	39
Delaware	0	0	0	0	1	0	1	5	8	15
District of Columbia	1	0	1	2	1	1	0	3	6	15
Florida	1	3	8	12	22	23	22	101	128	320
Georgia	0	8	22	35	22	25	19	60	71	262
Hawaii	0	0	0	0	0	0	0	1	1	2
Idaho	0	0	1	0	0	2	6	5	2	16
Illinois	2	18	52	83	67	102	47	99	172	642
Indiana	0	2	10	25	22	24	22	79	75	259
Iowa	0	14	31	23	13	14	7	25	21	148
Kansas	5	17	33	31	14	9	8	37	15	169
Kentucky	0	0	10	20	9	23	17	38	36	153
Louisiana	0	2	2	7	8	6	4	38	6	73
Maine	0	0	0	0	0	3	3	8	6	20
Maryland	0	0	2	2	6	4	4	26	15	59
Massachusetts	0	0	2	2	4	1	7	20	28	64
Michigan	0	0	5	12	12	14	13	47	56	159
Minnesota	1	27	56	31	22	14	4	8	22	185
Mississippi	0	5	3	10	9	10	5	24	2	68
Missouri	4	23	30	20	15	26	19	56	35	228
Montana	0	1	5	6	0	5	0	0	2	19
Nebraska	4	17	30	20	7	4	3	7	8	100
Nevada	0	0	0	0	1	0	0	2	6	9
New Hampshire	0	1	2	4	3	9	6	7	0	32
New Jersey	0	0	3	2	8	12	37	37	21	120
New Mexico	0	0	2	8	4	4	2	5	25	50
New York	0	1	1	4	5	11	6	16	52	96
North Carolina	0	0	1	4	14	2	13	21	7	62
North Dakota	0	6	11	7	3	1	2	2	1	33
Ohio	0	2	9	13	22	17	17	51	24	155
Oklahoma	0	7	21	19	24	8	6	28	13	126
Oregon	0	2	1	6	6	3	4	0	13	35
Pennsylvania	0	2	1	13	16	28	50	51	36	197
Rhode Island	0	0	0	0	0	0	1	1	4	6
South Carolina	0	0	0	2	4	4	8	24	9	51
South Dakota	0	8	3	16	11	2	1	0	1	42
Tennessee	0	2	13	13	16	11	4	40	57	156
Texas	0	27	90	100	83	74	46	97	374	891
Utah	0	1	3	0	0	1	3	7	3	18
Vermont	0	0	0	2	4	3	4	1	0	14
Virginia	0	2	4	5	3	15	5	50	17	101
Washington	0	1	4	3	4	7	3	17	19	58
West Virginia	0	2	4	15	25	60	22	25	3	156
Wisconsin	3	9	28	36	18	33	18	80	84	309
Wyoming	0	2	3	6	4	5	2	0	7	29
Total	**27**	**240**	**541**	**687**	**591**	**682**	**507**	**1,429**	**1,643**	**6,347**

Mergers by Year, Type, and Market

Tables 10 and 11 show the types of mergers that occurred and the types of markets (urban or rural) in which they took place, by year. Table 10 indicates the number of horizontal and market extension mergers. Horizontal mergers are mergers in which both firms operate in the same market, and market extension mergers are those in which the two firms operate in separate markets. Markets are defined as MSAs (metropolitan statistical areas) or non-MSA counties because deposit data, which allow construction of market structure measures such as the Herfindahl–Hirschman index,

8. Number of acquired banks, by year and asset–size class, 1980–94

Year	Asset–size class of acquired bank (millions of dollars)									All
	0–10	11–25	26–50	51–100	101–200	201–500	501–1,000	1,001–5,000	More than 5,000	
1980	21	59	53	28	24	4	1	0	0	190
1981	29	100	110	66	29	15	6	4	0	359
1982	32	121	105	71	43	32	13	3	0	420
1983	38	116	97	71	61	27	10	8	0	428
1984	39	98	128	84	43	24	11	12	2	441
1985	31	106	108	103	68	41	10	7	1	475
1986	45	112	126	130	84	48	16	11	1	573
1987	25	108	131	165	130	58	14	15	3	649
1988	32	119	112	95	58	27	11	11	3	468
1989	39	98	94	63	23	22	4	6	1	350
1990	34	102	97	68	39	18	4	2	2	366
1991	24	84	81	73	33	27	6	9	8	345
1992	23	78	79	83	63	42	9	17	7	401
1993	18	87	106	90	68	37	11	16	3	436
1994	20	62	92	122	75	44	15	13	3	446
Total	**450**	**1,450**	**1,519**	**1,312**	**841**	**466**	**141**	**134**	**34**	**6,347**

9. Number of acquisitions, by year and asset–size class of acquiring organization, 1980–94

Year	Asset–size class of acquiring organization (millions of dollars)									All
	0–10	11–25	26–50	51–100	101–200	201–500	501–1,000	1,001–5,000	More than 5,000	
1980	0	10	13	15	16	23	26	72	15	190
1981	1	12	26	30	22	46	48	126	48	359
1982	1	15	27	35	40	43	51	130	78	420
1983	3	17	35	35	43	53	43	149	50	428
1984	2	20	37	54	42	40	36	117	93	441
1985	1	16	45	69	29	58	44	119	94	475
1986	2	17	55	45	48	67	47	147	145	573
1987	2	12	51	57	31	43	30	122	301	649
1988	4	21	44	56	45	45	23	65	165	468
1989	1	26	33	58	46	41	22	54	69	350
1990	3	18	46	60	44	49	23	51	72	366
1991	4	17	36	46	46	31	13	51	101	345
1992	2	18	42	38	42	34	26	61	138	401
1993	0	12	27	49	49	54	30	94	121	436
1994	1	9	24	40	48	55	45	71	153	446
Total	**27**	**240**	**541**	**687**	**591**	**682**	**507**	**1,429**	**1,643**	**6,347**

are available only for entire counties.[20] Fortunately, counties and MSAs often provide reasonably workable approximations of banking markets.[21] However, situations undoubtedly exist in which merging banks are very near one another but are located on opposite sides of a county boundary. Such mergers may be horizontal in nature but, in this paper's approach, are classified

20. The distinction between horizontal and market extension mergers in the earlier paper did not simply follow political boundaries but was based on a judgment with respect to the relative location of the merging parties and physical features of the intervening terrain. Thus, some mergers involving firms located in different counties may have been defined as horizontal mergers, which would not be the case in the current tabulation.

21. For the analysis of specific merger applications being reviewed by the Federal Reserve, market definitions may be examined in considerable detail and may not follow MSA or county boundaries.

10. Distribution of acquisitions, by type, 1980–94

Year	Horizontal		Market-extension		Total
	Number	Percentage of total	Number	Percentage of total	
1980	85	45	105	55	190
1981	177	49	182	51	359
1982	209	50	211	50	420
1983	278	65	150	35	428
1984	239	54	202	46	441
1985	210	44	265	56	475
1986	287	50	286	50	573
1987	213	33	436	67	649
1988	192	41	276	59	468
1989	195	56	155	44	350
1990	195	53	171	47	366
1991	189	55	156	45	345
1992	164	41	237	59	401
1993	222	51	214	49	436
1994	237	53	209	47	446
Total	**3,092**	**48**	**3,255**	**50**	**6,347**

as market extension. According to the data, mergers over the *entire* period were about evenly split between horizontal and market extension. However, the percentage of horizontal mergers varied considerably over the period, from a high of 65 percent in 1983 to a low of 33 percent in 1987.

Clearly, offsetting forces were at work over the entire period, some encouraging horizontal mergers and others encouraging market extension mergers. Antitrust policy toward horizontal mergers, the type of merger involving direct competitors and the most likely to raise competitive problems, became much more liberal during the 1980s.[22] Also, in the second half of the 1980s, a view became popular among many bankers and industry observers that horizontal mergers would yield substantial efficiency gains especially because they would allow the closing of overlapping, or directly competing, offices of the two institutions. Market extension mergers were almost certainly stimulated by the reduction of restrictions on geographic expansion in many states as well as by the removal of restrictions on interstate banking between a substantial number of states.

Fifty-nine percent (3,719) of all mergers were in urban areas (MSAs), and 41 percent (2,628) were in rural areas (non-MSAs) during 1980–94 (table 11). There is no evidence of a trend as these percentages remained around 60 percent and 40 percent throughout the period. The percentage of mergers in MSAs during this period was somewhat higher than the average percentage (54 percent) for 1960–82. Because non-MSAs far outnumbered MSAs (for example, 2,368 compared with 317 in 1987), these percentages suggest that MSA markets are more attractive for entry than non-MSA markets.[23] This finding is consistent with several empirical studies on the subject of market attractiveness for entry.[24] The preference for merging into large markets probably reflects the revealed preference that acquiring firms have for increased size and growth. Compared with non-MSA markets, MSA markets, on average, have larger firms and higher growth rates and provide much greater opportunity for a bank to become larger. Despite these attractive features of MSAs from the standpoint of firm size and

22. For a detailed discussion, see Rhoades and Burke, "Economic and Political Foundations."

23. However, 53 percent of all banks were located in MSAs in 1987.

24. See, for example, Dean F. Amel, "An Empirical Investigation of Potential Competition: Evidence from the Banking Industry," in Benton E. Gup, ed., *Bank Mergers: Current Issues and Perspectives* (Kluwer Academic Publishers, 1989), pp. 29–68, and Dean F. Amel and J. Nellie Liang, "A Dynamic Model of Entry and Performance in the U.S. Banking Industry," Finance and Economics Discussion Series 210 (Board of Governors of the Federal Reserve System, Divisions of Research and Statistics and Monetary Affairs, September 1992).

11. Number of acquisitions, by type of market, 1980–94

Year	MSA	Non-MSA county	Total
1980	104	86	190
1981	214	145	359
1982	283	137	420
1983	250	178	428
1984	268	173	441
1985	272	203	475
1986	326	247	573
1987	415	234	649
1988	271	197	468
1989	205	145	350
1990	197	169	366
1991	202	143	345
1992	206	195	401
1993	251	185	436
1994	255	191	446
Total	**3,719**	**2,628**	**6,347**

MSA Metropolitan statistical area.

12. Average asset size of acquired banks and acquiring banking organizations, 1980–94
Millions of dollars

Year	Acquired banks		Acquiring organizations	
	Current dollars	1987 dollars[1]	Current dollars	1987 dollars[1]
1980	54	75	1,743	2,431
1981	95	120	2,266	2,873
1982	98	116	2,574	3,072
1983	117	134	1,981	2,272
1984	158	174	3,101	3,408
1985	141	150	2,326	2,464
1986	165	170	3,873	3,997
1987[2]	190	192	14,036[2]	14,036
1988	187	180	6,249	5,733
1989	124	114	3,444	3,160
1990	120	106	3,820	3,380
1991	436	369	9,789	8,296
1992	413	341	10,459	8,644
1993	236	191	9,305	7,504
1994	251	199	8,233	6,534

1. Based on the GDP implicit price deflator.
2. The exceptionally large average size of acquiring organizations in 1987 reflects the very large number of banks acquired in Texas that year by Chemical Corp., First Interstate, and Republic, which acquired large Texas multibank holding companies (respectively, Texas Commerce, Allied, and Interfirst).

growth, banks in non-MSA markets have generally earned considerably higher rates of return than banks in MSA markets, apparently because competitors are fewer in non-MSA counties.[25]

Mergers by Average Size, Type of Acquirer, and Year

In nominal terms, the average asset size of acquired banks increased from $54 million in 1980 to $251 million in 1994, with a big upward movement to $436 million in 1991 (table 12). This increase is nearly as impressive in constant dollars, from $75 million in 1980 to $199 million in 1994, with a big upward movement to $369 million in 1991. These data reflect the increasing number of very large mergers, as reported earlier, that characterized the second half of 1980–94. In contrast, similar data for 1960–82 showed no such marked increase in the size of acquired banks even though that period was considerably longer. The average asset size of acquiring firms also tended to increase in both nominal and real terms from the first to the second half of the 1980–94 period. In real terms, the average size of acquiring firms rose from an average of $2.9 billion during 1980–86 to $7.2 billion during 1987–94. The increase in the average size of acquiring firms during 1960–82 was more or less comparable. A possible explanation for the tendency of acquiring firms to be larger (in constant dollars) over time in both periods is that new opportunities for geographic expansion opened up, or were exploited, in the middle of both periods, and these provided new opportunities for larger firms to expand. Major new expansion opportunities due to liberalized branching and interstate banking laws appeared during the mid and late 1980s. Something of a bandwagon psychology appears to have motivated the exploitation of expansion opportunities in the late 1960s and 1970s by bank holding companies, especially in Florida and Texas.

Table 13 shows the number of acquisitions made by different kinds of banking organizations. Over the period, 3,947 out of 6,347 mergers, or 62 percent, were undertaken by multibank holding companies. In most years, this percentage ranged between 52 percent and 67 percent with highs of 76 percent and 71 percent in 1987 and 1988 respectively. The predominance of multibank

13. Number of acquisitions, by type of acquiring organization, 1980–94

Year	Multibank holding company[1]	One-bank holding company	Independent bank	Total
1980	107	31	52	190
1981	238	52	69	359
1982	224	131	65	420
1983	224	147	57	428
1984	244	127	70	441
1985	263	176	36	475
1986	358	182	33	573
1987	492	130	27	649
1988	330	109	29	468
1989	204	105	41	350
1990	207	120	39	366
1991	209	86	50	345
1992	258	120	23	401
1993	289	106	41	436
1994	300	117	29	446
Total	**3,947**	**1,739**	**661**	**6,347**

1. Includes acquisitions by their subsidiary banks.

25. See, for example, Anthony Cyrnak and Stephen Rhoades, "Small Markets: A Potentially Profitable Approach to Geographic Expansion," *Issues in Bank Regulation* (Spring 1989), pp. 17–26.

14. Number of acquisitions and amount of bank assets acquired, by approving regulator, 1980–94
Assets in millions of dollars

Year	Comptroller of the Currency		Federal Reserve Board		Federal Deposit Insurance Corporation		Total	
	Acquisitions	Assets	Acquisitions	Assets	Acquisitions	Assets	Acquisitions	Assets
1980	32	1,443	116	6,252	42	2,486	190	10,182
1981	68	17,865	252	13,741	39	2,462	359	34,068
1982	85	9,315	279	28,481	56	3,076	420	40,872
1983	60	9,172	305	30,985	63	9,890	428	50,047
1984	66	8,968	331	59,424	44	1,428	441	69,820
1985	58	6,507	376	58,917	41	1,695	475	67,120
1986	50	3,723	467	87,628	56	3,056	573	94,407
1987	45	2,574	544	117,765	60	2,953	649	123,292
1988	75	5,717	333	72,926	60	9,065	468	87,709
1989	96	4,345	217	37,834	37	1,206	350	43,386
1990	73	15,968	188	22,033	105	5,740	366	43,741
1991	35	3,788	224	142,177	86	4,321	345	150,286
1992	66	3,670	288	159,626	47	2,125	401	165,421
1993	99	16,598	283	83,038	54	3,417	436	103,052
1994	64	12,032	304	94,658	78	5,068	446	111,759
Total	**972**	**121,686**	**4,507**	**1,015,485**	**868**	**57,990**	**6,347**	**1,195,161**

NOTE. Total asset figures summed across regulators may not equal the figures summed across years because of rounding.

15. Number of acquisitions and amount of bank assets acquired by the ten most active acquirers, 1980–94

Name and location of organization	1980–94	1980	1981	1982	1983	1984	1985	1986
	Number of acquisitions							
Norwest Corp.—Minnesota	109	0	1	0	0	1	0	0
Banc One Corp.—Ohio	95	2	2	0	3	2	0	8
First Republic Corp.—Texas	79	3	4	3	1	0	0	0
Chemical Banking Corp.—New York	75	0	0	0	0	0	0	0
First Interstate Bancorp—California	66	0	0	0	0	1	0	0
First America Bank Corp.—Michigan	64	1	5	2	0	0	4	14
MCORP—Texas	61	0	2	16	2	37	1	0
Marshall & Ilsley Corp.—Wisconsin	57	6	0	1	1	1	5	5
First Wisconsin Corp.—Wisconsin	56	0	0	0	1	0	8	1
First Union Corp.—North Carolina	51	0	0	0	0	0	3	26
Total	**713**	**12**	**14**	**22**	**8**	**42**	**21**	**54**
	Bank assets acquired (millions of dollars)							
Norwest Corp.—Minnesota	15,988	0	46	0	0	129	0	0
Banc One Corp.—Ohio	47,487	71	725	0	1,343	113	0	1,608
First Republic Corp.—Texas	21,112	298	257	1,020	45	0	0	0
Chemical Banking Corp.—New York	68,510	0	0	0	0	0	0	0
First Interstate Bancorp—California	15,482	0	0	0	0	343	0	0
First America Bank Corp.—Michigan	10,685	50	1,135	95	0	0	783	1,636
MCORP—Texas	12,350	0	105	1,984	523	9,130	101	0
Marshall & Ilsley Corp.—Wisconsin	7,311	366	0	88	69	155	727	434
First Wisconsin Corp.—Wisconsin	6,769	0	0	0	54	0	624	72
First Union Corp.—North Carolina	40,445	0	0	0	0	0	3,953	5,082
Total	**246,139**	**785**	**2,268**	**3,187**	**2,033**	**9,870**	**6,189**	**8,832**

holding companies in bank merger activity reflects the fact that most of the large banking organizations in the United States are of the multibank form, and large firms are the most active acquirers. The figure of roughly 65 percent for such mergers is more or less comparable to the percentage of mergers accounted for by multibank holding companies during the 1970's bank holding company movement, the percentage having risen from much lower levels during the 1960s. The percentages of the remaining mergers accounted for by one bank holding companies (around 25 percent) and independent banks (around 10 percent) remained more or less the same from 1980 through 1994, with only an isolated exception or two.

Mergers by Federal Regulator

Table 14 shows the number of mergers approved by each of the three federal bank regulators (OCC, FRB, and FDIC) and the banking assets acquired in those mergers. Over 1980–94, the FRB approved more mergers (4,507) than the OCC (972) and the FDIC (868) combined. This pattern also occurred in the latter half of the 1960–82 period as a consequence of the acceleration of the bank holding company movement around 1970. Indeed, the FRB has played a large role simply because it regulates bank holding companies pursuant to the Bank Holding Company Act (1956) and because these companies have been the main vehicle for geographic expansion by merger since around 1970. In contrast to 1960–82, when the OCC had approved nearly twice as many mergers as the FDIC, during 1980–94 the FDIC approved nearly as many mergers (868) as the OCC (972). The reason for this change in relative numbers of approvals by the two agencies is not clear, but it may be associated with the large number of failing small banks: The FDIC regulates many small state-chartered nonmember banks and must approve their mergers. However, the shift is not

15. Continued

Name and location of organization	1987	1988	1989	1990	1991	1992	1993	1994
	Number of acquisitions							
Norwest Corp.—Minnesota	0	0	4	19	41	5	29	9
Banc One Corp.—Ohio	7	23	0	1	10	13	16	8
First Republic Corp.—Texas	68	0	0	0	0	0	0	0
Chemical Banking Corp.—New York	64	4	0	1	2	0	3	1
First Interstate Bancorp—California	51	1	2	0	1	1	3	6
First America Bank Corp.—Michigan	8	5	13	1	1	6	1	3
MCORP—Texas	0	0	0	0	0	1	2	0
Marshall & Ilsley Corp.—Wisconsin	0	18	0	3	0	0	0	17
First Wisconsin Corp.—Wisconsin	5	2	3	13	1	3	1	18
First Union Corp.—North Carolina	4	5	2	1	1	0	9	0
Total	**207**	**58**	**24**	**39**	**57**	**29**	**64**	**62**
	Bank assets acquired (millions of dollars)							
Norwest Corp.—Minnesota	0	0	440	2,768	6,545	370	4,076	1,613
Banc One Corp.—Ohio	4,611	4,454	0	65	3,915	9,090	16,624	4,868
First Republic Corp.—Texas	19,492	0	0	0	0	0	0	0
Chemical Banking Corp.—New York	20,197	3,858	0	37	39,174	0	5,066	178
First Interstate Bancorp—California	11,187	165	414	0	361	329	793	1,890
First America Bank Corp.—Michigan	735	331	2,145	109	39	2,746	29	853
MCORP—Texas	0	0	0	0	0	87	419	0
Marshall & Ilsley Corp.—Wisconsin	0	946	0	110	0	0	0	4,416
First Wisconsin Corp.—Wisconsin	438	154	277	2,569	52	341	99	2,088
First Union Corp.—North Carolina	273	991	9,546	7,815	102	0	12,683	0
Total	**56,933**	**10,899**	**12,822**	**13,474**	**50,188**	**12,964**	**39,790**	**15,906**

NOTE. Total asset figures summed across annual totals may not equal the total 1980–94 figures summed over the individual firms because of rounding.

due to a change in the proportion of banks that were nationally chartered and thus subject to regulation by the OCC: In both periods, nationally chartered banks accounted for about 34 percent of all commercial banks.

As with the number of mergers approved, the total bank assets acquired in mergers approved by the FRB were greater than those approved by the other agencies. The FRB approved mergers involving $1.0 trillion (85 percent) of the $1.2 trillion in total bank assets acquired during this period. This percentage of approved acquired assets accounted for by the FRB is higher than that (68 percent) during 1960–82. Even though the OCC approved only about 10 percent more mergers than the FDIC during 1980–94, the bank assets acquired in OCC-approved bank mergers ($121.7 billion) were more than twice those acquired in FDIC-approved mergers ($58 billion). This differential reflects the OCC's regulation of national banks and the FDIC's regulation of state-chartered, generally smaller, banks.

Mergers by the Ten Most Active Acquirers

Data on merger activity by the ten most merger-active firms appear in table 15. With 713 total mergers, the ten most active acquiring firms acquired an average of 71 banks each during 1980–94, or about 5 banks each per year. This amount is roughly 11 percent of the 6,347 mergers for the period. This merger rate is far greater than that attained by the ten most merger-active firms during 1960–82; those firms acquired an average of about 37 banks each over the period, or about 1.5 banks each per year, for a total of 368 banks.

In the later period, Norwest (Minnesota) with 109 mergers and Banc One Corporation (Ohio) with 95 mergers were the leaders, and even the tenth firm on the list, First Union Corporation (North Carolina), had 51 mergers. Notably, the mergers were widespread across the states; eight states had a banking organization represented among the top ten acquirers. In 1960–82, in marked contrast, only three states—Florida, Texas, and Virginia—were represented on the list of the

16. Number of acquisitions by the twenty–five largest banking organizations, 1980–94

Name and location of organization	1980–94	1980	1981	1982	1983	1984	1985	1986
Citicorp—New York	5	0	0	0	0	0	0	1
BankAmerica Corp.—California	17	0	0	0	0	0	0	0
Chemical Banking Corp.—New York	75	0	0	0	0	0	0	0
NationsBank Corp.—North Carolina	37	0	0	10	0	0	2	1
J.P. Morgan & Co., Inc.—New York	0	0	0	0	0	0	0	0
Chase Manhattan Corp.—New York	1	0	0	0	0	1	0	0
Bankers Trust New York Corp.—New York	0	0	0	0	0	0	0	0
Banc One Corp.—Ohio	95	2	2	0	3	2	0	8
First Union Corporation—North Carolina	51	0	0	0	0	0	3	26
KeyCorp—Ohio	18	2	0	0	1	1	2	0
First Chicago Corp.—Illinois	23	0	0	0	0	5	0	1
PNC Financial Corp.—Pennsylvania	20	0	0	1	0	3	0	1
Norwest Corporation—Minnesota	109	0	1	0	0	1	0	0
First Interstate Bancorp—California	66	0	0	0	0	1	0	0
Wells Fargo & Company—California	6	0	0	0	0	0	0	1
Bank of New York Company—New York	17	0	0	0	0	0	0	0
Fleet Financial Group, Inc.—Connecticut	13	0	0	0	0	0	0	1
NBD Bancorp, Inc.—Michigan	42	2	4	0	0	0	3	5
SunTrust Banks, Inc.—Georgia	16	0	0	0	0	0	0	12
Barnett Banks, Inc.—Florida	28	0	0	9	7	2	2	1
Wachovia Corporation—North Carolina	2	0	0	0	0	0	0	0
Mellon Bank Corporation—Pennsylvania	8	0	0	0	3	3	0	0
First Fidelity Bancorp—New Jersey	2	0	0	0	0	0	0	0
Comerica Inc.—Michigan	27	0	3	2	1	0	0	0
National City Corporation—Ohio	31	0	1	2	0	2	0	0
Total	**709**	**6**	**11**	**24**	**15**	**21**	**12**	**58**

top ten acquiring firms; Florida and Texas each had four firms. The contrast is consistent with the other data (see table 1) indicating that bank merger activity was far more widespread during 1980–94 than during 1960–82. Another interesting finding is that the most active acquirers were not generally among the very largest banking institutions in the country; rather they were regional banking firms.

The total assets acquired by the ten most active acquiring firms ($246.1 billion) were approximately 21 percent of all bank assets acquired over the period. As these firms accounted for about 11 percent of the total number of mergers, they clearly, on average, undertook relatively large mergers. Chemical, with $68.5 billion, leads the list by far in terms of assets acquired. This lead reflects the 1991 merger of Chemical Corp. with Manufacturers Hanover Trust Company, which was one of the largest mergers in U.S. banking history. Just as overall merger activity was much more intense during 1980–94 than during 1960–82, the top merging firms in the more recent period accounted for greater percentages of the mergers accomplished and assets acquired than the merger leaders of the earlier period.

Mergers by the Twenty-five Largest Organizations

The largest twenty-five banking organizations accounted for 709, or about 11 percent, of all mergers during 1980–94 (table 16). This percentage is the same as that accounted for by the ten most active acquirers during this period but is twice as large as the percentage accounted for by the twenty-five largest banking organizations during 1960–82. Only two of the twenty-five largest in 1980–94 made no bank mergers whereas ten of the twenty-five in 1960–82 made no mergers—another indication of the pervasiveness of merger activity during 1980–94. Also, for the largest firms, as for overall merger activity, the vast majority of mergers took place during the second half of the period (compare with table 1). Indeed, 87 percent of mergers by the twenty-five largest occurred after 1985.

16. Continued

Name and location of organization	1987	1988	1989	1990	1991	1992	1993	1994
Citicorp—New York	0	0	0	3	1	0	0	0
BankAmerica Corp.—California	0	0	0	1	1	13	0	2
Chemical Banking Corp.—New York	64	4	0	1	2	0	3	1
NationsBank Corp.—North Carolina	0	1	0	6	11	0	4	2
J.P. Morgan & Co., Inc.—New York	0	0	0	0	0	0	0	0
Chase Manhattan Corp.—New York	0	0	0	0	0	0	0	0
Bankers Trust New York Corp.—New York	0	0	0	0	0	0	0	0
Banc One Corp.—Ohio	7	23	0	1	10	13	16	8
First Union Corporation—North Carolina	4	5	2	1	1	0	9	0
KeyCorp—Ohio	3	0	0	2	1	4	2	0
First Chicago Corp.—Illinois	9	4	1	0	0	0	0	3
PNC Financial Corp.—Pennsylvania	9	0	1	0	1	2	1	1
Norwest Corporation—Minnesota	0	0	4	19	41	5	29	9
First Interstate Bancorp—California	51	1	2	0	1	1	3	6
Wells Fargo & Company—California	0	0	0	3	2	0	0	0
Bank of New York Company—New York	1	14	0	0	0	1	1	0
Fleet Financial Group, Inc.—Connecticut	7	0	0	0	4	1	0	0
NBD Bancorp, Inc.—Michigan	8	0	1	0	9	10	0	0
SunTrust Banks, Inc.—Georgia	0	2	0	0	1	0	1	0
Barnett Banks, Inc.—Florida	0	3	1	1	0	1	1	0
Wachovia Corporation—North Carolina	1	0	0	0	1	0	0	0
Mellon Bank Corporation—Pennsylvania	0	0	0	0	0	0	0	2
First Fidelity Bancorp—New Jersey	0	0	0	0	1	0	0	1
Comerica Inc.—Michigan	0	3	1	10	1	5	1	0
National City Corporation—Ohio	0	8	1	0	0	17	0	0
Total	**164**	**68**	**14**	**48**	**89**	**73**	**71**	**35**

17. Bank assets acquired by the twenty-five largest banking organizations, 1980–94
Millions of dollars

Name and location of organization	1980–94	1980	1981	1982	1983	1984	1985	1986
Citicorp—New York	592	0	0	0	0	0	0	514
BankAmerica Corp.—California	86,790	0	0	0	0	0	0	0
Chemical Banking Corp.—New York	68,510	0	0	0	0	0	0	0
NationsBank Corp.—North Carolina	70,209	0	0	1,811	0	0	1,992	17
J.P. Morgan & Co., Inc.—New York	0	0	0	0	0	0	0	0
Chase Manhattan Corp.—New York	4,118	0	0	0	0	4,118	0	0
Bankers Trust New York Corp.—New York	0	0	0	0	0	0	0	0
Banc One Corp.—Ohio	47,487	71	725	0	1,343	113	0	1,608
First Union Corporation—North Carolina	40,445	0	0	0	0	0	3,953	5,082
KeyCorp—Ohio	7,359	348	0	0	123	54	444	0
First Chicago Corp.—Illinois	6,930	0	0	0	0	3,053	0	112
PNC Financial Corp.—Pennsylvania	16,687	0	0	2,777	0	2,299	0	137
Norwest Corporation—Minnesota	15,988	0	46	0	0	129	0	0
First Interstate Bancorp—California	15,482	0	0	0	0	343	0	0
Wells Fargo & Company—California	18,858	0	0	0	0	0	0	16,957
Bank of New York Company—New York	26,875	0	0	0	0	0	0	0
Fleet Financial Group, Inc.—Connecticut	30,865	0	0	0	0	0	0	665
NBD Bancorp, Inc.—Michigan	18,185	196	448	0	0	0	1,061	1,944
SunTrust Banks, Inc.—Georgia	6,136	0	0	0	0	0	0	5,248
Barnett Banks, Inc.—Florida	9,160	0	0	871	327	888	72	457
Wachovia Corporation—North Carolina	6,981	0	0	0	0	0	0	0
Mellon Bank Corporation—Pennsylvania	5,984	0	0	0	4,915	819	0	0
First Fidelity Bancorp—New Jersey	1,748	0	0	0	0	0	0	0
Comerica Inc.—Michigan	17,926	0	219	395	880	0	0	0
National City Corporation—Ohio	18,241	0	34	898	0	6,017	0	0
Total	**541,557**	**615**	**1,472**	**6,752**	**7,588**	**17,834**	**7,522**	**32,741**

The twenty-five largest banking firms acquired about 45 percent, or $542 billion, of all bank assets acquired during 1980–94 (table 17). This amount is substantially more than that acquired by the ten most merger-active firms and reflects the record-sized acquisitions made by several of the largest of these organizations. These record mergers include BankAmerica–Security Pacific, Chemical–Manufacturers Hanover, and Nationsbank–C&S/Sovran. Banc One and First Union also contributed substantially to the large amount of assets acquired by the group. The proportion of acquired assets accounted for by the twenty-five largest during 1980–94 (about 45 percent) dwarfs the proportion accounted for by a comparable group during 1960–82 (about one-tenth). As documented earlier, the much greater amount in the more recent period reflects the historically extraordinary size of many recent mergers.

Industrywide Structure and Performance

Data on various dimensions of industrywide structure and performance from 1980 through 1994 place merger activity in a broader context (table 18). Furthermore, data on changes in other dimensions of the banking industry may suggest connections with merger activity that warrant investigation.

Mergers, Charters, and Failures

In the table, rows 1–4 show data on mergers, new charters, and failures, all of which directly affect the number of banks. All these data series follow a roughly similar pattern: All rise significantly from 1980 (especially mergers and failures), and all begin declining by the middle to late 1980s (especially new charters and failures). While new charters were climbing to high levels from 1981 (199) to 1984 (391) and 1985 (330), average return on assets (row 24) in the industry was falling steeply from 1.13 percent in 1981 to 0.67 percent in 1984 and 0.56 percent in 1985. This seemingly perverse chartering activity, with new charters going up as profits are going down, may reflect time lags between the recognition of profitable opportunities for entry in banking and winning approval for a charter application from state or federal regulators.

17. Continued

Millions of dollars

Name and location of organization	1987	1988	1989	1990	1991	1992	1993	1994
Citicorp—New York	0	0	0	47	31	0	0	0
BankAmerica Corp.—California	0	0	0	17	32	68,447	0	18,294
Chemical Banking Corp.—New York	20,197	3,858	0	37	39,174	0	5,066	178
NationsBank Corp.—North Carolina	0	49	0	517	49,104	0	15,694	1,027
J.P. Morgan & Co., Inc.—New York	0	0	0	0	0	0	0	0
Chase Manhattan Corp.—New York	0	0	0	0	0	0	0	0
Bankers Trust New York Corp.—New York	0	0	0	0	0	0	0	
Banc One Corp.—Ohio	4,611	4,454	0	65	3,915	9,090	16,624	4,868
First Union Corporation—North Carolina	273	991	9,546	7,815	102	0	12,683	0
KeyCorp—Ohio	873	0	0	407	77	3,867	1,166	0
First Chicago Corp.—Illinois	1,347	837	431	0	0	0	0	1,149
PNC Financial Corp.—Pennsylvania	5,439	0	1,906	0	68	1,117	910	2,034
Norwest Corporation—Minnesota	0	0	440	2,768	6,545	370	4,076	1,613
First Interstate Bancorp—California	11,187	165	414	0	361	329	793	1,890
Wells Fargo & Company—California	0	0	0	1,670	231	0	0	0
Bank of New York Company—New York	1,807	17,702	0	0	0	3,187	4,179	0
Fleet Financial Group, Inc.—Connecticut	8,444	0	0	0	21,670	86	0	0
NBD Bancorp, Inc.—Michigan	2,560	0	34	0	2,785	9,158	0	0
SunTrust Banks, Inc.—Georgia	0	53	0	0	384	0	451	0
Barnett Banks, Inc.—Florida	0	253	58	47	0	5,763	423	0
Wachovia Corporation—North Carolina	75	0	0	0	6,906	0	0	0
Mellon Bank Corporation—Pennsylvania	0	0	0	0	0	0	0	250
First Fidelity Bancorp—New Jersey	0	0	0	0	1,647	0	0	101
Comerica Inc.—Michigan	0	482	294	1,149	97	13,650	760	0
National City Corporation—Ohio	0	5,324	63	0	0	5,904	0	0
Total	**56,812**	**34,168**	**13,188**	**14,538**	**133,128**	**120,969**	**62,826**	**31,404**

Mergers and failures substantially exceeded the number of new charters in every year except 1980. Thus, the mergers, charters, and failures are reflected in substantial declines in the number of banks (row 5) from 14,222 to 10,313 (27 percent) and banking organizations (row 6) from 12,239 to 7,906 (35 percent).[26] It is apparent that mergers played the largest role in reshaping the banking industry during 1980–94.

26. The changes in the number of banks and organizations cannot be calculated from rows 1, 3, and 4; for various reasons, the net change from these sources will not equal the change in the number of banks and organizations over this period. For example, multibank holding companies formed out of chain relationships reduce the number of organizations but are not reflected in those rows. The conversion of the banks in a multibank holding company to branches in response to liberalized branching laws reduces the number of banks, but this conversion is not reflected in the rows. Also, if a multibank holding company is acquired, each bank in the bank holding company is treated as a separate merger, but only one banking organization disappears; and because a multibank holding company's acquisition of a bank is counted as a merger, the number of independent banking organizations declines, but the number of banks in the industry remains unchanged.

Number of Offices, Banks, ATMs, and Checks

Over 1980–94, the number of banking offices rose from 45,594 to 56,397, nearly 25 percent (row 7). This increase represents a continuation in the strong growth of banking offices since at least 1970, when there were 29,746 offices.[27] The large increase in offices from 1980 through 1994 while the number of banks declined 27 percent and banking organizations declined 35 percent suggests that a physical local presence and convenient location are fundamental to the banking business. The increase in offices also suggests that transactions costs, and perhaps information costs, continued to provide a strong incentive for retail customers (that is, households and small businesses) to use physically convenient banking facilities. Indeed, convenience of location may be an important form of product differentiation

27. The continued increase in the number of offices after removal of Regulation Q ceilings on interest on deposits in 1985 suggests that offices do not, as has been suggested, represent a form of nonprice competition that was employed simply because price competition was restricted.

18. Industrywide banking structure and performance, 1980–94

		Source	1980	1981	1982	1983	1984	1985	1986	1987
	Organizational change (number)									
1	Bank mergers	FSR	190	359	420	428	441	475	573	649
2	Large bank mergers	FSR	0	1	2	5	6	9	9	18
3	New charters (national and state)	FDIC	205	199	317	361	391	330	257	219
4	Failures	NIC	10	7	32	44	79	117	139	197
	Organizations and facilities (number)									
5	Banks	NIC	14,222	14,286	14,224	14,230	14,131	14,096	13,884	13,402
6	Banking organizations	NIC	12,239	12,151	11,845	11,603	11,241	10,981	10,465	10,078
7	Banking offices	SOD	45,594	46,907	48,462	48,955	49,478	49,957	50,287	51,459
8	ATMs	BNN	18,500	25,790	35,721	48,118	58,470	61,117	64,000	68,000
	Transactions									
	ATM									
9	Number (billions)	BNN	0.9	1.2	1.8	2.9	3.5	3.6	3.6	4.1
10	Value (billions of dollars)	BNN	48.8	69.6	106.2	174	220.5	227.8	231.6	263.2
11	Checks (billions)	FRBOP	35.2	36.3	40.1	42.5	44.5	46.6	47.5	49.2
	Deposits held by largest organizations (percent)									
12	Top 10	SOD	18.93	19.11	18.01	18.62	17.31	16.86	18.08	18.57
13	Top 25	SOD	29.32	30.13	29.34	29.66	28.30	28.26	29.82	31.33
14	Top 50	SOD	37.28	37.99	37.88	38.69	38.18	39.76	42.20	44.13
15	Top 100	SOD	46.71	47.54	47.99	49.23	49.38	51.52	54.83	57.32
16	Top 200	SOD	57.44	58.08	58.95	60.25	60.61	62.97	66.23	68.10
	Measures of concentration (average except as noted)[1]									
17	CR_3 of MSAs	SOD	66.81	67.06	67.01	67.23	67.21	67.38	68.55	68.24
18	CR_3 of nonMSAs	SOD	89.55	89.58	89.52	89.68	89.81	89.87	89.90	89.96
19	HHI of MSAs	SOD	1857	1886	1888	1899	1896	1923	1984	1980
20	HHI of nonMSAs	SOD	4341	4327	4307	4319	4334	4317	4305	4315
21	Markets (number)[2]	SOD	2,736	2,725	2,724	2,729	2,732	2,691	2,688	2,685
	Economic and financial indicators									
22	GDP growth	FAME	–0.16	–0.14	–1.14	6.72	4.54	3.32	2.16	4.48
23	Bank stock index	S&P	55.76	65.43	56.82	75.46	75.77	95.15	117.53	119.38
24	Average return on assets	CALL	1.15	1.13	0.97	0.83	0.67	0.56	0.40	0.46
25	Average return on equity	CALL	12.35	11.57	9.47	7.54	5.16	1.80	–2.81	–3.04

among banks and between banks and other providers of financial services.

The trend in the number of banking offices is also interesting in relation to the number of ATMs (row 8) and the number and dollar volume of ATM transactions (rows 9 and 10). In particular, the number of banking offices rose throughout the period even though the number of ATMs and ATM usage grew dramatically. For example, the number of ATMs increased more than five-fold, from 18,500 in 1980 to 109,080 in 1994. This increase marks a continuation of strong growth in the number of ATMs since 1972, when only 800 were in place. Between 1980 and 1994, the number of ATM transactions rose from 0.9 billion to 8.3 billion, and the dollar value of transactions rose from $49 billion to $558 billion.[28] The substantially higher rate of increase in the number of transactions than that in the number of ATMs suggests growing consumer awareness and acceptance of this form of banking.[29] Nevertheless, the growth in the number of banking offices throughout this period suggests that ATMs were not a close substitute for banking offices; in fact, according to the trade press, ATMs were used primarily as a source of cash. Although ATMs may be profitable for banks and convenient for some bank customers, they do not appear to be the form of electronic banking that will displace banking offices.

The comparison of ATM transactions with the number of checks written (row 11) provides another perspective on the role of ATMs in the banking system. In particular, the number of

28. The dollar volume in constant 1987 dollars, using the GDP implicit price deflator, increased from $68 billion to $443 billion. Thus, the dollar volume in real terms increased at only a slightly higher rate than the number of ATMs.

29. The average size of transaction, in constant 1987 dollars, declined from $75.93 to $53.39.

18. Continued

		Source	1988	1989	1990	1991	1992	1993	1994
	Organizational change (number)								
1	Bank mergers	FSR	468	350	366	345	401	436	446
2	Large bank mergers	FSR	14	3	6	16	23	15	15
3	New charters (national and state)	FDIC	229	192	165	92	72	59	49
4	Failures	NIC	212	205	159	104	95	36	11
	Organizations and facilities (number)								
5	Banks	NIC	12,828	12,456	12,084	11,712	11,284	10,823	10,313
6	Banking organizations	NIC	9,701	9,450	9,207	9,017	8,730	8,329	7,906
7	Banking offices	SOD	52,570	53,517	54,848	55,466	56,717	56,524	56,397
8	ATMs	BNN	72,492	75,632	80,156	83,545	87,330	94,822	109,080
	Transactions								
	ATM								
9	Number (billions)	BNN	4.5	5.1	5.8	6.4	7.2	7.8	8.3
10	Value (billions of dollars)	BNN	297	330	383	429	482	514.8	558.4
11	Checks (billions)	FRBOP	50.3	52.9	55.3	56.8	57.7	59.4	61.0
	Deposits held by largest organizations (percent)								
12	Top 10	SOD	18.67	19.52	20.59	23.20	24.67	25.40	26.62
13	Top 25	SOD	32.72	33.43	35.53	37.71	39.48	41.12	42.89
14	Top 50	SOD	46.97	47.50	49.07	50.01	51.76	53.65	54.36
15	Top 100	SOD	59.51	60.30	61.31	61.65	62.95	64.49	65.26
16	Top 200	SOD	69.27	70.35	70.89	70.76	71.32	72.22	72.61
	Measures of concentration (average except as noted)[1]								
17	CR_3 of MSAs	SOD	68.66	68.28	68.30	68.55	69.83	68.70	68.29
18	CR_3 of nonMSAs	SOD	90.06	90.12	90.03	89.77	89.81	89.78	89.67
19	HHI of MSAs	SOD	1861	1854	1856	1827	1895	1839	1806
20	HHI of nonMSAs	SOD	4305	4292	4231	4223	4193	4179	4153
21	Markets (number)[2]	SOD	2,685	2,677	2,681	2,684	2,683	2,587	2,588
	Economic and financial indicators								
22	GDP growth	FAME	3.33	1.61	.22	.28	3.69	3.11	4.14
23	Bank stock index	S&P	112.23	132.61	111.58	141.12	180.84	210.19	209.15
24	Average return on assets	CALL	.63	.75	.64	.74	.98	1.12	1.13
25	Average return on equity	CALL	–.24	3.03	2.85	4.90	10.08	10.84	11.41

1. CR_3 is the three-firm deposit concentration ratio—that is, the percentage of deposits accounted for by the three largest banking organizations in the market. HHI is the Herfindahl–Hirschman index.

2. The number of markets is the sum of all MSAs and non–MSA counties in the United States. The number of markets tends to decline over time as new areas meet the criteria for being defined as MSAs, which are composed of one or more counties, and counties are incorporated into MSAs. In addition, expanding suburbs result in the inclusion of additional counties into existing MSAs.

SOURCE.
BNN Bank Network News
CALL Call Reports, Federal Reserve Board
FAME FAME US database, Federal Reserve Board
FDIC FDIC Historical Statistics on Banking
FRBOP Division of Reserve Bank Operations, Federal Reserve Board
FSR Financial Structure Section, Federal Reserve Board
NIC NIC database, Federal Reserve Board
S&P S&P Major Regional Banks Security Price Index (Yearly Averages, 1941–43 = 10)
SOD Summary of Deposits tapes, FDIC and Federal Reserve Board

checks rose from 35.2 billion in 1980 to 61.0 billion in 1994. This increase represents a continuation of the unbroken growth in check usage since at least 1970, when 15.1 billion checks were written. The continued growth in check usage occurred even though the number of ATMs grew dramatically and many businesses and governments began directly (electronically) depositing employees' pay in lieu of passing out the traditional paycheck. Furthermore, as recently as 1987, 98 percent of all payments were still made by paper or cash.[30] These data suggest that, at the retail level, ATMs and electronic banking generally have not yet become an attractive alternative to paper-based transactions.

30. Elinor Harris Solomon, ''Financial Sector Innovation: The Consumer Impact'' (unpublished paper, George Washington University, March 1990). See also Elinor Harris Solomon, ed., *Electronic Money Flows: The Molding of New Financial Order* (Kluwer Academic Publishers, 1991).

This situation is an obvious source of uncertainty as banks plan for the future. The uncertainty is highlighted by the prediction thirty years ago by a governor of the Federal Reserve that ‘‘within the discernible future . . . check usage as we know it will have largely disappeared.’’[31]

In sum, these data on banking offices, ATMs, and checks suggest that the demand is large for ‘‘old-fashioned’’ banking and for banking offices for which electronic banking, at least in its present form, is not a close substitute. Furthermore, personal computers have made only very limited headway even for a few simple banking transactions and certainly do not substitute for branches. Thus, despite all of the hyperbole in recent years about the displacement of branches by electronic banking, a number of observers have quite recently debunked such fashionable views in recognition of market realities.[32] As noted in a *Wall Street Journal* article, ‘‘Don’t expect too much from home banking. Like most other things about computers, the hype far exceeds the reality.’’[33]

In view of market realities, a widespread closing of banking offices may eliminate one of the main attributes that differentiates banks from various other providers of financial services: Banks could become only a name with no concrete identity or connection to a community. Furthermore, as banks offer more services to the general public, such as insurance, mutual funds, and annuities, the local banking office may actually become an increasingly valuable platform for competing in the financial marketplace.

Thus, the uniqueness and potentially increasing value of banking offices may explain the seemingly perverse finding that the number of banking offices increased greatly while the number of banks plummeted and the number of ATMs mushroomed. Indeed, at the annual conference of the Consumer Bankers Association in 1990, the observation was made that the branch office was repeatedly cited as ‘‘the key to bank profitability and success,’’ and said to be ‘‘the single most important thing in terms of the outlook for the fate and structure of commercial banking.’’[34] The data in table 18 are consistent with this observation.

Banks may be in the position of maintaining the industry’s unique presence in the local market with office networks even as they experiment with various forms of electronic banking that may someday replace branches (ATMs and home banking via telephone and personal computers). Until retail electronic banking tools are widely available, have general acceptance by the public, and substitute well for banking offices, the local banking office may be essential for banks to compete effectively. Given banking offices’ potential as retail platforms for new products, their unique presence in the financial services sector, and the excruciatingly slow progress of general retail electronic banking, the most profitable strategy may be to streamline these offices to take advantage of their unique strengths.

A prudent and workable strategy may be for banks to exercise considerable caution in significantly reducing offices and to wait until an electronic retail platform that will permit them to keep their customers is clearly available. Such a strategy would be prudent in view of the uniqueness of and apparent demand for banking offices, and it appears to be feasible because office systems can be dismantled quickly in small increments. That is, an office network is not a single large investment, and as a consequence, a network of offices can be judiciously disposed of office by office as such action becomes clearly appropriate. Moreover, most banking offices occupy space that is attractive for other retail operations and thus could be disposed of relatively quickly at presumably little or no cost. In other words, sunk costs for physical plant are low.[35]

31. George W. Mitchell, ‘‘Effects of Automation on the Structure and Functioning of Banking,’’ *American Economic Review*, vol. 56 (May 1966, Papers and Proceedings, 1965), p. 160.

32. See, for example, Walter S. Mossberg, ‘‘Banking by PC Doesn’t Do Enough to Ease a Grim Task,’’ *Wall Street Journal* (December 7, 1995), p. B1; James R. Krause, ‘‘Despite Reports of Its Demise, The Branch Is Still on the Rise,’’ *American Banker* (December 5, 1995), p. 1; Karen Kepper, ‘‘Branch-Only Customers Churn Out Most Retail Profits, Study Suggests,’’ *American Banker* (December 5, 1995), p. 16; and Timothy J. Ryan, ‘‘Branch Role Remains Critical,’’ *Bank Management* (November/December 1995), pp. 37–42.

33. Walter S. Mossberg, ibid.

34. Sam Zuckerman, ‘‘In Rough Times, Retail Branches May Be the Key,’’ *American Banker* (September 20, 1990), pp. 1 and 6.

35. The arguments for ease of office exit (closing) do not apply to office entry (opening). Thus, one probably cannot presume that a bank can easily reverse exit decisions and reenter if the exits are judged to be a mistake. Once an office closes, local retail customers will, by necessity, establish other financial relationships and, because of transaction and information costs and behavioral inertia, the customers may not quickly return to their former banking office.

Number of Offices, Profitability, and Failures

A final observation regarding the number of banking offices relates to bank profitability and failure. Even as the number of banking offices increased substantially and uninterruptedly, bank returns on assets and equity (table 18, rows 24 and 25) declined substantially early in the 1980–94 period and remained at low levels until 1992. Also during the period, bank failures steadily rose to record levels, reaching a high of 205 in 1989 before dropping off. These data suggest that, even in bad times, banks have believed that a continuing investment in banking offices is necessary.

Concentration and Mergers

The data in rows 12–16 of table 18 show the nationwide concentration of deposits, that is, the percentage of deposits accounted for by various groups of the largest banking organizations (consolidated within bank holding companies) from 1980 to 1994. As one would expect given the number of very large mergers, the nationwide banking concentration increased remarkably, especially considering the relatively short period covered. For example, the share held by the top 10 organizations rose from 18.9 percent to 26.6 percent between 1980 and 1994, and the share of the top 100 rose from 46.7 percent to 65.3 percent. Furthermore, every subgroup within the top 100 experienced an increase in its share of industry deposits (calculated from data in table). The firms ranked 101–200, however, experienced a decrease, from 10.7 percent to 7.3 percent of industry deposits. The largest increases in share were by the largest two groups of firms (1–10 and 11–25), and these occurred near the end of the period, when the record-sized mergers took place.

Data on concentration in local banking markets (MSAs and non-MSA counties) are shown in rows 17–20, with three-firm concentration ratios (CR_3) in rows 17 and 18 and Herfindahl–Hirschman indexes (HHIs) in rows 19 and 20. Local market concentration showed little change as measured by either the CR_3 or the HHI despite the very large increases in nationwide concentration during the period. Local market concentration is interesting and important because banking competition occurs to a large degree at the local market level for most households and small businesses and because market concentration is directly related to competition.

These data suggest two other points. First, even in MSAs, which are unconcentrated compared with the rural area average HHI of over 4000 (non-MSA counties), the average HHI was above 1800, a level that, according to the Justice Department guidelines for horizontal mergers, distinguishes highly concentrated from moderately concentrated markets. Second, in spite of the large number of mergers, bank merger policy has apparently been effective in preventing local banking markets from becoming less competitively structured. The data also illustrate what has been clearly demonstrated conceptually: A massive consolidation of the U.S. banking industry could occur without violating even the numerical guidelines for horizontal mergers used by the Department of Justice and the Federal Reserve.[36] Furthermore, even strict adherence to these guidelines could result in a substantial increase in local market concentration.[37] The number of markets (row 21) shows simply the number of areas to which the average CR_3 and HHI figures apply.

GDP Growth, Profits, and Stock Performance

Data on the growth of the economy and the performance of the banking industry appear in table 18, rows 22–25. During 1980–94, bank performance, in terms of return on assets and equity, tended to move counter to the change in GDP. Whereas profitability in banking was high in the early 1980s and then fell until rising in the early 1990s, GDP growth (row 22) was negative in the early 1980s and showed at least moderate growth until slowing significantly in 1990 and 1991 and rising again during 1992–94.

Making any generalizations about the relation between overall economic growth and bank profitability from such a short period is impossible. However, the relationship observed here suggests that bank performance lags performance in the real sector. This lag might be expected on grounds that the real economy must already be slowing for declining loan demand and increasing loan losses to be reflected in bank profitability. Also suggesting that conditions in the real

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36. Stephen A. Rhoades, "Consolidation of the Banking Industry and the Merger Guidelines," *Antitrust Bulletin* (Fall 1992), pp. 689–705. Some bank mergers are approved even though they exceed the strict numerical guidelines because of various mitigating economic factors, such as potential competition, which suggest that competition may be stronger than the HHI numbers indicate.

37. Ibid.

economy may affect banking, but with a lag, is the exceptional number of bank failures that developed during the 1980s and steadily declined in the early 1990s, in a pattern closely following that of bank profitability. Nevertheless, the patterns observed for economic growth and banking industry profitability during 1980–94 may be coincidental. The period may simply have been unique for banks in that unusually severe economic problems struck important industries in the real economy (including agriculture, petroleum, and commercial real estate) and major loans to less-developed countries went bad (for the very largest banks). More typical declines in GDP may not include such severely affected sectors of the economy and, therefore, may not be reflected in lagged bank profitability.

Finally, the performance of the bank stock index (for major regional banks), which presumably reflects the views and expectations of the financial markets about the banking industry, changed substantially but somewhat erratically (table 18, row 23). From casual observation, this stock index appears to have little relationship with the bank profitability and other banking data shown in table 18. If anything, the index may respond to (that is, lag) rate-of-return results in banking.

Overall, the data in table 18 illustrate that between 1980 and 1994 major changes besides the record level of merger activity occurred in industrywide structure and performance. Even as the industry experienced large declines in the number of banks and increases in deposit concentration due largely to mergers and failures, perhaps somewhat paradoxically a large number of new bank charters were issued, and huge numbers of banking offices and ATMs were established. This remarkably dynamic period in banking, highlighted by many exits and entries, reflects largely the continuing removal of restrictions on geographic expansion within and across states. Banking profitability declined substantially from the high levels that existed at the beginning of the period only to rise substantially near the end of the period. Whether the sharp decline in profitability during the 1980s represents a long-term condition due to excess capacity and restrictions on the services banks may offer, as some observers have argued, or to a number of widespread, self-inflicted lending debacles remains to be seen. Since 1991, profitability in banking has been high. Because most industries are subject to cyclical profit performance owing to general economic conditions or business judgments, one down-cycle in bank performance does not, in itself, provide a sound basis for major policy changes. Indeed, the industry has just received legal power for nationwide geographic expansion and appears on the verge of receiving it for product expansion, which may ensure a bright future for banking.

Summary

This paper presents new data on all bank mergers and on industrywide banking structure and performance from 1980 through 1994. Among other things, the data for that period show the following:

- This period of record merger activity involved more than 6,300 mergers and $1.2 trillion in acquired assets.
- The number of mergers peaked during the mid-1980s, but the dollar volume of acquired assets peaked during 1990–94.
- Several of the largest mergers in modern U.S. banking history occurred during the subperiod 1986 through 1992, including BankAmerica–Security Pacific, Chemical Bank–Manufacturers Hanover, and NCNB–C&S/Sovran.
- The number of large mergers, in which the acquiring firm and target bank each had more than $1 billion in assets, increased substantially from almost zero.
- Merger activity, including large mergers, was more widespread among the states than it was in 1960–82.
- Multibank holding companies and their banks accounted for the great majority of acquisitions throughout the period, and as a consequence the Federal Reserve was the most active regulator.
- Mergers were more or less evenly divided between the horizontal (in-market) and market-extension types throughout the period.
- The ten most active acquiring firms accounted for about 11 percent of all acquisitions.
- The number of new bank charters peaked and then declined at roughly the same time as the number of bank mergers.
- The number of banking offices continued to grow throughout the period even as the number of ATMs exploded.
- Over the period, the number of banks and banking organizations decreased substantially, and the nationwide concentration of deposits in the largest banking organizations increased substantially (though local market concentration remained nearly constant).

These data indicate that during 1980–94 the U.S. banking industry had a major consolidation and that a record level of mergers played a major role in that consolidation. Because new opportunities for geographic expansion were probably the main reason for the high level of merger activity, mergers and the consolidation movement may be expected to continue in response to recent state and federal legislation (especially the Riegle–Neal Interstate Banking and Branching Efficiency Act of 1994). It seems apparent from recent history and from a simulation that the antitrust laws do not inhibit a major consolidation of the banking industry by merger. Indeed, the recent interstate banking law seems to set the stage for any number of new record-sized bank mergers even though several were recorded in just the past few years.

Finally, the continuing increase in banking offices and checks written, even as the number of ATMs and ATM transactions grew dramatically, suggests that electronic banking in its present form has not eliminated the need for banking offices. Indeed, the local banking office may be a key way for banks to distinguish themselves from other financial service providers and may have the potential to become a valuable retail platform for new banking products. Consequently, although banks must remain abreast of and experiment with electronic banking, they may find it desirable to proceed cautiously with widespread office closings and, instead, develop a streamlined branch in the form of a mini-office.