Board of Governors of the Federal Reserve System

Staff Study
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Bank Merger Activity in the United States, 1994–2003

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The following paper is summarized in the *Bulletin* for Summer 2004. The analyses and conclusions set forth are those of the authors and do not necessarily indicate concurrence by the Board of Governors, the Federal Reserve Banks, or members of their staffs.

Contents

Bank Merger Activity in the United States, 1994–2003

Introduction

Mergers and acquisitions have significantly changed the U.S. banking industry over the past quarter century. For example, during the 1980–2003 period the number of banking organizations decreased from about 16,000 to about 8,000, and mergers of healthy institutions were by far the most important cause of that consolidation. During that period, the share of industry assets held by the ten largest commercial banking organizations (ranked by assets) rose from 22 percent to 46 percent, and the share of industry deposits held by the ten largest (ranked by deposits) rose from 19 percent to 41 percent.[1]

Several factors, including advances in information technology, have facilitated the industry's consolidation, but the most important factor has undoubtedly been the gradual easing of geographic restrictions on banks.[2] Widespread deregulation of geographic limits started in the mid-1970s and culminated with the Riegle–Neal Interstate Banking and Branching Efficiency Act of 1994. The easing enabled banking organizations to increase the size and reach of their operations by making acquisitions outside of their markets, including in other states.

This study examines patterns in the 3,517 mergers consummated during the ten years from 1994 to 2003; these transactions involved the acquisition of about $3.1 trillion in assets, $2.1 trillion in deposits, and 47,300 offices. The study only touches upon the effects of these mergers on such important areas as industry structure, bank efficiency, pricing, and risk, but the analysis herein should provide significant help to future research on these topics.[3]

Merger Data

The source of the data employed in this study is SNL Financial (www.snl.com), which primarily covers bank mergers completed in 1990 and thereafter. The database employed in this study consists of the vast majority of mergers between separately owned banking organizations in the years 1994–2003.[4]

More particularly, the present study covers every transaction in the SNL database in which the target (the institution being acquired) or one of its banking subsidiaries was chartered in the United States and in which the acquirer and the target were, or owned, a commercial bank, savings bank, savings and loan association, or industrial bank.[5] The data exclude acquisitions by private investors, nonbanking firms, and newly formed bank holding companies with no active bank subsidiaries; the data also exclude transactions involving failed or failing institutions.

Extensive financial information on all the merger participants in the SNL database was drawn from data at the Board of Governors of the Federal Reserve System, including quarterly Consolidated Reports of Condition and Income (Call Report);

Note. I thank Dean Amel, Myron Kwast, and Robin Prager for their comments and Shaista Ahmed, Charles Taragin, and Onka Tenkean for research assistance.

1. Consolidated Reports of Condition and Income, Federal Financial Institutions Examination Council, various years. Unless otherwise noted, the terms *banking industry, banking organization,* and *bank* in this study encompass commercial banks, thrift institutions, and the U.S. offices of foreign banks (see general note to table 1 for details). The terms *banking organization* and *bank* are used interchangeably. The term *offices* refers both to head offices and branch offices, and the term *merger* is used interchangeably with the term *acquisition*.

2. Group of Ten (2001), Berger, Demsetz, and Strahan (1999), and Pilloff and Santomero (1998) provide good discussions of the causes and motivations behind consolidation in banking.

3. Two previous Federal Reserve Staff Studies examined at least one of these issues (industry structure) extensively, and over a longer period: Rhoades (1996) covered 1980–94, and Rhoades (2000) covered 1980–98.

4. The data cover the fifty states, the District of Columbia, and eight U.S.-affiliated areas (see general note to table 1). SNL periodically revises its historical data; the SNL data used in this study were obtained on March 15, 2004. Comparing the SNL data with an alternative set of data that covers mergers through 1998, we estimate that each year of SNL data for the first half of the 1994–2003 period omits about fifty very small deals; these omissions account for 10–15 percent of all bank mergers during the period and for a much smaller share of the assets, deposits, and offices that were acquired. The missing transactions are not included in this study. The estimated number of annual omissions in the 1990–93 period is two to four times larger than in the first half of the 1994–2003 period.

5. In a few cases, the acquirer was a foreign bank with at least one U.S. office. In this study, ownership of an entity requires control of more than 50 percent of its equity.

1. Number of Bank Mergers, and Assets, Deposits, and Number of Offices Acquired, by Year, 1994–2003
Millions of dollars except as noted

Year	Number of mergers	Assets: Mean	Assets: Median	Assets: Total Amount	Assets: Total Percent of industry	Deposits: Mean	Deposits: Median	Deposits: Total Amount	Deposits: Total Percent of industry	Number of offices: Mean	Number of offices: Median	Number of offices: Total Amount	Number of offices: Total Percent of industry
All	**3,517**	**874**	**102**	**3,073,017**	**. . .**	**601**	**86**	**2,114,228**	**. . .**	**13.4**	**3**	**47,283**	**. . .**
1994	475	394	77	187,012	3.8	302	70	143,651	4.4	8.3	3	3,932	5.1
1995	475	537	86	254,851	4.9	394	75	186,968	5.5	10.5	3	4,981	6.5
1996	446	912	87	406,695	7.5	656	76	292,740	8.4	14.7	3	6,549	8.5
1997	422	739	93	311,871	5.3	545	79	230,148	6.1	13.5	3	5,687	7.3
1998	493	1,698	112	836,970	13.3	1,178	97	580,972	14.7	23.0	3	11,351	14.3
1999	333	831	108	276,643	4.2	560	88	186,440	4.6	10.4	3	3,477	4.3
2000	255	788	125	200,963	2.8	385	104	98,190	2.2	10.6	4	2,693	3.3
2001	231	1,556	139	359,495	4.6	1,022	109	236,067	5.0	21.5	4	4,958	6.0
2002	203	740	115	150,186	1.8	454	97	92,102	1.8	9.4	3	1,914	2.3
2003	184	480	135	88,330	1.0	364	103	66,950	1.2	9.5	3	1,741	2.1

NOTE. Here and in the following tables, a bank is a domestic commercial bank, a domestic thrift institution, or the U.S. office of a foreign bank.

A commercial bank is a single commercial bank or an organization that owns one or more of them. A thrift institution is a single savings bank, savings and loan association, or industrial bank or an organization that owns one or more of them.

An organization that fits the definition of both a commercial bank and a thrift institution is classified as a commercial bank if more than half of the organization's assets are held by commercial bank subsidiaries and as a thrift institution if otherwise.

The term *offices* refers both to head offices and to branch offices.

Data cover the fifty states, the District of Columbia, and eight U.S.-affiliated areas: American Samoa; the Federated States of Micronesia; Guam; the Marshall Islands; the Northern Mariana Islands; Palau; Puerto Rico; and the U.S. Virgin Islands.

. . . Not applicable.

SOURCE. For identity of merging parties, SNL Financial (www.snl.com), subscription database of bank and thrift institution mergers and acquisitions, accessed March 15, 2004 (see also text note 4). For other data, Board of Governors of the Federal Reserve System. The sources of the Board's data include Consolidated Reports of Condition and Income (Call Report) and Thrift Financial Reports, Federal Financial Institutions Examination Council; Summary of Deposits, Federal Deposit Insurance Corporation; and Branch Office Survey, Office of Thrift Supervision.

quarterly Thrift Financial Reports; and the Summary of Deposits and Branch Office Survey reports, which are annual midyear reports. The reports used were those filed on the reporting date immediately preceding the merger or—if those reports were either unreliable or not filed—those filed on the preceding reporting date.[6] One shortcoming of using these institution-level reports is that they exclude data for nonbank subsidiaries. Merger participants are of varying organizational and institutional types, and no reports exist that would allow nonbank data to be comprehensively collected for all parties in all acquisitions.

Because it contains relatively few deals before 1990, the data source for this study would not have been adequate for the two previous Federal Reserve Staff Studies on this topic, which covered mergers as far back as 1980.[7] For the time period that they do cover, however, the SNL data are more comprehensive than those used in the two previous studies, which did not include savings banks, savings and loan associations, and industrial banks.

Moreover, the treatment of the data in this study offers two advantages over the treatment in the two earlier studies. First, in the earlier studies, each subsidiary of the target organization was considered to be a distinct acquisition. Therefore, the acquisition of a holding company that controlled many subsidiaries accounted for many transactions. The approach taken here, which aggregates all subsidiaries of the target banking organization and views their acquisition as a single transaction, provides a picture of merger activity that is not influenced by the corporate structure of the target organization.

Second, this study dates each deal as of the actual completion of the transaction. The earlier studies used the deal's date of approval by the relevant regulator; because the approval date precedes the

6. The Call Report and the Thrift Financial Report are from the Federal Financial Institutions Examination Council (www.ffiec.com/gov/reports). The Summary of Deposits report is from the Federal Deposit Insurance Corporation, and the Branch Office Survey report is from the Office of Thrift Supervision (both at www2.fdic.gov/sod/index.asp).

7. Rhoades (1996, 2000).

2. Number of Bank Mergers, and Assets, Deposits, and Number of Offices Acquired, by Institution Type of Acquirer and Target, 1994–2003
Millions of dollars except as noted

Institution type of acquirer and target	Number of mergers	Assets				Deposits				Number of offices			
		Mean	Median	Total	Percent of total	Mean	Median	Total	Percent of total	Mean	Median	Total	Percent of total
All	**3,517**	**874**	**102**	**3,073,017**	**100**	**601**	**86**	**2,114,228**	**100**	**13.4**	**3**	**47,283**	**100**
Commercial bank acquirer													
Bank[1]	2,571	895	90	2,300,245	74.9	621	77	1,597,103	75.5	14.1	3	36,190	76.5
Thrift	464	711	223	329,924	10.7	489	169	226,970	10.7	12.1	5	5,622	11.9
Thrift institution acquirer													
Bank[1]	161	186	88	30,019	1.0	156	76	25,108	1.2	5.1	3	819	1.7
Thrift	321	1,286	184	412,829	13.4	826	150	265,047	12.5	14.5	4	4,652	9.8

NOTE. See notes to table 1.

1. Commercial bank.

actual merger, that approach causes some deals to be assigned to the wrong year.

Merger Activity and Merging Parties

This section presents the number of mergers and the amount of assets, deposits, and offices involved in those deals for each year of the 1994–2003 period and for the period as a whole. The analysis also indicates patterns associated with the institution type and size of merging parties.

Basic Overview of Merger Activity

During the 1994–2003 period, 3,517 deals were completed. The target (acquired) organizations had $3.1 trillion in total assets, $2.1 trillion in total deposits, and 47,283 offices (table 1).

The median merger involved a target with $102 million in assets, $86 million in deposits, and 3 offices. Mean (average) values are substantially higher: $874 million in assets, $601 million in deposits, and 13 offices. The large difference between the medians and means reflects the disproportionate influence on means of a relatively small number of extremely large deals.

But whether calculated as a mean or median, roughly 5 percent of the industry's assets, deposits, and offices were acquired in mergers in the typical year in the period. The peak was in 1998, a historic year for bank mergers. Although the number of deals completed in 1998 (493) was more than in any other year, it was not far larger than the number completed in earlier years of the 1994–2003 period. But 1998 was the year in which the three largest deals of the period were consummated and about 14 percent of the industry's assets, deposits, and offices changed hands.[8] The aggregate amounts of assets and deposits purchased in 1998 were roughly twice the second-highest annual level of the period (recorded in 1996). Moreover, the data do not include the 1998 merger of Citicorp and Travelers Corporation, Inc. (which created Citigroup, Inc., the largest banking organization in the world) because Travelers was not, and did not own, a commercial bank, savings bank, savings and loan association, or industrial bank at the time of the merger.

Although the number of mergers generally declined after 1998, the median amount of target assets and of target deposits in each year has generally risen over the ten-year period. The annual averages, which, as noted, can be greatly influenced by a few large deals, show more variation.[9]

8. The percentage of the industry acquired in mergers in a year is calculated as the sum of assets, deposits, or offices purchased during the year, divided by the total amount of assets, deposits, or offices in the industry as of June 30 of that year.

9. The rise in the median amount of assets and deposits does not appear to have been driven by the effects of inflation because the same pattern generally obtains when the data are adjusted by the gross domestic product price deflator.

3. Number of Bank Mergers, and Assets, Deposits, and Number of Offices Acquired, by Year and Institution Type of Acquirer and Target, 1994–2003

Millions of dollars except as noted

Year	Number of mergers					Assets				
		Institution type of acquirer					Institution type of acquirer			
		Commercial bank		Thrift institution			Commercial bank		Thrift institution	
	Total	Bank target[1]	Thrift target	Bank target[1]	Thrift target	Total	Bank target[1]	Thrift target	Bank target[1]	Thrift target
All	**3,517**	**2,571**	**464**	**161**	**321**	**3,073,017**	**2,300,245**	**329,924**	**30,019**	**412,829**
1994	475	359	73	14	29	187,012	117,456	40,974	1,047	27,535
1995	475	354	70	14	37	254,851	182,302	41,340	1,491	29,717
1996	446	310	59	31	46	406,695	320,904	39,031	4,753	42,008
1997	422	304	58	17	43	311,871	170,460	63,219	2,807	75,385
1998	493	370	57	24	42	836,970	672,290	34,509	3,876	126,295
1999	333	245	46	18	24	276,643	240,465	14,357	3,321	18,500
2000	255	179	33	12	31	200,963	172,107	10,166	6,443	12,247
2001	231	177	22	9	23	359,495	314,301	14,767	1,561	28,866
2002	203	146	24	7	26	150,186	54,844	58,537	2,375	34,431
2003	184	127	22	15	20	88,330	55,116	13,024	2,345	17,846

NOTE. See notes to table 1.

1. Commercial bank.

Institution Type

The four institution types covered in this study—commercial banks, savings banks, savings and loan associations, and industrial banks—are engaged in differing lines of business. The commercial bank is the most common of these types and engages in the widest variety of activities. Commercial banks primarily provide households and businesses with loan and deposit products and other financial services. The other three types—the savings bank, savings and loan association, and industrial bank—tend to provide a more limited set of products and services and primarily serve households; this study refers to these three types collectively as thrift institutions (see general note to table 1).

The purchase of a commercial bank by another commercial bank accounted for 2,571 mergers, or almost 75 percent of the 3,517 deals, during the 1994–2003 period (table 2 for aggregates, means, and medians; table 3 for aggregates by year). The purchase of a thrift institution by a commercial bank was the next most common combination (464 deals). In total, commercial banks made 3,035 acquisitions during the period.

Thrift institutions made 482 acquisitions, of which 161 were of commercial banks and 321 were of other thrifts. The share of total acquisitions in the period that is attributable to thrift institutions is smaller than the share of all banking organizations that were thrift institutions at the outset of the period. However, the median size of acquired thrift institutions (in terms of assets, of deposits, and of number of offices) was larger than that of acquired commercial banks. The 946 mergers in which a thrift institution was involved as the acquirer, the target, or both represent a significant fraction of the overall activity during the period: about one-fourth of the deals and about one-fourth of the target assets, deposits, and offices.

Size

Most transactions over the ten-year period involved the purchase of relatively small organizations—in about 2,600 of the 3,517 mergers (nearly three-fourths), the targets had total assets of $250 million or less (table 4).[10] Of these small targets, 913 had assets of $50 million or less, and another 820 had assets of more than $50 million up to $100 million.

The number of mergers in which the target had assets of more than $1 billion (last three columns of table 4) was 296, or about 8 percent of the total.[11] During the ten years, 42 of these large deals involved a target with assets of more than $10 billion up to $50 billion, and 11 involved a target with assets of more than $50 billion.

10. In each year of the sample period, the number of banks with assets of $250 million or less accounted for roughly 80 percent of all banking organizations.

11. In each year of the sample period, the number of banks with assets of more than $1 billion accounted for roughly 4–6 percent of all banking organizations.

3. Continued

Year	Deposits					Number of offices				
		Institution type of acquirer					Institution type of acquirer			
		Commercial bank		Thrift institution			Commercial bank		Thrift institution	
	Total	Bank target[1]	Thrift target	Bank target[1]	Thrift target	Total	Bank target[1]	Thrift target	Bank target[1]	Thrift target
All	**2,114,228**	**1,597,103**	**226,970**	**25,108**	**265,047**	**47,283**	**36,190**	**5,622**	**819**	**4,652**
1994	143,651	89,185	33,018	968	20,479	3,932	2,517	917	39	459
1995	186,968	136,372	31,155	1,330	18,112	4,981	3,709	863	38	371
1996	292,740	231,325	28,869	4,121	28,425	6,549	5,253	601	165	530
1997	230,148	132,352	44,603	2,297	50,896	5,687	3,692	1,076	79	840
1998	580,972	472,094	23,376	3,220	82,283	11,351	9,314	637	117	1,283
1999	186,440	161,864	10,227	2,794	11,555	3,477	2,836	335	93	213
2000	98,190	77,625	7,161	5,042	8,362	2,693	2,104	212	132	245
2001	236,067	209,217	10,126	1,315	15,409	4,958	4,385	230	34	309
2002	92,102	42,910	28,878	2,088	18,226	1,914	1,093	492	67	262
2003	66,950	44,160	9,558	1,933	11,299	1,741	1,287	259	55	140

Deals with target assets of more than $1 billion accounted for 83 percent of the assets, 80 percent of the deposits, and 70 percent of the offices that changed hands during the ten years. Therefore, much of the merger-related structural change in the industry between 1994 and 2003 is attributable to less than 10 percent of the transactions.

Acquirers tended to be larger than targets, as indicated by the median amounts of assets and deposits and number of offices (table 5). The existence of a few deals in which the acquirer was much bigger than the target causes a large divergence in the value of the means and medians.

The median value of the target-to-acquirer size ratios was roughly 10 percent for assets as well as for deposits (table 5). The median value of the target-to-acquirer size ratios in the case of number of offices was larger, about 13 percent; the higher value for number of offices suggests that the targets' offices had smaller amounts of assets and deposits per office than did the acquirers. This size disparity may have been particularly large for main offices.[12]

Although large banks, especially those with assets of more than $1 billion up to $10 billion, were very active acquirers, many small organizations were acquired by other small organizations (table 6). In 748 deals, both the acquirer and target held total assets of $250 million or less. These mergers accounted for almost 30 percent of the deals involving a target with assets of $250 million or less. Another 15 percent of the acquisitions of these small banks (399 deals) were made by organizations with assets of more than $250 million up to $500 million.

The three largest deals of the entire ten-year period (ranked by the asset size of the target) all occurred in 1998, the year marked by the heaviest volume of merger activity (table 7). Three other deals among the fifteen largest also occurred in 1998.

Fifteen banking organizations were the acquirers in the twenty-five largest acquisitions. Four of these firms—First Union, Fleet (and its successor, FleetBoston), NationsBank, and Washington Mutual—were each the acquirers in three of the top twenty-five; two firms—Firstar and Chemical (and its successor, Chase Manhattan)—were each the acquirers in two of the top twenty-five.

The targets in many of the largest deals were banks with large retail operations. In these transactions, the acquirers increased the size of their office networks and were provided with some combination of an expanded service area and greater penetration of established service areas. Acquirers also obtained large retail customer bases. In contrast, the targets in a few of the largest deals had only small retail banking operations, as evidenced by substantial assets but a much smaller amount of deposits and

12. A bank will often assign to its main office the assets and deposits associated with certain activities, such as services to large corporate customers. Because small banks typically do not conduct many of these centrally booked activities, the size of main offices relative to branch offices is much greater for large banks than for small banks.

4. Number of Bank Mergers, and Assets, Deposits, and Number of Offices Acquired, by Year and Asset Size of Merger Target, 1994–2003

Millions of dollars except as noted

Year	Total	Asset size of target (millions of dollars): 50 or less	51–100	101–250	251–500	501–1,000	1,001–10,000	10,001–50,000	More than 50,000
	Number of mergers								
All	**3,517**	**913**	**820**	**861**	**399**	**228**	**243**	**42**	**11**
1994	475	147	126	91	57	21	30	3	0
1995	475	150	111	120	38	26	26	4	0
1996	446	121	124	103	36	23	31	6	2
1997	422	121	99	91	51	25	28	7	0
1998	493	107	111	125	56	40	44	6	4
1999	333	81	73	93	41	21	19	4	1
2000	255	51	54	72	36	20	20	1	1
2001	231	54	38	60	33	17	21	6	2
2002	203	48	39	56	22	21	14	2	1
2003	184	33	45	50	29	14	10	3	0
	Assets								
All	**3,073,017**	**26,823**	**59,458**	**134,733**	**138,030**	**157,371**	**659,325**	**996,636**	**900,641**
1994	187,012	3,965	8,816	14,828	19,956	15,118	64,781	59,547	0
1995	254,851	4,019	7,884	18,508	13,299	17,656	88,026	105,459	0
1996	406,695	3,694	8,763	16,058	12,411	15,891	93,802	124,975	131,100
1997	311,871	3,600	7,138	14,888	17,318	17,364	82,334	169,228	0
1998	836,970	3,264	8,287	18,970	19,195	27,286	130,210	190,876	438,883
1999	276,643	2,595	5,466	14,416	14,183	14,289	45,996	128,976	50,722
2000	200,963	1,672	4,047	11,255	12,839	14,047	61,877	21,395	73,832
2001	359,495	1,525	2,904	9,272	11,347	12,248	45,585	121,190	155,424
2002	150,186	1,428	2,834	8,477	7,273	14,279	26,745	38,470	50,680
2003	88,330	1,061	3,319	8,061	10,208	9,192	19,968	36,520	0
	Deposits								
All	**2,114,228**	**23,225**	**50,926**	**113,361**	**111,864**	**124,939**	**488,588**	**668,085**	**533,241**
1994	143,651	3,522	7,783	12,975	16,589	12,839	53,729	36,213	0
1995	186,968	3,593	6,874	15,945	10,685	14,886	63,728	71,257	0
1996	292,740	3,191	7,625	13,662	10,182	12,764	69,191	91,800	84,325
1997	230,148	3,102	6,100	12,457	14,262	13,662	60,399	120,166	0
1998	580,972	2,790	7,004	16,121	15,343	21,908	95,308	130,711	291,786
1999	186,440	2,207	4,607	11,842	11,956	11,329	30,836	79,015	34,648
2000	98,190	1,397	3,346	9,297	9,858	10,622	46,221	12,773	4,676
2001	236,067	1,284	2,405	7,561	9,140	9,374	33,950	77,527	94,827
2002	92,102	1,199	2,399	6,968	5,833	10,760	20,460	21,504	22,978
2003	66,950	940	2,782	6,532	8,017	6,795	14,765	27,118	0
	Number of offices								
All	**47,283**	**1,390**	**2,045**	**3,779**	**3,236**	**3,544**	**11,722**	**12,955**	**8,612**
1994	3,932	215	320	473	554	372	1,333	665	0
1995	4,981	206	280	529	303	404	1,678	1,581	0
1996	6,549	195	298	474	277	381	1,437	2,008	1,479
1997	5,687	214	250	361	441	450	1,531	2,440	0
1998	11,351	155	268	561	488	627	2,171	2,598	4,483
1999	3,477	121	188	392	306	311	784	924	451
2000	2,693	84	146	299	278	325	1,226	332	3
2001	4,958	80	91	256	247	265	691	1,489	1,839
2002	1,914	70	99	219	144	268	507	250	357
2003	1,741	50	105	215	198	141	364	668	0

NOTE. See notes to table 1.

5. Size of Acquirers and Targets in Bank Mergers, by Year and Assets, Deposits, and Number of Offices, 1994–2003

Millions of dollars except as noted

Year	Mean			Median		
	Acquirer	Target	Ratio (target to acquirer, percent)	Acquirer	Target	Ratio (target to acquirer, percent)
	Assets					
All	**11,050**	**874**	**22.0**	**1,364**	**102**	**10.1**
1994	10,862	394	19.4	1,691	77	8.6
1995	10,731	537	21.5	1,771	86	6.9
1996	11,604	912	23.6	994	87	11.7
1997	8,558	739	22.9	1,227	93	10.3
1998	11,629	1,698	19.9	2,009	112	8.4
1999	9,708	831	23.3	1,307	108	10.7
2000	16,724	788	24.2	1,128	125	12.9
2001	11,353	1,556	23.8	1,090	139	12.5
2002	11,739	740	22.9	848	115	13.6
2003	8,597	480	20.8	1,257	135	12.0
	Deposits					
All	**7,264**	**601**	**30.4**	**1,045**	**86**	**11.2**
1994	7,693	302	23.3	1,444	70	9.2
1995	7,247	394	71.5	1,437	75	7.5
1996	7,574	656	25.5	767	76	12.2
1997	5,854	545	25.5	924	79	11.3
1998	7,746	1,178	21.1	1,495	97	8.9
1999	6,444	560	24.5	956	88	11.3
2000	10,119	385	25.0	824	104	14.5
2001	6,667	1,022	24.7	764	109	13.9
2002	7,029	454	24.5	649	97	16.1
2003	5,937	364	23.2	943	103	14.2
	Number of offices					
All	**155.5**	**13.4**	**40.2**	**29**	**3**	**13.3**
1994	175.8	8.3	39.8	38	3	11.5
1995	164.5	10.5	69.9	38	3	9.4
1996	160.9	14.7	33.7	25	3	14.7
1997	129.1	13.5	34.4	28	3	14.3
1998	178.6	23.0	25.9	48	3	10.5
1999	144.2	10.4	31.5	24	3	14.3
2000	193.8	10.6	36.7	22	4	18.2
2001	133.0	21.5	56.6	23	4	15.4
2002	116.7	9.4	40.6	18	3	18.2
2003	104.7	9.5	31.0	26	3	13.7

NOTE. See notes to table 1.

6. Number of Bank Mergers, and Assets, Deposits, and Number of Offices Acquired, by Asset Size of Acquirer and Asset Size of Merger Target, 1994–2003

Millions of dollars except as noted

Asset size of acquirer (millions of dollars)	Total	Asset size of target (millions of dollars): 50 or less	51–100	101–250	251–500	501–1,000	1,001–10,000	10,001–50,000	More than 50,000
	Number of mergers								
All	**3,517**	**913**	**820**	**861**	**399**	**228**	**243**	**42**	**11**
50 or less	104	98	4	2	0	0	0	0	0
51–100	202	158	37	5	2	0	0	0	0
101–250	451	254	129	61	5	1	1	0	0
251– 500	430	138	167	94	28	3	0	0	0
501–1,000	394	84	118	138	44	7	2	1	0
1,001–10,000	1,173	144	258	390	187	121	72	1	0
10,001–50,000	550	24	80	127	103	74	121	20	1
More than 50,000	213	13	27	44	30	22	47	20	10
	Assets								
All	**3,073,017**	**26,823**	**59,458**	**134,733**	**138,030**	**157,371**	**659,325**	**996,636**	**900,641**
50 or less	2,428	1,958	238	231	0	0	0	0	0
51–100	7,835	4,000	2,468	686	681	0	0	0	0
101–250	29,312	7,332	8,890	8,201	1,532	581	2,776	0	0
251–500	41,917	4,287	12,090	14,415	9,394	1,730	0	0	0
501–1,000	70,683	2,813	8,527	21,383	14,970	4,537	3,527	14,927	0
1,001–10,000	406,315	5,091	19,234	61,616	63,991	84,492	160,765	11,126	0
10,001–50,000	1,028,710	867	6,059	20,935	36,007	50,516	358,189	505,846	50,291
More than 50,000	1,485,817	475	1,953	7,267	11,454	15,515	134,068	464,737	850,349
	Deposits								
All	**2,114,228**	**23,225**	**50,926**	**113,361**	**111,864**	**124,939**	**488,588**	**668,085**	**533,241**
50 or less	2,122	1,719	207	196	0	0	0	0	0
51–100	6,650	3,496	2,074	559	521	0	0	0	0
101–250	24,119	6,380	7,584	6,904	1,170	537	1,544	0	0
251–500	34,635	3,678	10,317	11,904	7,548	1,188	0	0	0
501–1,000	55,211	2,410	7,371	17,703	11,766	3,893	2,273	9,796	0
1,001–10,000	315,879	4,383	16,392	51,844	51,984	65,824	117,267	8,184	0
10,001–50,000	726,442	738	5,248	17,927	29,301	41,000	265,586	329,032	37,611
More than 50,000	949,170	420	1,733	6,324	9,575	12,496	101,918	321,073	495,630
	Number of offices								
All	**47,283**	**1,390**	**2,045**	**3,779**	**3,236**	**3,544**	**11,722**	**12,955**	**8,612**
50 or less	144	133	6	5	0	0	0	0	0
51–100	341	221	98	15	7	0	0	0	0
101–250	1,060	400	301	260	30	25	44	0	0
251–500	1,333	216	424	425	238	30	0	0	0
501–1,000	1,658	126	287	570	352	95	23	205	0
1,001–10,000	9,476	239	667	1,734	1,475	1,898	3,165	298	0
10,001–50,000	15,071	32	204	596	848	1,145	5,959	5,871	416
More than 50,000	18,200	23	58	174	286	351	2,531	6,581	8,196

NOTE. See notes to table 1.

7. Assets, Deposits, and Number of Offices of the Fifty Bank-Merger Targets with the Largest Assets, 1994–2003

Millions of dollars except as noted

Target rank	Acquirer	Target	Target: Year acquired	Target: Assets	Target: Deposits	Target: Number of offices
1	NationsBank Corporation	BankAmerica Corporation	1998	201,576	129,723	1,960
2	Norwest Corporation	Wells Fargo & Company	1998	96,316	70,875	1,459
3	Bank One Corporation	First Chicago NBD Corporation	1998	90,700	53,578	648
4	Firstar Corporation	U.S. Bancorp	2001	85,402	53,289	1,053
5	Chase Manhattan Corporation	J.P. Morgan & Company, Inc.	2000	73,832	4,676	3
6	Chemical Banking Corporation	Chase Manhattan Corporation	1996	71,913	35,815	349
7	First Union Corporation	Wachovia Corporation	2001	70,022	41,538	786
8	Wells Fargo & Company	First Interstate Bancorp	1996	59,187	48,510	1,130
9	Fleet Financial Group, Inc.	BankBoston Corporation	1999	50,722	34,648	451
10	Citigroup, Inc.	Golden State Bancorp, Inc.	2002	50,680	22,978	357
11	Washington Mutual, Inc.	Ahmanson & Company (H.F.)	1998	50,291	37,611	416
12	First Chicago Corporation	NBD Bancorp, Inc.	1995	46,606	29,735	611
13	NationsBank Corporation	Barnett Banks, Inc.	1998	44,066	34,450	670
14	First Union Corporation	CoreStates Financial Corporation	1998	43,967	32,201	575
15	NationsBank Corporation	Boatmen's Bancshares, Inc.	1997	43,034	30,933	607
16	Washington Mutual, Inc.	Great Western Financial Corporation	1997	41,010	27,572	416
17	FleetBoston Financial Corporation	Summit Bancorp	2001	39,925	26,200	493
18	Deutsche Bank AG	Bankers Trust Corporation	1999	39,465	27,558	3
19	Firstar Corporation	Mercantile Bancorporation, Inc	1999	35,448	23,795	453
20	First Union Corporation	First Fidelity Bancorporation	1996	35,405	27,803	688
21	Fleet Financial Group, Inc.	Shawmut National Corporation	1995	34,220	22,443	362
22	Golden State Bancorp, Inc.	First Nationwide Holdings, Inc	1998	33,987	15,102	229
23	First Bank System, Inc.	U.S. Bancorp	1997	33,383	25,549	631
24	HSBC Holdings, Plc	Republic New York Corporation	1999	31,848	13,588	92
25	Washington Mutual, Inc.	Dime Bancorp, Inc.	2002	27,971	13,467	129
26	Fleet Financial Group, Inc.	National Westminster Bancorp	1996	27,279	18,143	315
27	KeyCorp	Society Corporation	1994	27,245	17,646	459
28	SunTrust Banks, Inc.	Crestar Financial Corporation	1998	25,524	17,970	372
29	Fifth Third Bancorp	Old Kent Financial Corporation	2001	24,243	16,791	300
30	Star Banc Corporation	Firstar Holdings Corporation	1998	22,511	15,024	248
31	AmSouth Bancorporation	First American Corporation	1999	22,215	14,074	376
32	Wells Fargo & Company	First Security Corporation	2000	21,395	12,773	332
33	Washington Mutual, Inc.	Keystone Holdings, Inc.	1996	21,382	12,793	159
34	National City Corporation	First of America Bank Corporation	1998	20,821	15,966	504
35	Washington Mutual, Inc.	Bank United Corporation	2001	18,647	8,392	158
36	BankAmerica Corporation	Continental Bank Corporation	1994	17,375	8,771	1
37	ABN AMRO Holding NV	Standard Federal Bancorporation	1997	15,757	10,932	181
38	CoreStates Financial Corporation	Meridian Bancorp, Inc.	1996	15,264	12,498	351
39	M&T Bank Corporation	Allfirst Financial, Inc.	2003	15,064	11,516	267
40	Citigroup, Inc.	European American Bank	2001	14,971	10,125	99
41	MacAndrews and Forbes Holdings	First Nationwide Bank, FSB	1994	14,927	9,796	205
42	MacAndrews and Forbes Holdings	Cal Fed Bancorp, Inc.	1997	14,192	8,882	128
43	National City Corporation	Integra Financial Corporation	1996	14,019	10,310	253
44	PNC Financial Services Group	Midlantic Corporation	1995	13,507	10,894	310
45	ABN AMRO Holding NV	Michigan National Corporation	2001	11,746	8,270	188
46	Royal Bank of Canada	Centura Banks, Inc.	2001	11,657	7,748	251
47	BankBoston Corporation	BayBanks, Inc.	1996	11,627	10,254	242
48	First Union Corporation	Signet Banking Corporation	1997	11,289	8,219	237
49	Southern National Corporation	BB&T Financial Corporation	1995	11,126	8,184	298
50	BB&T Corporation	First Virginia Banks, Inc.	2003	10,998	9,449	361

NOTE. See notes to table 1.

8. Bank Merger Activity, by Status of Market Urbanization, 1994–2003

Item	All	Urban	Rural
Number of markets			
Total	2,674	318	2,356
With mergers	2,080	318	1,762
Share with mergers (percent)	77.8	100.0	74.8
Number of mergers per market			
Mean	3.6	14.6	2.1
Median	2	9	2
Maximum	120	120	16
Share per market (percent)[1]			
Deposits acquired			
Mean	40.9	57.1	38.8
Median	33.1	51.9	28.6
Offices acquired			
Mean	42.3	60.3	39.9
Median	34.0	56.4	33.3

NOTE. Markets are metropolitan statistical areas ("urban markets") and nonmetropolitan counties ("rural markets") as defined by the U.S. Bureau of the Census; 1999 definitions are used for each year. Mean and median values are rounded. See also notes to table 1.

1. For calculation, see text.

few offices. J.P. Morgan, for example, the fifth largest target, had assets of $73.8 billion but had deposits of only $4.7 billion and only three offices. Bankers Trust Corporation, the target in the eighteenth largest deal, also had only three offices.

Location of Mergers

This section addresses the location of mergers, analyzing the consolidation patterns in localities and states.

Local Areas

Retail banking markets are generally considered to be local in nature. Evidence from surveys of households and small businesses indicates that most customers choose to bank at a financial institution that is located nearby.[13] In addition, numerous studies have found a relationship between concentration in local markets and bank prices and profits.[14] These findings are consistent with

9. Number of Bank Mergers and Number of Target Markets, by Year, 1994–2003

Year	Number of mergers	Number of target markets			
		Total	Mean	Median	Maximum
All	**3,517**	**9,631**	**2.7**	**1**	**213**
1994	475	1,011	2.1	1	48
1995	475	1,142	2.4	1	117
1996	446	1,161	2.6	1	147
1997	422	1,286	3.0	1	135
1998	493	1,739	3.5	1	164
1999	333	850	2.6	1	120
2000	255	704	2.8	1	74
2001	231	895	3.9	1	213
2002	203	450	2.2	1	32
2003	184	393	2.1	1	49

NOTE. The number of target markets in a merger is determined by the number of markets in which the target organization had banking offices. See also general note to table 8.

retail banking markets being limited to the local area. Hence, merger patterns at the local level can shed light on the possible effects of mergers on competition among banks.

Geographic areas defined by the U.S. Office of Management and Budget (OMB) as of 1999 are used here to examine urban and rural merger patterns in each of the ten years of the study period. The OMB's 318 Metropolitan Statistical Areas (MSAs) as of 1999 are the urban areas used in the present study, and the 2,356 counties that were not in an MSA, termed nonmetropolitan counties, and that had a banking office at any time during the 1994–2003 period are the rural areas. In the present analysis, these 2,674 urban and rural areas constitute the nation's banking markets, and, hereafter, the terms *local area, banking market*, and *market* are used interchangeably.

The annual Summary of Deposits and Branch Office Survey reports include a list of all offices operated by the filing bank and the amount of deposits in each office as of June 30. Call Reports are used to determine the location of U.S. offices of foreign banks. Each local area in which the target of a merger had a banking office (either a head office or a branch) is considered a market in which the merger took place.

The term *target market* indicates a market in which the target of a particular merger had an office. For example, a single merger in which the target

13. Amel and Starr-McCluer (2002) and Kwast, Starr-McCluer, and Wolken (1997) provide such evidence.

14. For example, see Hannan and Prager (forthcoming); Heitfield and Prager (2004); Pilloff and Rhoades (2002); Kahn, Pennacchi, and Sopranzetti (2001); Cyrnak and Hannan (1999); and Berger and Hannan (1989). The level of concentration in a market is a commonly used measure of the degree of competition—a highly concentrated market is often assumed to have relatively little competition and, in the case of banking, according to these studies, prices and profits that are relatively high.

10. Number of Bank Mergers, and Deposits and Number of Offices Acquired, by Number of Target Markets, 1994–2003

Number of target markets	Mergers: Number	Mergers: Percent of total	Target Deposits: Amount (millions of dollars)	Target Deposits: Percent of total	Target Banking offices: Number	Target Banking offices: Percent of total
All	**3,517**	**100.0**	**2,114,228**	**100.0**	**47,283**	**100.0**
1	2,320	66.0	281,030	13.3	7,501	15.9
2	565	16.1	149,480	7.1	3,677	7.8
3	235	6.7	110,609	5.2	2,437	5.2
4	93	2.6	45,616	2.2	1,310	2.8
5	56	1.6	52,624	2.5	1,351	2.9
6	42	1.2	40,850	1.9	900	1.9
7	33	.9	27,270	1.3	868	1.8
8	21	.6	46,538	2.2	988	2.1
9	12	.3	30,372	1.4	807	1.7
10	12	.3	19,199	.9	564	1.2
11–20	69	2.0	274,447	13.0	5,983	12.7
21–99	50	1.4	606,375	28.7	12,605	26.7
100 or more	9	.3	429,816	20.3	8,292	17.5

NOTE. See note to table 9.

11. Number of Target Markets in Bank Mergers, and Deposits and Number of Banking Offices Acquired, by Year and Status of Target-Market Urbanization, 1994–2003

Year	All markets	Urban markets	Rural markets	Percent in urban markets	Urban share (percent)
	Target markets (number except as noted)				All markets
All	**9,631**	**4,653**	**4,978**	**48.3**	...
1994	1,011	516	495	51.0	11.9
1995	1,142	547	595	47.9	11.9
1996	1,161	612	549	52.7	11.9
1997	1,286	553	733	43.0	11.9
1998	1,739	869	870	50.0	11.9
1999	850	362	488	42.6	11.9
2000	704	305	399	43.3	11.9
2001	895	404	491	45.1	11.9
2002	450	280	170	62.2	11.9
2003	393	205	188	52.2	11.9
	Deposits acquired (millions of dollars except as noted)				All deposits
All	**2,114,228**	**1,851,135**	**263,093**	**87.6**	...
1994	143,651	121,502	22,149	84.6	83.4
1995	186,968	161,667	25,301	86.5	83.4
1996	292,740	261,671	31,069	89.4	83.2
1997	230,148	194,229	35,919	84.4	84.0
1998	580,972	532,083	48,889	91.6	84.1
1999	186,440	159,063	27,377	85.3	84.1
2000	98,190	71,904	26,286	73.2	84.5
2001	236,067	208,828	27,239	88.5	84.9
2002	92,102	82,973	9,129	90.1	85.5
2003	66,950	57,215	9,734	85.5	85.9
	Offices acquired (number except as noted)				All offices
All	**47,283**	**37,772**	**9,511**	**79.9**	...
1994	3,932	2,975	957	75.7	72.7
1995	4,981	3,963	1,018	79.6	72.5
1996	6,549	5,500	1,049	84.0	72.4
1997	5,687	4,349	1,338	76.5	72.3
1998	11,351	9,596	1,755	84.5	72.3
1999	3,477	2,523	954	72.6	72.2
2000	2,693	1,851	842	68.7	72.4
2001	4,958	4,051	907	81.7	72.4
2002	1,914	1,589	325	83.0	72.5
2003	1,741	1,375	366	79.0	72.8

NOTE. See note to table 9.

had offices in five markets will be said to involve five target markets. Similarly, a single market that was home to five merger targets in a given period constitutes five target markets for that period.

During the ten years under examination, every urban market saw some merger activity, and in many of them it was substantial (table 8). In urban markets, the median number of acquisitions was 9, or nearly 1 per year, and the mean was 14.6.

The data in table 8 were computed as follows. For each year, the share of each target market that was involved in an acquisition was calculated as the sum of deposits or offices purchased during the year, divided by the total amount of deposits or offices in the market as of June 30 (assets are not reported at the market level). The ten annual percentages are summed to one aggregate figure for the market, which measures the level of disruption, or turnover, that took place in that market between 1994 and 2003.

These computations indicate that consolidation had a substantial effect on many urban markets. Depending on whether one takes the mean or the median, urban markets saw about 50 percent to 60 percent of deposits and offices acquired in mergers over the ten-year period. However, because many of the deposits and offices that were purchased through mergers changed hands, and thus were counted, multiple times, these "turnover" rates overstate the share of the industry that was directly affected by merger activity.

Merger activity in rural markets was less substantial than in urban ones, but it was still pronounced: Of the 2,356 rural markets with a banking office, 1,762 of them, or 75 percent, experienced some merger activity between 1994 and 2003 (table 8).

12. Percentage of U.S. Population Living in a Market Affected by a Bank Merger, by Year and Status of Target-Market Urbanization, 1994–2003

Year	Market with at least one target			Market in which at least 10 percent of deposits were acquired in mergers		
	All	Urban	Rural	All	Urban	Rural
All, mean	**71.1**	**81.9**	**27.1**	**19.0**	**19.9**	**15.8**
1994	75.2	87.0	27.8	12.4	11.8	14.7
1995	73.8	84.8	29.6	18.8	19.4	16.2
1996	74.7	85.9	30.1	35.9	40.3	18.2
1997	78.3	88.7	36.7	28.9	30.7	21.6
1998	83.9	93.7	44.4	49.9	55.1	29.1
1999	70.3	80.7	27.8	11.8	10.9	15.3
2000	65.3	75.5	23.8	5.7	3.4	15.0
2001	71.1	81.6	27.8	22.4	23.6	17.7
2002	63.6	76.5	10.0	2.1	1.4	5.1
2003	54.6	64.7	12.6	2.5	1.9	5.0

NOTE. Population data do not include U.S.-affiliated areas. See also general note to table 8.

Both the mean rural market and the median rural market had one merger. Again depending on whether one takes the mean or the median, rural markets saw roughly 30 percent to 40 percent of deposits and offices acquired in mergers over the ten-year period (and these values also overstate the turnover because some banks changed hands more than once).

The urban markets' disproportionate share of mergers is presumably attributable to their attractiveness relative to rural areas. Possible reasons for this relative attractiveness of urban areas are that they tend to grow faster, their residents tend to earn more and to have greater wealth, they are home to substantially more commercial activity, and they tend to pose fewer antitrust concerns for potential acquirers. Yet if antitrust problems do not arise, rural markets can be attractive to potential acquirers because their higher level of concentration may offer higher profitability, albeit on a much smaller scale, than can be attained in urban markets.

13. Number of Bank Mergers, by Year and Percentage of Target Deposits Acquired by an In-Market Bank, 1994–2003

Year	Total	Percentage of target deposits acquired by in-market bank				
		0	1–20	21–79	80–99	100
All	**3,517**	**1,357**	**112**	**284**	**195**	**1,569**
1994	475	175	17	35	22	226
1995	475	191	14	37	16	217
1996	446	167	6	37	26	210
1997	422	185	10	28	23	176
1998	493	189	28	41	40	195
1999	333	131	3	28	19	152
2000	255	109	17	21	10	98
2001	231	72	5	26	19	109
2002	203	72	7	18	11	95
2003	184	66	5	13	9	91

NOTE. For a market with a target office, an acquirer is "in-market" if it had an office in that market. See also notes to table 9.

14. Number of Target Markets, by Status of Market Urbanization and Presence of Acquirer in the Target Market, 1994–2003

Status of market urbanization	Number of target markets	In-market acquirer		Out-of-market acquirer	
		Number of target markets	Percent of target markets	Number of target markets	Percent of target markets
All	**9,631**	**3,484**	**36.2**	**6,147**	**63.8**
Urban	4,653	2,629	56.5	2,024	43.5
Rural	4,978	855	17.2	4,123	82.8

NOTE. See note to table 13.

The 3,517 mergers consummated during the 1994–2003 period involved targets with offices in 9,631 markets (thus, many markets were targeted repeatedly over the period) (table 9). For the ten-year period, merger targets operated on average in 2.7 markets; the median number of target markets was 1. The target bank that operated in the largest number of markets (213) at the time of merger was U.S. Bancorp (table 9), which was acquired in 2001 by Firstar Corporation (table 5).

More than 65 percent of all mergers in the period involved targets that operated in only one market, and another roughly 15 percent involved targets in only two markets (table 10). Although they were numerous, single-market deals accounted for only 13 percent of deposits and 16 percent of offices acquired in mergers. In contrast, nine deals involved 100 or more markets (including the Firstar deal, at 213), but those nine mergers, constituting only 0.3 percent of the total, accounted for about 20 percent of acquired deposits and 18 percent of acquired offices.

The number of times that urban and rural markets were home to acquisitions over the period was roughly equal (table 11), although urban markets each year accounted for less than 12 percent of all markets with a banking office. Also, because urban markets are typically much larger than rural markets,

15. Deposits and Banking Offices Acquired in In-Market Mergers, by Year and Status of Target Market Urbanization, 1994–2003

Year	All target markets			Urban			Rural		
	In-market mergers	All mergers	Ratio (in-market to all, percent)	In-market mergers	All mergers	Ratio (in-market to all, percent)	In-market mergers	All mergers	Ratio (in-market to all, percent)
	Deposits (millions of dollars except as noted)								
All	**1,070,914**	**2,114,228**	**50.7**	**1,022,105**	**1,851,135**	**55.2**	**48,809**	**263,093**	**18.6**
1994	71,792	143,651	50.0	67,707	121,502	55.7	4,085	22,149	18.4
1995	109,174	186,968	58.4	103,310	161,667	63.9	5,864	25,301	23.2
1996	164,278	292,740	56.1	159,388	261,671	60.9	4,890	31,069	15.7
1997	92,136	230,148	40.0	85,613	194,229	44.1	6,523	35,919	18.2
1998	213,311	580,972	36.7	204,719	532,083	38.5	8,592	48,889	17.6
1999	118,311	186,440	63.5	114,310	159,063	71.9	4,001	27,377	14.6
2000	53,282	98,190	54.3	48,595	71,904	67.6	4,688	26,286	17.8
2001	154,914	236,067	65.6	149,105	208,828	71.4	5,809	27,239	21.3
2002	48,165	92,102	52.3	45,875	82,973	55.3	2,291	9,129	25.1
2003	45,550	66,950	68.0	43,485	57,215	76.0	2,066	9,734	21.2
	Banking offices (number except as noted)								
All	**22,639**	**47,283**	**47.9**	**20,868**	**37,772**	**55.2**	**1,771**	**9,511**	**18.6**
1994	2,032	3,932	51.7	1,824	2,975	61.3	208	957	21.7
1995	2,691	4,981	54.0	2,470	3,963	62.3	221	1,018	21.7
1996	3,274	6,549	50.0	3,122	5,500	56.8	152	1,049	14.5
1997	2,310	5,687	40.6	2,050	4,349	47.1	260	1,338	19.4
1998	4,432	11,351	39.0	4,136	9,596	43.1	296	1,755	16.9
1999	1,702	3,477	49.0	1,569	2,523	62.2	133	954	13.9
2000	1,273	2,693	47.3	1,123	1,851	60.7	150	842	17.8
2001	2,803	4,958	56.5	2,627	4,051	64.8	176	907	19.4
2002	972	1,914	50.8	886	1,589	55.8	86	325	26.5
2003	1,150	1,741	66.1	1,061	1,375	77.2	89	366	24.3

NOTE. See note to table 13.

urban target markets accounted for the large bulk of the deposits (88 percent) and offices (80 percent) acquired over the period. In each year, the share of urban deposits and offices purchased in mergers tended to be slightly greater than the share of urban deposits and offices in the industry overall.

Another consequence of the substantial level of merger activity over the period is that a sizable share of the U.S. population has been affected. For example, on average, more than 70 percent of the U.S. population lived in a target market in any one year of the period (table 12), and 82 percent of urban residents and 27 percent of rural residents did so. In 1998, the most active year for acquisitions, 94 percent of urban residents and 44 percent of rural residents lived in a market with at least one acquisition.

Another measure of the affected population is the proportion that lived in a market in which at least a moderately large amount of aggregate deposits, say 10 percent, was acquired in a given year (table 12). By this measure, the population percentages are smaller but still meaningful (19 percent on average over the period), and the urban and rural percentages are more nearly equal, 20 percent and 16 percent respectively.

Location of Targets and Acquirers

Banks may be motivated to make acquisitions for many reasons. An examination of the location of targets relative to the location of the acquirers can shed light on the motivation for mergers. If a bank acquires a target in one of its own markets, one implication may be that the acquirer is seeking to increase its market power or presence or that it is seeking efficiencies through the elimination of facilities and personnel that become redundant as a result of the merger. If a bank makes an

16. Number of Bank Mergers and Number of Target States, by Year, 1994–2003

Year	Number of mergers	Number of target states			
		Total	Mean	Median	Maximum
All	**3,517**	**3,921**	**1.1**	**1**	**16**
1994	475	503	1.1	1	9
1995	475	519	1.1	1	9
1996	446	492	1.1	1	13
1997	422	456	1.1	1	9
1998	493	581	1.2	1	14
1999	333	373	1.1	1	7
2000	255	284	1.1	1	7
2001	231	282	1.2	1	16
2002	203	228	1.1	1	7
2003	184	203	1.1	1	5

NOTE. The number of target states in a merger is determined by the number of states in which the target organization had banking offices. Mean and median values are rounded. See also text note 18 and notes to table 1.

17. Number of Bank Mergers, and Deposits and Number of Offices Acquired, by Number of Target States, 1994–2003

Number of target states	Mergers		Target			
			Deposits		Banking offices	
	Number	Percent of total	Amount (millions of dollars)	Percent of total	Number	Percent of total
All	**3,517**	**100.0**	**2,114,228**	**100.0**	**47,283**	**100.0**
1	3,313	94.2	747,630	35.4	20,337	43.0
2	122	3.5	252,403	11.9	5,646	11.9
3	49	1.4	330,665	15.6	6,536	13.8
4	10	.3	78,572	3.7	1,709	3.6
5	4	.1	58,785	2.8	1,179	2.5
6	7	.2	171,011	8.1	2,984	6.3
7	5	.1	126,433	6.0	2,265	4.8
9	3	.1	46,333	2.2	1,025	2.2
10	1	.0	70,875	3.4	1,459	3.1
13	1	.0	48,510	2.3	1,130	2.4
14	1	.0	129,723	6.1	1,960	4.1
16	1	.0	53,289	2.5	1,053	2.2

NOTE. See note to table 16.

acquisition outside of its own markets, the deal may indicate that the acquirer is seeking to increase its geographic diversification and thereby reduce risk.

Every merger in the database, and every acquirer, is classified as either in-market or out-of-market in each market in which the target had at least one office. In a market with a target office, a merger is in-market if the acquirer operated at least one office in that market and out-of-market if the acquirer had no offices in that market. The acquisition of a target that operated in multiple markets might be comÄ pletely in-market, completely out-of-market, or a combination of the two. In a given deal, an acquirer can be in-market in some markets and out-of-market in others.

The large majority of mergers were either comÄ pletely in-market or completely out-of-market rather than a combination of the two types. Of the 3,517 mergers in the period, 1,357 were fully out-of-market (that is, no in-market deposits were acquired), and 1,569 were fully in-market (table 13). Only 591, or about 17 percent, were of a mixed type; the low amount is largely attributable to the 2,320 acquisiÄ tions of single-market targets (table 10).

Although the proportion of mergers that were completely out-of-market was about 40 percent (table 13), the proportion of target markets that were associated with an out-of-market acquirer was about 64 percent (table 14). This divergence arises from large differences between urban and rural mergers. Rural markets were much more likely to have an out-of-market merger than were urban markets: 83 percent of rural target markets were out-of-market versus 43 percent of urban target markets. The proportion of deposits and offices acquired in rural out-of-market mergers is nearly the same as in the case of the number of deals: About 81 percent of the deposits and offices acquired in rural markets were associated with out-of-market mergers (table 15).

The far greater prevalence of urban in-market mergers suggests that acquirers in rural mergers may face different constraints than those of their urban counterparts and may engage in mergers for different reasons. An in-market merger enables the acquirer to increase its market share, which could increase its ability to exercise market power and raise prices. In contrast, out-of-market acquisitions do not change the market structure (that is, individual market shares and the degree of concentration) because the target is simply replaced by the acquirer. In-market rural deals may exert a larger influence on structure than such deals in urban areas because rural banking markets tend to be highly concentrated. Thus, antitrust constraints on the ability of banks to make in-market acquisitions in rural markets may explain the relative rarity of in-market rural mergers.

Because urban markets are substantially larger than rural markets, they tend to have more banks with smaller market shares. As a result, the merger of two banks in the same urban market is less likely to raise antitrust concerns than the merger of two banks in the same rural market. And because urban markets have more banks than rural markets, they have more potential in-market acquirers than do rural markets. Finally, if we take physical distance between acquirer and target as an indicator of in-market versus out-of-market, the difference in the prevalence of in-market deals in urban and rural markets may be somewhat misleading. Because rural markets tend to be physically smaller than urban markets, many out-of-market rural mergers may involve two institutions that are separated by a distance that would not be large enough to place them in different urban markets.

In-market deals do not appear to have had a substantial effect on concentration in local markets between 1994 and 2003. During the period, the average Herfindahl–Hirschman index (HHI) in rural markets decreased slightly, from 3,888 to 3,764, and the average three-firm concentration ratio (CR3) fell from 85 percent to 84 percent. In urban areas, the mean HHI rose slightly, from 1,480 to 1,517, and the average CR3 remained unchanged at 56 percent.[15] Therefore, in both types of market, new entry and market dynamics have been sufficient to offset any substantial increase in average concentration that might have stemmed from in-market mergers.[16]

States

Recent empirical findings suggest that state-level structural conditions in banking may influence bank prices.[17] Therefore, an analysis of merger activity at the state level could provide insight into developments that may be affecting loan rates, deposit rates, and bank fees. This section examines state-level merger activity in a manner similar to that for local areas.[18] In particular, a merger is treated as having taken place in all states in which the target operated a banking office.

Historically, restrictions on interstate banking and branching limited the ability of banks to operate outside their home state. These restrictions began to be relaxed in many areas starting in the mid-1970s, and these easings in all likelihood greatly influenced the level and nature of consolidation that took place in subsequent years. Any influence during the period under review was, however, probably less for thrift institutions than for commercial banks because, even before the 1970s, the restrictions on thrifts were relatively weak, and liberalization began earlier for thrifts than for banks.

The typical bank merger that took place between 1994 and 2003 was a deal involving a target that operated exclusively in a single state—for each merger, the median number of target states (states in which a target had at least one office) was 1, and the mean was 1.1 (table 16). All told, 3,313 mergers (94 percent) involved a target that operated exclusively in one state, and almost all the rest involved no more than three target states (table 17). In the aggregate, the 3,517 mergers in the period involved 3,921 target states.

Although deals involving only one state accounted for almost all mergers, these transactions involved only 35 percent of acquired deposits and 43 percent of acquired offices (table 17). About 33 percent of target deposits and 28 percent of target offices were acquired in the twenty-three mergers with five or more target states.

The number of targets in each state over the period varied a great deal, primarily because of variations in state size, population, and economic vitality. But they also varied because of differences in the past severity of each state's intrastate branching and interstate banking restrictions. That is, the industry structure in each state during the study period, which was in part a legacy of the earlier restrictions, influenced the attractiveness of each state's banks as merger targets even after the restrictions were lifted. During the ten-year period, only 3 mergers involved targets in Alaska and Hawaii, whereas 376 involved targets in Texas, 269 in California, and 265 in Illinois (table 18). The median state hosted 61 mergers, and the mean state hosted 75 mergers (not shown in table).

Of the $2.1 trillion dollars in deposits that changed hands in mergers over the ten-year period, by far the largest share was in California ($387 billion, or more than one-sixth), and much of the rest was in a small number of other states (table 19). And more than one-half of the ten-year total for California ($213 billion) changed hands in the record year of

15. The HHI is computed by summing the squares of the individual deposit-based market shares of all the commercial banks, thrift institutions, and U.S. offices of foreign banks in each local market. The CR3 is computed by summing the three largest market shares in each market.

16. A similar pattern of no substantial increase in concentration is found when the deposits of thrift institutions and U.S. branches of foreign banks are included in calculations of concentration measures with a weight of less than 100 percent. For example, when the HHI is computed with a weight of zero percent for U.S. branches of foreign banks, 50 percent for thrifts, and 100 percent for commercial banks—an approach similar to that typically taken by the Federal Reserve in its bank merger analyses—the average HHI declined in rural markets during the 1994–2003 period, and it increased for urban markets only 2 points during the period. The average HHI (with the differential weights) declined in both types of market between 1995 and 2003.

17. See Heitfield and Prager (2004), Pilloff and Rhoades (2002), and Radecki (1998).

18. The number of entities for the purpose of this analysis is fifty-two: the fifty states, the District of Columbia, and, taken as a group, the eight U.S.-affiliated areas (see general note to table 1).

18. Number of Bank Mergers, by State and Year, 1994–2003

State	Total	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All	**3,921**	**503**	**519**	**492**	**456**	**581**	**373**	**284**	**282**	**228**	**203**
Alabama	60	8	5	9	7	13	8	1	4	2	3
Alaska	3	0	0	1	0	1	0	1	0	0	0
Arizona	32	6	3	3	1	7	0	4	3	3	2
Arkansas	77	14	15	8	6	11	7	4	3	4	5
California	269	18	31	41	29	35	26	33	21	18	17
Colorado	94	10	13	12	14	20	5	6	8	5	1
Connecticut	62	6	8	13	9	6	7	4	4	2	3
Delaware	14	0	2	4	0	3	2	0	1	1	1
District of Columbia	15	1	1	3	2	4	0	0	2	0	2
Florida	227	29	30	35	39	36	17	8	13	10	10
Georgia	160	21	19	24	14	28	18	9	11	8	8
Hawaii	3	2	0	0	0	1	0	0	0	0	0
Idaho	16	2	1	1	4	2	1	2	1	1	1
Illinois	265	41	35	32	33	35	22	14	23	13	17
Indiana	89	11	14	8	8	16	8	10	4	6	4
Iowa	103	8	15	14	11	17	9	7	10	6	6
Kansas	100	21	13	9	15	18	7	4	3	8	2
Kentucky	93	16	14	9	9	12	11	8	6	3	5
Louisiana	96	17	18	16	17	12	3	5	4	2	2
Maine	13	1	2	0	2	0	3	1	3	1	0
Maryland	75	8	8	10	10	7	7	8	6	2	9
Massachusetts	75	13	10	6	11	10	5	4	4	7	5
Michigan	58	11	8	8	8	6	4	6	4	2	1
Minnesota	103	13	15	12	13	10	15	4	7	11	3
Mississippi	44	7	7	2	6	5	8	2	2	3	2
Missouri	110	17	17	10	14	13	15	8	7	6	3
Montana	31	2	3	5	1	6	3	5	3	0	3
Nebraska	49	3	11	8	3	3	4	5	4	4	4
Nevada	21	2	0	3	4	5	4	1	1	1	0
New Hampshire	32	4	6	7	6	2	3	1	1	1	1
New Jersey	108	15	14	17	10	15	15	7	3	7	5
New Mexico	25	3	3	1	3	7	1	5	1	1	0
New York	98	10	11	8	10	13	11	14	11	7	3
North Carolina	85	11	13	10	7	6	6	9	6	11	6
North Dakota	19	4	4	1	1	1	0	2	3	3	0
Ohio	108	10	8	11	8	25	11	12	9	9	5
Oklahoma	76	17	9	8	6	12	9	5	4	2	4
Oregon	28	2	4	4	2	4	0	4	3	3	2
Pennsylvania	134	21	12	12	10	20	15	9	10	9	16
Rhode Island	7	0	4	0	0	0	2	0	0	1	0
South Carolina	40	5	6	0	5	9	4	3	5	1	2
South Dakota	20	3	2	2	1	3	3	2	3	1	0
Tennessee	81	11	9	9	8	16	7	5	8	3	5
Texas	376	41	57	54	42	55	41	17	26	25	18
Utah	17	2	3	2	3	2	1	1	2	1	0
Vermont	7	0	1	1	1	1	2	1	0	0	0
Virginia	110	9	16	16	11	17	8	8	13	3	9
Washington	56	3	5	8	7	13	6	3	3	3	5
West Virginia	31	6	3	4	4	4	3	4	1	2	0
Wisconsin	81	13	8	7	18	12	5	5	5	5	3
Wyoming	16	5	3	2	1	0	1	2	2	0	0
U.S.-affiliated areas	9	0	0	2	2	2	0	1	1	1	0

NOTE. See notes to table 1.

19. Deposits Acquired in Bank Mergers, by State and Year, 1994–2003
Millions of dollars

State	Total	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All	**2,114,228**	**143,651**	**186,968**	**292,740**	**230,148**	**580,972**	**186,440**	**98,190**	**236,067**	**92,102**	**66,950**
Alabama	5,591	1,228	535	517	642	1,334	527	28	409	89	282
Alaska	2,308	0	0	39	0	150	0	2,118	0	0	0
Arizona	26,203	1,011	1,625	6,953	48	15,213	0	651	277	285	140
Arkansas	25,117	1,310	5,545	371	5,235	6,584	2,367	1,769	181	257	1,498
California	386,682	9,671	4,169	47,040	38,798	213,215	7,720	7,113	19,867	35,050	4,040
Colorado	16,799	712	1,353	2,083	846	3,262	172	731	6,700	672	270
Connecticut	38,681	1,755	11,732	8,569	2,583	3,564	4,173	1,166	1,759	1,180	2,201
Delaware	5,840	0	127	2,942	0	1,930	818	0	0	0	22
District of Columbia	4,159	201	674	409	380	1,933	0	0	181	0	381
Florida	103,557	8,438	8,572	11,308	13,313	46,344	3,160	868	6,287	3,258	2,010
Georgia	38,535	1,295	1,590	9,191	2,077	3,295	2,930	3,443	12,045	1,290	1,378
Hawaii	549	549	0	0	0	0	0	0	0	0	0
Idaho	13,618	94	3,357	817	2,845	801	37	3,245	2,333	63	26
Illinois	127,541	18,825	11,677	6,967	9,832	49,380	11,580	3,048	11,478	1,695	3,058
Indiana	38,419	3,328	9,549	1,077	1,562	14,296	4,897	1,684	547	995	485
Iowa	20,341	899	1,986	2,738	2,177	6,093	3,044	1,790	1,016	309	290
Kansas	15,863	1,159	1,703	4,460	4,820	1,201	1,753	190	158	366	52
Kentucky	21,526	5,695	1,227	893	886	5,438	2,335	624	614	3,260	553
Louisiana	28,150	3,887	2,443	6,402	1,580	11,061	1,312	871	139	207	248
Maine	2,326	81	941	0	389	0	214	61	437	203	0
Maryland	37,810	3,523	1,470	5,028	5,432	6,345	1,181	1,656	1,372	152	11,651
Massachusetts	78,171	5,305	13,118	12,073	2,258	2,943	30,402	5,416	1,997	2,621	2,036
Michigan	96,820	2,409	27,890	800	12,705	27,902	2,505	2,073	19,946	410	181
Minnesota	30,675	651	2,206	1,483	1,184	2,769	1,699	200	16,513	3,491	480
Mississippi	12,723	2,430	478	61	1,166	3,850	3,975	220	334	113	96
Missouri	51,223	4,484	2,723	851	20,405	2,830	15,371	656	1,818	1,763	322
Montana	3,992	688	197	522	293	246	110	197	1,510	0	228
Nebraska	9,396	139	1,590	2,863	296	64	152	1,990	1,950	218	134
Nevada	20,553	756	0	5,933	1,838	7,059	1,457	1,199	1,349	962	0
New Hampshire	13,666	1,826	2,200	4,668	1,341	1,600	920	227	113	8	762
New Jersey	111,452	8,143	17,879	34,998	7,567	9,311	4,556	1,472	23,484	3,229	812
New Mexico	9,515	1,719	313	107	2,844	1,801	79	2,419	107	126	0
New York	180,226	6,124	9,879	46,398	10,983	15,279	43,663	11,849	16,879	12,726	6,444
North Carolina	49,728	1,087	8,457	1,672	4,339	986	381	8,938	21,630	1,103	1,134
North Dakota	4,049	149	1,611	52	52	83	0	91	1,722	289	0
Ohio	40,116	15,854	2,179	1,180	1,422	8,199	3,271	2,169	2,192	1,952	1,699
Oklahoma	13,856	1,426	447	2,367	5,791	1,383	831	644	351	53	565
Oregon	36,225	133	1,367	6,163	11,830	5,993	0	898	8,334	942	565
Pennsylvania	104,354	8,694	3,961	26,374	5,854	30,398	4,521	6,918	4,925	4,807	7,902
Rhode Island	3,306	0	943	0	0	0	2,237	0	0	126	0
South Carolina	18,380	2,424	2,349	0	1,767	1,582	359	2,127	7,296	67	409
South Dakota	2,162	94	467	78	10	39	220	82	741	431	0
Tennessee	21,890	942	1,433	2,238	1,375	2,908	9,685	1,120	975	508	705
Texas	75,465	5,506	5,800	11,931	6,482	18,406	5,291	3,083	11,990	5,182	1,793
Utah	9,490	162	819	963	939	609	38	5,064	869	28	0
Vermont	4,556	0	534	315	410	401	1,350	1,546	0	0	0
Virginia	67,223	2,008	3,830	1,549	18,781	14,112	2,108	1,554	14,167	698	8,416
Washington	41,862	274	2,849	4,855	6,681	16,782	392	187	7,481	176	2,185
West Virginia	8,179	1,100	207	795	112	1,437	423	3,631	256	219	0
Wisconsin	27,893	4,917	518	488	6,398	9,685	2,150	826	979	437	1,496
Wyoming	3,141	547	448	530	932	0	75	302	307	0	0
U.S.-affiliated areas	4,328	0	0	2,629	648	876	0	38	51	86	0

NOTE. See notes to table 1.

20. Percentage of Deposits Acquired in Bank Mergers, by State and Year, 1994–2003

State	Sum of annual percent-ages	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All	**53.9**	**4.4**	**5.5**	**8.4**	**6.1**	**14.7**	**4.6**	**2.2**	**5.0**	**1.8**	**1.2**
Alabama	12.0	3.1	1.3	1.2	1.4	2.7	1.0	.1	.8	.2	.5
Alaska	50.0	.0	.0	.9	.0	3.5	.0	45.6	.0	.0	.0
Arizona	70.4	3.1	4.6	19.9	.1	39.7	.0	1.5	.6	.6	.3
Arkansas	85.1	5.2	21.0	1.3	17.9	21.6	7.4	5.4	.5	.7	4.0
California	91.6	2.6	1.1	12.4	9.7	51.3	1.8	1.6	4.0	6.5	.7
Colorado	37.6	2.0	3.8	5.7	2.2	7.6	.4	1.5	12.8	1.2	.4
Connecticut	61.5	3.2	21.3	15.6	4.6	4.8	5.2	1.3	2.0	1.0	2.5
Delaware	14.6	.0	.4	8.3	.0	4.3	1.5	.0	.0	.0	.0
District of Columbia	36.7	1.8	6.1	3.9	3.7	17.3	.0	.0	1.5	.0	2.4
Florida	52.8	4.8	4.7	6.1	7.1	23.3	1.5	.4	2.8	1.3	.7
Georgia	43.4	1.9	2.2	12.0	2.5	3.8	3.3	3.6	11.8	1.2	1.1
Hawaii	3.2	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
Idaho	133.9	1.0	34.1	8.1	29.9	8.0	.4	30.6	21.0	.5	.2
Illinois	57.2	9.7	5.9	3.4	4.4	21.8	4.9	1.2	4.3	.6	1.1
Indiana	57.3	5.5	15.2	1.7	2.4	20.5	7.0	2.4	.7	1.3	.6
Iowa	50.1	2.5	5.4	7.2	5.5	14.6	7.3	4.2	2.2	.7	.6
Kansas	44.4	3.5	5.0	12.9	13.5	3.2	4.5	.5	.4	.9	.1
Kentucky	47.1	14.3	3.0	2.1	1.9	11.4	4.8	1.3	1.2	6.2	1.0
Louisiana	66.5	10.0	6.2	15.7	3.7	25.0	2.9	1.9	.3	.4	.5
Maine	18.1	.7	7.7	.0	3.2	.0	1.6	.5	3.0	1.4	.0
Maryland	61.1	6.4	2.7	9.3	9.9	11.0	2.0	2.6	2.0	.2	15.0
Massachusetts	65.8	5.3	12.9	11.6	2.0	2.5	23.2	4.0	1.5	1.7	1.2
Michigan	90.5	2.6	28.6	.8	12.2	25.6	2.2	1.8	16.3	.3	.1
Minnesota	44.8	1.3	4.4	2.8	2.1	4.6	2.5	.3	21.8	4.5	.5
Mississippi	48.3	10.7	2.0	.2	4.6	14.0	14.2	.8	1.1	.4	.3
Missouri	70.3	6.8	4.1	1.2	27.9	3.9	20.7	.9	2.3	2.2	.4
Montana	44.4	8.8	2.5	6.4	3.5	2.8	1.2	2.1	15.0	.0	2.0
Nebraska	35.7	.6	6.6	11.4	1.1	.2	.6	7.2	6.8	.7	.4
Nevada	130.3	5.8	.0	41.6	12.0	45.7	8.7	6.5	6.3	3.5	.0
New Hampshire	85.0	12.8	15.3	30.6	8.5	9.2	4.7	.9	.4	.0	2.6
New Jersey	79.2	6.5	14.0	25.6	5.9	6.9	3.2	.9	14.0	1.8	.4
New Mexico	71.0	14.2	2.5	.8	21.2	13.0	.6	17.2	.7	.8	.0
New York	28.9	1.3	2.1	9.2	1.8	2.3	6.6	1.6	2.1	1.4	.7
North Carolina	47.6	1.6	11.9	2.2	5.4	1.0	.4	7.9	15.6	.9	.8
North Dakota	41.5	1.7	18.2	.6	.6	.8	.0	.9	16.3	2.5	.0
Ohio	27.8	12.5	1.6	.9	1.0	5.4	2.1	1.3	1.2	1.0	.8
Oklahoma	40.0	4.6	1.4	7.1	16.8	3.9	2.3	1.7	.9	.1	1.3
Oregon	106.3	.5	4.4	19.9	35.3	17.9	.0	2.3	22.5	2.2	1.3
Pennsylvania	60.8	5.4	2.5	16.0	3.4	17.9	2.6	3.9	2.7	2.6	3.8
Rhode Island	24.9	.0	6.6	.0	.0	.0	17.5	.0	.0	.8	.0
South Carolina	52.4	8.5	7.9	.0	5.4	4.6	1.0	5.6	18.3	.2	.9
South Dakota	15.8	.8	3.8	.6	.1	.3	1.8	.6	4.8	2.9	.0
Tennessee	33.5	1.8	2.6	3.9	2.3	4.5	14.1	1.6	1.3	.7	.8
Texas	36.9	3.2	3.3	6.5	3.3	9.1	2.5	1.4	4.9	2.0	.6
Utah	37.9	1.3	6.2	6.6	5.7	3.6	.2	13.3	1.1	.0	.0
Vermont	61.8	.0	8.0	4.6	6.0	5.5	17.9	19.8	.0	.0	.0
Virginia	79.1	3.0	5.6	2.1	24.7	18.1	2.6	1.8	14.0	.6	6.5
Washington	72.6	.5	5.5	9.2	12.4	29.7	.7	.3	11.4	.2	2.7
West Virginia	41.4	6.2	1.2	4.3	.6	7.2	2.0	17.7	1.2	1.0	.0
Wisconsin	41.4	8.7	.9	.8	9.7	14.0	3.0	1.1	1.2	.5	1.6
Wyoming	46.6	10.7	6.8	7.3	12.8	.0	1.2	3.7	4.1	.0	.0
U.S.-affiliated areas	15.2	.0	.0	9.3	2.4	3.0	.0	.1	.1	.2	.0

NOTE. See notes to table 1.

21. Number of Banking Offices Acquired in Bank Mergers, by State and Year, 1994–2003

State	Total	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All	**47,283**	**3,932**	**4,981**	**6,549**	**5,687**	**11,351**	**3,477**	**2,693**	**4,958**	**1,914**	**1,741**
Alabama	267	62	24	30	36	58	23	1	15	6	12
Alaska	66	0	0	3	0	11	0	52	0	0	0
Arizona	694	29	46	171	1	401	0	21	12	9	4
Arkansas	830	51	196	20	182	175	79	51	8	8	60
California	5,899	218	108	842	722	2,739	183	163	293	558	73
Colorado	437	43	45	38	44	98	9	23	114	19	4
Connecticut	823	47	163	213	68	72	109	37	45	24	45
Delaware	68	0	7	28	0	28	2	0	1	1	1
District of Columbia	108	6	13	14	21	35	0	0	4	0	15
Florida	2,599	242	189	248	386	1,005	89	28	265	89	58
Georgia	967	58	45	267	73	104	86	82	193	28	31
Hawaii	61	22	0	0	0	39	0	0	0	0	0
Idaho	472	11	91	32	105	37	2	91	97	4	2
Illinois	1,886	169	196	133	171	639	220	65	186	42	65
Indiana	1,153	133	267	40	46	390	122	71	23	35	26
Iowa	669	29	63	107	66	175	108	52	45	12	12
Kansas	456	40	76	99	115	42	50	8	9	15	2
Kentucky	711	187	55	38	39	141	76	23	24	107	21
Louisiana	925	126	107	238	74	256	68	31	9	8	8
Maine	115	6	39	0	18	0	14	4	25	9	0
Maryland	1,117	111	54	130	218	163	47	63	58	7	266
Massachusetts	1,357	134	256	260	51	70	351	116	34	53	32
Michigan	2,320	90	656	37	292	641	88	78	425	9	4
Minnesota	504	23	91	40	42	64	44	10	116	70	4
Mississippi	484	130	19	2	70	122	116	5	11	5	4
Missouri	937	97	103	34	284	81	245	21	44	20	8
Montana	140	31	4	9	16	12	6	7	48	0	7
Nebraska	277	6	67	67	7	13	10	30	63	10	4
Nevada	485	24	0	138	49	169	23	22	43	17	0
New Hampshire	417	49	67	155	38	44	34	7	3	1	19
New Jersey	2,450	187	458	761	166	235	123	47	383	63	27
New Mexico	315	63	11	4	59	96	4	70	4	4	0
New York	2,018	114	128	542	170	306	154	163	249	144	48
North Carolina	1,460	54	338	78	160	37	11	296	424	30	32
North Dakota	99	12	40	3	1	3	0	6	23	11	0
Ohio	1,140	380	69	49	49	273	103	62	47	59	49
Oklahoma	363	47	13	65	123	32	23	24	11	2	23
Oregon	968	7	60	205	176	223	0	44	211	27	15
Pennsylvania	2,793	278	134	719	161	537	136	239	165	175	249
Rhode Island	83	0	31	0	0	0	48	0	0	4	0
South Carolina	588	102	96	0	76	56	16	71	160	3	8
South Dakota	90	4	18	9	1	5	11	2	18	22	0
Tennessee	649	38	61	48	43	110	229	45	32	11	32
Texas	2,004	110	152	287	172	584	152	90	267	128	62
Utah	343	12	36	37	43	30	4	139	39	3	0
Vermont	127	0	12	7	15	12	45	36	0	0	0
Virginia	2,119	60	139	67	572	320	94	68	455	25	319
Washington	1,212	10	90	166	214	427	23	10	202	9	61
West Virginia	236	41	9	21	8	46	10	76	13	12	0
Wisconsin	797	220	23	22	184	167	85	31	21	15	29
Wyoming	99	19	16	6	28	0	2	11	17	0	0
U.S.-affiliated areas	86	0	0	20	32	28	0	1	4	1	0

NOTE. See notes to table 1.

22. Percentage of Banking Offices Acquired in Bank Mergers, by State and Year, 1994–2003

State	Sum of annual percent-ages	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All	**59.7**	**5.1**	**6.5**	**8.5**	**7.3**	**14.3**	**4.3**	**3.3**	**6.0**	**2.3**	**2.1**
Alabama	20.1	4.9	1.9	2.3	2.7	4.2	1.7	.1	1.1	.4	.9
Alaska	50.2	.0	.0	2.3	.0	8.2	.0	39.7	.0	.0	.0
Arizona	84.5	3.6	6.5	24.0	.1	45.3	.0	2.3	1.3	1.0	.4
Arkansas	81.6	5.6	20.8	2.1	18.4	16.8	7.1	4.5	.7	.7	5.0
California	94.4	3.4	1.7	13.2	11.5	44.0	3.0	2.7	4.8	9.1	1.2
Colorado	44.6	5.9	5.9	4.6	4.6	9.3	.8	2.0	9.7	1.6	.3
Connecticut	70.9	3.9	13.7	18.7	5.8	6.2	9.3	3.2	4.0	2.1	3.9
Delaware	28.9	.0	3.0	12.0	.0	11.8	.8	.0	.4	.4	.4
District of Columbia	52.6	2.5	5.8	7.0	10.1	17.4	.0	.0	2.1	.0	7.8
Florida	60.6	5.8	4.7	6.1	9.2	23.2	2.0	.6	5.8	2.0	1.2
Georgia	47.0	3.0	2.3	14.1	3.7	5.0	4.0	3.7	8.7	1.2	1.3
Hawaii	17.1	5.6	.0	.0	.0	11.4	.0	.0	.0	.0	.0
Idaho	115.6	3.0	24.1	8.4	26.6	9.2	.5	20.7	21.7	.9	.4
Illinois	54.7	5.5	6.2	4.1	5.0	18.2	6.1	1.8	5.0	1.1	1.7
Indiana	54.8	6.5	12.9	1.9	2.2	18.3	5.7	3.3	1.1	1.7	1.2
Iowa	49.9	2.3	4.9	8.3	5.0	12.8	7.8	3.8	3.3	.9	.9
Kansas	38.7	3.7	6.8	8.6	9.6	3.4	3.9	.6	.7	1.1	.1
Kentucky	48.2	13.4	3.9	2.7	2.7	9.6	5.0	1.5	1.5	6.7	1.3
Louisiana	68.7	9.6	8.1	18.0	5.4	18.6	5.0	2.2	.6	.6	.6
Maine	23.5	1.2	8.2	.0	3.6	.0	2.8	.8	5.0	1.8	.0
Maryland	68.2	6.4	3.2	7.9	13.6	10.2	2.9	3.8	3.6	.4	16.2
Massachusetts	70.8	7.0	13.6	13.9	2.7	3.6	18.0	6.0	1.7	2.7	1.6
Michigan	82.5	3.2	23.5	1.3	10.4	22.7	3.1	2.8	15.1	.3	.1
Minnesota	34.4	1.7	6.6	2.9	3.0	4.4	3.0	.7	7.5	4.5	.3
Mississippi	48.0	13.2	1.9	.2	6.8	12.2	11.2	.5	1.1	.5	.4
Missouri	50.3	5.6	5.9	1.9	15.6	4.3	12.5	1.1	2.2	1.0	.4
Montana	49.6	13.3	1.6	3.6	6.0	4.1	1.9	2.2	14.7	.0	2.1
Nebraska	33.4	.8	8.4	8.4	.8	1.6	1.2	3.5	7.2	1.1	.5
Nevada	133.1	7.5	.0	42.6	13.7	44.1	5.7	5.4	10.2	3.9	.0
New Hampshire	107.2	12.7	17.1	40.9	9.6	11.0	8.5	1.7	.7	.2	4.7
New Jersey	86.6	6.6	16.4	27.3	6.0	8.3	4.3	1.6	13.0	2.1	.9
New Mexico	72.6	16.2	2.7	1.0	13.5	21.2	.9	15.4	.9	.9	.0
New York	43.8	2.4	2.7	11.6	3.7	6.7	3.4	3.6	5.5	3.2	1.0
North Carolina	61.4	2.2	14.4	3.3	6.8	1.6	.5	12.4	17.7	1.2	1.3
North Dakota	27.8	3.5	11.7	.8	.3	.8	.0	1.6	6.1	2.9	.0
Ohio	30.3	10.1	1.8	1.3	1.3	7.2	2.8	1.7	1.3	1.6	1.3
Oklahoma	39.5	5.6	1.5	7.4	13.5	3.4	2.4	2.4	1.1	.2	2.1
Oregon	107.4	.8	6.9	23.6	20.4	25.1	.0	4.6	21.7	2.8	1.5
Pennsylvania	65.4	6.6	3.2	17.0	3.8	12.7	3.2	5.5	3.8	4.0	5.6
Rhode Island	37.3	.0	13.0	.0	.0	.0	22.5	.0	.0	1.8	.0
South Carolina	50.7	8.8	8.4	.0	6.8	5.0	1.4	6.0	13.4	.3	.7
South Dakota	22.6	1.1	4.9	2.4	.3	1.3	2.7	.5	4.3	5.2	.0
Tennessee	35.9	2.3	3.6	2.8	2.5	6.1	12.3	2.4	1.7	.6	1.6
Texas	49.7	3.2	4.3	7.7	4.4	14.3	3.6	2.1	6.0	2.8	1.3
Utah	64.6	2.6	7.6	7.5	8.4	5.6	.7	24.6	7.0	.5	.0
Vermont	51.3	.0	5.1	2.9	6.1	4.8	18.1	14.2	.0	.0	.0
Virginia	90.7	2.6	6.1	2.9	24.7	13.9	4.0	2.9	19.2	1.1	13.4
Washington	74.9	.6	5.4	9.9	13.7	27.2	1.4	.6	11.9	.5	3.5
West Virginia	42.8	7.8	1.7	3.9	1.5	8.3	1.8	13.5	2.3	2.1	.0
Wisconsin	41.9	12.1	1.3	1.2	9.7	8.7	4.3	1.5	1.0	.7	1.4
Wyoming	65.7	14.1	11.8	4.1	18.7	.0	1.2	6.4	9.5	.0	.0
U.S.-affiliated areas	15.3	.0	.0	3.7	5.7	4.9	.0	.2	.6	.2	.0

NOTE. See notes to table 1.

23. Number of Bank Mergers, by Year and Percentage of Target Deposits Acquired by an In-State Bank, 1994–2003

Year	Total	Percentage of target deposits acquired by in-state bank				
		0	1–20	21–79	80–99	100
All	**3,517**	**304**	**18**	**49**	**47**	**3,099**
1994	475	28	0	3	1	443
1995	475	43	3	6	5	418
1996	446	27	1	4	7	407
1997	422	45	2	1	4	370
1998	493	50	5	13	8	417
1999	333	25	3	6	6	293
2000	255	23	2	5	5	220
2001	231	23	1	4	5	198
2002	203	21	1	4	3	174
2003	184	19	0	3	3	159

NOTE. For a state with a target office, an acquirer is "in-state" if it had an office in that state. See also notes to table 1.

1998, when the two largest banking organizations in the state were acquired. The California deposits acquired in 1998 represented 51 percent of all deposits in the state as of June 30 that year (table 20). The sum of the percentages of June 30 deposits that changed hands in each year of the period in California is about 92, and the corresponding percentage for all states is about 54. The state-by-state patterns regarding the number of offices changing hands each year, and the percentages (tables 21 and 22), are comparable to those for deposits.

Mergers can be categorized as in-state or out-of-state in a manner analogous to that for counting in-market and out-of-market transactions. That is, an acquirer is considered to be in-state in a state with a target office if the acquirer also operated a banking office in the state and otherwise is considered to be out-of-state. The acquisition of a target that operated in multiple states could be classified as both in-state and out-of-state if the acquirer had branches in some, but not all, of the target's states.

The vast majority of deals were in-state acquisitions (table 23). In 3,099 deals, or 88 percent of all mergers, the target operated in only those states in which the acquirer already had a presence. The high proportion of in-state mergers reflects the fact that many mergers were small and likely involved acquirers looking to increase the size of their operations in their own local area or nearby, which means the merger was likely to be in-state.

Of the 3,921 target states, the acquirer had at least one banking office in 3,366 of them.[19] Acquirers had no operations in 555 target states (14 percent of all target states). The large amount of in-state activity between 1994 and 2003 caused the average statewide level of concentration to rise. The average statewide HHI increased from 845 to 1007, and the average CR3 rose from 42 percent to 45 percent. Out-of-state consolidation may have been uncommon, but it tended to involve large targets that accounted for a disproportionate share of acquired deposits and offices—about one-third (table 24).

19. Except as noted, data in this paragraph are not in the tables.

24. Deposits and Number of Banking Offices Acquired in Bank Mergers, by Year and Presence of Acquirer in the Target State, 1994–2003

Year	Total	In-state acquirer		Out-of-state acquirer	
		Amount	Percent of total	Amount	Percent of total
	Deposits (millions of dollars except as noted)				
All	**2,114,228**	**1,363,128**	**64.5**	**751,100**	**35.5**
1994	143,651	97,191	67.7	46,459	32.3
1995	186,968	134,750	72.1	52,218	27.9
1996	292,740	195,130	66.7	97,610	33.3
1997	230,148	125,215	54.4	104,933	45.6
1998	580,972	260,166	44.8	320,806	55.2
1999	186,440	151,153	81.1	35,287	18.9
2000	98,190	83,434	85.0	14,757	15.0
2001	236,067	183,755	77.8	52,313	22.2
2002	92,102	69,609	75.6	22,493	24.4
2003	66,950	62,725	93.7	4,224	6.3
	Banking offices (number except as noted)				
All	**47,283**	**31,925**	**67.5**	**15,358**	**32.5**
1994	3,932	2,996	76.2	936	23.8
1995	4,981	3,630	72.9	1,351	27.1
1996	6,549	4,260	65.0	2,289	35.0
1997	5,687	3,494	61.4	2,193	38.6
1998	11,351	5,868	51.7	5,483	48.3
1999	3,477	2,694	77.5	783	22.5
2000	2,693	2,211	82.1	482	17.9
2001	4,958	3,557	71.7	1,401	28.3
2002	1,914	1,588	83.0	326	17.0
2003	1,741	1,627	93.5	114	6.5

NOTE. See note to table 23.

Summary

The consolidation in the U.S. banking industry since the early 1980s has had a profound effect on the structure of the industry. This study covers mergers that took place between 1994 and 2003 among commercial banks, savings banks, savings and loan associations, and industrial banks. The data used to study this period are more detailed and comprehensive than any data available for the years preceding 1994.

The 3,517 mergers consummated during the ten-year period under investigation involved the acquisition of about $3.1 trillion in assets, $2.1 trillion in deposits, and 47,300 offices. The annual number of mergers was fairly steady in the 1994-98 period and then declined to a much lower level by 2003.

Roughly three-fourths of all deals involved the purchase of a commercial banking organization by another commercial banking organization. The remaining mergers involved a thrift institution as the acquirer, the target, or both.

Most deals involved the acquisition of a small organization with operations in a fairly limited geographic area. In the aggregate these small mergers tended to account for a relatively small share of the assets, deposits, and offices that were purchased. In contrast, the few acquisitions of very large banks accounted for a large share of the assets, deposits, and offices acquired over the period, and they were disproportionately responsible for many of the changes to the banking industry caused by consolidation.

Urban markets had disproportionately more mergers than rural markets, and mergers with targets in urban areas accounted for an even larger share of acquired deposits and offices. Urban markets were also more likely than rural markets to be the location of a merger in which the acquirer already had an office in the market.

Acquisitions took place in every state, but the level of activity varied greatly by state. The large majority of mergers involved a target that operated in a single state and an acquirer with at least one office in that state.

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