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The Evolution of U.S. Bank Branch Networks: Growth, Consolidation, and Strategy

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Bank branches have become steadily more concentrated within large and midsized branch networks over the past decade. A look at branching trends between 2001 and 2003 reveals that banks with large networks grew slowly and strategically during this period as they adjusted their branch holdings within existing markets, while institutions with midsized branch networks expanded more aggressively.

After a relative lull in activity in recent years, a number of large bank mergers have taken place in 2004. The combinations of Bank of America and FleetBoston, J.P. Morgan Chase and Bank One, and Regions Financial and Union Planters resulted in significantly expanded branch office networks for these institutions—Bank of America's retail branch presence, for example, now encompasses twenty-nine states and more than 5,500 branch offices. The renewed interest in traditional branch banking that is evident in these mergers stands in marked contrast to the trends of the late 1990s, when technological innovations such as online banking and call centers seemed to challenge the "bricks-and-mortar" method of delivering banking services.[1]

In this edition of *Current Issues*, we examine recent changes to U.S. bank branch networks and explore the approaches to branching adopted by large banking organizations.[2] We establish first that bank branches have become steadily more concentrated within large and midsized branch networks over the past decade. We then take a closer look at changes over the 2001-03 period in the growth rate of banks' branch networks and in the distribution of their branch activity across geographic markets. Our analysis enables us to make some inferences about the branching strategies that different groups of banks are pursuing.

We find a systematic difference in strategy between institutions with large branch networks—defined here as more than 500 branches—and institutions with midsized networks, defined as 100 to 500 branches. Between 2001 and 2003, most banks with large branch networks chose to adjust their branch holdings within existing markets rather than to pursue aggressive growth or expansion into new markets. In contrast, many institutions with midsized branch networks actively sought to expand. These latter institutions had higher branch network growth, directed more of their branch activity toward acquisitions, and tended to conduct more of their branch transactions in new markets.

These changes in the growth and structure of branch networks have implications for those who rely on bank branches to obtain financial services and for the future direction of the banking business itself. Consolidation of branches into large and midsized networks means that more customers will be receiving financial services from large banking organizations. In addition, the expansion of the midsized branch networks and the overall trend toward

consolidation provide strong evidence that banking organizations continue to view retail banking and deposit taking as profitable activities.

Industry Consolidation

The traditional image of banking features a stately office on Main Street where the branch manager understands the local market and has strong customer relationships. But technology and regulatory changes in the 1990s challenged this bricks-and-mortar business model. Automated teller machines (ATMs) proliferated after the national ATM networks dropped a ban on surcharges in 1996; by 2002, there were 352,000 machines in the United States (Litan 1999; ABA 2003). The Internet gave customers electronic access to their accounts and even gave rise to "virtual" banking organizations; in 2000, forty Internet banks were in operation (Bach 2002). Banks also developed centralized call centers to handle customer service issues and to initiate transactions, including deposits and loans. In concert with these changes, many institutions shifted activities once carried out by branch bank personnel, such as small-business loan approval and management, to regional or national offices (Orlow, Radecki, and Wenninger 1996). All these developments appeared to reduce the role of the traditional bank branch in the delivery of retail banking services.

These changes were reinforced by deregulation in the 1990s. In particular, the Riegle-Neal Act of 1994 allowed banks to branch and merge across state lines, contributing to an era of bank consolidation that focused on reducing costs to boost profits. As a result, the number of U.S. banks and thrifts fell from about 12,500 in 1994 to a little more than 9,000 at the end of 2003.

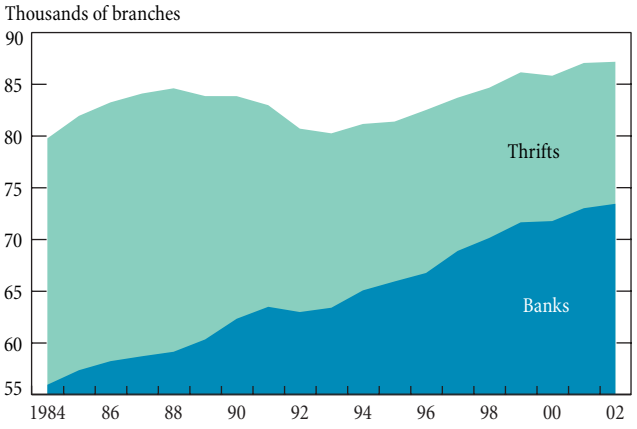
During the same period, the number of bank and thrift *branches* actually rose (Chart 1). Banking organizations began to expand their branch networks following the banking crisis of the late 1980s and the 1990-91 recession; from 1993 to 2002, the number of bank branches climbed 8.6 percent. The Riegle-Neal Act contributed to this branch expansion, as did the Gramm-Leach-Bliley Act of 1999—the latter because branches could be used to distribute the insurance and securities products that the legislation permitted banks to originate.

Together, the declining number of banks and rising number of branches have resulted in greater consolidation of branches and deposits in the nation's larger bank and thrift organizations. In 1994, midsized branch networks (100 to 500 branches) and large branch networks (more than 500 branches) accounted for 53 percent of the country's deposits and 46 percent of the branches. By the middle of 2003, those figures had risen to 61 percent of deposits and 51 percent of branches (Chart 2). The greatest amount of consolidation has occurred in a subset of the large branch networks—specifically, those with more than 1,000 branches—which we term the "very largest" networks.[3] These networks contained almost 20,000 branches in June 2003, up sharply from 9,200 branches in 1994. The very largest branch networks now claim nearly 25 percent of all U.S. bank branches.

The consolidation of branches into the larger networks has been accompanied by increased interstate branching and banking. Between 1994 and 2003, the number of organizations with branches in more than one state nearly doubled, to 538, while the number of organizations decreased by one-third. More than a dozen bank and thrift branch networks now have a presence in at least 20 percent of the country.[4] The institutions with the widest geographic reach have branches in about half the states—a field of operation that is still short of truly nationwide banking, but considerably more extensive than what prevailed ten years ago.

The trend toward consolidation of branches into large branch networks has implications for bank customers and the banks themselves. Traditionally, consumers and small businesses have relied most heavily on bricks-and-mortar branches to access bank services. The evidence suggests that these customers face something of a trade-off in light of the growth of very large branch networks. On the one hand, larger banking organizations tend to charge higher fees than smaller institutions (Hannan 2002).[5] Thus, branch-dependent customers could face additional costs as branches are increasingly consolidated into the larger branch networks.

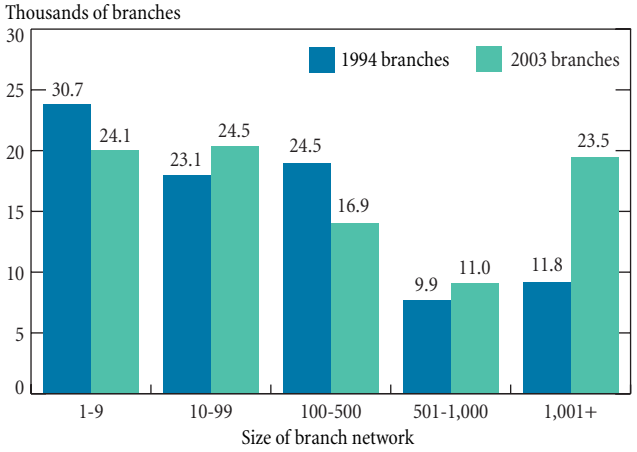
Chart 1
Branches Held by FDIC-Insured Banks and Thrifts



Source: Federal Deposit Insurance Corporation (FDIC), *Historical Statistics on Banking*.

Note: The sample consists of U.S.-domiciled banks and thrifts; branch holdings are as of year-end.

Chart 2
Distribution of Branches by Branch Network Size



Source: Federal Deposit Insurance Corporation, *Summary of Deposits*.

Notes: The sample consists of all full-service deposit-taking branches as of midyear. The numbers at the top of the bars represent the percentage of all branches held by each network-size group.

On the other hand, large branch networks offer the convenience of many points of contact with the institution and, very often, the ability to avoid ATM surcharges and other usage fees by staying within the bank's network. Academic research suggests that depositors value geographic reach (branches in many states and municipalities) and local branch density (many branches of an institution in a given area) when selecting a depository institution (Dick 2003). Market surveys also suggest that customers place a premium on convenience when choosing a bank: 39 percent of bank customers surveyed in 2001 indicated that they selected their bank primarily because of its location (Fung 2001). These findings suggest that many customers value the scope and scale of large branch networks.

For the banks themselves, the consolidation of branches within large branch networks has implications for cost structure, business focus, and profitability. Full-service branches entail significant costs that banks must cover through the revenues generated by these networks, primarily the implicit and explicit income associated with deposit accounts (Orlow, Radecki, and Wenninger 1996; Radecki 1999).[6] In choosing to continue to expand their branch networks, these organizations seem to have made the judgment that retail banking activities remain an effective channel for generating revenues, despite the associated costs and the development of alternative distribution channels such as call centers, ATMs, and online banking. Academic research supports this view, suggesting that large branch networks are not effective at minimizing costs but are effective at generating revenue (Berger, Leusner, and Mingo 1997). At a minimum, the increasing scale of the midsized and large branch networks suggests that these institutions intend to remain active providers of retail banking services.

Large and Midsized Branch Networks: Recent Changes

To gain insight into the branching strategies that banks are pursuing, we examine the branching activity of institutions with 100 or more branches from June 2001 to June 2003.[7] We choose this period because it is the time when banking institutions appear to have refocused their attention on branches as a key delivery mechanism. We look at institutions with midsized or large branch networks because, as we noted earlier, they control more than 50 percent of all U.S. branches.[8]

Our sample consists of all commercial bank and thrift holding companies that met the 100-branch cutoff as of June 2001. At that time, there were eighty-seven such institutions, with about 42,000 branches in total. For each institution in the sample, we track changes in its branch network structure over our two-year observation period. Seven of the institutions were acquired through mergers during the sample period, all by other institutions in our sample, and are dropped from the analysis.[9] For the eighty surviving firms, we track branch purchases, branch sales, "de novo" openings (newly formed branches), closings, and branches acquired through mergers.[10] We also track the markets in which each institution had branches.

The number of branches held by the eighty institutions in our sample rose 5.3 percent between June 2001 and June 2003 (an increase of 2,090 branches); branch growth was just 2 percent for the U.S. banking system as a whole. This growth differential reflects the continued consolidation of branches within these large and midsized branch networks, mainly as a result of mergers. In fact, all of the aggregate growth for these networks came through mergers and branch purchases from smaller networks rather than through new branch creation.[11] Institutions with 100 or more branches actually closed more branches than they opened de novo over this period, meaning that net new branch creation for the U.S. banking system came entirely from smaller branch networks.[12]

While the number of branches increased for the eighty institutions in the aggregate, the growth rates varied considerably among the institutions. The number of branches increased at forty-four of the institutions (about 55 percent), while thirty-three institutions experienced a decrease in branch network size, and three had no net change. For most institutions, the change in branch network size over this period was fairly moderate, with a median increase of a little more than 10 percent for those institutions whose branch networks grew, and a median decrease of 4 percent for those

institutions whose branch networks contracted. Most of the very large increases in branch network size were the result of mergers, while the large decreases were attributable to a combination of branch sales and closures.

Differences in Branching Strategies

The observed variations in the growth of branch networks suggest that the institutions in our sample may have differed in their branching strategies. To clarify these differences, we examine the pattern of branching activity in greater detail. We observe first that the extent and direction of branch network growth appear to be related to network size. As Chart 3 shows, networks with 100 to 500 branches at the beginning of the two-year period—the midsized networks—were more likely to grow than the large branch networks—those with more than 500 branches. The median change for the midsized branch networks was an increase of about 4.8 percent, as compared with a median decrease of 1 to 2.5 percent for the large networks.[13] Further, about two-thirds of the midsized branch networks increased in size over the sample period, as compared with less than one-third of the large branch networks.

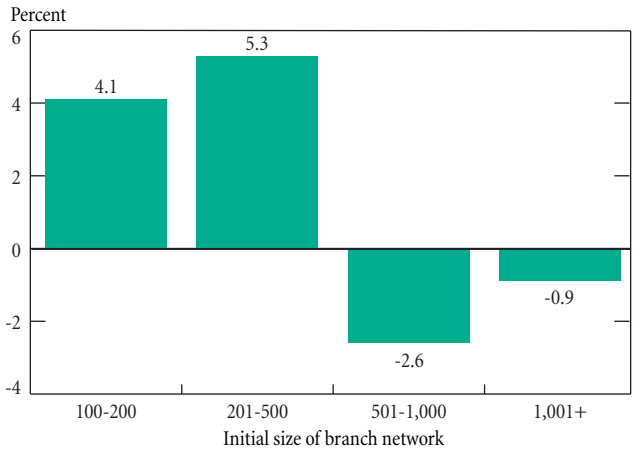
These patterns were different in the mid-to-late 1990s. Chart 4 illustrates the median growth rates of midsized and large branch networks over two-year intervals from 1993 to 2003. Median growth rates for the midsized branch networks were approximately equal to those for the large branch networks between 1995 and 1999, following an earlier period of faster growth for the midsized networks. After 1999, median growth rates for both groups slowed, but the midsized networks continued to increase in size while the networks with more than 500 branches contracted from 1999 to 2001.

Regardless of the direction of the net change in branch network size, nearly all institutions (seventy-seven out of eighty) both acquired new branches (through mergers, purchase, or de novo openings) and divested existing branches (through sales or outright closings) during this period. In many cases, this "two-way" activity was substantial: among those institutions that both acquired and divested branches, divestitures averaged 32 percent of acquisitions for those whose networks increased in size, and acquisitions averaged 46 percent of divestitures for those whose networks decreased over the period.

Clearly, in choosing to acquire *and* shed branches, many institutions had strategies that involved more than simply expanding or reducing their branch networks. These strategies appear to be related to the size of the institution's branch network. Acquisitions represented a much larger share of overall branch activity (acquisitions plus divestitures) for institutions with 100 to 500 branches than for institutions with more than 500 branches (Chart 5). The median share for the first group was 72 percent, compared with 44 percent for the second. Thus, midsized branch networks not only grew faster than the large networks over our two-year sample period, but they also focused their branch activity much more on expansion.[14]

To gain a fuller understanding of what strategies these institutions may have been pursuing and how these strategies may have differed across institutions, we look next at the *geographic* pattern of branch acquisition and divestiture. In particular, we identify the geographic markets in which each

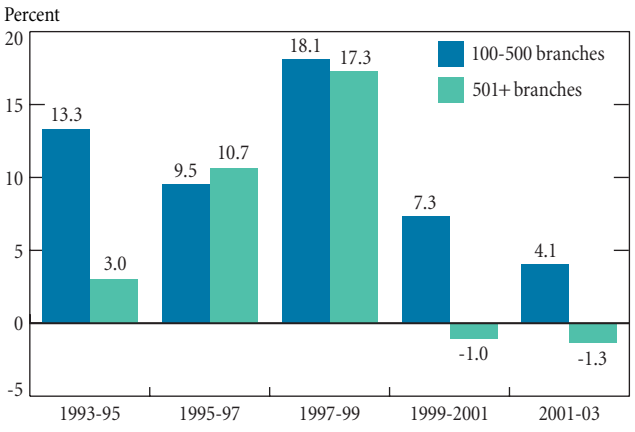
Chart 3
Median Percentage Change in Branch Network Size: June 2001 to June 2003



Sources: SNL Financial; Federal Reserve Board National Information Center.

Note: The sample consists of eighty institutions with 100 or more branches as of June 2001.

Chart 4
Median Two-Year Growth Rate in Branch Network Size, by Initial Network Size



Source: Federal Deposit Insurance Corporation, *Summary of Deposits*.

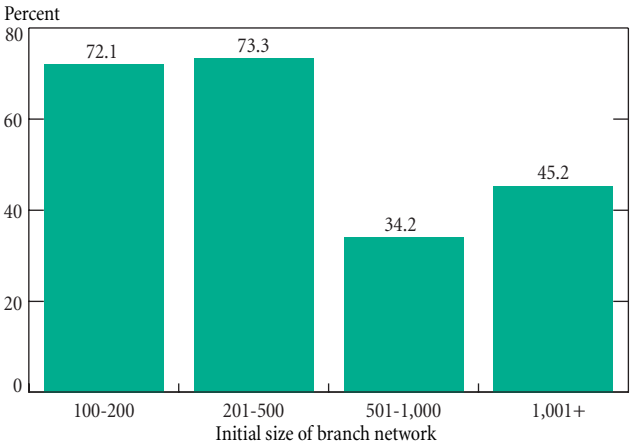
institution acquired and divested branches, where we define a market as a metropolitan statistical area (MSA) or a non-MSA county. We then ask whether a bank's branch acquisitions and divestitures tended to take place in the same or separate geographic markets. A pattern of overlapping acquisition and divestiture in the same geographic markets would indicate that the bank was adjusting its holdings *within* markets, perhaps to bring them into line with local market conditions. In contrast, a pattern of non-overlapping acquisition and divestiture would be more consistent with an attempt by the bank to adjust branch network structure *across* markets by expanding its presence in some markets and reducing its presence in others.

When we examine acquisitions and divestitures by geographic market, we find considerable differences across institutions in the extent to which divestitures and acquisitions took place within the same markets. For six of the institutions that both added and shed branches, all the branches acquired were in different markets than the branches divested, while an additional seventeen institutions made more than 50 percent of both their acquisitions and divestitures in non-overlapping markets. By contrast, twenty-seven institutions made less than 50 percent of both their branch acquisitions and divestitures in non-overlapping markets, a pattern that suggests much geographic clustering of branch activity.[15]

These differences in the extent of geographic clustering appear to be related to branch network size. Institutions with the very largest branch networks—those comprising more than 1,000 branches—made a significantly smaller share of branch acquisitions and divestitures in separate geographic markets than did institutions with smaller networks.[16] The median share of branch activity in non-overlapping markets was 28 percent for institutions with more than 1,000 branches, compared with 45 to 65 percent for organizations with smaller networks (Chart 6). This finding suggests that the branching strategy of the institutions with the very largest networks was oriented toward optimizing their holdings within markets where they already had a presence.

Information on the geographic distribution of banks' existing branches and new acquisitions can also help clarify whether banks were focusing their branch expansion on new markets or existing markets. Thus, for each institution, we examine the share of new branch acquisitions in markets where the institution had a small presence as of June 2001, the beginning of our sample period. We define "small" by calculating an institution's deposit market share in each market in which it held branches in June 2001. We rank the markets according to market share and designate markets at or below the 10th percentile of each institution's distribution as markets in which the institution had a small market presence.[17] We then calculate the ratio of branches acquired in these markets (including markets in which the institution had no branches at the beginning of the sample period) to overall acquisitions. This ratio provides an indication of the extent to which institutions were attempting to expand into comparatively new geographic areas, as opposed to deepening their presence in existing, well-established markets.

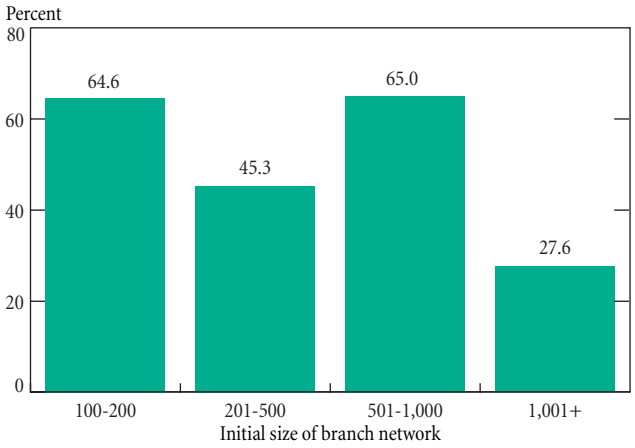
Chart 5
Median Share of Branch Acquisitions to Total Branch Activity: June 2001 to June 2003



Sources: SNL Financial; Federal Reserve Board National Information Center.

Notes: Branch acquisitions are branches obtained through merger or purchase, or opened de novo. Total branch activity consists of branch acquisitions plus branches divested through sale or closure. The sample consists of eighty institutions with 100 or more branches as of June 2001.

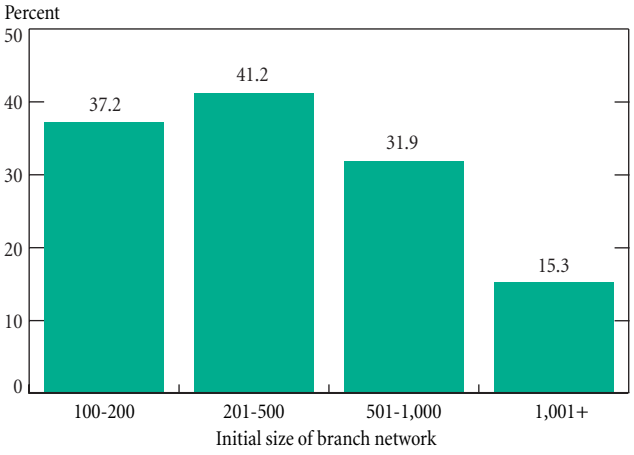
Chart 6
Median Share of Branch Activity in Non-Overlapping Markets to Total Branch Activity: June 2001 to June 2003



Sources: SNL Financial; Federal Reserve Board National Information Center.

Notes: Non-overlapping markets are metropolitan statistical areas (MSAs), or non-MSA counties in which an institution only acquired or divested branches, but not both. Total branch activity consists of branch acquisitions plus branches divested through sale or closure. The sample consists of eighty institutions with 100 or more branches as of June 2001.

Chart 7
Median Share of Branches Acquired in "New" Markets to Total Branches Acquired: June 2001 to June 2003



Sources: SNL Financial; Federal Reserve Board National Information Center.

Notes: "New" markets are metropolitan statistical areas (MSAs) or non-MSA counties in which an institution had a deposit share less than the 10th percentile of its deposit share distribution as of June 2001. Branch acquisitions are branches obtained through merger or purchase, or opened de novo. The sample consists of eighty institutions with 100 or more branches as of June 2001.

In line with our earlier results, we find that the share of branch acquisitions in comparatively new markets varies systematically by branch network size. The median share of branches acquired in new markets by institutions with the very largest branch networks was significantly smaller than the median share for those with 1,000 or fewer branches (Chart 7).[18] The median share ranged from about 40 percent for institutions with 100 to 500 branches to 15 percent for institutions with the very largest branch networks. These results suggest that the banks with midsized branch networks were most interested in expanding into new markets, while the banks with the very largest networks were much less likely to seek to expand their geographic "footprint."

Conclusion

Our analysis of the branching activity of eighty banking organizations during the 2001-03 period has revealed significant differences in strategy between the smaller and the larger institutions in our sample. Institutions with more than 500 branches, especially the largest of this group, pursued slower branch network growth, conducted a considerably higher share of their branch transactions in markets in which they both acquired and divested branches, and expanded much less aggressively into comparatively new markets. These findings suggest that institutions with the largest branch networks tended, on average, to be pursuing a strategy of reconfiguring or "rebalancing" their branch holdings within existing markets.

In contrast, those institutions in our sample with midsized networks of 100 to 500 branches appear, on average, to be pursuing a strategy of expansion. These institutions had higher branch network growth, focused more of their branch activity on acquisitions, and tended to conduct more of their branch transactions in new markets and markets in which they acquired—but did not divest—branches.

These patterns are broadly consistent with the longer run trend toward consolidation of branches into large branch networks. However, our findings also indicate that, at least over the short sample period, the very largest of these networks were not aggressively pursuing further expansion. One possibility is that these very large networks may have reached their maximum efficient size, at least with their current technology. That said, the recent wave of bank mergers suggests that our sample period may have represented something of a temporary pause, rather than a permanent slowdown, in the growth of these large networks. Indeed, the mergers provide evidence that banking organizations expect additional gains from the further growth and geographic expansion of their branch networks. At the least, the continued growth of large and midsized branch networks signals the ongoing interest of these organizations in being active retail service providers.

Notes

1. The recognition that consumer business has been a core driver of profits in recent years has done much to revive interest in branch banking.

2. For simplicity, we use the term "bank branches" for both bank and thrift branches and "banking industry" for both the banking industry and the savings and loan industry.

3. There were ten organizations with more than 1,000 branches as of June 2003.

4. As of June 2003, fourteen organizations had branches in more than ten states.

5. The Hannan (2002) study on depository institution fees defines large institutions by asset size (more than $1 billion in assets), rather than branch network size. However, the institutions with large branch networks described in our article all exceed the $1 billion asset level. In addition, the Hannan results are based on a cross-sectional analysis comparing institutions of different asset sizes at a fixed point in time. The study does not examine the impact of changes in asset size—for example, growth through mergers or branch acquisitions—on fees. Thus, the study indicates that larger banking organizations tend to charge higher fees, but does not directly examine the question whether fees increase following a merger or branch acquisition.

6. Implicit income is derived from deposits that are priced below the market rates for alternative sources of funding, such as fed funds or other forms of wholesale funding. Explicit revenues include fees and other revenues derived from transactions associated with deposit accounts. Radecki (1999) suggests that these two sources of revenue account for about 30 percent of operating revenues for large bank holding companies.

7. Note that this period ends just before the announcements of the mergers between Bank of America and FleetBoston, J.P. Morgan Chase and Bank One, and Regions Financial and Union Planters.

8. The 100-branch cutoff and two-year observation window for our sample are also based on practical considerations in constructing the data set, a process that involved hand matching of data from different sources. That said, the 100-branch cutoff is not meant to imply a sharp divide between the behavior of institutions with 100 or more branches and that of institutions with somewhat fewer than 100 branches. In fact, the median annual growth rate for institutions with 50 to 99 branches tracks that for institutions with 100 to 500 branches relatively closely over the period from 1993 to 2003 (the correlation coefficient is 0.61).

9. These seven institutions held an average of 303 branches apiece, with individual branch totals ranging between 120 and 738 branches.

10. We use data from SNL Financial on the location and ownership of branches for this exercise. We include all branches described as full-service, year-round branches that have the ability to accept deposits. We have snapshots of branch ownership as of June 2001, June 2002, and June 2003 that allow us to track changes in branch ownership between these three discrete points in time. In addition, we supplement these snapshots with additional data from SNL documenting all mergers over the period as well as information on mergers from the Federal Reserve Board National Information Center (NIC) database, which allows us to identify branches that were acquired via merger but either sold or closed by the acquiring bank before the next June reporting date.

11. This result mirrors the findings of Stiroh and Poole (2000), who determined that the asset growth of the fifty largest bank holding companies during the 1990s stemmed entirely from mergers and acquisitions rather than internal growth.

12. The net increase of 2,090 branches for the eighty institutions with large or midsized branch networks was generated by 3,084 branches acquired through mergers, 608 branch purchases, 2,113 de novo branch openings, 2,906 branch closings, and 809 branch sales (some of the purchases and sales were between the eighty institutions). Branch changes stemming from mergers, purchases, and sales represent redistribution of branches among institutions rather than net new branch creation, which is the difference between de novo branch openings and branch closings. For the institutions in our sample, branch closings exceeded de novo openings by 793, meaning that these institutions generated a net decrease in the overall number of branches in the U.S. banking system.

13. The hypothesis that the median change in branch network size is the same for networks of more than 500 branches as for networks of 100 to 500 branches can be rejected at the 5 percent level.

14. Overall branch network growth reflects the net difference between acquisitions and divestitures. An overall increase in branch network size could be generated by just branch acquisitions—in which case the ratio in Chart 5 would equal one—or by a mixture of acquisitions and divestitures—in which case the ratio in Chart 5 would be less than one but greater than 0.5.

15. The remaining institutions made more than 50 percent of their acquisitions (divestitures) in overlapping markets and less than 50 percent of their divestitures (acquisitions) in non-overlapping markets.

16. The hypothesis that the median value is the same across size groups can be rejected at the 5 percent level.

17. The 10th percentile market share averaged 3.3 percent across the institutions in the sample. The results discussed above are similar if we use the 25th percentile as the cutoff or if we use a fixed cutoff of a 5 percent market share.

18. The hypothesis that the median share is the same for institutions with networks of more than 500 branches as for institutions with smaller branch networks can be rejected at the 10 percent level.

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