The Transformation of Banking and Its Impact on Consumers and Small Businesses

By William R. Keeton

The banking industry has undergone profound changes during the last decade. The most obvious change has been the large number of bank mergers, which have increased both the average size of banks and the area over which they operate. Other changes may also prove dramatic but are at this point just getting under way—the growth of Internet banking and the combination of banking with other financial services, such as insurance and securities underwriting.

The implications of these changes for the profitability and safety of banks have been widely discussed, but what do they mean for local economies? Some analysts argue that the changes will benefit most communities by increasing the public's access to financial services and making it easier for banks to continue lending during regional economic downturns. Others argue that the changes will end up hurting many communities, especially smaller ones, because the large organizations created by mergers will be uninterested in serving small customers and will siphon off funds from smaller markets to lend in big cities.

To shed light on the debate, this article focuses on the two groups that are most likely to be affected by the transformation of banking—consumers and small businesses. Before the recent changes, surveys consistently found that these two groups relied heavily on local banks for their credit and payments needs. It stands to reason, therefore, that they would also be the groups most affected by any changes in local banking

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practices resulting from consolidation, Internet banking, or financial integration. A further reason for focusing on small businesses is that these enterprises play an especially important role in the economic performance of smaller communities—the communities where there has been the greatest concern about the possible adverse effects of the transformation in banking.

The article concludes that the recent changes in banking are likely to benefit consumers and small businesses in most communities, as long as they remain free to choose between small and large banks for their banking services. The first section of the article reviews the three major changes in the banking system—consolidation, Internet banking, and financial integration. The next two sections argue that these changes are likely to benefit both consumers and small businesses, provided small banks are available to fill any gaps in service or credit to smaller customers. The last section concludes that small banks face a major but not insurmountable obstacle in continuing to fill this role—the increased difficulty of obtaining funds.

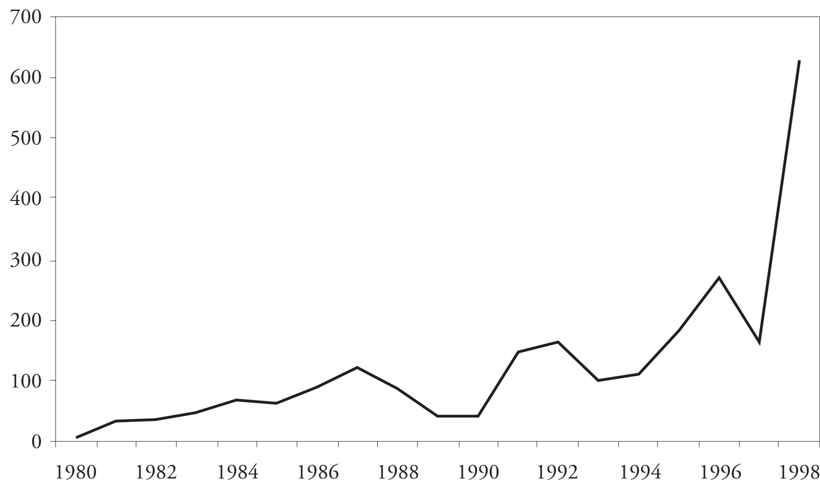
I. MAJOR CHANGES IN THE BANKING SYSTEM

While always in a state of flux, the nation's banking system is now undergoing what is arguably the greatest transformation since the Great Depression. This change has taken three forms. First, banks have merged at an unprecedented pace during the last ten years. Second, banks and other financial companies have begun to offer their services over the Internet. And third, new legislation has opened up the doors to combining banking with other financial services.

Consolidation

While mergers have been going on for a long time, the pace increased significantly in the 1990s (Chart 1). Some mergers took advantage of new laws allowing banks to expand within and across state lines. Other mergers were undertaken to cut costs, although the evidence suggests they failed to achieve that goal more often than not (Berger). Finally, some mergers probably occurred because the participants were afraid of being left behind in what seemed to be the wave of the future.

Chart 1
ASSETS ACQUIRED IN BANK MERGERS



Source: Rhoades 2000a

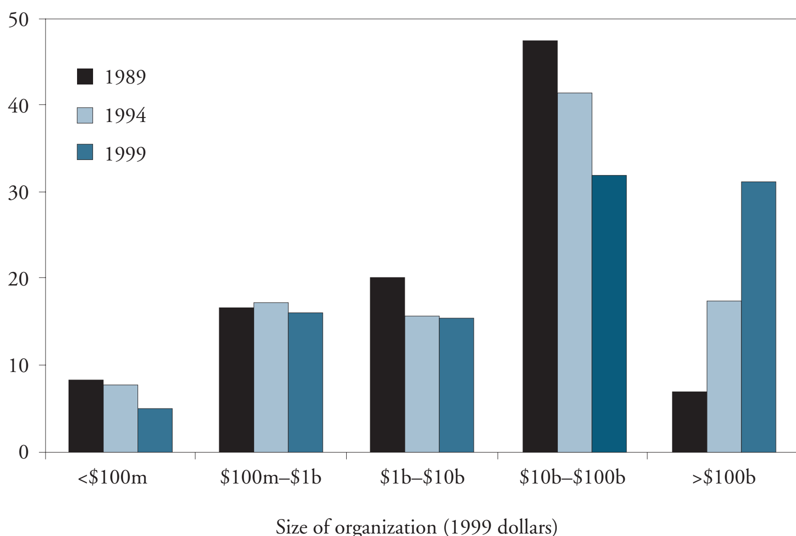
Merger activity has subsided more recently, and some experts believe the decline is more than just a temporary pause. Some large banking companies have already achieved nationwide coverage, reducing their incentive to acquire more banks. Furthermore, to the extent Internet banking catches on, banking organizations keen on expanding may not have to depend on mergers to get bigger. Finally, some experts argue that acquisitions of small banks will not rebound because the mid-size companies that accounted for most of the small bank acquisitions in the 1980s and 1990s have largely disappeared from the scene. Even if merger activity does not return to previous levels, however, the large number of mergers that have already occurred have changed the banking system in important ways.

One important effect of the recent merger wave has been an increase in the role of large banking organizations (Chart 2). The biggest change has been in the importance of so-called megabanks, those that hold more than $100 billion of assets. At the end of 1999, there were eight of these giant companies. Together they accounted for over 30 percent of domestic bank deposits, four times as much as at the beginning of the decade. As the chart shows, most of that gain in

Chart 2

DEPOSIT DISTRIBUTION BY SIZE OF BANKING ORGANIZATION

Percent of total deposits

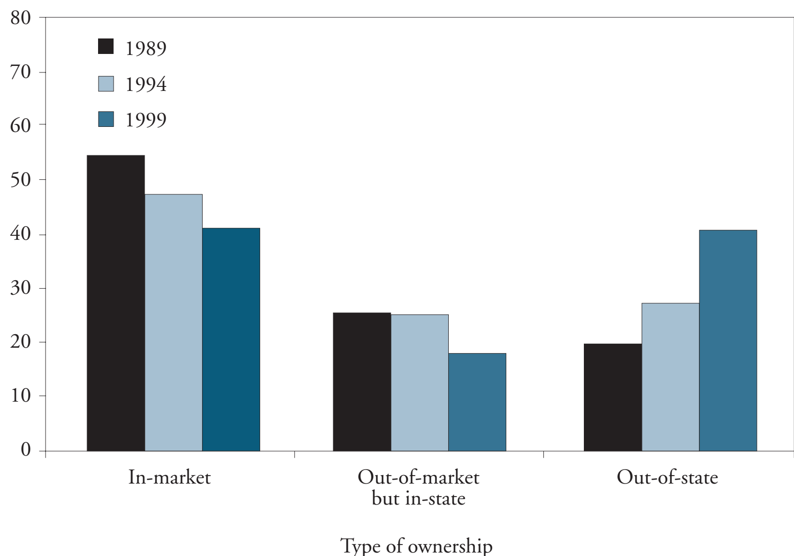


Source: Reports of Condition and Income, National Information Center Database

deposit share has come at the expense of regional and super-regional banking organizations, those in the $10–100 billion range.

Another effect of the mergers has been a sharp increase in multistate banking. Many of the mergers during the 1990s were between banking organizations operating in different states. Since 1993, in fact, these mergers have accounted for just over half of all deposits acquired in mergers. As a result, there has been a big shift in ownership of deposits from organizations based in the same market or the same state to organizations based in another state (Chart 3). At the beginning of the decade, 20 percent of deposits were controlled by out-of-state banking organizations. By the end of the decade, that figure had surpassed 40 percent.

Chart 3
DEPOSIT DISTRIBUTION
BY GEOGRAPHIC OWNERSHIP



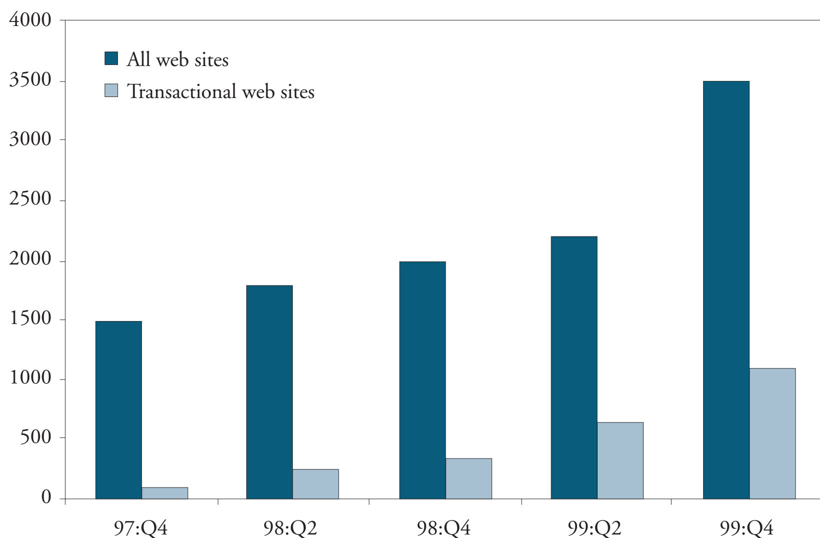
Source: Summary of Deposits, National Information Center Database

Internet banking

Another way banking is being transformed is through the growth of Internet banking. Whereas mergers have been going on for some time and may even have peaked, this change is just getting under way. At the end of 1999, about 3,500 banks and thrifts had web sites, representing a third of all banks and thrifts (Chart 4). Of these institutions, however, only 1,100 had what are called transactional web sites. These are web sites through which customers can conduct business on-line—for example, verify account information, transfer funds, pay bills, or apply for loans. While the number of banks with transactional web sites is still small, it has grown rapidly over the last two years—a trend most experts expect to continue.

So far, large banks have made a much bigger commitment to online banking than small banks. Among national banks, for example, only 7 percent of banks under $100 million have transactional web sites, while

Chart 4
ESTIMATED BANK AND THRIFT WEB SITES



Source: Furst and others 2000

all banks over $10 billion have them. Large banks also tend to offer a much wider array of services on their web sites than small banks. Among banks with transactional web sites, for example, a much higher percentage of large banks offer brokerage, fiduciary, and insurance services in addition to balance inquiry and funds transfer (Furst and others 2000, Sullivan). Some analysts argue that large banks will retain their lead over small banks due to large fixed costs of developing information management systems and creating brand recognition among consumers. Others argue that small banks are merely being cautious and will catch up with large banks by outsourcing their information management.

Banks have not been the only financial companies to offer their services through the Internet. In recent years, online brokerage companies have enjoyed rapid growth by allowing investors to buy and sell individual stocks on the Internet. Most of these companies also allow their online customers to shift funds among a wide variety of investment vehicles, including stock funds, bond funds, and money market mutual funds. Some nonbank financial companies have also begun

offering mortgage credit over the Internet, although this service is still not nearly as popular as online brokerage.

Financial integration

The final often-cited change in the banking system is the least certain—the spread of diversified financial firms offering a wide array of services, such as insurance and securities underwriting in addition to traditional banking. Some movement in this direction occurred in the 1990s, as banks took advantage of loopholes in the laws restricting what they could do. But the trend toward financial integration could well accelerate due to legislation passed recently rolling back many of the restrictions. This law, the Gramm-Leach-Bliley Act of 1999 (GLBA), made two major changes. First, it allowed bank holding companies to merge with insurance and securities companies and cross-sell their products. Second, it allowed bank holding companies that did not merge with other firms to offer new financial services on their own—for example, underwriting securities, selling or underwriting insurance, and making equity investments in business firms.

During the first year of GLBA, the progress toward financial integration by large banking organizations was less than many analysts had expected (Atlas, Rehm). To be sure, most large banking organizations have elected to become financial holding companies (FHCs), as required to offer the new financial services. Among banking organizations over $10 billion in size, for example, two-thirds had converted to FHCs by February of this year (Table 1). Surprisingly, however, these large banking organizations have used their new status to reorganize and simplify the nonbank activities they were already pursuing under various loopholes in the old law, rather than to acquire other financial companies. In particular, only a few large banking companies have acquired securities firms, and none have acquired large insurance companies. Indeed, among U.S.-based firms, the only large cross-industry merger has been between Citicorp and Travelers, which was agreed upon a year *before* GLBA in the hope that Congress would subsequently permit such combinations.

Despite this slow response, GLBA could still end up substantially broadening the array of financial services offered by large banking organizations. First, a number of special factors may have contributed to the lack of cross-industry mergers in the first year after enactment of the law, including the decline in bank stock prices during much of 2000

Table 1

BANK HOLDING COMPANIES CONVERTING TO FHCs

As of February 16, 2001

Size category	Number converting to FHCs	Total assets	Percent of all BHCs in size category	Percent of total BHC assets in size category
< $1 billion	381	$85 billion	7.9	12.3
$1–$10 billion	63	$208 billion	27.9	32.0
> $10 billion	39	$4,137 billion	63.9	83.1
All	483	$4,430 billion	9.4	70.1

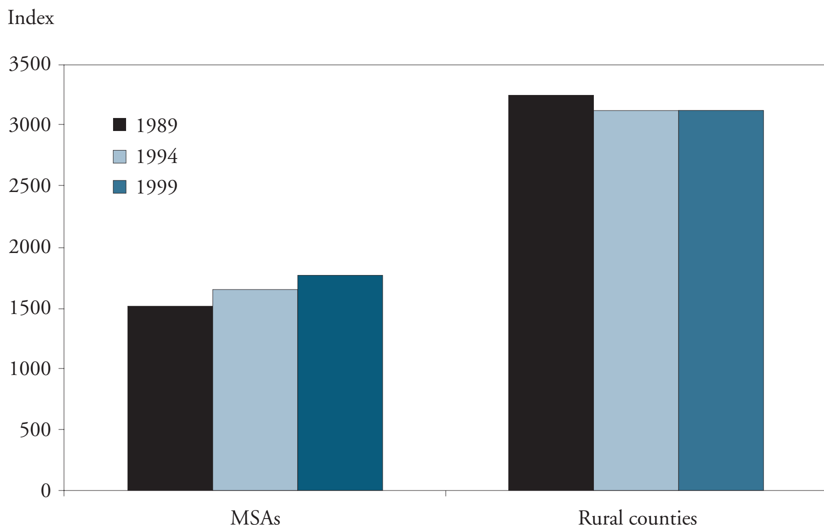
Notes: Excludes 5 companies that were not engaged primarily in banking and 13 for which no asset data were available. Second column is total assets (bank and nonbank) at the end of 1999. Third column is the first column divided by the total number of BHCs in the size category at the end of 1999, multiplied by 100. Fourth column is the second column divided by total BHC assets in the size category at the end of 1999, multiplied by 100.

Source: Financial Markets Center (www.fmcenter.org), Federal Reserve

and the preoccupation of many banking organizations with the quality of their loan portfolios. Second, large banking organizations may have felt they could take their time shopping for merger partners in other industries because they were already pursuing the new activities in limited form due to loopholes in the old law (Meyer 2001).

While most of the attention has focused on large organizations, GLBA could also end up broadening the array of services offered by smaller banks. While lacking sufficient scale to underwrite securities and insurance, many small banks might want to take advantage of the new authority to sell insurance and purchase equity in smaller businesses. Small banks are already showing some interest in these new powers (Table 1). As of mid-February of this year, 381 banking organizations under $1 billion in size had converted to FHCs. These organizations represent only a small fraction of all banking organizations under $1 billion in size. Nevertheless, the response by small banks was greater than many analysts expected and suggests that small banks might eventually exploit the new insurance agency and merchant banking powers in GLBA (Leuchter 2000a, Meyer 2001).

Chart 5
CONCENTRATION OF LOCAL BANKING MARKETS



Note: Concentration is a weighted average of the Herfindahl-Hirschman Index.

Source: Summary of Deposits, National Information Center Database

II. IMPACT OF THE CHANGES ON CONSUMERS

Consumers have traditionally relied on nearby banks and branches for many of their banking services. Will the transformation of banking now under way hurt consumers by raising the price or reducing the quality of these services? Or will the changes benefit consumers by expanding the array of services offered by banks and allowing consumers to go outside the local market for banking services.

Impact of consolidation

One way mergers could hurt consumers is by reducing competition in local banking markets. Some economists argue that banks in highly concentrated markets are less likely to compete with each other for customers by offering superior service or better rates. Consistent with this view, empirical studies have generally found that banks in highly concentrated markets pay lower interest rates on their deposits (Berger, Demsetz, and

Table 2
AVERAGE RETAIL BANKING FEES IN 1999
By type of banking organization, in dollars

	Type of organization		Difference	
Type of fee	Multistate	Single-state	Unadjusted	Adjusted for size and location
Monthly low-balance fee on NOW account	9.62	8.21	1.41	1.13
Stop-payment order	20.10	14.50	5.60	3.53
Bounced check	21.80	17.04	4.76	2.99
Deposit items returned	6.15	6.31	-.16	-.97

Note: Adjusted difference is calculated from a weighted ordinary-least-squares multiple regression. All differences except those in the last row are significant at the 5 percent level.

Source: Hannan 2001

Strahan p. 153). Thus, if mergers increase the concentration of local banking markets, consumers in those markets can be expected to suffer.

As it happens, however, the merger wave of the 1990s does not appear to have increased the concentration of local banking markets very much (Chart 5). Although the share of very large banks in nationwide deposits rose sharply in the 1990s, the concentration of local banking markets increased only slightly.[1] Furthermore, the increases in concentration that have occurred have been confined to urban markets, and in that case, mainly to cities with population over one million. Mergers have so far had little effect on local market competition for two reasons. First, most mergers have been between banks in different markets. Second, when banks in the same market have merged, regulators have often required them to divest some of their branches.

While local market concentration has increased only slightly, it does not necessarily follow that consumers will feel no adverse effect from mergers. The last few years, annual surveys by the Federal Reserve have consistently found that large multistate banks charge higher fees for many retail banking services than smaller single-state banks. For example, in 1999, multistate banking organizations charged an average of $5.60 more than single-state organizations for stop-payment orders, and an average of $4.76 more than single-state organizations for bounced

checks (Table 2). One reason multistate organizations might charge higher fees is that they are more likely to operate in large urban markets, where the costs of doing business are higher. The last column of Table 2 shows, however, that the difference in fees is reduced but not eliminated when the fees are adjusted for the size and location of the organization.

What accounts for this difference in fees between the two types of banking organization? Some analysts have suggested consumers may not mind these higher fees because they view large multistate banks as offering higher quality service and greater convenience—for example, the ability to conduct business at a wide range of locations (DeYoung). Others have suggested that the higher retail fees may reflect the fact that large multistate organizations do not depend as much on retail customers for their funds and therefore feel less need to hold down fees for those customers (Hannan). Whatever the explanation, the difference in fees suggests that most communities will be best served if their small banks remain viable, so that consumers have an alternative to paying the higher fees charged by large multistate banks.

Impact of Internet banking

It was once thought that the main benefit to consumers of Internet banking would be lower fees for banking services or higher rates on deposits. According to this view, the cost to banks of online transactions would be much lower than the cost of traditional transactions through a normal branch. As a result, consumers would be charged lower fees or paid higher deposit rates if they banked online instead of going to a branch office. Proponents of this view pointed to the example of online brokers, who charge investors much less for trading stocks than either discount brokers or traditional full-commission brokers (Marks).

The hope that online banking would result in lower fees or higher deposit rates for consumers has not been realized, mainly because banks themselves have not reaped significant cost savings (Hitt, Frei, and Harker; Long). One reason banks have not enjoyed substantial cost reductions is that they have had to make large investments in infrastructure and customer support. Another reason is that online banking has not enabled banks to cut back on their traditional delivery channels as much as initially hoped. Specifically, consumers have demonstrated that they strongly prefer the "click and bricks" approach to pure online banking, forcing banks to maintain their costly branch networks.[2]

Rather than lower fees, the main benefit of online banking to consumers is likely to be greater convenience. Through online accounts, for example, consumers can now pay their bills by creating a list of regular payees and then instructing the bank to make payments as they receive the bills, either by electronic funds transfer or paper check. Some banks have begun to offer consumers an even more convenient service called bill presentment. In this case, the bank collects the bills itself and transmits them to the consumer over the Internet, where the customer can review them along with his account balances and initiate payment as desired. Another online banking service that is not yet widely offered, but could prove highly convenient to consumers, is account aggregation. This service allows the customer to view his entire portfolio online, including accounts at other institutions, and to shift funds in and out of different investments.[3] Banks are not the only companies providing account aggregation—the service is also offered by some brokerage companies and by nonfinancial portals. Some consumers may prefer to have the service provided by a bank, however, because banks have more experience in funds transfers and are more closely regulated.

Some advocates of online banking also argue that banks will use the information they acquire about their online customers' overall financial condition to provide higher quality service. According to this argument, a bank can use the information to determine which products would best serve each customer's financial goals and then make those products available online, in the same way online booksellers use information about buying habits to determine which new books their customers will be interested in purchasing. This argument is controversial (Statz). Specifically, critics argue that banks could use the information they gather about their customers' overall financial condition to engage in price discrimination (charging higher prices to customers with stronger demand) or to practice sorting (reducing service to less profitable customers to drive them away).

Finally, in very small communities, online banking may have the additional benefit of improving access to financial services. In particular, when such communities prove to be too small to support a brick-and-mortar branch, the Internet may provide another way for people to invest their money and take out loans. To be sure, many rural communities currently lack high-speed Internet access because their low population density has discouraged private investment in broadband infrastructure. However, people in these communities can still access

the Internet through dial-up services, which are sufficient to take advantage of the online banking services now offered.[4]

Impact of financial integration

The passage of GLBA makes it easier for banking organizations to provide consumers with other financial services besides banking. Some of these services, such as the opportunity to purchase life insurance and property and casualty insurance, are currently provided by insurance companies and insurance agents. Other services, such as the ability to buy and sell individual stocks and shift funds into and out of mutual funds, are now provided by brokerage companies.

Allowing all these services to be provided by the same company could benefit consumers in two possible ways—through synergies on the production side or synergies on the consumption side (Santomero and Eckles). Production synergies exist when it is less costly for a single company to provide a group of financial services than for several companies to provide them, each specializing in a different service. For example, both banks and insurance companies may need to know something about their customers' overall financial condition. With a single company providing both banking and insurance services, the costs of acquiring such information only have to be incurred once, allowing the consumer to be charged lower prices. Consumption synergies arise when it is less time consuming or more convenient for the consumer to purchase different financial services from a single company than from a number of different companies. Such gains from one-stop shopping accrue to the consumer directly, although they may be partly offset by the bank charging higher prices for services.

It is unclear that either of these synergies from financial integration will be big enough to benefit consumers significantly. Empirical studies have found little evidence of production synergies within the banking industry—for example, between lending and deposit-taking—casting some doubt on the existence of synergies between banking and other financial services.[5] Studies have also found no evidence that customers are willing to pay more when banking services such as lending and deposit-taking are provided by the same bank than when they are provided by separate banks (Berger, Humphrey, and Palley). Furthermore, companies such as Sears that have offered consumers one-stop shopping for financial services in the past have met with little success, suggesting

there were few synergies on either the production or the consumption side (Ferguson).

Another reason for doubting that financial integration will have a big impact on consumers is that, thanks to the Internet, the benefits of one-stop shopping can be obtained without different financial services being provided by the same company (Barth, Brumbaugh, and Wilcox). As noted earlier, some banks, brokerage companies, and nonbank portals have begun to let their consumers use a single web site to access a variety of financial services offered by unrelated companies. Surveys also suggest that consumers who like one-stop shopping believe they will get a better deal if the services are provided by multiple institutions than by a single company (Newkirk).

III. IMPACT OF THE CHANGES ON SMALL BUSINESSES

Like consumers, small businesses have traditionally obtained most of their banking services from nearby banks and branches. Will the transformation of banking hurt small businesses by shifting ownership of these banking offices to large, distant organizations uninterested in dealing with small customers? Or will it help small businesses by making banking and other financial services cheaper and more convenient?

Impact of consolidation

As noted earlier, mergers have significantly increased the share of banking resources controlled by large, widely dispersed organizations. Some observers worry that this change in the banking system will end up reducing the total supply of credit to small businesses. These observers acknowledge that some of the businesses that are denied credit as a result of bank mergers may be bad risks that should not have received loans in the first place. They argue, however, that mergers will also reduce the supply of credit to many good risks, hurting the local economy.

One reason for the concern is that the megabanks created by consolidation tend to have long lines of managerial control that may impair their ability to make small business loans. According to this view, large, widely dispersed banking organizations give their local lending officers less autonomy in making loans because it is difficult for the head office to monitor and review thousands of credit decisions. These organizations prefer to base their credit decisions on credit scoring models—statistical

models that predict a borrower's probability of repayment based on such characteristics as his personal wealth and past credit history (Cole and others). Some analysts argue that this more rigid approach to small business lending results in many good borrowers being turned down.

A related argument is that large banking organizations are not well suited to making small business loans because such loans often require a close, long-term relationship with the borrower. Lending to a small business with little credit history or collateral may require the bank to carefully monitor the borrower over the course of the loan. To cover the fixed cost of investigating a loan applicant and learning his business, the bank may also need to maintain a long-term relationship with the firm. Large banking organizations may be reluctant to engage in such relationship-based lending because they have a comparative advantage in more impersonal, transactions-based services and because it is inefficient to provide both kinds of services (Berger and Udell).

Not everyone agrees that consolidation will reduce the supply of credit to small businesses. Some analysts even argue that mergers could increase small business lending because large multistate banking organizations are less vulnerable to regional economic shocks and have greater access to nondeposit funds. According to this view, some small banks may have profitable opportunities to lend to small businesses in their markets but be afraid of tying their fortunes too closely to the local economy or drawing down their liquid assets. A large acquirer with operations in many regions may be better able to exploit these profitable lending opportunities, because it has more resources to draw on and can offset losses in one region with profits in another. This greater diversification and access to outside funds may not only encourage the acquirer to make more small business loans during good times, but also make the organization better able to maintain such lending during bad times.[6]

Which of these two possible effects of consolidation on small business lending has been more important—the unfavorable effect from longer lines of managerial control and specialization in transactions-based services, or the favorable effect from greater geographic diversification? Researchers have attempted to answer this question in two ways.

The first way is to compare small business lending at different types of banking organizations at a single point in time. Studies following this "cross-section" approach generally find that large single-state organizations lend a smaller percentage of their funds to small businesses than small single-state organizations operating in the same markets. This

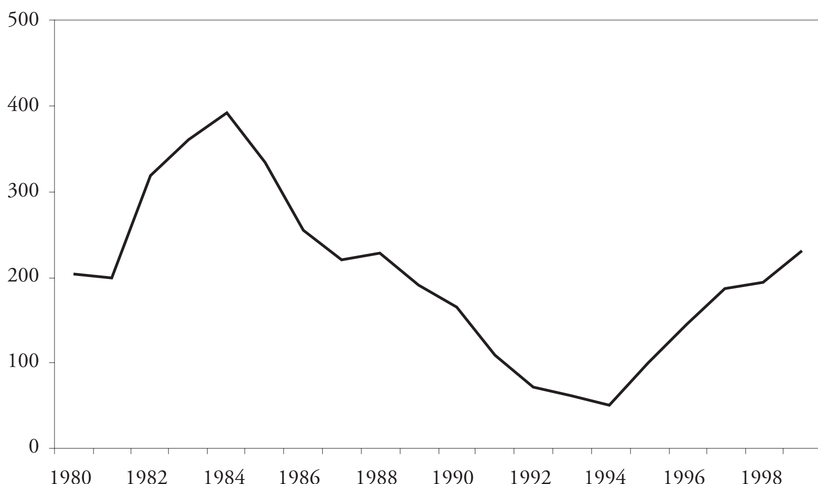
finding provides some support for the view that in-state mergers resulting in large banking organizations will reduce small business lending at the participating banks. In dollar terms, however, most recent mergers have been across, rather than within, state lines. For such mergers, the relevant question is whether a large multistate organization makes fewer small businesses loans than a representative group of smaller single-state organizations operating in the same states and the same markets within each state. On this question, the cross-section studies fail to agree.

A second, more direct way to determine the net impact of consolidation is to see if banks have tended to reduce their small business lending after being acquired by a large or distant organization. While far from unanimous, studies following this "before-and-after" approach have reached more of a consensus. The studies disagree whether small business lending declines more when a bank of given size and location is acquired by an out-of-state organization than by an in-state organization. For the most part, however, the studies agree that small business lending declines when the acquiring organization is large. Since most out-of-state acquisitions have been by large organizations, the before-and-after studies tend to support the view that the emergence of large multistate banking organizations has reduced small business lending at the branches or subsidiaries making up these organizations.

At first glance, such evidence would appear to be bad news for the many communities that depend on their small businesses for job and income creation. Two factors, however, have helped offset this adverse effect of mergers on small business lending. First, a number of large multistate banking organizations have made a conscious effort to increase their small business lending—for example, by giving local lending officers more discretion in granting loans and trying hard to provide personal service. Second, in those cases in which mergers have reduced small business lending, smaller banks have often stepped in to fill the gap.

This response by small banks has occurred partly through existing banks making more loans, and partly through new banks entering the industry. The financial press is full of stories of small banks luring dissatisfied loan customers from competitors taken over in mergers (Moore). Empirical studies of small business lending in markets with heavy merger activity have tended to confirm such an effect (Berger and others 1998, Keeton 1998). Furthermore, after declining steadily for

Chart 6
NEW BANK CHARTERS



Source: FDIC

many years, the number of new banks increased sharply during the second half of the 1990s (Chart 6). A disproportionate number of these new banks were started in markets with substantial merger activity, consistent with the view that new banks are helping fill the gaps in small business credit created by mergers (Berger and others 2000, Keeton 2000).

Has the increase in small business lending by a few large banks, newly chartered banks, and other small banks been enough to offset the decline in lending at banks taken over in mergers? In principle, this question could be answered by seeing if total small business lending has increased just as much in markets with heavy merger activity as in markets with little or no merger activity, after controlling for other factors. Unfortunately, data on small business loans are reported only for the bank as a whole and not for each market in which the bank operates, making it impossible to calculate total small business lending by market.[7] As a result, alternative sources of evidence must be sought. One such source is surveys of small businesses taken during the second half of the 1990s, when bank mergers were at their height. These surveys

consistently found that credit availability was not an important concern of small businesses, suggesting that factors such as increased lending by small banks made up for any reduction in lending at banks acquired in mergers (National Federation of Independent Business).

Impact of Internet banking

As in the case of consumers, the main benefit of online banking to small businesses is likely to be greater convenience. For several years, large businesses have enjoyed electronic access to their banks through private computer networks. Internet banking is now extending that access to smaller businesses. Some bank web sites allow small business customers to view their balances in real time, transfer money between accounts, and originate wire transfers. A smaller number of bank web sites also offer cash management services and payroll services. Industry observers predict that more banks will offer such services over time because small businesses are among their most profitable customers (Leuchter 2000b). Large banks have shown particular interest in this area, apparently viewing online banking as a way to lure small business customers away from smaller banks.[8]

Some experts believe major innovations in payments practices could make online banking even more useful to small businesses in the future. For example, small firms could have their banks carry out the billing of consumers through the Internet, largely eliminating the need for paper transactions. In this case, the bank would e-mail all the firm's monthly bills to its customers, receive payments from customers via electronic funds transfer, and then update the firm's accounts receivable and post the information on the bank web site (Wenninger). Small firms could also get help from their banks in conducting business-to-business (B2B) commerce over the Internet—for example, in setting up automated systems for ordering and paying for new supplies when inventories fall below a critical level (Wenninger; Furst and others 1998).

Impact of financial integration

Among the new financial services authorized by GLBA, the most relevant to small businesses are insurance and merchant banking. The authority to underwrite corporate bonds and equity is unlikely to be of much interest to small businesses because these firms are too small and

little known by investors for their securities to be publicly traded. Most small businesses, however, do require property and casualty insurance and private equity investment, services that until now have been provided largely by firms outside the banking industry.[9]

As in the case of consumers, allowing small businesses to obtain all their financial services from one company could benefit them in two ways—through synergies on the production side or synergies on the consumption side. The consumption synergies from combining banking with other financial services are unlikely to be any greater for small businesses than for consumers. In particular, small businesses should be able to reap most of the benefits of one-stop shopping by purchasing all their financial services from a single web site, without those services being provided by the same company.

In contrast to consumption synergies, the production synergies from financial integration could provide some benefit to small businesses. As noted earlier, empirical studies have not found much evidence of such synergies among traditional banking services, casting some doubt on the existence of synergies between banking and other financial services. But most of these studies have not focused specifically on small business services, which are more likely to be complementary due to the greater need for information about the customer. To maintain a long-term credit relationship with a small firm, a bank must become familiar with the firm's business and keep track of its financial condition. An insurance company or merchant banker may need to acquire similar information about the firm to provide it with property and casualty insurance or private equity financing. Having one financial company provide all these services could reduce the total cost of investigating and monitoring the firm, allowing the firm to be charged a lower price for the services (Sweeney).

IV. CAN SMALL BANKS MAINTAIN THEIR ROLE?

The transformation of the banking system will probably benefit most consumers and small businesses. Such an outcome will be more likely, however, if small banks can continue providing a low-cost alternative for retail banking services and continue filling gaps in small business credit created by mergers. This section examines the obstacles small banks could face in performing this role.

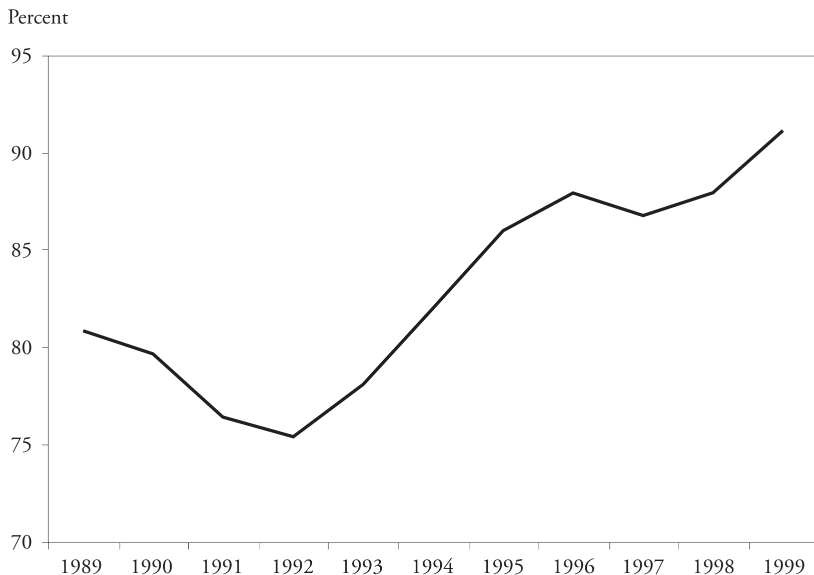
Until now, profitability has not been a problem. Banks under $1 billion in size have earned somewhat lower profits than larger banks during the 1990s, but the difference has not been large and has not widened appreciably. Last year, for example, banks under $1 billion in size earned an average return on equity (ROE) of 12.4 percent, while banks over $10 billion in size earned an average ROE of 14.4 percent (Federal Deposit Insurance Corporation).[10] The only sign of earnings pressures has been among very small banks, those with less than $100 million in assets. The ROE of these banks has edged down the last several years, although many banks in the group still earn well above the industry average. In one respect, the favorable earnings performance of small banks comes as no surprise: studies by economists have consistently failed to find that bigger banks are more cost-efficient than smaller banks (Berger, Demsetz, and Strahan pp. 157-58).

A more pressing concern is whether small banks will be able to attract sufficient funds to continue filling the gap in small business credit. When restrictions on branching and interstate banking were just beginning to be relaxed, the concern in many areas was that large banks would come in, take over small local banks, and then siphon off the deposits to lend in their home markets. There is no indication that this has actually happened. On the contrary, when outside banks have taken over local banks, remaining banks appear to have gained just as many depositors from the acquired banks as borrowers (Keeton 1998).

The problem small banks face in meeting local credit demands is a different one—the long-term shift by the public out of bank deposits into mutual funds and stocks. During the 1990s, the share of household financial assets held in bank and thrift deposits declined from 20 percent to 10 percent, while the share held in equities and mutual funds grew from 21 percent to 42 percent.[11] Some of this shift out of deposits occurred because the securitization of mortgage loans and credit card loans limited the banking industry's need for funds. Much of the shift, however, was due to a fundamental change in preferences, as people became more concerned about saving for retirement and more willing to make investments with high short-term risk but high long-term returns (Keeton 1997). As a result, the supply of deposits failed to keep up with the demand for bank credit in the 1990s, boosting the loan-deposit ratio in the banking industry to new heights (Chart 7).

This shift in the way the public chooses to invest their money has caused a funding problem for banks of all size, but especially for small

Chart 7
LOAN-DEPOSIT RATIO AT U.S. BANKS



Source: FDIC

banks. The reason small banks have been more adversely affected is not that they have found it harder than large banks to retain deposits. Indeed, deposits appear to have grown somewhat *faster* at small banks than large banks in the 1990s, after excluding the increase in large bank deposits due to mergers (Genay; Stiroh and Poole; Rhoades 2000b). The reason small banks have been hurt more by the public's shift out of deposits is that they have less access than large banks to alternative sources of funds, such as borrowing on the federal funds market or from investors and securities dealers. This lack of access to nondeposit funds makes it harder for small banks to maintain their lending when deposit growth slows, explaining why they appear much more concerned than large banks about the public's shift out of deposits into other assets.[12]

Increased access to credit from the Federal Home Loan Bank (FHLB) system has helped ease the funding problem for small banks, but is unlikely to provide a long-term solution. Borrowing from the FHLB system was originally limited to savings institutions as a way of promoting mortgage lending and homeownership. In the late 1980s, Congress

allowed banks with more than 10 percent of their assets in real estate loans to qualify for credit from the FHLBs. More recently, GLBA increased access still further by allowing all banks under $500 million in size to qualify for credit, regardless of how many real estate loans they held, and by broadening the types of collateral that could be used to back FHLB advances. As a result of all these changes, almost half of all banks had loans from the FHLBs by the end of 2000. But total borrowed funds still represented only 6 percent of domestic assets at banks under $1 billion in size, versus 21 percent at banks over $10 billion in size.[13] Furthermore, because FHLBs are government-sponsored enterprises with the implicit backing of the federal government, a good case can be made that banks should not be allowed unlimited use of FHLB advances to fund their loans.[14]

Compounding the small-bank funding problem, the growth of online finance described earlier could increase competition for deposits still further. Thanks to the Internet, large banks, mutual funds, and brokerage companies can now seek deposits in smaller communities without having a physical branch or office there. Small banks may lose some customers who are attracted by the more favorable rates offered by these online companies. And they may lose other customers who prefer the convenience of online banking. The convenience factor may become even more of an issue as online companies broaden the array of products they offer online, making available services such as insurance and brokerage that they either produce themselves or market on behalf of other companies.

As serious as these problems are, two factors may help small banks attract enough funds to continue meeting local credit demands. First, while small banks have been slower than large banks to embrace online banking, a good case can be made that they will be able to catch up over time. By starting late, small banks may be able to learn from the mistakes of larger banks, some of which have had to write off costly experiments in online banking. As noted earlier, small banks may also be able to compensate for their inability to make large-scale technology investments by outsourcing their data processing. Finally, while unable to spend as much on advertising their web sites as larger companies, small banks may be able to draw on their reputations in the community to assuage local depositors' concerns about the security and privacy of online banking.

The second factor working in small banks' favor is their ability to identify local borrowers with highly profitable investment opportunities and to monitor their performance. This informational advantage should enable those small banks that are well managed to earn higher returns on their loans and investments than bigger banks and brokerage companies. That in turn should enable them to pay higher deposit rates, helping stem the outflow of funds. Some smaller banks may be reluctant to pay these higher deposits rates, having benefited for many years from their depositors' insensitivity to rates on alternative investments. To continue meeting local credit needs, however, small banks may have little choice.

V. SUMMARY AND CONCLUSIONS

The banking industry is undergoing three major changes—the consolidation of the industry, the spread of Internet banking, and the increased freedom to combine banking with other financial services. In assessing what these changes mean for local economies, this article has focused on the two groups that are most likely to be affected—consumers and small businesses.

On the whole, consumers appear to be benefiting from the changes. Consolidation has not reduced competition in local banking markets very much, because most of the mergers have not been between banks in the same city or county. Large multistate banks appear to charge higher fees, but consumers who believe those fees are unjustified still have plenty of smaller banks to choose from. The spread of Internet banking should also benefit consumers by reducing the time and inconvenience of banking transactions and, in very small communities, by providing access to banking services that might otherwise be unavailable. It is less clear that combining banking with other financial services will benefit consumers. Conglomerates show no evidence of producing retail financial services at lower cost than specialists, and the Internet provides other ways for consumers to reap the benefits of one-stop shopping besides buying all their services from the same provider.

For the most part, small businesses also appear better off as a result of the recent changes in banking. To be sure, the evidence suggests that banks taken over in mergers by large or distant organizations have reduced their small business lending. But some large multistate organizations have managed to overcome the disadvantages of size and geo-

graphic dispersion and expand their small business lending. Furthermore, where gaps in small business credit have remained, newly chartered banks and small banks not taken over in mergers have stepped in to make up the difference. Small businesses should also benefit from Internet banking, especially if it helps them take advantage of innovations in payments practices such as electronic billing and B2B commerce. Finally, because financial services to small businesses have substantial and overlapping information requirements, a good case can be made that combining these services will yield appreciable economies in information gathering that can be passed on to small businesses in the form of lower prices.

Despite these positive aspects of the transformation of banking, one important concern remains about the impact on local economies—with the public less willing to invest in bank deposits, will small banks be able to find enough funds to continue filling gaps in small business credit? The small-bank funding problem is likely to intensify as the growth of online finance gives local depositors more alternatives for investing their money. Furthermore, increased reliance on FHLB advances is unlikely to provide a long-term solution given public policy concerns about banks borrowing heavily from government-sponsored enterprises. By moving ahead with plans for online banking, small banks may find it easier to compete with larger banks and brokerage companies for funds. Ultimately, however, the only solution to the funding problem may be for small banks to pay higher deposit rates. While not a welcome prospect for any bank, it is one that the bettter managed banks should be able to afford by exploiting their knowledge of the local economy to make profitable, high-quality loans.

ENDNOTES

[1] Local market concentration is measured in the chart by the average Herfindahl-Hirschman Index (HHI). For each market, this index equals the sum of the squared percentage deposit shares of all banking organizations competing in the market. The HHI can take on values between zero and 10,000, with higher values representing higher levels of concentration.

[2] Furst and others 2000 report that there were only nine separately chartered Internet-only banks at the beginning of 2000. One reason Internet-only banks have failed to catch on with consumers is that some basic banking transactions, such as depositing checks, can still not be conducted online.

[3] The account aggregator can obtain the account information in one of two ways—by accessing other institutions' web sites with the customer's permission (screen-scraping), or by having the customer instruct other institutions to send the information directly to the aggregator (direct feed).

[4] Lack of high-speed Internet service may become more of a handicap as more advanced online banking services are offered. At some point, though, rural communities may be able to acquire high-speed Internet access through advances in wireless technology, which does not require high population density to be economically viable (Staihr).

[5] A few studies have investigated production synergies between banking and other financial services in countries such as Germany that already allow financial integration. These studies obtain mixed results, however, and are of questionable relevance to the more market-oriented financial system of the U.S. (Berger).

[6] A number of empirical studies have examined the implications of geographic diversification for risk in banking. These studies generally confirm that operating over a broader geographic area allows a banking organization to achieve the same expected return with lower overall risk (Berger and De Young; Levonian; Liang and Rhoades; Berger, Demsetz, and Strahan, pp. 159-60, 163). Many of the studies also find that large, geographically dispersed organizations tend to respond to their improved tradeoff between risk and expected return by taking on more risk, including lending out a higher proportion of their funds. What the studies do not show is how much, if any, of the increased lending by large, geographically dispersed organizations goes to small businesses. Another study showed that during the credit crunch of the early 1990s, declines in bank capital led to smaller declines in lending at large banks than at small banks (Hancock and Wilcox). Like the other studies, however, this study did not look specifically at lending to small businesses.

[7] One recent study tried to get around this problem by making the questionable assumption that each bank's loans are distributed across markets in the same proportion as its deposits, for which data by market are available (Avery and Samolyk). This study concluded that mergers reduced small business lending in rural markets but left small business lending unchanged in urban markets. Aggregate data on small business lending also provide little clue as to the net effect of mergers. On the one hand, business loans under $1 million in size grew a solid 7 percent per year in the second half of the 1990s, in line with growth in nominal GDP. But on the other hand, loans under $1million grew only half as fast as loans over $1 million in size, causing some observers to suggest that mergers may have made it harder for small businesses to obtain credit than large businesses (Glover).

[8] Among national banks with transactional web sites, about the same proportion of large banks offered cash management services in the third quarter of 1999

as of small banks—17 percent for banks over $10 billion in size versus 14 percent for banks under $100 million in size. However, a significantly higher proportion of large banks than of small banks planned to begin offering these services in the near future (Furst and others 2000).

[9] According to one estimate, for example, banking organizations held only 9 to 10 percent of outstanding private equity before passage of GLBA (Meyer 2000). These investments were made through various exceptions in the old laws regulating bank holding companies.

[10] Some analysts have noted that the after-tax profitability of small banks has been artificially boosted in recent years by the conversion of many banks to Subchapter S corporations, which are generally exempt from federal income tax (Bassett and Zakrajesek). Others have pointed out, however, that the high rate of new bank formation has worked in the opposite direction, because new banks are both small and initially unprofitable (Laderman).

[11] These data are from the Federal Reserve's Flow of Fund Accounts (www.federalreserve.gov/releases), Tables B.100 and B.100e.

[12] See Jackson for a recent expression of such concern. Empirical studies support the view that deposit growth acts as a bigger constraint on loan growth at small banks than at large banks (Genay; Jaraytne and Morgan; Kashyap and Stein, 1995 and 2000).

[13] Ten years earlier, borrowings were 3 percent of domestic assets at banks under $1 billion in size and 17 percent at banks over $1 billion in size (size categories in 2000 dollars). These data are from the bank call reports and include federal funds purchased, securities sold under repurchase agreements, demand notes issued to the U.S. Treasury, and other borrowed money. Advances from the FHLBs are included in the last category along with other debt such as mortgages.

[14] Aside from the fact that FHLBs can borrow on the capital markets at low rates, the collateralization of FHLB advances tends to shift the risk of loss from bank failures onto the FDIC (Stojanovic).

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