Do Bank Mergers Reduce Lending to Businesses and Farmers? New Evidence from Tenth District States

By William R. Keeton

The banking industry has undergone substantial consolidation during the last 15 years, and that process has accelerated in the 1990s. One effect of this consolidation has been to greatly reduce the number of independent and locally owned banks. Some banks have been acquired by distant banking organizations, and some have been acquired by banking companies that were nearby but very large, causing the banks to become junior partners in the new organization.

Since independent and locally owned banks have been important sources of funds for local businesses and farmers, concern has arisen that such borrowers will now find it harder to obtain credit. In principle, the extra safety and liquidity that newly acquired banks enjoy from belonging to a larger, more diversified banking organization could enable the banks to lend more to local farms and businesses. But some analysts worry that banks acquired by large or distant organizations will lend less to local borrowers because the parent company cannot make credit decisions as efficiently or has other preferred uses for the banks' funds.

Is this concern warranted? This article finds that recent bank mergers in Tenth District states provide partial support for the claim that banks acquired by large or distant organizations reduce lending to local farms and businesses. The article notes, however, that such declines in local lending need not be harmful if they are offset by increased lending at other banks in the same market or if they reflect a reallocation of credit to more profitable markets. The first section summarizes the debate over the effects of bank mergers on lending to local businesses and farmers. The second section shows that most of the bank mergers that occurred in Tenth District states during the last decade either shifted ownership to distant markets or made banks junior partners in their organizations. The last section examines the effect of these mergers on farm and business lending at acquired banks. The section shows that business lending tended to fall when out-of-state companies acquired banks owned by urban holding companies. The effect was weaker in the 1990s than in the late 1980s,

William R. Keeton is a senior economist at the Federal Reserve Bank of Kansas City. Anne McKibbin, a research associate at the bank, helped prepare the article.

however, and lending showed no tendency to fall in other mergers that shifted ownership to distant markets or made banks junior partners in their organizations.

THE DEBATE OVER THE EFFECT OF MERGERS ON BANK LENDING

The debate over the effect of mergers on bank lending has focused on farm and business loans because local borrowers are more dependent on such loans than on other types of bank loans. If a locally owned bank cuts back on consumer lending or real estate lending after being acquired, the bank's customers can usually turn to alternative sources of credit such as a mortgage banker, finance company, or credit card bank. Farmers and businessmen may have fewer alternatives if their local bank denies them credit, because other lenders have much less information than the bank about their creditworthiness. Thus, the local economy is more likely to suffer if banks acquired in mergers reduce their farm and business lending than if they reduce their other types of lending.

Both sides in the debate agree that mergers are likely to affect farm and business lending in a systematic way only if ownership of the acquired bank shifts to a distant location or the bank becomes a junior partner in the new organization. If, for example, ownership of a small urban bank merely shifts from one large in-state holding company to another as a result of a merger, there is no reason to expect the bank's lending to change in a particular way. To be sure, the bank's new owners may have different attitudes about risk or beliefs about market conditions, and those different attitudes and beliefs may change the bank's lending behavior. On average, however, mergers that leave the geographic ownership and organizational status of the bank unchanged should also leave the bank's lending unchanged.

The point on which the two sides disagree is whether acquisitions that force banks to report to distant owners or become junior partners will systematically *increase* or *decrease* farm and business lending.[1] One reason a bank might lend more to local businesses and farmers after being acquired by a large or distant organization is that the new parent does not have to worry so much about a local economic downturn. Some banks may have profitable lending opportunities in their local markets but may be afraid of tying their fortunes too closely to the local economy. A large parent organization with operations in many regions may be better able to exploit those lending opportunities, because the organization can offset any losses at the acquired bank with profits from banking offices in other regions.

Another reason banks might lend more to local businesses and farmers after being acquired by a large, diversified organization is that the new parent serves as a source of extra liquidity. Even if there were little risk of a downturn in the local economy, a small bank might refrain from lending to local borrowers because it needed liquid assets to meet unexpected deposit withdrawals. Joining a large organization with access to open market funds and deposits at other banks would reduce the risk of a liquidity crisis, enabling the bank to invest more of its funds in loans to local borrowers.

Finally, lending to local farms and businesses could increase after acquisition because a parent organization with banks in many different areas can shift funds from areas where loan demand is low to areas where loan demand is high. Some small and locally owned banks may not have enough deposits to meet temporary surges in loan demand. A geographically diversified parent may be able to satisfy such increases in demand by using surplus deposits at banks suffering a temporary slump in demand.

Critics of consolidation reject these arguments, claiming that banks acquired by large or distant organizations are more likely to decrease lending to local farmers and businesses. One reason a bank might lend less to local businesses and farmers after the merger is that the bank is farther removed from the center of decision making. It may not be feasible for the managers of a large or distant banking organization to review every lending decision made at branch offices or bank subsidiaries. As a result, the loan officers of the acquired bank may be given less authority and required to follow more rigid rules in approving loan applications. These rules may result in fewer loans being granted to local farmers and businesses than before the merger.

Another reason small and locally owned banks might reduce lending to local businesses and farmers after being acquired is that the acquisition enables them to reduce their risk by diversifying into other loans. Some small and locally owned banks might prefer to specialize less heavily in lending to local borrowers but have few opportunities to lend outside their own markets. Joining a large or geographically dispersed organization may provide such opportunities, causing the banks to reduce lending to local borrowers.

A third reason lending to local businesses and farmers might fall is that the new parent organization might have more profitable uses for the banks' funds. Some acquired banks may have made loans to local businesses and farmers that were only marginally profitable because the banks lacked alternative investment opportunities or were interested in meeting community needs as well as making profits.[2] In such cases, the new parent may be able to increase profits by investing the acquired banks' deposits in loans generated elsewhere in the organization.

Since valid arguments can be made on both sides, the only way to resolve the debate over the effect of mergers on farm and business lending is to examine the facts. Have most mergers been of the kind likely to affect local lending—mergers that shift ownership to distant locations or turn banks into junior partners? And, did mergers that shifted ownership to distant locations or turned banks into junior partners actually decrease farm and business lending, as critics of consolidation claim?

The rest of the article will address these questions based on bank mergers in Tenth District states during the last ten years. It is important to keep in mind, however, that such evidence cannot reveal whether a decline in local lending due to mergers is actually harmful. A reduction in lending at acquired banks could be offset by increased lending at other banks in the same market, leaving total lending to local farms and businesses unchanged. And even if total lending to local borrowers fell, the economy as a whole could benefit through the reallocation of credit to other markets where borrowers had more productive uses for their funds. In other words, the unwillingness of a large or distant banking organization to lend to local borrowers could reflect a rational decision to invest in more profitable markets, and not an inherent disadvantage in making local loans.

DID MERGERS CAUSE BANKS TO REPORT TO A MORE DISTANT OWNER OR BECOME JUNIOR PARTNERS?

The banking industry in Tenth District states has undergone substantial consolidation since the early 1980s, reducing the number of banking organizations by more than a third and the number of banks by more than a quarter (Keeton 1996). This section shows that the vast majority of district bank mergers over the last ten years have either shifted the ownership of banks to distant locations or caused banks to become

Table 1

CHANGE IN GEOGRAPHIC OWNERSHIP OF RURAL BANKS DUE TO ACQUISITIONS

Tenth District states, 1986-95

Change in ownership of bank	Number of banks	Percent of total
Ownership remained nearby	385	59
Ownership shifted to a distant location	208	32
Out-of-state organization acquired bank from rural organization	92	14
Urban organization acquired bank from rural organization	75	12
Out-of-state organization acquired bank from urban organization	41	6
All other	59	9
Total	652	100

Note: An urban bank or organization is one with more than half its deposits in offices located in MSAs. Acquisitions in which ownership remained nearby are those in which a rural organization acquired a rural bank from another rural organization.

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

junior partners in their organizations, intensifying the debate over the effects of bank mergers on farm and business lending.

Table 1 documents the shift in ownership of *rural* banks as a result of mergers. The first row shows the number and percentage of rural bank acquisitions in which ownership remained nearby. This category includes all mergers in which one rural organization acquired a rural bank from another rural organization. The second row shows the number and percentage of rural bank acquisitions in which ownership shifted to a distant location. This category includes three types of mergers—those in which an out-of-state organization acquired a rural bank from a rural organization, those in which an urban organization acquired a rural bank from a rural organization, and those in which an out-of-state organization acquired a rural bank from an urban organization. The last row shows all remaining acquisitions—mergers which fit neither the definition of a nearby acquisition nor a distant acquisition.[3]

Table 1 reveals that ownership remained nearby in most rural bank acquisitions but shifted to a distant location in a substantial number of acquisitions. From the beginning of 1986 to the end of 1995, 652 rural banks were acquired in mergers. The most common acquisitions, accounting for 59 percent of the total, were those in which ownership of the bank merely shifted from one rural organization to another. But acquisitions in

Table 2

CHANGE IN GEOGRAPHIC OWNERSHIP OF URBAN BANKS DUE TO ACQUISITIONS

Tenth District states, 1986-95

Change in ownership of bank	Number of banks	Percent of total
Ownership remained nearby	226	48
Ownership shifted to a distant location	206	44
Out-of-state organization acquired bank from urban organization	159	34
Rural organization acquired bank from urban organization	47	10
All other	35	7
Total	467	100

Note: An urban bank or organization is one with more than half its deposits in offices located in MSAs. Acquisitions in which ownership remained nearby are those in which an urban organization acquired an urban bank from another urban organization.
Source: Reports of Income and Condition, Summary of Deposits, and National Information Center Database.

which ownership shifted to a more distant location were also important, accounting for another 32 percent of the total. Within this category, the most frequent mergers were those in which an out-of-state organization acquired a rural bank from a rural organization. Such mergers represented 14 percent of all rural bank acquisitions, and they included both out-of-state purchases of independent rural banks and out-of-state purchases of rural bank holding companies (BHCs). Next in importance were intrastate mergers in which an urban organization acquired a rural bank from a rural organization, accounting for 12 percent of total acquisitions. Last were the 6 percent of mergers in which an out-of-state organization acquired a rural bank from an urban organization. These acquisitions arose mainly from out-of-state purchases of large BHCs that were based in cities but owned both rural and urban banks.

Table 2 shows the shift in ownership of *urban* banks. As before, the first row of the table shows the number and percentage of acquisitions in which ownership remained nearby—mergers in which one urban organization acquired a bank from another urban organization. The next row shows the number and percentage of acquisitions in which ownership shifted to a distant location. This category includes two types of mergers—those in which an out-of-state organization acquired an urban bank from an urban organization, and those in which a rural organization acquired an urban bank from an urban organization. The last row of the table shows all remaining acquisitions.

Table 2 indicates that ownership shifted to a more distant location in a somewhat higher proportion of urban bank acquisitions than rural

Table 3

CHANGE IN ROLE OF RURAL BANKS WHEN OWNERSHIP REMAINED NEARBY

Tenth District states, 1986-95

Change in role of bank in parent organization	Number of banks	Percent of total
Bank was merged into another bank	170	44
Bank survived and became a junior partner	159	41
Bank survived with unchanged role	56	15
Total	385	100

Note: A surviving bank became a junior partner if it switched from an independent bank or lead bank of a BHC to a non-lead bank of a BHC.

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

bank acquisitions, reflecting the greater attractiveness of urban banks to out-of-state companies. During the period, 467 urban banks were acquired. As with rural banks, the most common mergers were those in which ownership remained nearby—the 48 percent of mergers in which one urban organization acquired a bank from another. Mergers in which ownership shifted to a more distant location were almost as important, however, accounting for 44 percent of all urban bank acquisitions. Most of these mergers were out-of-state acquisitions of banks owned by urban organizations, representing 34 percent of the total. Also important, though less publicized, were the 10 percent of mergers in which a rural organization acquired an urban bank from an urban organization.

Even in those acquisitions in which ownership of the bank remained nearby, local lending could have been affected by a decline in the role of banks in their organizations. Table 3 shows how the role of the bank changed in the 385 rural bank acquisitions in which ownership remained nearby, while Table 4 shows how the role of the bank changed in the 226 urban bank acquisitions in which ownership remained nearby.

Three types of change in the role of banks are shown in Tables 3 and 4. At one extreme were banks that were immediately merged into other banks and converted to branches.[4] The number and percentage of banks falling in this category are shown in the first row of each table. Next were banks that kept their charters but became junior partners in the new organization. This category, shown in the second row, included all banks that switched from being an independent bank or a lead bank of a small BHC to a non-lead bank of a larger BHC in the same state. Last were the banks that survived acquisition and occupied the same role as before because they were already non-lead banks in a BHC.[5] Critics of consolidation usually point to the first two types of merger—those in which banks were converted to branches or survived with a lesser role in the new organization—as the ones most likely to reduce farm and business lending.

Table 4

CHANGE IN ROLE OF URBAN BANKS WHEN OWNERSHIP REMAINED NEARBY

Tenth District states, 1986-95

Change in role of bank in parent organization	Number of banks	Percent of total
Bank was merged into another bank	105	46
Bank survived and became a junior partner	59	26
Bank survived with unchanged role	62	27
Total	226	100

Note: A surviving bank became a junior partner if it switched from an independent bank or lead bank of a BHC to a non-lead bank of a BHC.

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

Tables 3 and 4 show that the vast majority of banks whose ownership remained nearby either were immediately merged into other banks or became junior partners in the new organization. Among rural banks whose ownership remained nearby, 85 percent either were merged into other banks or became junior partners as a result of the merger, while only 15 percent survived with an unchanged role. Among urban banks whose ownership remained nearby, the proportion that were either merged into other banks or became junior partners was 72 percent, lower than for rural banks but still quite high. Thus, while not all acquisitions shifted the ownership of banks to distant locations, most of the banks that were sold to nearby organizations were downgraded to branches or junior partners. Indeed, taken together, the data imply that 82 percent of rural bank acquisitions and 79 percent of urban bank acquisitions either shifted ownership to a distant location or reduced the role of banks in their organizations.[6] Given figures this high, it is not surprising that the effect of mergers on local lending has aroused such interest.

DID ACQUIRED BANKS REDUCE THEIR LENDING?

As indicated above, most district banks acquired in mergers during the last ten years either reported to a more distant owner or became a junior partner in the new organization. At issue, then, is whether these banks responded by reducing their lending to local businesses and farmers. Many studies have examined the impact of mergers on farm and business lending, but the studies are inconclusive and based primarily on mergers in the 1970s and 1980s.[7] The large number of district bank mergers during the last ten years provide a good opportunity to reexamine the issue using more recent data.

Estimating the effect of acquisitions on bank lending

How can the effect of acquisitions on farm and business lending be estimated? The simplest measure would be the change in lending at acquired banks from just before the merger to some time after the merger. Looking only at the change in lending at acquired banks, however, could be misleading. Lending could change at an acquired bank not only because of the merger but also because of factors that also affected lending at other banks—factors such as a recession in the local economy or increased caution on the part of all banks. Indeed, during the credit crunch of the early 1990s, a period covered by this study, bank lending to businesses fell sharply throughout the nation. Thus, the true merger effect can be determined only by comparing the change in lending at acquired banks with the change in lending at banks of similar size and location over the same time period.

A useful way to make this comparison is through regression analysis, which isolates the merger effect by controlling for the time period and the size and location of the bank.[8] Regression analysis provides two important types of information. It reveals how big the merger effect was on average and whether the effect was positive or negative. And it shows whether the merger effect was statistically significant, in the sense of being too large to be attributed to chance.

The results reported below are subject to three caveats, all based on the adequacy of the underlying data. The first is that the impact of mergers on bank lending can be estimated only for those acquired banks that kept their charters and survived acquisition, and not for the those acquired banks that were immediately merged into other banks. Loan data are reported only for a bank as a whole and not its individual offices. Thus, once a bank is merged into another bank and converted to a branch, there is no way to directly identify the amount of loans it is holding. How important is the omission of such banks? Merged banks represented only a third of all acquisitions during the period. Thus, the omission of merged banks reduces the size of the sample but leaves more than enough banks to estimate the effect of acquisitions on lending.[9]

The second caveat is that a fall in farm or business loans at acquired banks need not imply a fall in loans to local borrowers. The loan data reported by banks do not distinguish between local and outside borrowers. Strictly speaking, therefore, the farm and business loans that disappeared from a bank's books after acquisition could have been loans to outside borrowers. While this possibility cannot be ruled out, it is not very plausible. The vast majority of acquired banks in the sample were small banks.[10] Because such banks cannot easily meet the credit needs of large borrowers, they must make most of their farm and business loans to small borrowers located nearby. It is also much less common for a bank to purchase farm and business loans from other banks than, say, credit card or home mortgage loans. As a result, most of the farm and business loans that banks in the sample held before being acquired were probably loans to local borrowers.

The last caveat is that a fall in the amount of farm or business loans held by acquired banks need not imply a fall in the amount of loans *originated* by the banks. A bank could continue making the same amount of loans to local businesses and farmers after the merger but sell or participate those loans to other banks in the new organization. For example, a newly acquired rural bank could trade some of its farm loans for home mortgage loans, achieving greater diversification in its loan portfolio while maintaining the supply of credit to the local community. While impossible to prove, this possible problem is not so easily dismissed. It argues for treating the results below as suggestive but not conclusive.[11]

Effect on rural banks

Did rural banks reduce their farm or business loans after they were acquired by distant organizations or became junior partners in new

Table 5

EFFECT OF ACQUISITIONS ON LOANS OF SURVIVING RURAL BANKS

Tenth District states, 1986-95

(Cumulative percent change after three years)

Type of acquisition	Number of banks	Effect on farm loans	Effect on business loans
Ownership remained nearby			
Bank became a junior partner	159	7	16*
Bank survived with unchanged role	56	3	-6
Ownership shifted to a distant location			
Out-of-state organization acquired bank from rural organization	72	-6	6
Urban organization acquired bank from rural organization	43	2	-21
Out-of-state organization acquired bank from urban organization	39	-23	-34**

* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

organizations? Table 5 reports the estimated effect of acquisitions on rural bank farm and business lending during the first three years after the merger.[12] The total effect over three years is reported because banks may not adjust their lending immediately to a change in ownership. The table also indicates whether this cumulative effect was statistically significant. Three levels of statistical significance are distinguished. A 1 percent significance level is considered very high, a 5 percent level moderately high, and a 10 percent level only marginal.

Each row of Table 5 shows the estimated effects of a particular kind of acquisition. The first two rows of the table report results for nearby acquisitions, distinguishing between those mergers in which the bank became a junior partner and those mergers in which the bank survived with an unchanged role. The remaining rows report results for distant acquisitions, distinguishing between the same three types of mergers as in Table 1—those in which an out-of-state organization acquired a bank from a rural organization, those in which an urban organization acquired a bank from a rural organization, and those in which an out-of-state organization acquired a bank from an urban organization.

The first column of Table 5 shows the number of banks on which the estimates were based. For nearby acquisitions, these numbers are the same as in Table 3. For example, the first row of Table 5 shows that the regression included 159 banks that were acquired by nearby organizations and survived as junior partners, the same number shown in the second row of Table 3. For distant acquisitions, the numbers in Table 5 correspond to those in Table 1 but are lower because only banks that kept their charters and survived the acquisition could be included in the regression. For example, the third row of Table 5 shows that the regression included 72 banks acquired by out-of-state organizations from rural organizations, out of the total of 92 such banks shown in the third row of Table 1.

Estimates for farm loans are given in the second column of Table 5 and estimates for business loans in the third column. For example, the second row of the table shows that nearby mergers in which the role of the bank remained unchanged raised farm loans by an average of 3 percent and reduced business loans by an average of 6 percent, and that neither effect was statistically significant.

The main finding from Table 5 is that only one type of merger reduced lending by a significant amount—out-of-state acquisitions of rural banks owned by urban organizations. On average, such acquisitions reduced business lending by 34 percent over three years, an effect that was moderately significant. Mergers in which ownership remained nearby but the bank became a junior partner raised business lending, though the effect was only marginally significant. All other effects on farm and business lending were statistically insignificant. To determine if the impact of mergers had changed over time, the regression was also estimated including only mergers from the 1990s. The results were essentially the same, indicating the effects of mergers on rural bank lending were no different in the 1990s than the late 1980s.

Effect on urban banks

Did urban banks respond any differently than rural banks when they were acquired by distant organizations or became junior partners? Table 6 shows the estimated change in urban bank business loans during the first three years after the merger. The effect on farm loans is not shown because most urban banks hold few such loans. As before, the first two rows report results for nearby acquisitions, distinguishing between those mergers in which the bank became a junior partner and those mergers in which the bank survived with an unchanged role. The last two rows report results for distant acquisitions, distinguishing between the same types of mergers as in Table 2—those in which an out-of-state organization acquired a bank from an urban organization, and those in which a rural organization acquired a bank from an urban organization. In contrast to the previous table, results are presented both for the entire period and for the 1990s alone, because the effects of mergers were different in the later period.

As in the case of rural banks, the only mergers with a significant impact on lending were out-of-state acquisitions of banks owned by urban organizations. The second column shows that over the entire ten-year period, such acquisitions decreased business loans by an average of 28 percent over three years, an effect that was highly significant statistically. Other types of acquisitions also had sizable effects, but in each case the effect was statistically insignificant. While acquisitions in which ownership shifted out of state had noticeable effects on urban bank lending over the period as a whole, the effects were much weaker for mergers in the 1990s. The third column shows that business loans fell an average of 16 percent when urban banks were acquired by out-of-state organizations in the 1990s. The estimate is only marginally significant, however, and about half the estimate for the period as a whole.

Table 6

EFFECT OF ACQUISITIONS ON LOANS OF SURVIVING URBAN BANKS

Tenth District states, 1986-95

(Cumulative percent change after three years)

Type of acquisition	Number of banks	Effect on business loans, all mergers	Effect on business loans, 1990s only
Ownership remained nearby			
Bank became a junior partner	59	-19	-12
Bank survived with unchanged role	62	-3	3
Ownership shifted to a distant location			
Out-of-state organization acquired bank from urban organization	128	-28***	-16*
Rural organization acquired bank from urban organization	35	23	34

* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Interpretation of the results

Overall, the results provide partial support for the claim that banks reduce their farm and business lending after being acquired by distant organizations or becoming junior partners in new organizations. Business loans fell when out-of-state companies acquired banks owned by urban companies, whether those banks were located in rural or urban areas. But the effect of such mergers on urban banks was weaker in the 1990s than in the period as a whole. Furthermore, other types of acquisitions that forced banks to report to more distant owners or become junior partners failed to reduce lending at all. Neither farm nor business lending fell appreciably when out-of-state companies purchased rural banks directly from rural organizations. And lending showed no tendency to fall in those intrastate mergers in which rural banks joined urban organizations or urban banks became junior partners in urban organizations. Thus, while one important type of acquisition had the kinds of effects claimed by critics of banking consolidation, other acquisitions did not.

SUMMARY

The banking industry has undergone substantial consolidation in recent years. In some mergers, banks have changed hands without becoming further removed from the center of decision making or assuming a lesser role in the new organization. In many other cases, however, the ownership of banks has shifted to distant locations and banks have become junior partners in large organizations. This trend has sparked concern that banks acquired in mergers will reduce lending to local farms and businesses because the banks' new owners cannot make credit decisions as efficiently or prefer to invest the banks' deposits in other ways.

Evidence from recent bank mergers in Tenth District states provides partial support for this concern. Most district bank mergers during the last ten years either forced banks to report to a more distant owner or caused them to become junior partners in their organizations. And one important group of such mergers had a tendency to reduce business lending—out-of-state acquisitions of banks owned by urban holding companies. These mergers had less effect in the 1990s than the 1980s, however, and other mergers that forced banks to report to distant owners or become junior partners had no appreciable effect on farm or business lending.

The fact that banks owned by urban companies tended to reduce their business loans when acquired by out-of-state companies does not necessarily mean these acquisitions were harmful. The possibility cannot be ruled out that the banks continued to originate loans to local businesses but transferred those loans to other banks in the new organization. And other banks serving the same markets could have responded by increasing their business lending, leaving total credit to local businesses unchanged. Finally, even if total credit to local businesses did fall, the economy as a whole could have benefited if acquiring organizations simultaneously increased lending in other markets where borrowers had more productive uses for their funds.

ENDNOTES

1 The possible effects of mergers on farm and business lending are discussed in many sources, including Guttenag and Herman, Gilbert and Belongia, Berger and Udell, General Accounting Office, Keeton 1995, and Nakamura.

2 Geographic barriers to expansion may also have allowed some small and locally owned banks to continue making marginally profitable loans without fear of being taken over or losing deposits to new entrants (Berger, Kashyap, and Scalise).

3 The terms nearby and distant are used in an approximate sense only. Some rural-to-rural acquisitions may involve a shift in ownership to a completely different part of the state, while some rural-to-urban acquisitions may involve a shift in ownership of only a few miles. The definitions of nearby and distant used in Table 1 can be justified on the grounds that acquisition of a rural bank by a distant rural organization is less likely to affect local lending than acquisition of a rural bank by a nearby urban organization. For example, a distant rural parent may be less likely to curtail farm lending than a nearby urban parent because rural organizations are more familiar with farm lending and have fewer opportunities to diversify into other types of lending.

4 The table reports only those banks that were merged in the same quarter they were acquired. In some cases, an acquired bank retained its charter for a while and was later merged into one of the acquiring organization's banks.

5 This category also includes a small number of mergers in which an independent bank or lead bank in one BHC became the lead bank in another BHC.

6 From Tables 1 and 3, the percent of rural bank acquisitions that either shifted ownership to a distant location or reduced the role of the bank in the organization was 32 + (.85 x 59) = 82. From Tables 2 and 4, the percent of urban bank acquisitions that had at least one of these effects was 44 + (.72 x 48) = 79.

7 Studies of intrastate acquisitions are surveyed in Brown, Curry, Department of Treasury, and Fischer and Davis. Studies of out-of-state acquisitions include General Accounting Office, Lawrence and Klugman, Rose, and Spong and Shoenhair.

8 For each district bank, whether involved in a merger or not, the change in the log of loans was calculated by quarter from the beginning of 1986 to the end of 1995. In those cases in which one bank absorbed another during the quarter, the merged bank's beginning-of-quarter loans were added to those of the surviving bank to avoid overstating the

surviving bank's loan growth. The quarterly change in the log of loans was then regressed against a set of variables representing the time period and the size and location of the bank's operations, and a set of variables representing any mergers the bank was involved in during each of the previous 12 quarters. For each major type of acquisition, the sum of the coefficients on the 12 lags was used to estimate the cumulative impact on lending.

[9] The omission of merged banks reduces the sample of banks acquired by nearby organizations more than the sample of banks acquired by distant organizations. Tables 3 and 4 show that merged banks accounted for a little less than half of all nearby acquisitions—44 percent for nearby acquisitions of rural banks and 46 percent for nearby acquisitions of urban banks. Although not shown in the tables, merged banks accounted for a much smaller share of all distant acquisitions—25 percent for distant rural acquisitions and 21 percent for distant urban acquisitions.

[10] For example, banks with less than $300 million in assets (1995 dollars) accounted for 99 percent of acquired rural banks in the sample and 91 percent of acquired urban banks.

[11] Another reason loans might fall at an acquired bank is that loan customers are encouraged to shift their business to another bank in the new organization. For example, if an organization acquired banks in a city where it already owned a bank, the organization might choose to centralize all local business loans at the senior bank.

[12] Commercial and industrial loans were used as the measure of business loans, and the sum of farm operating loans and farm real estate loans was used as the measure of farm loans.

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