

Do More Banking Offices Mean More Banking Services?

by William P. Osterberg and Sandy A. Sterk

Measuring output in the nation's service industries has always been problematic, but in recent years, economists have been focusing more intensely on this issue. Their findings have important implications for measures of national output and inflation.

The banking industry provides an interesting example of the ambiguities and difficulties involved in assessing changes in the amount of services provided. Although technological innovation, deregulation, and industrywide consolidation have presumably boosted banking efficiency, it is still unclear how we should measure total banking services. An important related issue is whether these changes have had a negative impact on the availability of banking services in urban and rural communities.

Because banking services have traditionally been provided through "brick and mortar" branch offices, it is tempting to draw inferences from changes in the total number of banking offices—head offices plus their branches. On the surface, this should allay concerns, because the overall number of offices has risen sharply in recent years. But there are several reasons why it is unwise to assume that this expansion implies an increase in services.

First, much of the growth in banking offices reflects a wave of thrift conversions, indicating a reorganization of the industry rather than a net gain in offices.

Second, the vehicles through which banking services are delivered have changed. A good example is the growth of ATMs, which provide a narrower range of services than the traditional bank branch. Another is the rapid expansion of supermarket branches, which may or may not provide the same spectrum and quality of services as the traditional branch office.¹

The evidence on one particular banking service usually associated with branch offices—small business lending—reinforces our caution against simplistic interpretations of the change in the number of banking offices. An examination of state-by-state office growth rates and small business lending indicates that the evidence connecting the two is mixed. States that experienced higher-than-average growth in *total* banking offices had higher-than-average growth in small business lending from 1993 to 1995, but not from 1995 to 1996. On the other hand, states with a slower pace of *head-office* shrinkage experienced slower growth in small business lending from 1993 to 1995, but faster growth from 1995 to 1996.

Understanding the Office Growth Numbers

Concerns about the shift in the number of banks and banking offices can be traced to the consolidation wave that began in the early 1980s—a response to competitive pressures and regulatory changes that eased the way for mergers and acqui-

It is tempting to look at the recent growth in the number of banking offices as evidence that industry consolidation has not meant a deterioration in banking services. However, much of this expansion can be traced to thrift conversions and the growth of supermarket branching. An examination of state-by-state data reveals that higher banking office growth does not necessarily imply higher growth in small business lending, one banking service of particular concern to smaller markets and poorer communities.

sitions (M&As). Many anticipated that bank M&As would lead to massive branch office closings and the withdrawal of deposits and/or lending activity from smaller markets and poorer communities. Others emphasized that any such changes would be guided by the industry's need to cut costs and improve its competitive position.

Figure 1 shows the growth in the total number of banking and thrift offices between 1988 and 1996. (Banking offices include facilities that hold deposits, excluding consumer installment loan offices, computer centers, and other non-deposit installations, like ATMs.) Note that as the number of banking offices rose steadily, increasing from 63,167 in June 1988 to 71,137 by mid-1996, the number of thrift offices fell 55 percent, from 22,743 to 10,241. This represents a

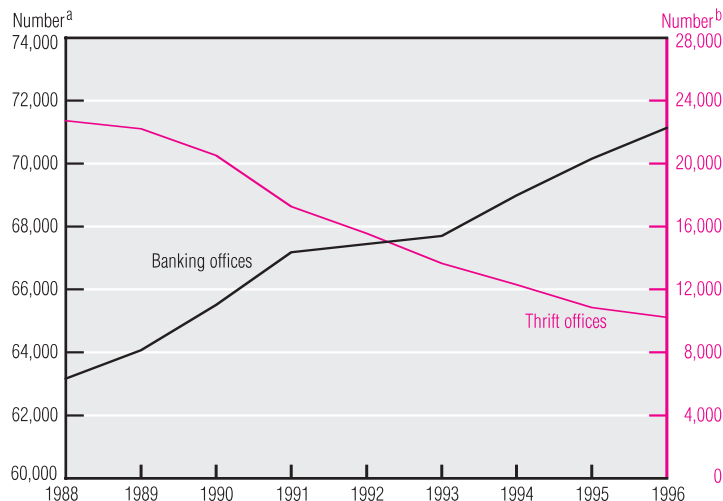
modest net decline of 4,532. It is likely that the shrinkage in the number of head offices reflects the consolidation associated with M&As. On the other hand, the increase in total banking offices does not necessarily mean that banking services have improved.

Before discussing the rise in total banking offices in terms of the availability of certain types of services, a few cautions are in order. First, the data in figure 1 are perhaps better interpreted as evidence of consolidation within the depository institutions industry. The banking office numbers include former thrifts and thus do not necessarily represent a net increase in the availability of financial services. Figure 2 uses data from the Office of Thrift Supervision (OTS) to estimate the cumulative contribution of thrift acquisitions and conversions to banking office growth.² An alternative estimate can be constructed from statistics provided by the Federal Deposit Insurance Corporation (FDIC).³

The contribution of thrift conversions to the change in the total number of banking offices would be clearer if we knew how many thrifts went out of business after their conversion. Unfortunately, the concerns being voiced about office closings refer to the net change in banking offices, while the available data on conversions are for gross changes. If we were to ignore this distinction, we would conclude that thrift office conversions accounted for either 87 percent or 107 percent of the increase in banking offices from 1990 to 1996, depending on the method used to estimate the conversions.

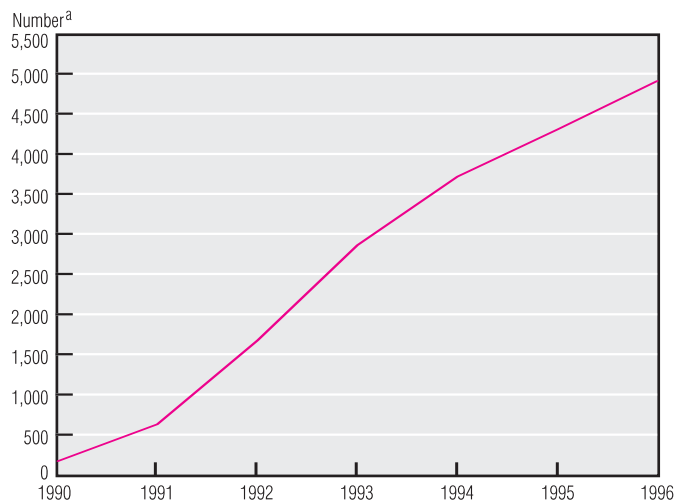
Another approach would be to approximate the gross change in banking offices using data on de novo offices (conversions of thrift offices plus offices of newly reorganized banks and new banks organized by existing banking companies). This procedure would lead us to conclude that thrift conversions accounted for 32.4 percent of the growth in banking offices.⁴ Clearly, then, thrift conversions made a significant contribution to the growth in banking offices, regardless of how we estimate the conversions or measure office growth.⁵

FIGURE 1 NUMBER OF BANKING AND THRIFT OFFICES



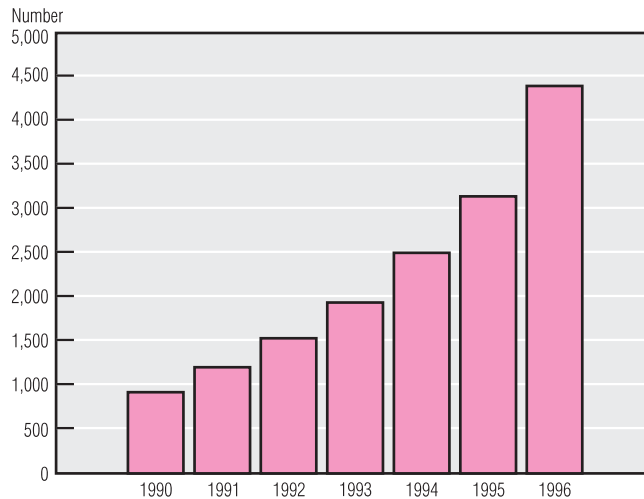
a. Includes FDIC-insured commercial and savings banks and U.S. branches of foreign banking offices in the United States and other areas. Savings bank offices include all savings banks insured by the Bank Insurance Fund (BIF), as well as those state-chartered banks insured by the Savings Association Insurance Fund (SAIF) and regulated by the FDIC.
 b. Includes SAIF-insured, OTS-regulated associations, which cover all federally and state-chartered savings and loan associations and savings banks in the United States and other areas.
NOTE: All data are for June 30.
SOURCES: FDIC, Summary of Deposits; and OTS, Branch Office Survey.

FIGURE 2 CUMULATIVE NUMBER OF THRIFT CONVERSIONS



a. Estimate is calculated by dividing the number of thrift offices by the number of thrift institutions as of June 30 of each year, then multiplying this average by the total number of conversions and acquisitions of thrifts in the same year.
SOURCES: OTS; and authors' calculations.

FIGURE 3 GROWTH IN SUPERMARKET BRANCHES



SOURCE: International Banking Technologies.

■ Supermarket Branching

Using the total number of banking offices to claim that the quantity of banking services has not declined could be misleading. Banking services are now supplied by a variety of delivery systems, including ATMs, which grew an astounding 92 percent between 1988 and 1996, for a total of 139,000 terminals.⁶ Although this trend has been driven by both convenience and costs, ATMs are currently incapable of serving the full range of financial customers' needs. Because of this, we exclude ATMs from our discussion.

Another heavily publicized indicator of banking office change is the growth of supermarket branches, which soared 40 percent from 1995 to 1996, for a total of 4,398 installations (see figure 3). Supermarket facilities accounted for 62 percent of the total increase in banking offices from 1990 to 1996.

The evolution of supermarket branches appears to be the result of competitive pressure from nonbanks, which has forced banks to reduce their costs. In-store branches can cut costs in a number of ways. First, they can be set up for roughly \$200,000 to \$300,000—about

one-fifth the cost of a traditional branch. Second, their yearly operating expenses are about half those of traditional branches, despite the fact that in-store facilities operate a longer week.⁷ Third, only half the number of employees are required. And finally, the equipment used in supermarket branches can be more easily removed and used elsewhere.⁸ Still, while lower unit costs might make it simpler for these branches to continue providing financial services to the traditional branches' former customers, whether they are yet doing so is unclear.⁹

The decision to locate supermarket branches in low- to moderate-income communities is often driven by the configuration of large supermarket chains. Large banks generally sign deals with large chains. Wells Fargo & Co., for instance, announced in the summer of 1996 that it planned to open 450 branches in Safeway stores throughout several western states, nearly doubling its total in-store network.¹⁰ The realization that there are a limited number of major supermarket chains has induced banks to act quickly. Most unions between a supermarket and a bank tend to be confined to one particular region,

with the bank placing all of its branches in one chain. This one-to-one alliance typically results in the biggest supermarkets joining up with the biggest banking organizations.

A key issue here is the effect that in-store branches will have on local banking markets. Alliances between supermarket chains and large banks could eventually overwhelm smaller depositories. As larger banking organizations increase their in-store branches, their deposit base will grow. Smaller regional banks will then lose deposit shares to larger competitors, causing their earnings to decline. If this earnings drop is steep enough, smaller banks could be forced to fold, which would eventually place severe limits on the types of services offered in local communities.

At the same time as supermarket branches are booming—an expansion that is expected to continue—industry commentary is hinting that the traditional bank branch may well revive, albeit in a somewhat different form. *American Banker's* 1996 Gallup poll reported that nearly 50 percent of the banking consumers who responded deal face to face with a teller approximately three times a month.¹¹ Payment Systems, Inc., of Tampa, has found that banking customers who sometimes use personal computers for their banking needs still visit branch offices for six of their 25 average monthly transactions, while overall, U.S. households do seven of their 13 transactions one on one.¹² Thus, while financial consumers do not appear inclined to eliminate their face-to-face interactions with branch representatives, it is uncertain what type of unit will prove to be the most appropriate delivery vehicle for each type of banking service. Something similar to the traditional brick and mortar branching system may retain a key role in the depository institutions industry.

■ Evidence from Small Business Lending

Small business lending is one of the services traditionally provided by banks to smaller, poorer, or more isolated communities. Recent research highlights the importance of both jobs creation by small businesses and M&As'

TABLE 1 STATE-BY-STATE CORRELATION COEFFICIENTS
(Correlation coefficient of percent change)

	<u>1993–1994</u>	<u>1994–1995</u>	<u>1995–1996</u>
Banking offices and small business loans ^a	0.2755	0.1865	0.0101
Head offices and small business loans ^a	–0.1774	–0.0995	0.4258

TABLE 2 NATIONWIDE CHANGE IN BANKING OFFICES AND LENDING ACTIVITY
(Percent)

	<u>1993–1994</u>	<u>1994–1995</u>	<u>1995–1996</u>
Banking offices	1.92	1.55	1.38
Head offices	–3.74	–4.88	–4.59
Small business loans ^a	12.35	9.08	6.72
Total business loans ^b	4.72	10.38	5.04
Total loans ^c	6.87	12.10	6.49

a. Includes business loans with original amounts of \$1 million or less, and is the amount outstanding (as of June 30) of loans secured by nonfarm, nonresidential properties in domestic offices and commercial and industrial loans to U.S. addressees in domestic offices.

b. Includes loans secured by nonfarm, nonresidential properties in domestic offices and commercial and industrial loans in domestic offices.

c. Includes total loans and leases, net of unearned income, in domestic offices.

NOTE: Loan data are for FDIC-insured U.S. commercial banks, state-chartered savings banks, and U.S. branches of foreign banks.

SOURCES: FDIC, Summary of Deposits; Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income; and authors' calculations.

impact on small business lending. It is tempting to assume that trends in banking office growth have implications for these types of loans. However, the technology of small business lending has been changing, with some banks centralizing such activity.

Upward trends in both the amount of small business lending and the number of banking offices might suggest that the latter contributed to the former. However, such a pattern could also simply reflect population growth or a general increase in business activity.

A more useful perspective comes from looking at state-by-state correlations between banking office growth and small business lending. These year-to-year correlations allow us to answer the question, “Did states that experienced higher-than-average office growth also see greater growth in small business lending?” Table 1 details the correlations between these two factors. We distinguish between trends in head office

growth and trends in total office growth, with the former more likely to reflect banking consolidation and the latter more relevant to concerns about small business lending. However, such correlations tell us nothing about the mechanisms involved in small business lending, nor can they be used to infer a causal relationship.

Line 1 of table 1 shows that states with higher total office growth rates between 1993 and 1994 and also between 1994 and 1995 experienced greater growth in small business lending. However, the correlation was essentially zero between 1995 and 1996. On the other hand, line 2 shows that until 1995–96, states with higher head-office growth (slower shrinkage) had lower growth in small business lending. Between 1995 and 1996, greater growth in head offices implied greater growth in lending.¹³

These results must be interpreted in the context of national trends in office growth and small business lending. The

national growth rate for total banking offices slowed in each year studied, while the shrinkage rate of head offices abated slightly in 1996 (see table 2). Meanwhile, the growth rate of small business lending fell from 1993 through 1996. The growth rates of total business loans and total loans, on the other hand, rose sharply from 1994 to 1995 and then dropped from 1995 to 1996. It's possible that the changing correlations between office growth and small business lending during the 1995–96 period are connected to the sharp increase in total lending from 1994 to 1995. For example, suppose that states where total lending ballooned were also those with relatively high office growth rates. If banks in these states had sought to reduce the size of their loan portfolios, they might have done so by eliminating offices while maintaining their progress in small business lending.¹⁴

Are these trends in small business lending in any way related to thrift office conversions or the growth of supermarket branching? Although state-level data on thrift conversions are not available, the growth of supermarket branching has been concentrated in the western states and in areas where at least some banks are relatively active in increasing their small business loan portfolios. There appears to be little regional variation in the growth rates of small business lending, however. In fact, in the regions where supermarket branching has been most widely publicized, neither the share of small business lending relative to total business lending, nor the movements in that share, appear to differ from the national average.

■ Summary

Measuring the output of service industries like banking is fraught with difficulties. Because traditional banking services have been supplied through “brick and mortar” offices, it is tempting to assume that the recent growth in the number of banking offices implies a corresponding rise in the availability of banking services. However, a careful consideration of the data suggests two reasons why such an assumption is not well founded. First, the thrift office numbers represent a decline in thrifts,

not an expansion of depository institution offices. Second, the vehicles through which banking services are provided have changed, as witnessed by the explosive growth of ATMs and supermarket branches. The newer vehicles may or may not provide the same range of services as were available from traditional bank branches.

Evidence connecting office growth and small business lending is mixed. State-level correlations between office growth and small business lending show some positive connection between 1993 and 1994 and between 1994 and 1995, but virtually no link between 1995 and 1996. Thus, we find little support for using data on the growth in banking offices to draw inferences about how consolidation has affected banking services.

■ Footnotes

1. For another look at the growth in banking offices, see Robert B. Avery, Raphael W. Bostic, Paul S. Calem, and Glenn B. Canner, "Changes in the Distribution of Banking Offices," Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, vol. 83, no. 9 (September 1997), pp. 707–25.

2. No direct data exist on the number of banking offices that were formerly thrifts. Figure 2 is an approximation calculated from OTS data, which include the number of OTS-regulated thrifts that were converted to commercial banks or state-chartered savings banks, and those thrifts that were acquired by non-OTS-regulated institutions.

3. The FDIC releases data on deposits that were acquired by members of either the BIF or the SAIF, but were insured by the other fund (Oakar deposits). It also provides information on institutions that converted to commercial banks or savings banks and are now regulated by one of the bank regulatory agencies, usually the FDIC (Sasser institutions). These data imply that 6,000 thrift offices were converted to banking offices. Details on how this estimate was calculated are available from the authors.

4. This estimate is based on OTS data for 1990–95, when gross cumulative de novo banking offices totaled 15,116. See Board of Governors of the Federal Reserve System, *Annual Statistical Digest*, 1990–95.

5. One factor which might imply that thrift conversions increased the availability of banking services is that banking offices generally do more small business lending than thrift offices.

6. From "EFT Network Data Book," *Bank Network News*, various issues.

7. See Daniel K. Orlow, Lawrence J. Radecki, and John Weninger, "Ongoing Restructuring of Retail Banking," Federal Reserve Bank of New York, Research Paper No. 9634, November 1996.

8. Ibid.

9. FDIC data on banking offices exclude facilities like loan production centers, which do not accept deposits. It would be useful to know the substitutability between the products offered by competing types of branches. If supermarket branches offered services that were close substitutes for those offered by traditional branch offices, but at lower cost, then we would expect the latter to go out of business.

10. See Christopher Rhoads, "The Supermarket Branch Takes Off," *American Banker*, vol. 161, no. 231 (December 4, 1996), p. 15a.

11. See Jeffrey Kutler, "Stories of the Branch's Demise Have Been Greatly Exaggerated," *American Banker*, vol. 161, no. 248 (December 31, 1996), p. 1.

12. Ibid.

13. This result is consistent with an increasing number of small institutions facing lending restrictions as the asset distribution of the industry becomes skewed toward larger banks.

14. On the other hand, the within-year correlations indicate that the number of offices might still be a factor in generating small business lending. States with higher ratios of offices per loan (either business loans or total loans) tend to have a greater share of their loan portfolios in small business lending. This is consistent with the view that small business lending is concentrated in offices with low lending volume. However, although states with higher head-office-to-loan ratios had higher small business loan ratios, the correlations were not as large as with total offices, implying that the connection between total offices (and thus branches) and small business lending was perhaps stronger than the connection between small business lending and the number of organizations.

William P. Osterberg is an economist and Sandy A. Sterk is an economic analyst at the Federal Reserve Bank of Cleveland. The authors thank Ben Craig, Joseph Haubrich, and James Thomson for helpful comments and suggestions.

The views stated herein are those of the authors and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

Economic Commentary is available electronically through the Cleveland Fed's site on the World Wide Web: <http://www.clev.frb.org>. We also offer a free online subscription service to notify readers of additions to our Web site. To subscribe, please send an email message to econpubs-on@clev.frb.org.