On the Uniqueness of Community Banks

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A number of years ago in Lubbock, Texas, where the three authors once lived, the market was served solely by community banks, each with a different strategic focus and emphasis. The relative tranquility of this banking landscape changed when the largest community bank in town was acquired by a large bank holding company.

Soon after the acquisition announcement, one of the authors was visiting the CEO of a local bank. The author wondered if the large bank holding company's presence would be viewed as a serious competitive threat by the community banks in Lubbock. Surprisingly, the CEO saw the acquisition as a great opportunity for his bank. First, he felt he would be able to hire many of the better lending officers from the acquired bank because they would feel too constrained by the limits put on their discretion to make lending decisions and by similar problems associated with large bureaucratic organizations. Second, he thought that many of the acquired bank's loan customers might leave the acquired bank once their lending officer left, so his bank's loan portfolio could grow if his bank could attract these customers. Finally, the CEO felt that many of the acquired bank's depositors would become frustrated by the lack of personal attention and thus seek to bank elsewhere. If his bank could attract these depositors, funding the anticipated loan growth would not pose a serious problem.

Many of these predictions came true over the next few years. The community bank CEO hired several lending officers from the acquired bank, and many loan customers moved their business with these officers. Deposits also grew, so funding problems were no more a problem there than elsewhere. Indeed, so many of these predictions came true that the authors realized that community banks may do things differently than large bank holding companies. The purpose of this article is to further explain and explore the uniqueness of community banks.

What Are Community Banks?

To many outsiders all banks are alike. They accept deposits and make loans. The banking industry, in turn, is often viewed as a uniform competitor with nonbank financial services companies. However, to insiders there are many variations among banks, with the distinction between community banks and all other banks being one of the most important.

As the name suggests, community banks focus their activities on local communities, gathering deposits and lending within a restricted trade area rather than operating in regional or national markets. Because of their narrow focus, these banks are generally smaller. In fact, many market participants label banks with less than $1 billion in assets as community banks.

Bankers not only view community banks as being far different from large banking organizations but also draw important distinctions between different types of community banks. For example, the banking industry sponsors many trade associations, with some devoted strictly to community banks. Most states have associations for independent (community) banks, whose members are typically the smallest institutions, in addition to a state bankers association, which generally draws members from all size banks. As another illustration, when evaluating community bank performance, most bankers and analysts compare performance across banks of similar size that operate in similar geographic markets with the same general strategies. In fact, the uniform bank performance report set up by the Federal Financial Institutions Examination Council (FFIEC) selects peer institutions for banks on the basis of size.[1]

Because community banks are associated with small business lending, local community development, and direct customer contact, policymakers have worried whether such banks will be able to survive threats brought by consolidation of the banking industry.

Policymakers also often focus their attention narrowly on community banks. For example, because community banks are associated with small business lending, local community development, and direct customer contact, policymakers have worried whether such banks will be able to survive threats brought by consolidation of the banking industry. Implicitly, policymakers worry whether consolidation will reduce the availability of credit to small businesses and impose rising fees on consumers.[2]

While the banking industry has experienced dramatic changes over the past twenty years, community banks have survived and in many cases prospered. Regulatory changes during this period include geographic deregulation, with the passage of the Interstate Banking and Branching Efficiency (Riegle-Neal) Act of 1994 and the general elimination of restrictions against interstate and intrastate banking, and branching and product deregulation with the passage of the Financial Services Modernization (Gramm-Leach-Bliley) Act in 1999. The last twenty years have also witnessed extraordinary technological changes, which have directly affected the banking industry.[3] Amid these changes, many community banks have flourished financially (see Bassett and Brady 2001), and de novo banks continue to enter the scene to the surprise of many who expected greater consolidation of small banks resulting from significant scale and scope economies in banking.[4] Many factors and circumstances argue against the long-term success of community banks: excessive concentration of risk in lending; competitive pressures from deregulation and new technologies; and limitations on market power, brand recognition, and technological investment (see Berger 2003). Their size presumably prevents smaller banks from

adequately diversifying credit risk and prevents management from investing sufficiently in new technologies to compete effectively.[5] According to aggregate data, most large banks are becoming more cost efficient in their operations while smaller banks are not, making it more difficult for smaller banks to offer a sufficiently broad range of services at competitive prices (see FDIC 2002). These latter factors limit the growth in noninterest income, an attractive and stable source of future earnings.

On the other hand, there are many reasons why community banks are flourishing. First, community bank managers seem to process information differently than managers of larger banks, placing a greater emphasis on long-term customer relationships. The relatively smaller size of community banks, along with more local ownership, allows them to give more decision-making authority to bank employees, which further allows these banks to exploit "soft" information.[6] Widespread mergers and acquisitions among larger banking organizations enhance this difference and drive many customers who seek nonstandard and personal banking services to community institutions. Second, the recent availability of relatively low-cost Federal Home Loan Bank (FHLB) advances as a funding source has reduced funding constraints on qualifying community banks in growth markets. FHLB advances allow small banks to better compete with large banks on the basis of price. Third, many community banks have substantial credit exposure to customers involved in agriculture. Recent programs have expanded federal guarantees and agriculture payments, which improve overall credit performance and quality. Finally, since 1997 many community banks have elected to be taxed as Subchapter S corporations, thereby avoiding corporate income taxes and directly increasing aggregate profitability. At the time of this study, the "Sub S" option was not available to firms with more than seventy-five shareholders.[7]

The primary purpose of this article is to explore differences between community banks and larger banks and to describe certain differences among community banks. Understanding these differences is important to students of the U.S. financial system, to participants in the banking industry, and to policymakers who regulate depository institutions.

We initially summarize recent academic literature that tries to identify the unique aspects of community banking. In doing so, we distinguish between *relationship banking*, which we associate with community banks, and *transactional banking*,

1. Beginning in March 2004, the FFIEC selects peer group banks in the following asset size categories: less than $50 million, $50 million to $100 million, $100 million to $300 million, $300 million to $1 billion, $1 billion to $3 billion, and all banks above $3 billion.
2. Federal Reserve Bank surveys consistently show that large banking organizations charge higher fees than community banks do and have increased their fees more over time (see Hannan 2002). Berger and Udell (2002) and Scott and Dunkelberg (2004) provide evidence that credit service and availability for small business firms is better at community banks than at large banks.
3. Berger and Mester (2003) and Allen, McAndrews, and Strahan (2002) provide discussions on technological change and banking.
4. DeYoung and Hasan (1998) and DeYoung (1999) discuss and present evidence on de novo banks.
5. Yeager (2004) provides evidence that the geographic concentration risk that community banks must bear is not responsible for the declining numbers of community banks in the United States.
6. Information can be differentiated as being "hard" or "soft." Hard information consists of easily verifiable facts that can be credibly shared. Soft information consists of the opinions of one individual who knows the person whose information is being evaluated. Many argue that community banks are better equipped to produce soft information than are larger banks. See, for example, Berger and Udell (2002), Scott (2004), and Scott and Dunkelberg (2004).
7. The limit on the number of shareholders was increased from seventy-five to one hundred by the American Jobs Creation Tax Act of 2004.

which we associate with larger banking entities, and discuss the different hierarchies of decision making in the two types of institutions. This line of inquiry suggests that banks of various asset sizes conduct business in very different ways. Community banks, in particular, appear to have quite different strategic orientations. For example, they are afforded unique ways to manage their taxes and appear to rely much less on noninterest income than do the largest banks in the country.

We then examine profit and risk measures for the 1998–2002 period for community banks of different sizes and large banking organizations, thus providing evidence that community banks differ in many ways from their larger banking brethren.[8] Our analysis considers why community banks have different focuses and identifies key factors that are associated with strong financial performance across different strategies.[9]

The Unique Role of Community Banks

This section summarizes recent contributions to the understanding of the unique role that community banks play in financial intermediation and outlines key characteristics of these intermediaries. For years academics have argued that banks exist because significant costs are associated with bringing lenders and borrowers together and some participants do not have sufficient information about counterparties in borrowing arrangements. As financial intermediaries, banks facilitate transactions by reducing costs and increasing the amount of information available. As a result, banks stimulate economic development.

At least two general arguments support the conventional wisdom that community banks cannot adequately compete with larger banking organizations and that further industry consolidation is inevitable. The first relates to the primary function of an intermediary—gathering, collecting, analyzing, and disseminating information. It is generally assumed that larger organizations can more cheaply access valuable information and thus better facilitate transactions. But dramatic advances in technology have made gathering and analyzing information less costly and therefore have reduced the value of an intermediary.[10] The second argument is that economies of scale and scope enable larger banks to reduce costs of providing services. Interestingly, academic research provides conflicting evidence on whether or not significant cost differentials exist for large versus small banks or for banks that offer more product lines than other banks (Berger and Humphrey 1999). As a result, there is little agreement about what size bank or what banking organizational structure provides the greatest efficiency.

Strategic focus: Relationship banking versus transactional banking. Arguments suggesting that large banks will dominate banking assume that all financial intermediaries collect and analyze information in the same way. Some have questioned the validity of this treatment. Sharpe (1990), Diamond (1991), and Rajan (1992), among others, emphasize a distinction between transactional banking and relationship banking, implicitly suggesting that not all intermediation is the same. Transactional banking is primarily the provision of intermediation services, the gathering of deposits and extension of loans. Because these transactional products are highly standardized, they require little human input to manage and involve information that is generally easily available and reliable. Thus, in transactional banking hard information drives performance.

Relationship banking, in contrast, generally involves the use of soft information, which is not readily available or easily quantifiable. Soft information requires more human input and evaluation and is acquired primarily by working one-on-one with the banking customer. For example, lenders obtain soft information through special efforts directed at prospective borrowers. Relationship banking also frequently involves more than facilitating the movement of funds from lenders to borrowers.[11] In

the case of a relationship loan, the lender many times adds real value by providing accounting, business planning, and tax planning expertise. Relationship banking also generally requires localized decision making. Because relationship banking attempts to exploit soft information that is difficult to assess and evaluate, the loan officer must be given the latitude and ability to act on this information without the approval of numerous others. This approach has important implications for the ownership structure of the bank, which we will address shortly.

While all types of lending entail some relational aspects, relationship lending is typically perceived to be the strongest for small businesses, agriculture customers, and retail consumers. Frame, Srinivansan, and Woosley (2001) provide evidence that large banks have increasingly used credit scoring—the process of incorporating hard information as inputs to quantitative models that are used to make accept/reject decisions—to increase their small business lending. Credit scoring is somewhat mechanical and involves less human input, thereby lowering the unit cost of making a loan. To the extent that loans to small businesses, agriculture customers, and individuals can be successfully credit scored over time, community banks will face increasing competition in their loan portfolios because they may not be able to compete with larger banks on price. However, the use of credit scoring systems generally does not allow the provision of real value from the banker, as described above.

Large banks have similarly concentrated decision making among fewer entities, with credit approval from analysts far removed from the borrower. In turn, large banks offer the most attractive rates to their most profitable customers as determined by comprehensive customer profitability models that often incorporate both business and personal account information. Less profitable customers often are given access to a reduced level of service and pay higher fees and rates. Many customers do not need or want a broad array of credit, deposit, insurance, and trust services from their bank. They value the intimate knowledge their banker has of their business and/or total relationship and prefer dealing consistently with the same individuals whom they do not have to frequently reeducate about their own unique financial and business situations. Such customers are consequently willing to pay relatively more for such service. Relationship lending thus provides a niche for community institutions that many large banks find less attractive or are less capable of providing (see Berger and Udell 1995, 2002; Scott and Dunkelberg 2004).

In many smaller companies, financial statements are not standardized and management lacks the financial expertise needed to be a direct participant in the financial

8. Even community banks can differ from each other in strategic focus. For example, a later discussion distinguishes between community banks that focus on the deposit side of the balance sheet and those that focus on the lending side.
9. Although this article does not directly address the future of community banking, the issue is obviously related to our investigation. For those interested in this issue, see DeYoung (2003), which provides a summary of the 2003 Federal Reserve Bank of Chicago Research Conference "Whither the Community Bank?" Many conference participants were surprisingly upbeat about the future of community banking, an inference consistent with the arguments expressed in this article.
10. Petersen and Rajan (2002), for example, provide evidence that small businesses are now better able to borrow from more physically distant lenders than they were in the past.
11. DeYoung, Hunter, and Udell (2003) discuss relationship lending from the perspective of bankers having access to soft information acquired through personal contact with the borrower. While we do not disagree that this element is important to relationship banking at community banks, our definition is broader, emphasizing that the lender may be additionally providing value associated with tax, accounting, and other expertise as well as funds.

markets. By definition, lenders to these companies need to evaluate soft information in making a credit decision. Banks may also aggressively market or cross-sell noncredit products and services to such customers in order to lock in or enhance the relationship. The familiarity between borrower and lender and the convenience of completing transactions without beginning the information search anew encourages both the bank and customer to maintain the relationship over time.

Relationship lending and bank asset size. The typical bank engages in both types of lending—transactional and relationship—because the two types are not necessarily substitutes for each other. Still, large commercial banks are likely to be more transaction oriented while smaller, community banks are more relationship focused. Berger and Udell (2002) argue that banks offering relationship lending must delegate more lending authority to their loan officers than do banks that focus on transactional lending and that small banks are better able to resolve problems associated with delegating authority than large banks are. Thus, small community banks are better equipped to engage in relationship lending than large banks are. Transactional banking is generally associated with economies of scale because unit costs fall with increasing bank size. If all a bank does is provide funds for borrowers, spreading fixed costs over more borrowers is likely to result in a lower cost per customer. Hence, larger banks are more attracted to credit scoring and loan securitizations (see Pilloff and Rhoades 2000). Because any asset with standardized features can be credit scored and securitized, large banks likely securitize a greater portion of their loans and leases than smaller banks do. Investors can examine the pooled assets' credit scores to assess risk and readily establish prices for these standardized instruments to generate reasonable risk-adjusted returns. Thus, to the extent that more economies of scale and scope exist in transactional banking, larger banks can be expected to focus more on transactional banking, which, in turn, is likely to result in continued consolidation in the banking industry.

Relationship deposit gathering. In addition to relationship lending, many community banks attempt to build and exploit deposit relationships. (See the sidebar on page 21 for a comparison of deposit-driven and loan-driven banks.) Such efforts help differentiate their services from those of larger institutions. On the other hand, many large banks have tried to eliminate much of the human touch in banking in an effort to minimize transaction costs. The unit costs associated with ATM usage, telephone banking, and Internet banking are well below those for live teller transactions. At many large banks, customers who open new deposit accounts can often receive reduced minimum balance requirements or lower service charges if they agree to conduct business electronically rather than physically enter a bank office. The banks are attempting to attract customers to the lowest-cost delivery systems via lower prices. In contrast, community banks conduct more business via human interaction at higher unit cost. Thus, we would expect to see that large banks have less by way of core deposits and pay more explicit interest on deposits, on average.

According to these arguments, there is little reason to expect greater cost advantages resulting from increased institution size in relationship banking, which is much more likely to be niche driven. If a bank is providing value to a borrower beyond basic credit services, the customer will be willing to pay for the service. Community banks that provide relationship banking services are more likely to find profit-making opportunities regardless of their asset size because competition for these services is likely to be limited.[12]

The relative importance of interest income and noninterest income. Another important distinction between a community bank and other banks relates to

Deposit-Driven versus Loan-Driven Community Banks

Community banks' strategic objectives are greatly influenced by ownership structure and the geographic markets in which the banks compete. In particular, some community banks focus on building franchise value via deposits. Many are family-owned and managed and do not want to take on high credit risk for fear of losing the implicit annuity associated with a steady stream of earnings. Other such banks operate in geographic markets with limited growth opportunities, such as rural communities with a declining population and no local business expansion, and are unwilling to take the risks associated with growth outside their core trade area. Regardless of the motivating force, such deposit-driven banks typically operate with high ratios of core deposits to assets and low ratios of loans to assets. While their average cost of funds is low, the average asset yield is also low given the relatively heavy reliance on securities. The net interest margin is generally lower but more stable over time while noninterest expense is low as a fraction of assets.

In contrast, other community banks build franchise value primarily on the lending side of the business. Loans typically offer the highest promised yields before taxes and expenses, and managers can increase profits faster by increasing credit exposure. Such banks either operate in high growth markets or are willing to expand operations via branching, de novo entry, or acquisition. Such loan-driven banks operate with high ratios of loans to assets and low ratios of core deposits to assets because they rely proportionately more on purchased liabilities to fund loan growth. Access to Federal Home Loan Bank advances has allowed these banks to continue growing rather than restricting growth to the pace of core deposit growth. Net interest margins are typically greater, as is noninterest expense as a fraction of assets. These banks further differentiate themselves by the loans that management emphasizes. Clearly, banks that lend primarily to small commercial businesses differ from those that deal primarily with agriculture borrowers or mortgage customers.

the relative importance of different sources of revenue. With their emphasis on relationship banking, community banks are expected to have relatively larger net interest margins because their loan customers are willing to pay higher interest rates to obtain nonstandardized credits and their depositors are willing to accept lower explicit interest rates, on average, because of the personal touch. Large banks that do little relationship lending will have smaller margins because proportionately more of their assets and liabilities are priced like commodities.

DeYoung and Rice (2004) show that large banks generate proportionately more noninterest income as a fraction of operating revenue than smaller community banks do. Greater noninterest income reflects two phenomena. First, fees are tied closely to transactions activity. Banks that make and then securitize loans generate fee income. For large transaction-oriented banks, noninterest income is often a more important source of revenue than interest income. Second, operating with reduced (relative) credit exposure frees up capital to invest in nontraditional, fee-based businesses. Many large banks have diversified their operations from traditional lending toward insurance and investment banking, which generate fee income rather than net interest income. DeYoung and Rice provide evidence that community banks that have tried to generate more noninterest income have encountered more volatile

12. We recognize that focusing on asset size ignores off-balance-sheet commitments and exposures, but we continue the tradition in the banking literature of using asset size as the benchmark of economic/financial size. See Clark and Siems (2002) for a detailed examination of such off-balance-sheet activities and the impact of evidence regarding efficiencies or inefficiencies in banking.

earnings and, in fact, have found a poor risk-return trade-off in developing many of these lines of business. This evidence suggests that large, transaction-oriented banks are more capable of generating noninterest income than are smaller community banks. Moreover, a smaller community bank may be doing shareholders a disservice in trying to generate this type of business.

Ownership differences. Most small bank stock is privately held rather than publicly traded while large bank stock is generally publicly traded. Thus, the ownership of small banks is more concentrated in the hands of fewer stockholders while the ownership of large banks is widely dispersed. In addition, ownership is more concentrated at small banks, and owners are more actively involved in managing the banks. For example, Brickley, Linck, and Smith (2003) show that small bank ownership in Texas is much more concentrated than it is for large banks: Officers and directors of small banks owned roughly two-thirds of their banks' stock while the officers and directors of the large banks in their sample owned only about one-quarter of the stock.

Community banks appear to differ in their emphasis on human-aided transactions on the lending and deposit side, in their interest versus noninterest income sources, and in their ownership structure as well as possible tax differences.

The fact that local decision makers in small banks own relatively more stock in the banks and are more actively involved in the banks' management mitigates agency problems. Brickley, Linck, and Smith argue that this setup allows smaller banks to grant local managers more decision authority. Allowing the person who acquires soft information on a borrower to act upon the information makes it easier for smaller banks to engage in relationship lending. This line of reasoning is similar to that of Berger and Udell (2002), who argue that stockholders in large banks, who are more dispersed and not local, are less willing to grant decision-making authority to local managers and prefer instead to use more bureaucratic rules for decision making.

Tax differences. A final distinction among community banks is their federal income tax status. In 1996 Congress passed the Small Business Job Protection Act, which allowed insured banks to choose to be taxed as S corporations effective in 1997. Because S corporations do not pay federal corporate income taxes, income is transferred directly to stockholders with significant tax savings. For tax purposes, S corporations are treated as partnerships, with income allocated to stockholders based on the number of shares held. To qualify for Subchapter S status, a bank must be headquartered in the United States and cannot have more than seventy-five stockholders (recently increased to one hundred shareholders in 2004), and each stockholder must be an individual, an estate, a qualified plan, or a specific type of tax-exempt organization. Nonresident aliens cannot be stockholders in Sub S banks. In addition, each bank can have only one class of stock and cannot use the reserve method for accounting for loan losses.

The Subchapter S status effectively allows the corporation to transfer all income for federal tax purposes to shareholders and have no income tax obligation itself. However, because the act limits the number of shareholders to seventy-five or less, not all banks choose this unique tax status. As we have seen, large banks are generally publicly traded with numerous shareholders and thus are precluded from selecting Subchapter S status. Community banks have far more concentrated ownership and therefore have greater flexibility in selecting Subchapter S status. Through March 2004, 2,137 FDIC-insured banks had selected Subchapter S status. Indeed, approximately 20 percent of all banks with less than $100 million in assets have selected Subchapter S status. On the other hand, less than 2 percent of all banks with more than $1 billion in assets have done so.

Table 1
The Relationship between Mergers and New Charters: Commercial Banks and Savings Banks

	1997	1998	1999	2000	2001	2002	2003
New charters	199	217	268	223	145	94	119
Mergers	725	671	497	535	421	336	275
Percent of new charters to mergers	27.5	32.3	53.9	41.7	34.4	28.0	43.3

Source: FDIC, *Quarterly Banking Profile*, 1997–2003

The choice of Sub S status imposes specific constraints on a bank's operating strategy. Specifically, with only seventy-five shareholders, Sub S banks generally have limited access to new capital. To fund growth, they must rely on retained earnings and external capital raised via new equity offerings to existing stockholders or use trust-preferred stock offerings. Each source of new capital is limited over time and thus potentially constrains growth opportunities. Eventually, growth constraints may lead to different risk and return profiles.

Summary of the uniqueness of community banks. Much evidence suggests that community banks do business in ways that are very different from those of larger banking institutions. Community banks appear to differ in their emphasis on human-aided transactions on the lending and deposit side, in their interest versus noninterest income sources, and in their ownership structure as well as possible tax differences. The distinction between transactional banking and relationship banking might explain why academic studies find conflicting evidence on the existence of significant economies of scale in banking and why some bankers appear to think there are significant size advantages while others do not see much advantage due to increased size. If, as we have argued, transactional banking results in cost savings as bank size increases but relationship banking does not, we would expect to find some evidence of cost efficiencies in the first but not the latter. This distinction might also explain why some bankers anticipate great benefits from consolidation while others spend considerable energy and resources starting up de novo banks. The data in Table 1 indicate that, during the merger mania of the late 1990s, the relationship between mergers and de novo formations has been fairly steady, averaging about three mergers for every start-up bank over the last seven years. We contend that larger banks, especially those more interested in mergers, are likely focused relatively more on transactional banking and that smaller banks, such as de novo banks, are likely focused relatively more on relationship banking.

Unfortunately, information regarding the banking industry does not readily distinguish between these two strategic pursuits. In the following analysis, we analyze key performance ratios using data from the 1998–2002 period and present evidence consistent with our distinction between relationship banking and transactional banking. We essentially assume that community banks, being smaller in asset size, represent relationship banking and larger banks represent transactional banking.

Examining Differences between Community Banks and Larger Banks

In the following analysis, we compare key financial ratios characterizing aggregate profitability and risk across different-sized banks. Specifically, we examine key ratios for commercial banks across different asset size categories for the period 1998–2002 period. We consider a five-year period to assure that our findings are not driven by cyclical events. The fact that the 1998–2002 period includes both economic expansion

Table 2
Sample Banks by Size, Tax Status, and Loan-to-Asset Ratio: 1998–2002, Millions of Dollars

	<$100M	$100M–$300M	$300M–$500M	$500M–$1B	$1B–$10B	>$10B
Total	4,810	2,329	473	317	320	78
Sub S	1,037	333	38	22	6	0
Non-Sub S	3,773	1,996	435	295	314	78
Loan-driven (percent)	50.80	64.50	69.30	69.40	64.10	69.20
Sub S	529	212	31	15	5	0
Non-Sub S	1,914	1,290	297	205	200	54
Deposit-driven (percent)	49.20	35.50	30.70	30.60	35.90	30.80
Sub S	508	121	7	7	1	0
Non-Sub S	1,859	706	138	90	114	24

Source: BankSearch; Sheshunoff Information Services Inc.

and contraction is reassuring on this point. The data examined are for all FDIC-insured commercial banks and thrifts in operation during the year in question. The data are from Sheshunoff Information Services Inc., BankSearch, and the Federal Deposit Insurance Corporation (FDIC) (www.fdic.gov).

We distinguish between banks across six asset-size categories: those with assets of less than $100 million, $100 million to $300 million, $300 million to $500 million, $500 million to $1 billion, $1 billion to $10 billion, and more than $10 billion.[13] The general demarcation for community banks is $1 billion in asset size, but we provide finer detail to further expand comparisons. To underscore tax-related differences, we separate banks that chose Subchapter S status from those taxed as C corporations on a year-by-year basis. Finally, we further distinguish loan-driven banks from deposit-driven banks according to each bank's average loan-to-asset ratio. Specifically, banks with an average loan-to-asset ratio of at least 60 percent, the approximate median in each year, are designated as loan-driven banks with all other banks designated as deposit-driven.[14]

Table 2 documents the number of banks that fall within each category. The greatest number of banks had under $100 million in assets, and most banks paid taxes as C corporations. Fewer than eighty banks had more than $10 billion in assets, and none claimed Subchapter S tax status. Not surprisingly, given the restrictions on the number of shareholders, the smaller the bank, the greater the proportion of banks that selected Sub S status. For the smallest asset size grouping, more than 20 percent of the banks in the sample were classified as Sub S as opposed to C corporations. Similarly, as asset size increases up to $1 billion, an increasing proportion of banks were loan-driven. Thus, there are only fifteen deposit-driven banks in our sample that are Subchapter S and have more than $300 million in assets. We provide medians for certain ratios in these six asset-size groupings. Readers should be aware that some of these medians are determined for a small number of banks, especially for Subchapter S banks with asset size greater than $500 million.

In the following analysis, we initially calculate an average value for each ratio for each bank in the sample over the five years. We report median values of these average ratios in order to minimize the impact of data outliers.[15]

Key Performance and Risk Measures across Banks of Different Asset Sizes

Analysts have long recognized that fundamental differences exist between the operating profiles of community banks and large banking organizations. In terms of funding sources, small banks rely proportionately more on core deposits while large banks rely more on purchased liabilities. Small banks, in turn, make loans primarily to small businesses, consumers, and agriculture customers and are more dependent on net interest margin while large banks generally emphasize large commercial customers, large-volume credit card and indirect consumer lending, and international customers (emphasizing transactional banking). Finally, the largest banks typically structure operations around lines of business, emphasizing noncredit products and services that generate fee income. Community banks get the bulk of their noninterest income from deposit service charges and have little noninterest income from other sources. The purpose of this section is to document some of the more important differences between banks of different asset size.

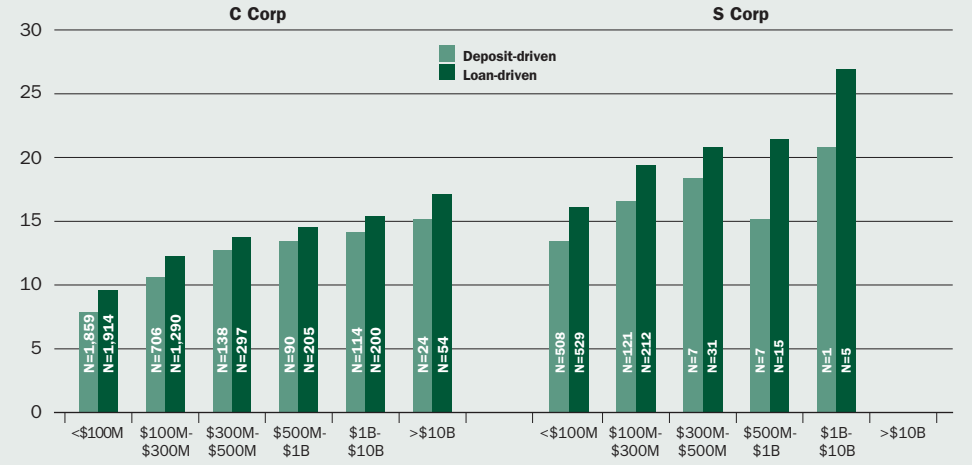
Banks that follow different operating strategies have fundamentally different profitability and risk profiles, on average. The following analysis initially documents key differences in aggregate profitability measures between community banks with less than $1 billion in assets and larger banks and among community banks of different asset sizes. Throughout the analysis, we separate Subchapter S banks from non-Subchapter S banks because of differences in tax treatment and the possibility that growth constraints might alter a Subchapter S bank's tolerance for risk. We then examine select risk ratios to assess the risk bearing done by the various banking institutions.

Aggregate profitability: Return on assets and return on equity. Figures 1 and 2 present the respective median returns on equity (ROEs) and returns on assets (ROAs) for the different categories of banks. Loan-driven banks are banks with an average loan-to-asset ratio of at least 60 percent, the approximate median in each year, while all other banks are designated as deposit-driven.

Three important observations relate to the patterns of ROEs among banks in Figure 3. First, within each asset-size category, Subchapter S banks have greater ROEs than their corresponding C corporate institutions.[16] This result is not surprising because Subchapter S corporations have no direct tax obligations, so their net income should be higher, ceteris paribus. While the result is not surprising, it does caution against looking at all banks together, regardless of their corporate structure. To the extent that smaller banks have a greater proportion of Subchapter S structures, ROEs for small banks would be artificially inflated if one did not distinguish between C corporate and Subchapter S banks. For the smallest size category, C corporate banks

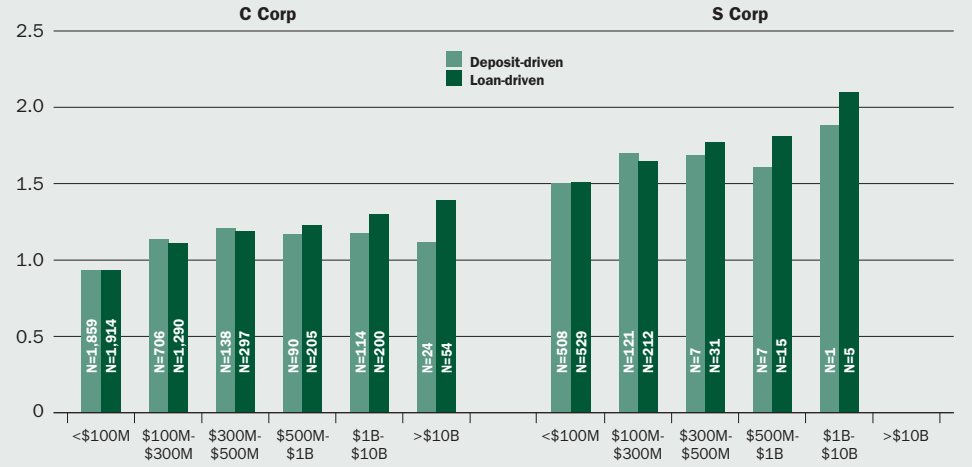
13. Another important distinction among commercial banks is whether or not they operate in metropolitan areas. In our analysis we do not distinguish banks on this difference not because we do not believe that this distinction is important but because we found it expedient to narrow the focus of attention. We have some preliminary evidence that banks have different performance and risk characteristics depending upon whether or not they operate in a metropolitan area. We would be happy to provide this evidence to interested readers upon request.
14. Because our analysis is primarily focused on banks with different operating strategies, determined by various asset sizes, the 60 percent loan-to-asset ratio was selected for the full sample of banks, not for a particular size category.
15. The use of medians eliminates distortions caused by extreme values. For example, Merrill Lynch Bank reports substantial loans but virtually no deposits. Its loan-to-deposit ratio is thus large, inflating the average ratio for the sample of similar-sized banks.
16. We make no distinction as to whether or not the differences in ratios are statistically significant, preferring to focus on relative and economic values.

Figure 1
Return on Average Equity, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

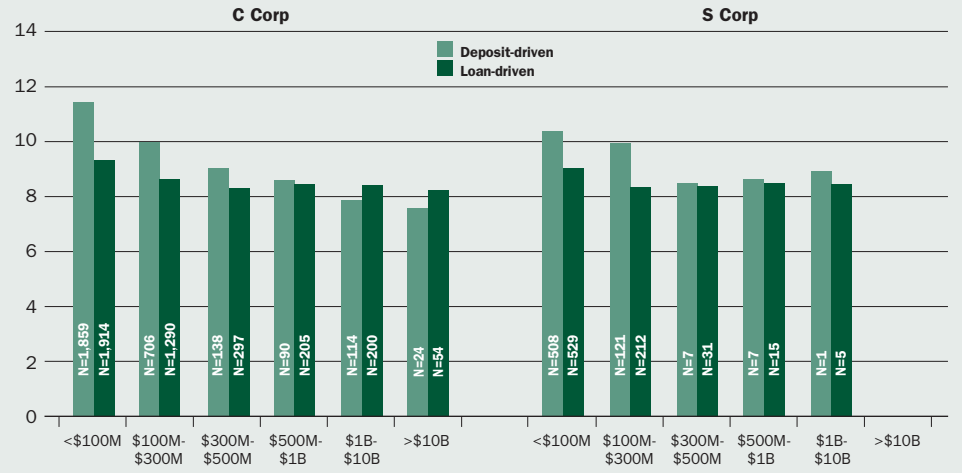
Figure 2
Return on Average Assets, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

have median ROEs less than 10 percent while Subchapter S banks have ROEs closer to 15 percent. Importantly, the peer groups formed by the FFIEC in comparing banks under the Uniform Bank Performance Report do not distinguish banks by tax status but lump all banks together regardless of tax status. Second, ROE generally increases with asset size. Thus, we see the incentive to grow asset size regardless of corporate structure. Third, loan-driven banks appear to have higher ROEs than those of deposit-driven banks when corporate structure and asset size are controlled for.

Figure 3
Total Equity Capital to Average Total Assets, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

All in all, the data in Figure 1 suggest that not all banks perform similarly in terms of ROE. Analysts would be best served by distinguishing banks in terms of their corporate structure, asset size, and loan-driven versus deposit-driven strategic focuses. Moreover, the evidence suggests that the smaller banks in the sample might be viewed as operating somewhat at a competitive disadvantage because their ROEs are relatively small. However, we question this view as we examine further differences.

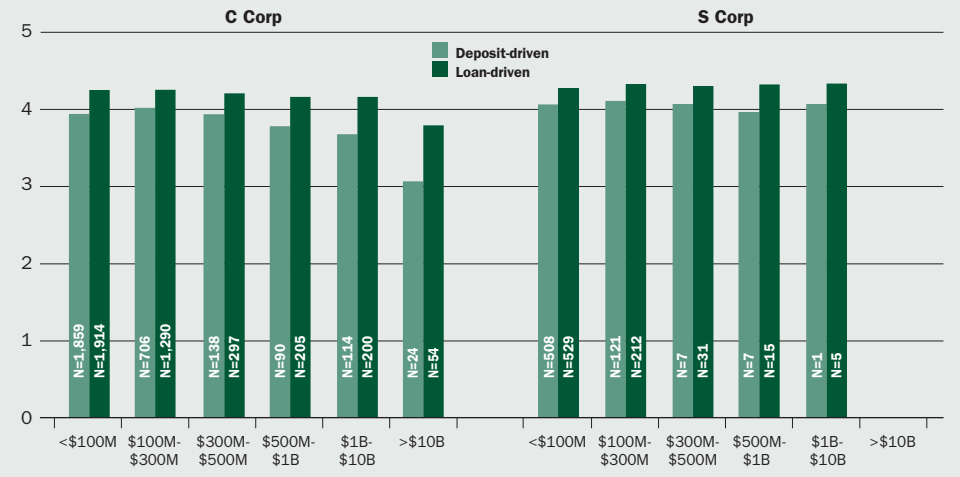
Not all of the patterns observed regarding ROE carry over to ROA, as Figure 2 shows. But one pattern as related to corporate structure differences is consistent. Specifically, Subchapter S banks continue to have higher ROAs than their C corporate counterparts as the tax differences continue to have a significant effect. Still, the other patterns in Figure 1 are not as strong. For example, asset size does not appear as strong in driving ROA higher. While there is a general tendency for ROA to rise with asset size, controlling for other factors, the positive association is not universal. For example, for deposit-driven banks, the largest asset category does not have the largest ROA. Also, loan-driven banks no longer dominate in terms of ROA performance over deposit-driven banks. In fact, Figure 2 shows several cases in which the median ROA for deposit-driven banks exceeds the median for comparable loan-driven banks.

Financial leverage. It is important to remember that ROE reflects both the ability to generate a return on invested assets (ROA) and the use of financial leverage. The latter is determined by the comparative amounts of debt and equity financing in a bank's capital structure and is characterized by the firm's equity multiplier (EM). Note that

$$ROE = ROA \times EM,$$

where ROE is equal to net income/total (average) stockholders' equity, ROA is equal to net income/total (average) assets, and EM is equal to total (average) assets/total (average) stockholders' equity.

Figure 4
Net Interest Margin to Average Total Assets, 1998–2002



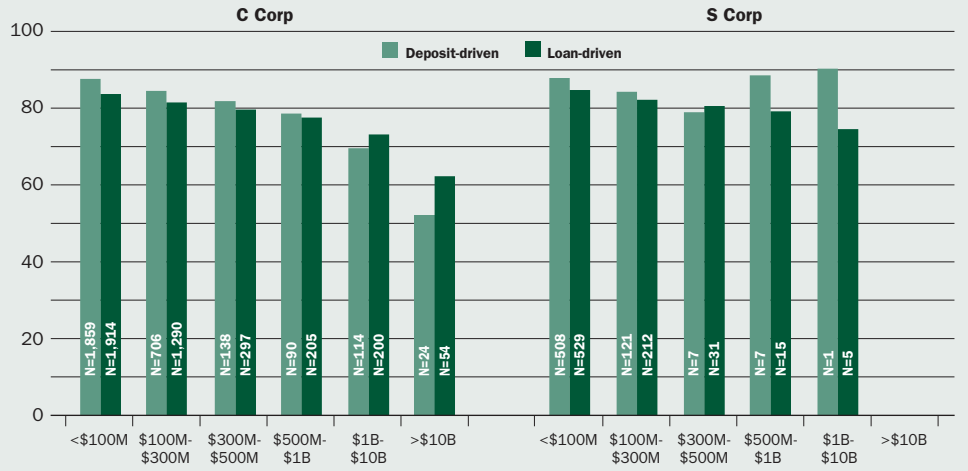
Source: BankSearch; Sheshunoff Information Services Inc.

Median equity-to-asset (leverage) ratios, the inverse of EM, for our various bank classifications appear in Figure 3. For C Corp banks, the equity ratio generally declines consistently with asset size, indicating that the associated EM increases with size. Thus, the larger the bank is, the greater the multiplier effect of financial leverage on ROE. Smaller banks operate with the highest ratio of equity capital to total assets, possibly reflecting their limited diversification and ownership structure more closely tied to family-owned institutions. The lower leverage, in turn, partially explains why aggregate ROEs are lower, ceteris paribus, for community banks than for larger banks. In other words, the lower ROEs observed for smaller banks appear due in part to the desire to employ relatively less financial leverage. Smaller banks appear to prefer less risk and pay for this with slightly lower ROEs. There is no evidence, however, to indicate that this trade-off accepted by small banks is inferior to the trade-off taken by their larger brethren. Carter, McNulty, and Verbrugge (2004) find evidence that smaller banks earn greater risk-adjusted yields than do larger banks. These results suggest that the lack of credit diversification is not a serious handicap for community banks and that these banks might be better equipped to make good lending choices because they have an information advantage relative to the larger banks.

Importantly, the difference in leverage is large for deposit-driven banks but much lower for different-sized loan-driven banks. While small loan-driven banks still report the highest equity-to-asset ratios, these ratios are only modestly higher than those for larger banks. Sub S banks with assets between $300 million and $500 million reported the lowest equity-to-asset ratios and thus the highest EMs among such tax-advantaged banks.

Net interest margin. Figure 4 documents differences in median net interest margins (NIMs), net interest income divided by earning assets, across banks in different size categories based on tax status and whether they are loan driven or deposit driven.[17] Two strong relationships are evident. First, from 1998 to 2002, net interest margin medians for loan-driven banks always exceeded the medians for deposit-driven banks, regardless of size and tax status. The greater NIM for loan-driven banks is not surprising given that

Figure 5
Core Deposits to Average Total Assets, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

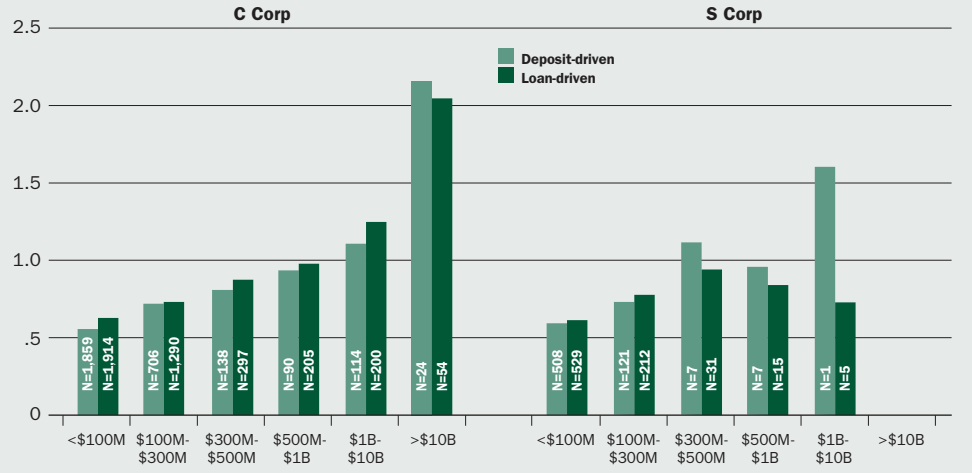
loans carry higher promised yields and banks with greater holdings of loans should operate with higher margins (provisions for loan losses). Over the sample period, loan-driven banks reported median loan-to-asset ratios near 70 percent while deposit-driven banks reported medians around 49 percent. The cumulative NIM effect is partially offset by the lower average cost of funds associated with deposit-driven banks' greater funding from core deposits (evidence of this point is provided below). Thus, the differences in NIMs are lower for the smallest banks and increase with size.

Second, the median NIMs are virtually the same for all Subchapter S banks, regardless of size, while NIM falls with size for C Corp banks. The decline for C Corp banks is particularly dramatic for deposit-driven banks with more than $500 million in assets and loan-driven banks with more than $10 billion in assets. For example, the median NIM is 30–40 basis points lower for the largest loan-driven C Corp banks and almost 60 basis points lower for the largest deposit-driven banks compared with all smaller banks. Thus, in sharp contrast to the strong asset size effect seen on ROE, NIM ratios show little evidence that smaller community banks are disadvantaged. In fact, there is some evidence that smaller community banks have higher NIMs than their larger brethren, an observation consistent with the view that smaller banks are more likely engaged in relationship lending, which provides them a niche to operate with relatively larger margins.

One factor that drives NIM is the reliance on core deposits, which are not as rate-sensitive as other funding sources. Medians for core deposits-to-assets ratios, shown in Figure 5, reveal dramatic differences. First, note the sharp drop in the ratio for C Corp banks as asset size increases. Not surprisingly, core deposits make up 20 percent to 40 percent less of funding for the largest banks than for smaller loan-driven and deposit-driven banks. The difference in average funding costs also increases with

17. Net interest margin (NIM) is defined as interest income minus interest expense as a fraction of earning assets. Interest spread is measured as the average yield on earning assets minus the average interest cost of interest-bearing liabilities. NIM will increase relative to the spread as a bank obtains proportionately more funding from non-interest-bearing sources of funds, ceteris paribus.

Figure 6
Total Noninterest Income to Average Total Assets, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

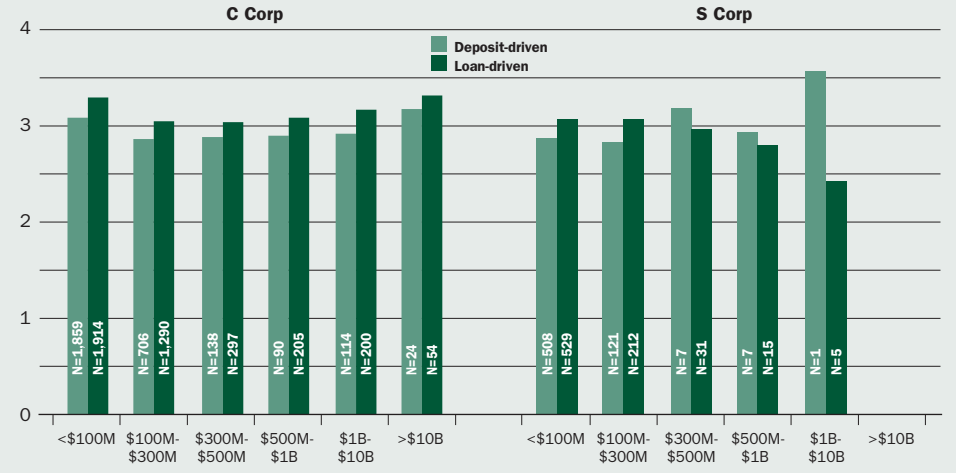
bank size, suggesting that community banks are also more engaged in relationship deposit gathering than their larger bank counterparts. Second, note that core deposits are generally higher for Subchapter S banks of similar size compared with C Corp banks. A critical component of Subchapter S banks' financial success is the strong reliance on cheap, stable core deposits. Finally, note that core deposits contribute proportionately more to the funding of Subchapter S banks with more than $1 billion in assets—admittedly a very small group, with only six banks in our sample—than they do in smaller banks.[18]

A key difference in aggregate net interest income thus appears to be attributable to the deposit mix. The same general relationship holds for the interest spread, which is not reported. This evidence is consistent with our argument that small banks are more involved in relationship banking.

Noninterest income and noninterest expense. In addition to net interest income, another driver of profitability is a bank's ability to generate noninterest income while controlling noninterest expense. Figure 6 demonstrates that the median values of noninterest income as a fraction of total assets increase with size for C Corps, with a dramatic jump occurring for banks with more than $10 billion in assets. It would appear that the largest banks in the country are relying on noninterest income much more than the community banks are. For C Corps, loan-driven banks generate slightly higher fees relative to assets except for the largest banks. No clear size relationship is evident at Subchapter S banks. Noninterest income increases with asset size up to $500 million and then decreases except for deposit-driven banks with $1 billion to $10 billion in assets, which reported a sharply higher median ratio.

The pattern for noninterest (overhead) expense as a fraction of assets in Figure 7 appears to be quite stable for C Corps. As expected, loan-driven banks report consistently higher ratios compared with deposit-driven banks. Higher ratios reflect the higher cost of loan officers and loan administration expense. The ratio is high for the smallest banks versus other community banks with less than $1 billion in assets and increases modestly with size for banks with more than $100 million in assets. C Corp

Figure 7
Total Overhead Expenses to Average Total Assets, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

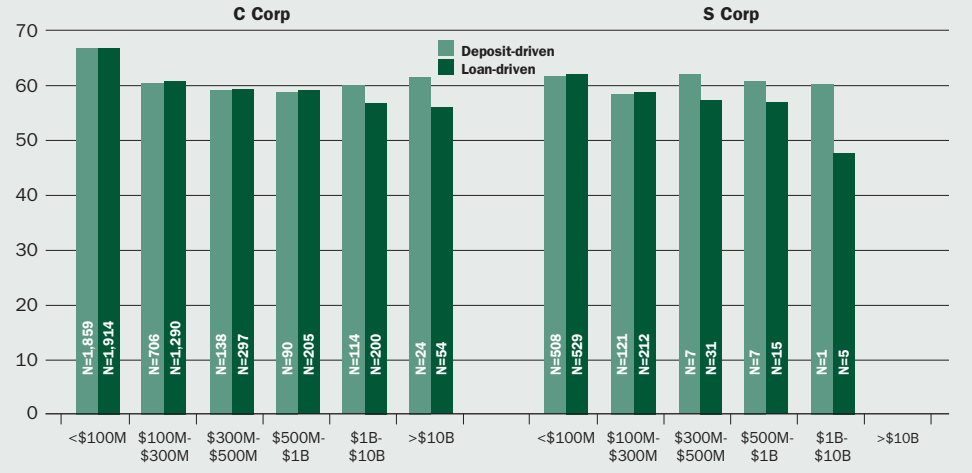
banks with assets over $10 billion reported higher overhead costs relative to assets versus all community banks. Thus, community banks seem to benefit relative to larger banks from lower overhead costs in apparent contradiction of scale and scope economies. Of course, this comparison ignores the linkage between overhead costs and noninterest income.

Interestingly, the ratio of noninterest expense to assets declines with size for Subchapter S banks that are loan driven but generally increases with size for deposit-driven banks. The ratio likely reflects the cost of operating branch networks, which increases with the number of bank branches and offices. Importantly, community banks with under $1 billion in assets benefit from lower overhead costs, on average.

Efficiency ratio. Figure 8 illustrates the effects of combining noninterest expense with the ability to generate net operating revenue, defined as net interest income plus noninterest income, in the reported efficiency ratio. This ratio shows a robust pattern for loan-driven banks. It is highest for the smallest banks and declines with bank asset size regardless of tax status.[19] Large loan-driven Subchapter S banks with more than $1 billion in assets have a median efficiency ratio around 45 percent—far below that of all other banks. For deposit-driven C Corp banks, the efficiency ratio exhibits a U-shaped pattern, initially falling for community banks as size exceeds $100 million in assets. The efficiency ratio rises beyond the $1 billion benchmark for community banks. The ratio is fairly stable for all deposit-driven Subchapter S banks, ranging from 58 cents to 62 cents per $1 of net operating revenue, regardless of size.

18. It is interesting to note that the business model of some of the largest banks dramatically affects the relationship between core deposits and total assets. For example, Bank of America NA USA in Phoenix, Arizona, has a loan-to-deposit ratio of 127,268 percent while Merrill Lynch B&TC in Plainsboro, New Jersey, has a loan-to-deposit ratio of only 2.81 percent.
19. A bank's efficiency ratio is measured as overhead expense, which includes personnel, occupancy, and other operating costs, as a fraction of net operating revenue, which equals the sum of net interest income and noninterest income.

Figure 8
Efficiency Ratio, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

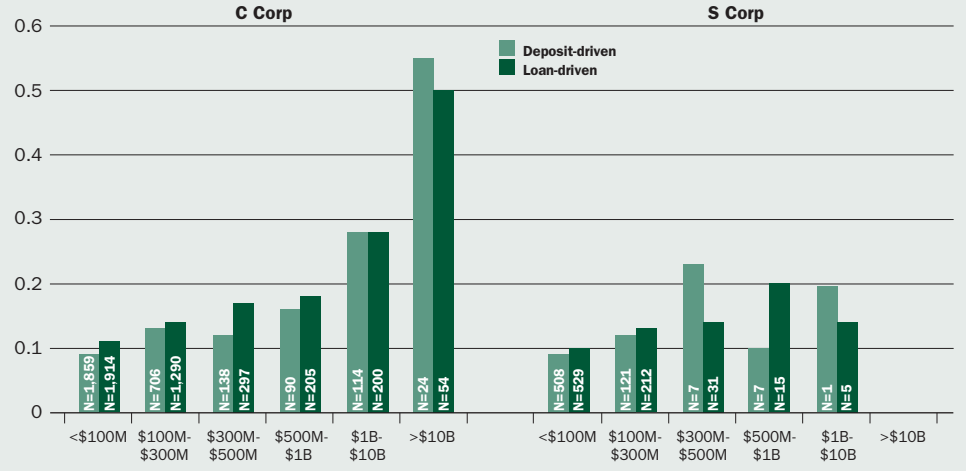
Among community banks, loan-driven institutions exhibit higher efficiency ratios than do similar-sized deposit-driven community banks, except for Subchapter S banks with more than $300 million in assets. Thus, community bank efficiency appears to improve with size except for larger Subchapter S banks. Within the smallest-sized category, C Corp banks show the greatest inefficiencies regardless of loan or deposit focus.

Compared with community banks, larger loan-driven banks report lower efficiency ratios, reflecting a greater ability to generate noninterest income, particularly fees associated with nontraditional banking activities. Apparently, deposit-driven large banks do not reap the gains from fee income relative to overhead costs. Median large loan-driven banks pay 2 to 14 cents less per $1 of net operating revenue than community banks do, a pattern that has a substantive impact on these large banks' ROA.

Credit risk measures. A common criticism of community banks is that they have limited geographic diversification, which leads to greater relative credit risk. The following ratios provide some information regarding credit risk exposure, albeit with limited data.

Consider the loan charge-off ratios provided in Figure 9. Even though smaller banks' loan portfolios are less diversified geographically and by industry, this additional risk does not appear in their loan charge-off patterns over the 1998–2002 period. Specifically, for both C and S Corp banks, charge-offs as a fraction of loans increase with size. Clearly, the median values are at relatively low levels, indicating that in relatively good times community banks benefit proportionately more from strong asset quality. The relatively high charge-off rates for the largest banks likely reflect credit card banks and banks with higher proportions of commercial and industrial loans that charge off far more than banks with other asset concentrations. Credit card banks typically use credit-scoring models to "transactionalize" credit card loans. The higher charge-offs may also signify greater risk if larger banks extended more credit to subprime borrowers.[20] The smallest community banks generally do not credit score individual loans and thus are generally more selective in the type of consumer

Figure 9
Net Charge-Offs to Average Loans, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

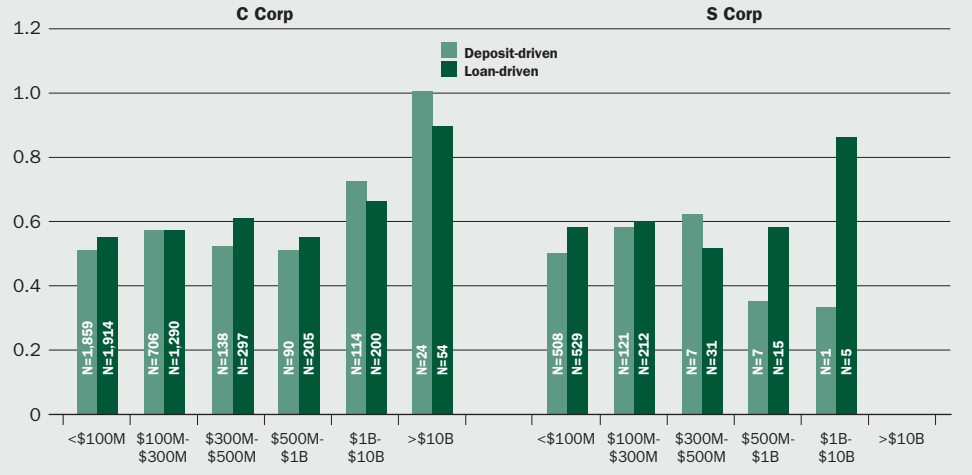
loans they make. Of course, credit card lending makes up a small portion of loan portfolios at most community banks.

The implication of these patterns is that banks of different sizes use different models for success. In addition, the larger equity-capital-to-asset ratios at many small banks suggest that owners and management are less willing to expose the bank to the risk of insolvency even in times of good asset quality. Note the sharply lower charge-off ratios at Subchapter S banks over the period. Generally, these institutions are more closely held and have fewer agency problems. Perhaps for this reason Subchapter S banks have operated with much lower loan losses in recent years.[21]

Noncurrent loans and the loan-loss allowance. Figure 10 reports nonperforming loans across banks. Careful review suggests that deposit-driven and loan-driven community banks (with less than $1 billion in assets) report similar medians over the five-year period. For C Corps, nonperforming loans for community banks are well below those reported by banks with more than $1 billion in assets. Nonperforming loans are similarly a smaller fraction of gross loans at deposit-driven community banks. For Subchapter S banks, medians for nonperforming loans as a fraction of gross loans are comparable to those for C Corps for banks with less than $500 million in assets. However, the seven deposit-driven Subchapter S banks report a higher median ratio versus loan-driven banks with $300 million to $500 million in assets. Deposit-driven Subchapter S banks with more than $500 million in assets report much lower median ratios of nonperforming loans compared with similar-sized loan-driven banks. In fact, only the largest Subchapter S banks, with more than $1 billion in assets, report a high ratio. Thus, community banks have generally experienced better asset quality than

20. Even with relatively high charge-off rates, credit card banks report the highest average ROAs in recent years, indicating that they appear to have adequately priced the risk of loss. See the FDIC's Web site (www.fdic.gov) for the most recent data.
21. The pattern for loan-loss provisions tracks that for net loan charge-offs across the different categories of banks.

Figure 10
Nonperforming Loans to Gross Loans, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

larger banks in recent years, and deposit-driven banks have reported the lowest levels of nonperforming loans.

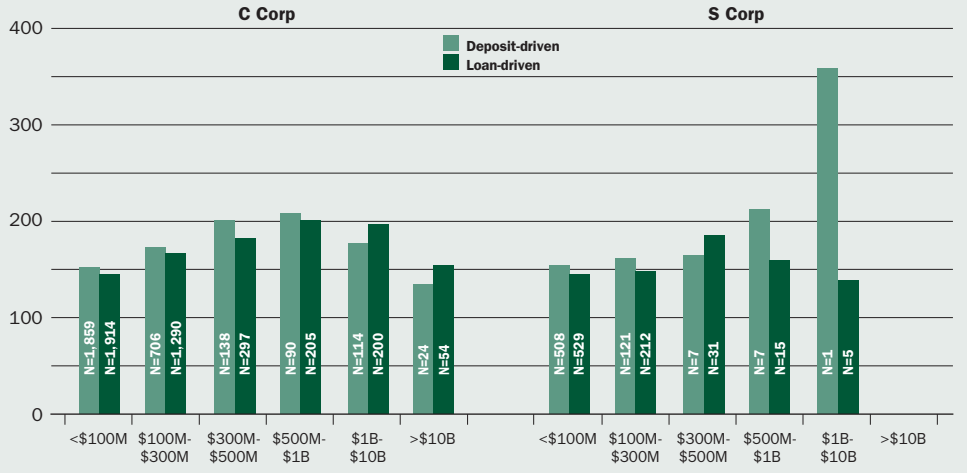
Data for the median loan-loss reserve as a fraction of nonperforming loans appear in Figure 11. For all categories, the ratio far exceeds 100 percent, indicating that these ratios are at strong levels given historical trends. Still, except for the one Subchapter S deposit-driven bank with more than $1 billion in assets, the largest banks reported lower loss reserve allowance ratios, indicating smaller loan-loss provisions over time relative to charge-offs compared with community banks. The relatively lower provisions, in turn, are consistent with reporting higher ROAs. Interestingly, loan-loss reserve ratios increase with size for loan-driven and deposit-driven C Corp community banks and exhibit the same pattern for Subchapter S banks except for loan-driven banks with more than $500 million in assets. The implication is that the smallest banks realize higher ROAs associated with lower loan-loss provisions over time.

Summary, Conclusions, and Implications

Many individuals view banks as homogeneous financial intermediaries. This article argues that such a view is misleading because the more numerous smaller community banks in the United States operate very differently than larger commercial banks. This research describes recent performance and risk assessment data for FDIC-insured banks across different size categories, different tax structures, and across different asset concentration categories. We find evidence that small banks were generally profitable over recent years. Only the smallest community banks appear to have significant operating inefficiencies. Above the smallest size category, community banks have performed well, in many cases better than the larger banks, in managing their net interest margins.

On the other hand, noninterest income is not as important for community banks, and it is unclear whether the generation of more noninterest income represents as good a risk-return trade-off for all community banks as it does for the larger banks

Figure 11
Loan-Loss Reserve to Nonperforming Assets, 1998–2002



Source: BankSearch; Sheshunoff Information Services Inc.

in the country. Smaller banks also generally operate with more equity capital as a funding source, which lowers ROE relatively, and have more core deposits, which increase ROA relatively. Interestingly, credit risk measures also suggest that smaller institutions have managed credit risks at least as well as the largest banks in the United States. The evidence also shows, not surprisingly given the restrictions on the number of shareholders, that community banks are more likely to adopt the Subchapter S tax status that allows an institution to avoid direct federal income taxation and pass tax benefits on to shareholders. These institutions have relatively higher ROEs and ROAs because they pay no direct federal income taxes but pass this obligation on to shareholders.

Many of these observed differences occur primarily because community banks focus relatively more attention on relationship banking while large commercial banks focus more on transactional banking. We emphasize differences in performance and risk bearing based on traditional transactional banking versus relationship banking and generally associate higher interest rate spreads and greater profitability per loan with relationship banking. As commercial banks grow in size, they appear to find it more difficult to maintain an effective relationship focus. Community banks concentrate their efforts on customers with personal loan and deposit relationships that are generally profitable and stable over time. It is this focus that better differentiates strong versus weaker performance.

As of the end of 2002, most community banks were well positioned in terms of profitability and reported limited credit risk exposure. These trends are likely just as strong today. Yet the ability to sustain and improve historical performance will depend on how well managers find valuable relationship lending niches, invest bank capital, and balance asset quality with growth.

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