

The Evolving Relationship between Community Banks and Small Businesses: Evidence from the Surveys of Small Business Finances

by

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Abstract: This paper uses data from the Federal Reserve Board's 1998 and 2003 Surveys of Small Business Finances (SSBFs) to examine the evolving relationship between community banks and small businesses. The SSBFs provide extensive data on the types of financial services used by small businesses and the sources of those services. These data allow us to answer a number of interesting questions regarding small business usage of community banks, including the following: To what extent do small businesses rely on community banks as providers of at least some financial services? What types of financial services are small businesses most likely to obtain from a community bank? What types of small businesses are most likely to obtain some or all of their financial services from a community bank? How have the answers to these questions changed between 1998 and 2003? In addition to providing detailed descriptions of the patterns of community bank usage observed in the data, we develop a simple reduced form model that uses both firm and local banking market characteristics to explain these patterns. We test a number of hypotheses regarding the extent to which community banks and larger banks differ with respect to the types of financial services provided to small businesses and the types of firms served. Finally, we discuss the implications of our findings for the future of community banking.

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I. Introduction

Community banks have played an important role in the U.S. economy throughout its history. Their prominent role in providing loans and other financial services to small businesses within their local communities has been particularly noteworthy. In recent years, technological and legal developments, as well as changes in the business strategies of larger banks and non-bank financial service providers, have purportedly made it more difficult for community banks to attract and retain customers. Consistent with this view, the shares of bank branches, deposits, banking assets, and small business loans held by community banks in the U.S. have declined substantially over the past two decades.

This paper uses data from the Federal Reserve Board's 1998 and 2003 Surveys of Small Business Finances (SSBFs) to examine the evolving relationship between community banks and small businesses. Specifically, we consider (i) the extent to which small businesses used community banks as providers of financial services, (ii) the types of small businesses that were most likely to obtain financial services from community banks, and (iii) the types of financial services small businesses were most likely to obtain from community banks, in both 1998 and 2003. We estimate a number of reduced form models that attempt to explain observed patterns of community bank usage by small businesses in each year and explore changes in small business usage of community banks over the five-year period between surveys. We estimate separate models for firms that use any financial service, for firms using at least one credit product (loans, credit lines, and capital leases) and for firms using at least one line of credit.

Our results suggest that (i) small business usage of financial services and financial service providers have been growing over time; (ii) the share of small businesses using

community banks has declined over time, but the average number of financial services obtained by a small business from a community bank has not fallen; (iii) the smallest, youngest, riskiest small businesses are not significantly more likely to use a community bank than are larger, older, less risky small businesses; and (iv) the scope of a small business' financial services needs, the size of its local market, and the preponderance of community banks in its local market are all important determinants of community bank usage. These results were generally consistent across the full sample, the credit product sample, and the line of credit sample.

The remainder of this paper is organized as follows: Section II briefly reviews the previous literature on the relationship between community banks and small businesses; section III describes patterns of usage of financial services and financial service providers by small businesses; section IV presents our analysis of the determinants of community bank usage by small businesses; and section V concludes our paper.

II. Review of the Previous Literature

A considerable body of scholarly research focuses on the different roles that community banks and larger banks play in the provision of credit to small businesses. One strand of this research focuses on the significant consolidation that has occurred in the U.S. banking industry over the past two decades, and its implications for the availability of credit to small businesses (see, for example, Berger et al. (1998), Critchfield et al. (2004), Avery and Samolyk (2004), and Hein et al. (2005)). The number of banks chartered in the U.S. has declined by more than 47 percent, from about 16,400 as of mid-year 1989 to about 8,600 as of mid-year 2007, with most of this decline

being due to mergers and acquisitions.¹ Although this consolidation has not diminished community banks' share of all banks in the U.S., it has led to substantial declines in community banks' shares of bank branches, domestic bank deposits, domestic banking assets, and small business loans (see figure 1).²

Policymakers and researchers have long been concerned that the consolidation of the banking system, and in particular the acquisition of smaller banks by larger banks, may lead to a reduction in lending to small businesses. A number of studies examining the effects of bank size on the supply of small business credit find that larger banks tend to allocate a smaller portion of their assets to small business lending than do smaller banks (e.g., Berger et al., (1995), Strahan and Weston (1996), Keeton (1995)). Other studies, focusing specifically on bank consolidation, find evidence that the ratio of small business loans to assets declines following mergers and acquisitions (e.g., Berger et al. (1998), and Strahan and Weston (1998)). More recently, a few studies have found evidence that the potential reduction in small business lending following mergers is mitigated in local markets by other banks expanding their supply of small business credit and by the creation of *de novo* banks in the affected markets (Berger et al. (1998), Avery and Samolyk (2004), and Berger et al. (2004)).

A second strand of research focuses on identifying differences between the production technologies used in small business loan underwriting by community banks and larger banks, and empirically measuring the importance of firm-lender relationships

¹ Here and throughout this paper, the term bank includes commercial banks, savings banks, savings and loan associations, cooperative banks and industrial banks.

² Throughout this paper, the term "community bank" refers to independent banks with total assets less than \$1 billion, and banks that are subsidiaries of holding companies with total organizational banking assets less than \$1 billion, all in 1998 constant dollars. As a robustness check, we re-ran our analyses defining community banks to include independent banks with total assets less than \$1 billion and banks that are subsidiaries of holding companies with total organizational banking assets less than \$10 billion, all in 1998 constant dollars. The results were essentially unchanged from those reported.

for the provision of credit to small businesses. The general hypothesis underlying this research is that relationships are more important to community banks than to larger banks. Berger and Udell (2002) define relationship lending as a technology dependent on the process of acquiring soft information that is gathered by the loan officer through interactions with the firm, its owner, and the community. Stein (2002) shows that large, hierarchical organizations are better able to deal with hard information than soft information because it is easier to pass information up the hierarchy when its interpretation is independent of the producer. Berger and Udell (2002) reach similar conclusions.

Most of the empirical studies in this area have used data from the Federal Reserve Board's Surveys of Small Business Finances. Examples of such studies include Petersen and Rajan (1994, 1995), Berger and Udell (1995), Cole (1998), Berger et al. (2005), and Cole et al. (2004). These studies generally find that relationships are important determinants of credit availability for small businesses. Cole et al. (2004) and Berger et al. (2005) provide empirical support for the hypothesis that larger banks rely more heavily on hard information than do community banks in their loan approval decisions. These studies present evidence that larger banks are less willing to lend to informationally opaque credits; have shorter and less exclusive relationships; and are more likely to use financial and other hard data in their loan underwriting models than are community banks.

One paper which does not find an advantage for small banks in small business lending is Jayartne and Wolken (1999). They report that the probability of a small firm having a line of credit from a bank does not decrease, in the long run, when there are

fewer small banks in the area. Furthermore, using late repayment of trade credit as an indicator that a firm is credit constrained, they find that firms located in markets with few small banks are no more likely to repay trade credit late than are firms located in markets with many small banks, suggesting that having few small banks in the market does not increase the likelihood that firms will face credit constraints.

Most relevant to our study is the fairly limited body of small business lending research that analyzes the use of community banks from the small business borrower's perspective. Jayartne and Wolken (1999) test the hypothesis that small banks have a cost advantage in small business lending by considering whether marginal small businesses (firms with poor credit histories and very young firms) that have a line of credit are more likely to obtain their line of credit from a community bank (as opposed to a larger bank) than are non-marginal small businesses. Controlling for several firm and market characteristics, they find that firms with poor credit histories and young firms were no less likely to get a line of credit from a large bank than firms with good credit histories and older firms. Hence, to the extent that marginal firms require closer scrutiny from their lenders than do non-marginal firms, this result suggests that large banks do not suffer from a cost disadvantage in monitoring small business loans.

Cole et al. (2004) attempt to determine whether firms' characteristics influence the type of bank (small vs. large) they apply to for loans in a manner that is consistent with the findings of the relationship banking literature. They hypothesize that if loan applicants believe that community banks focus more heavily on soft information and large banks focus more heavily on objective information (the cookie-cutter hypothesis), then firms should apply for loans at the type of bank which, given the firms'

characteristics, would be most favorable towards their applications. They find weak support for the hypothesis that “small firms believe that small banks reward character and relationships while large banks favor formal numbers over character” (Cole et al., p. 240).

Berger et al. (2007) extend this line of research by examining the effects of the size distribution of banks in a market on the choice of community vs. large bank for a new line of credit. Using data from the 1993 SSBF, they find that the probability of a small business borrowing from a bank in a particular size class is not declining with bank size, but is roughly proportional to the market share of that size class. These results suggest that large banks do not face a disadvantage in lending to small businesses.

Scott (2004) uses survey data from the National Federation of Independent Businesses to assess the value of community banks to small businesses. The survey asked business owners to rank the importance of a set of characteristics regarding their relationship with their primary financial institution, and then to rank their primary institution’s performance on those characteristics. Several of those characteristics are related to the production of soft information, such as knowledge of the owner and his or her business, knowledge of the firm’s industry, and knowledge of the local market. Using a composite measure of soft information production derived from these rankings, Scott finds that small firms doing business with community banks rate their banks’ performance higher than do small firms doing business with large banks. He interprets this result as being consistent with the view that small banks are better than large banks at soft information production. He also considers whether the strength of the firm-bank relationship, as measured by duration of relationship and loan officer turnover, is

positively related to performance ratings, and finds a significant effect for the latter, but not the former measure.

In the study most closely related to our own, Haynes et al. (1999) use data from the 1993 SSBF to estimate equations explaining the probability that a firm obtains loans only from community banks; the probability that a firm obtains loans only from large banks; the share of loans obtained from community banks; and the share of loans obtained from large banks. They find that larger small businesses and small businesses located in urban areas are less likely to obtain loans only from community banks and more likely to obtain loans only from larger banks than are smaller small businesses and small businesses located in rural areas. They also find that the share of a firm's loans held at small banks (large banks) declines (increases) as the size of the firm increases, and is lower (higher) in urban than in rural markets. The effects of other variables, such as firm age, firm quality, industry, and geographic region on the use of small vs. large banks are of mixed signs and often insignificant.

Our paper differs from the existing body of literature in several ways. First, we focus on the choice of bank size from the perspective of the small business firm. With the exception of the last few studies mentioned above, most previous research has either examined these issues from the supply (bank) perspective, or attempted to infer bank behavior from firm characteristics (see Berger et al., (2007), pp. 14-16). Second, we consider the entire set of financial products and suppliers utilized by the firm (in addition to separately examining firms' use of credit products in general and lines of credit specifically). Although several studies mentioned above have a similar focus, most of these studies limit their scope to the firm's choice of provider for a line of credit. This

restriction certainly has advantages – bank-specific information and loan characteristics can be incorporated into the models – but these advantages come at the expense of generality. Focusing on lines of credit substantially reduces the sample size and ignores other types of loans, as well as the many non-loan financial services used by small businesses. Third, we extend the research by incorporating characteristics of the local banking markets, including the relative importance of community banks in these markets. And finally, our analysis uses data from the 1998 and 2003 SSBFs, whereas previous studies have generally utilized only the 1987 and 1993 survey data.

III. Univariate Analysis

We use data from the Federal Reserve Board’s 1998 and 2003 Surveys of Small Business Finances to study small businesses’ use of financial services and financial service providers. The data from the two surveys are representative of U.S. businesses that were for-profit, non-financial, non-agricultural enterprises, with fewer than 500 workers and that were in business at the end of the survey year (1998 or 2003). The data include information about the firm, its organizational structure, characteristics of its owners, its financial condition (credit scores, self reported credit history, balance sheet and income statement), the financial services used by the firm (loans, trade credit, credit cards, etc.), and the banks and other financial sources from which it obtained its financial services (see Bitler et al. (2001) and Mach and Wolken (2006)).³ For each of the two

³ Both the 1998 and 2003 Surveys of Small Business Finances were fielded by the National Opinion Research Center. The sample frame was the Dun & Bradstreet Market Identifier file (Dun’s Marketing Service, Dun & Bradstreet, Inc.). The target population is defined as U.S. domestic for-profit, nonfinancial, nonsubsidiary, nonagricultural, nongovernmental business enterprises with fewer than 500 employees that were in operation on December 31st of the survey year (e.g, 1998 and 2003). In the 2003 SSBF, firms must also have been in business at the time of the interview. The 1998 survey has 3,561 observations representing 5.3 million firms; data were collected between June 1999 and February 2000. The 2003

years, we restrict our sample to those firms that report obtaining at least one financial service from a bank or thrift and for whom we were able to identify the sizes of all of the banks and thrifts used by that firm.⁴ Our sample size is 2790 firms in 1998 and 3800 firms in 2003.

A. Firm and Banking Market Characteristics

Table 1 presents an overview of the characteristics of small businesses and the banking markets in which they were located in each survey year.⁵ The average small business had 9 employees in each period and had been in existence for about 14 years.⁶ Average sales (measured in 1998 dollars) increased slightly, from just under \$1 million in 1998 to just over \$1 million in 2003, while average assets increased more substantially, from about \$410,000 to about \$515,000. Firm organizational forms shifted somewhat between 1998 and 2003, with the shares of firms organized as partnerships and S-corporations rising and the shares of firms organized as proprietorships and C-corporations declining. The distribution of firms across industries was quite similar in the two periods, with business and personal services together accounting for more than 40

survey has 4,240 observations representing 6.3 million businesses; data were collected between June 2004 and January 2005.

⁴ During the survey, information was collected on the name and location of the branches of banks and thrifts used by small businesses. In order to determine the size and other characteristics of the banks and thrifts used by small businesses, the information on the names and branch locations of banks and thrifts was matched with information from the National Information Center to obtain bank identification numbers. The bank identification numbers were then used to obtain bank and thrift characteristics, including size, from the Call report files. In 2003, approximately 95 percent of the banks and thrifts were matched, whereas in 1998, approximately 88 percent of the banks and thrifts were matched. Matches were not possible when firms did not know or refused to provide the name and location of the institution, or when the name and location contained errors. In order for a firm to be included in our estimation sample, the identities of all of the banks and thrifts reported by the firm had to be known.

⁵ A banking market is defined as a Metropolitan Statistical Area or rural county.

⁶ All estimates in this study are weighted using sampling weights that account for nonproportional stratified sampling (large firms were oversampled) and nonresponse adjustments that differed by type of firm. These statistics can be interpreted as estimates of population (rather than sample) parameters.

