Journal of Financial Economics 105 (2012) 353–366

Contents lists available at SciVerse ScienceDirect

Journal of Financial Economics

journal homepage: www.elsevier.com/locate/jfec

A darker side to decentralized banks: Market power and credit rationing in SME lending ☆

Rodrigo Canales [a], Ramana Nanda [b,*]

[a] Yale SOM, United States
[b] Harvard Business School, United States

ARTICLE INFO

Article history:
Received 18 January 2011
Received in revised form
6 July 2011
Accepted 22 August 2011
Available online 30 March 2012

JEL classification:
G21
L26
M13

Keywords:
Banking
Bank structure
Soft information
Small business lending

ABSTRACT

We use loan-level data to study how the organizational structure of banks impacts small business lending. We find that decentralized banks—where branch managers have greater autonomy over lending decisions—give larger loans to small firms and those with "soft information." However, decentralized banks are also more responsive to their own competitive environment. They are more likely to expand credit when faced with competition but also cherry pick customers and restrict credit when they have market power. This "darker side" to decentralized banks in concentrated markets highlights that the level of local banking competition is key to determining which organizational structure provides better lending terms for small businesses.

1. Introduction

Small banks are believed to play a critical role in financing young and small businesses in the economy. In addition to their ability to engage in relationship banking (Petersen and Rajan, 1994; Berger and Udell, 1995), their decentralized lending structure gives them an important advantage when lending to small firms. The decentralized structure implies that branch managers in small banks have far greater autonomy over adjudication and lending decisions, giving them an incentive to collect and use "soft information" when setting loan terms (Stein, 2002). Since much of the information used in lending to small businesses may be "soft," this gives decentralized banks an advantage in small-business lending relative to the centralized decision-making structure in large banks.

These differences in the organizational structure of banks can have important consequences for the real economy. For example, Sapienza (2002) shows that small firms are less likely to borrow from banks subsequent to mergers (that tend to make them more hierarchical) relative to firms borrowing from banks that have not merged. Berger, Miller, Petersen, Rajan, and Stein (2005) show that small businesses located in US regions with a majority of large banks were more likely to face credit constraints than firms located close to small, decentralized banks. Likewise, Mian (2008) shows that decentralized banks consistently engage

☆ We are extremely grateful to the Mexican Ministry of the Economy as well as to Elfid Torres from FUNDES for sharing the data used for this paper. We are grateful to Allen Berger, our referee, and to Bo Becker, Lamont Black, Judy Chevalier, Victoria Ivashina, Bill Kerr, Josh Lerner, David McKenzie, Mitchell Petersen, David Robinson, Olav Sorenson, Costas Stephanou, Antoinette Schoar, Gregory Udell, Chris Woodruff and the participants at HBS finance lunch, MIT Sloan TIES seminar, NEUDC and the World Bank Conference on Small Business Finance for their feedback on this paper. All errors are our own.

* Corresponding author.
E-mail address: RNanda@hbs.edu (R. Nanda).

0304-405X/$ - see front matter © 2012 Elsevier B.V. All rights reserved.
http://dx.doi.org/10.1016/j.jfineco.2012.03.006

in more lending activity to small firms in markets with weak contract enforceability. The predominant view that emerges from this literature is that decentralized banks are the better answer for credit-constrained small firms that may otherwise be excluded from bank finance.

Using a loan-level data set on Small and Medium Enterprise (SME) lending in Mexico, we find that this positive picture of decentralized banks does not always hold true. While our results are consistent with prior work in this literature, we show that the same discretion that allows branch managers of decentralized banks to act on soft information also allows them to be more responsive to their own competitive environment when setting loan terms. This can be beneficial for small businesses in competitive banking markets where decentralized banks can help alleviate credit constraints. But, in line with Rajan (1992), it also implies that decentralized banks might better-exploit their market power in concentrated banking markets by restricting credit or charging higher interest rates to small businesses.

Our empirical analyses are based on a comprehensive, loan-level panel data set on SME loans in Mexico, covering the period 2002–2006. We find that small firms and those that tend to rely more on "soft information" get larger loans from decentralized banks. These results are even stronger when using instrumental variables, indicating that the differences across banks lie not just in the terms of lending, but also in the types of firms that get approved for a loan. In concentrated banking markets, however, decentralized banks are more likely than centralized banks to cherry pick the best firms, give them smaller loans, and charge higher rates of interest. This is particularly true for firms in the services sector, that provide less "hard information" to banks, have less collateral, and hence tend to have fewer outside options for external finance.

Our results confirm the findings that decentralized banks are more likely to use soft information when setting loan terms. However, we show that this can have both positive and negative consequences for small firms. While some of our results complement prior findings by showing the benefits of decentralized banks, the results also highlight that there may be a darker side to decentralized bank lending. Put differently, the relative benefit of decentralized bank structures for small business lending may depend on the institutional and competitive environment in which banks are located.

A novel feature of our analysis is that it allows us to get direct measures of organizational structure without relying on the size of the banks. Since our results are based on banks that have large, national presences but differ in their organizational structure, we can also show that it is in fact the organizational structure of banks that drives the observed patterns in our data as opposed to some other factor that may be correlated with bank size (e.g., Brickley, Linck, and Smith, 2003).

In this way, the paper ties together two literatures that focus on small business lending but have so far remained largely separate.[1] On the one hand, it is related to studies examining how competition in the banking industry impacts credit constraints of small startups (Petersen and Rajan, 1995; Black and Strahan, 2002; Cetorelli, 2004; Cetorelli and Strahan, 2006; Zarutskie, 2006; Kerr and Nanda, 2009). On the other, it is related to studies examining how bank structure affects lending outcomes (Stein, 2002; Berger et al., 2005). In tying together these two literatures, our findings may also explain why entrepreneurship *increased* significantly following the cross-state US banking deregulations from the late 1970s through the early 1990s, despite the fact that the deregulations led to a wave of M&A activity where the number of small banks fell dramatically. The increase in entry following the deregulation is seen as a puzzle by some, as a decrease in the number of small banks should have been associated with a decline in entrepreneurship. Our result highlights that the increase in entrepreneurship in this instance may have occurred precisely because small banks had been effective in exploiting their monopoly power in the period before the deregulation. In this context, the competition between large banks—a second best outcome in itself—was nonetheless a better outcome for entrepreneurs than borrowing from monopolist small banks.

The rest of the paper is structured as follows: In Section 2, we outline the theoretical considerations for the paper. In Section 3, we outline our estimation design and the series of institutional features we exploit in our analysis. Section 4 provides an overview of the data and the descriptive statistics. Section 5 outlines our regression results. Finally, in Section 6 we have a brief discussion of our results, and conclusions.

2. Theoretical considerations

Bank credit is the most important source of external finance for young firms and small and medium enterprises (Berger and Udell, 1998; Robb and Robinson, 2009) and is often a key source of capital helping SMEs to substitute for expensive trade credit (Fisman and Love, 2003; Petersen and Rajan, 1997). Given that these ventures are associated with high degrees of asymmetric information, otherwise viable small businesses may still face credit constraints that prevent them from growing or force them to prematurely shut down. Since the vast majority of firms in the economy are small,[2] financing constraints for small businesses are an important academic and policy concern.

A large literature on bank lending to small firms has therefore focused on how the organizational structure or the competitive environment of banks may affect small firms' access to credit (Rajan, 1992; Petersen and Rajan, 1994, 1995; Berger and Udell, 1995, 2002; Black and Strahan, 2002). While much of the literature on bank structure has

[1] Although not the focus of the paper, Sapienza's (2002) analysis also speaks to the interaction between bank size and market structure. (*footnote continued*) Presbitero and Zazzaro (2011) examine the interaction between bank size and market structure, but their focus is on banks' ability to engage in relationship lending rather than their ability to use soft information to their advantage.

[2] For example, of the six million firms in the US with at least one employee, 5.3 million (89%) have less than 20 employees (United States Small Business Administration, 1996).