Research in International Business and Finance 39 (2017) 406–422

Contents lists available at ScienceDirect

Research in International Business and Finance

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

Full length article

Collateral-based in SME lending: The role of business collateral and personal collateral in less-developed countries

Fábio Dias Duarte[a], Ana Paula Matias Gama[a,*], José Paulo Esperança[b]

[a] University of Beira Interior, Management and Economics Department, Research Unit in Business Science (NECE), Estrada do Sineiro, Pólo IV, 6200-209 Covilhã, Portugal
[b] ISCTE—IUL Instituo Universitário de Lisboa, Portugal

ARTICLE INFO

Article history:
Received 30 December 2015
Received in revised form 28 June 2016
Accepted 8 July 2016
Available online 18 July 2016

JEL classification:
G21
G30
G32
C35
O16

Keywords:
SMEs lending
Personal collateral
Business collateral
Level of personal and business collateral
Less-developed countries

ABSTRACT

Using a database of banking credit approvals for small and medium-sized enterprises (SMEs) operating in less-developed countries throughout Eastern Europe and Central Asia, this paper extends empirical evidence on the determinants of the incidence and the levels of business and personal collateral, reporting first-hand results regarding the impact of the recently reformed credit environment on collateral requirements. The findings endorse the importance of producing and sharing private information between lenders to reduce informational asymmetries and, consequently, the need to provide collateral to receive a loan. The results also suggest that market concentration increases "lazy" behavior on behalf of banks in the form of asking for collateral not to mitigate observable risk but rather to reduce screening efforts.

1. Introduction

Small and medium-sized enterprises (SMEs) report greater financing obstacles than large firms, and the effects of these constraints are stronger for SMEs than they are for large firms (for an overview, see Beck et al., 2005, 2006). Both high transaction costs related to relationship lending and the high risk intrinsic to SME lending explain the reluctance of financial institutions to reach out to SMEs (Beck and De La Torre, 2007). Therefore, collateralization appears to be a crucial component of a firm's access to external financing, particularly in less-developed countries where the financial environment typically involves more opaque information and weak enforcement (Hainz, 2003; Menkhoff et al., 2006). Using the World Business Environment Survey, Beck et al. (2006) examine 12 financing obstacles; collateral requirements are the third most important. The European Bank for Reconstruction and Development (EBRD) – World Bank Business Environment and Enterprise Performance Survey (BEEPS) results for Eastern Europe and Central Asia show that high collateral requirements are the fourth most important reason firms do not apply for external loans.

* Corresponding author.
E-mail addresses: fduarte@ubi.pt (F. Dias Duarte), amatias@ubi.pt (A.P. Matias Gama), jose.esperanca@iscte.pt (J. Paulo Esperança).

http://dx.doi.org/10.1016/j.ribaf.2016.07.005
0275-5319/

Collateral serves as a signaling device for borrower quality, mitigating the lender's adverse selection problem (e.g., Bester, 1985; Chan and Kanatas, 1985; Besanko and Thakor, 1987a,b; Boot et al., 1991); it lowers the agency costs of debt by preventing the problem of asset substitution (Jensen and Meckling, 1976); it minimizes the underinvestment problem (Myers, 1977; see also Stulz and Johnson, 1985); and it reduce *ex post* risk-shifting behavior, thus solving the moral hazard problem (Boot et al., 1991). Therefore, in scenarios with both adverse selection and moral hazard, stronger credit protection from collateral leads to better credit terms or even credit approval that otherwise would not have been granted.

In addressing how borrowers' (un)observed risk is related to collateral requirements, empirical research has primarily focused on SMEs operating in developed countries and largely examines only a single country (e.g., Leeth and Scott, 1989; Berger and Udell, 1990, 1995; Cowling, 1999; Brau, 2002; Jiménez and Saurina, 2004; Hernández-Cánovas and Martínez-Solano, 2006; Jiménez et al., 2006; Han et al., 2009; Berger et al., 2011a,b; Duarte et al., 2016). In less-developed countries, information asymmetries are more pronounced, and it is often difficult for banks to conduct risk assessments; data might be sparse and of limited reliability because SMEs' financial statements are generally not audited (Menkhoff et al., 2012). In addition, weak credit information systems, which often exclude the smallest firms, make it more difficult to collect historical credit information. Furthermore, net losses following default are high, because in many emerging markets, weaknesses in collateral registration, contract enforcement, bankruptcy codes, and the judicial process and collection mechanisms limit banks' ability to recover assets from the enterprise (Doing Business Report (DBR), 2010; Hanedar et al., 2014b). Thus, collateral requirements for obtaining a loan increase.

Entrepreneurial (vs. corporate finance) models (Bolton Committee, 1971) show that small businesses are often owned and managed by the same individual; thus, the personal characteristics and wealth of SME owner-managers have a greater influence on firm performance than is the case for large companies (e.g., Tirole, 2010). Because the owner's personal wealth cannot be separated from business assets, it frequently serves as a means to access bank loans (Ang et al., 1995). The availability of collateral is determined by the business owner's personal wealth. Because small borrowers typically lack assets to pledge as collateral (Menkhoff et al., 2012) or tend to be business collateral constrained, because the financial system imposes stringent limitations on the range of assets the lender can accept to secure the loan (DBR, 2010), borrowers may complement or substitute their ability to provide business assets by providing outside (i.e., owner) assets to collateralize the loan.

In developed loan markets, SMEs rely on personal and business wealth to negotiate the contractual lending details (Voordeckers and Steijvers, 2006; Brick and Palia, 2007; Ortiz-Molina and Penas, 2008; Ono and Uesugi, 2009; Steijvers and Voordeckers, 2009; Steijvers et al., 2010; Ono et al., 2012; Peltoniemi and Vieru, 2013; Gama and Duarte, 2015). Empirical research that analyzes the trade-off effect of both types of collateral in less-developed loan markets is scant though; only one empirical study (La Porta et al., 2003) examines the lending process to SMEs operating in less-developed countries (Mexico), using a single-country approach to analyze the determinants of personal guarantees (vs. business collateral) rather than the determinants of personal collateral.[1] Due to data limitations, no empirical research has employed business and personal collateral as a dependent variable to test the robustness of findings regarding determinants of the incidence of both types of collateral. Instead, prior literature has assumed that the level of business and personal collateral should not matter as much as the decision to pledge assets as a signaling gesture. However, deciding on a level of (personal or business) collateral as opposed to deciding whether to take (personal or business) collateral is not the same thing (see Hanley, 2002).

This paper contributes to extant literature. First, by examining loans granted to SMEs operating in less-developed countries in Eastern Europe and Central Asia, we provide unique empirical evidence of the determinants of business and personal collateral. Simultaneously, we extend Hanedar et al.'s (2014b) study of the same set of countries that does not address joint business and personal collateral. Second, we extend the methodology of Voordeckers and Steijvers (2006) with an integrated approach to test whether the binary business and personal collateral outcome variables proxy for business and personal collateral levels (Hanley, 2002). Third, we report first-hand results on the impact of the recently reformed credit environment on collateral requirements in less-developed countries. The findings hold potential value for policy makers in developing countries for drafting policies to increase access to lending.

2. Determinants of business collateral and personal collateral

The provision of collateral can ease conditions of credit rationing that firms face, especially SMEs (e.g., Berger and Udell, 1998), through several channels: It (1) decreases lenders' risk in the event of default (Coco, 2000), (2) rectifies credit market imperfections related to adverse problems (Deelen and Molenaar, 2004), and (3) reduces the costs of monitoring in the relationship between borrowers and lenders (Cowling and Mitchell, 2003). Because the financial environment in less-developed countries typically involves more opaque information and weak enforcement (Hainz, 2003; Menkhoff et al., 2006), firms in these countries are more likely to experience difficulties obtaining access to external financing due the lack of collateralizable assets (Menkhoff et al., 2006, 2012).

[1] Personal collateral is pledged in the form of the owner's assets. Personal guarantees are an owner's obligation for repayment, in a letter of compromise. In the second case, the loan is not collateralized because the lender only relies on the willingness of the borrowers to repay. We thank to anonymous referee of The Finance and Economics Conference for this comment.