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Entrepreneurial Borrowing: Do Entrepreneurs Seek and Receive Enough Credit?

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Entrepreneurial Borrowing: Do Entrepreneurs Seek and Receive Enough Credit?

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ABSTRACT

This work reviews the literature on entrepreneurial borrowing. The dynamic concept of the “entrepreneurial credit journey” is developed to frame the discussion of supply and demand side issues affecting entrepreneurial borrowing. The entrepreneurial credit journey follows the entrepreneur from the development of credit needs, through application and lending decisions and, beyond, to the consequences of these earlier decisions for firm performance. The literature has traditionally focussed on the lending decision stage, including: problems of credit rationing which may arise due to asymmetric information; and lending technologies to reduce information issues. However, on the demand side, discouraged borrowers, who decide not to apply for fear of rejection, have received increasing attention. There is also greater attention to issues of entrepreneurial cognition (e.g., over-optimism, illusion of control) which may adversely affect borrowing decisions.

In terms of the firm performance effects of credit access, the review highlights the widely used internal finance approach to testing financial constraints is unidentified because it is unable to disentangle financial from cognitive constraints. An alternative, more direct, external funding gaps test of underinvestment is therefore proposed. The policy literature is also reviewed which suggests that assistance in the form of loan guarantees has been both finance and economic additional

(i.e., providing entrepreneurs with credit they cannot get elsewhere and helping to create jobs that would not otherwise have been created) especially following the Great Financial Crisis.

A discussion of the literature relating to underrepresented groups in the entrepreneurial credit market highlights that female and ethnic minority entrepreneurs may receive less credit, and/or pay a higher rate on the credit they receive, than their male or white counterparts. This speaks to ongoing issues of gender stereotypes and ethnic discrimination in the credit market. The increasing role of peer-to-peer lending following the Great Financial Crisis, and its potential for ‘democratizing entrepreneurial finance’, is discussed. This literature highlights that, while peer-to-peer lending is helping to fill credit gaps following the Great Financial Crisis, there are issues relating to the performance of small business peer-to-peer loans and possible issues of ethnic discrimination.

The review concludes with proposals for future research on entrepreneurial borrowing, including: collecting more data relating to entrepreneurial credit journeys; developing tests for the presence of information asymmetries and the nature of selection in entrepreneurial credit markets; testing relationships between stages of the entrepreneurial credit journey (e.g., to shed light on the causes of discouragement); developing tests which disentangle financial from cognitive constraints; and researching entrepreneurial and bank learning over recurrent entrepreneurial credit journeys.

Keywords: Entrepreneurial borrowing; credit rationing; discouraged borrowers; financial constraints; firm performance; enterprise policy.

JEL classification: L25 (Firm performance), L26 (Entrepreneurship), L53 (Enterprise policy).

1

Introduction

Bank credit is the main source of external finance for entrepreneurs who want to start-up or grow their businesses. For example, while currently around 8% of small businesses in the UK use term loans from banks to fund fixed assets, and over 17% use overdraft facilities for working capital, only around 2% use external equity obtained from venture capitalists (VC) or business angels (British Business Bank, 2019).¹ Similarly, in the US, whereas more than 60% of small businesses report using any type of credit, and between 10% and 25% use loans to fund different types of fixed assets (Mach and Wolken, 2006), only around 5% of the total funding on small business balance sheets is accounted for by VC or angel finance (Berger and Udell, 1998).² Indeed, whilst firms backed by external equity providers may contribute disproportionately to job creation and growth, only a very small minority of entrepreneurs have the high growth potential and ambition to attract external investors (e.g., Manigart and Wright, 2013). In addition crowdfunding, in its various forms, remains the preserve of a select, if rapidly growing, minority (e.g., Wallmeroth *et al.*, 2018).

¹Before the financial crisis of 2007–2008, 20% of small businesses used term loans and over 40% used overdraft facilities, while around 3% used external equity (Fraser, 2009a).

²Unfortunately, there are no comparable data in the US post 2007–2008. This and other data issues are discussed later in the review.

However, despite this reliance on bank credit, there are structural issues stemming from imperfect information in credit markets, which may result in entrepreneurs not receiving enough credit to meet their funding requirements. In short, the problem is that banks may not know entrepreneurs' ability, willingness, or motivation to repay loans. These information issues, arising both before and after credit is granted, may in certain circumstances leave entrepreneurs with unmet credit needs in equilibrium, in which case they are credit rationed (Jaffee and Russell, 1976; Stiglitz and Weiss, 1981). Accordingly, the availability of personal wealth to fill funding gaps left unmet by the credit market may be an important determinant of new venture creation and performance (Evans and Jovanovic, 1989).

Yet, in many classical writings on entrepreneurship, the role of the capitalist and entrepreneur are distinct. It is the role of the entrepreneur to co-ordinate economic activity (Say, 1803), innovate (Schumpeter, 1934), or move markets toward equilibrium through arbitrage (Kirzner, 1973, 1997), with profit the reward for carrying out these functions. The role of the capitalist/banker, on the other hand, is to fund entrepreneurial activities and receive interest as their reward for risk bearing:

The entrepreneur is never the risk bearer . . . The one who gives the credit comes to grief if the undertaking fails.

(Schumpeter, 1934, p. 137)

However, other writers have positioned risk-bearing, and by implication self-financing, as an intrinsic part of the entrepreneurial function. In Cantillon's (1755) view, the entrepreneur commits to buying products and hiring labour unsure of what consumers will be willing to pay for the final product. Profit is the entrepreneur's reward for bearing the downside of price fluctuations.

In more recent times, Knight (1921) made an important distinction between risk and uncertainty. In Knight's view: "The conception of an objectively measurable probability or chance [i.e., risk] is simply inapplicable [to entrepreneurial contexts]." (Knight, 1921, p. 231). Instead, entrepreneurial decision making is made in a world of uncertainty in which, in contrast to risk, the probabilities of random events such as price fluctuations are unknown. Entrepreneurs must therefore make

decisions based on their subjective beliefs about the likelihood of price changes and other relevant factors for their decision making. However, while profit is the entrepreneur's reward for bearing uncertainty, there is no capitalist with whom to share the downside. In other words, the entrepreneur must act as their own capitalist.

This literature provides rigorous theoretical foundations for the situation of imperfect information (i.e., uncertainty) in credit markets claimed at the start of the discussion. Indeed, the question of whether entrepreneurs receive enough credit may be framed (more eruditely) in terms of whether Schumpeter or Knight was right about the nature of the entrepreneurial and capitalist roles in the economy (e.g., Evans and Jovanovic, 1989).

However, it is clear that uncertainty affects not only lenders' decisions to provide credit but also entrepreneurs' decisions to seek credit (and how much). Accordingly, how entrepreneurs make decisions in the presence of too little (or too much) information has received increasing attention in the entrepreneurship literature (e.g., Mitchell *et al.*, 2007).

In this context, the central question of this review is therefore: do entrepreneurs seek and receive enough credit (in a situation of uncertainty)?

1.1 Great Financial Crisis

The seminal event affecting entrepreneurial borrowing in recent years was the Great Financial Crisis (GFC) of 2007–2008. Empirical macroeconomic studies highlight the positive and causal relationship between financial development (private sector credit/GDP) and economic growth (King and Levine, 1993; Rajan and Zingales, 1998). That is, credit flows to the real economy, and to businesses in particular, are important for economic development (Beck *et al.*, 2012). In this regard, the GFC caused major disruption in entrepreneurial credit markets worldwide, leading to significant declines in credit flows, and causing a global recession that affected all but a few countries (e.g., Ball, 2014).

The signal event of the GFC was when Lehman Brothers filed for Chapter 11 Bankruptcy protection on September 15th 2008 having announced \$3.9bn in losses for the second quarter of that year. Following Lehman's collapse money market interest rates rose sharply and

inter-bank lending froze as the market feared that other banks would be allowed to fail.³ Consequently, an important source of funding for small business loans dried up. In addition, banks' capital was reduced by the writing down of bad loans, which threatened the solvency of some banks and further stemmed the flow of credit to entrepreneurs (Jiménez *et al.*, 2012). The level of government intervention worldwide to increase credit flows to the real economy and stop further bank collapses was unprecedented (in relation to the US policy response to the GFC see: Berger *et al.*, 2014; and DeYoung, 2014; regarding the policy response in EU countries, see Goddard *et al.*, 2014).⁴

Small businesses were particularly vulnerable during the GFC in view of their reliance on bank credit for external financial support. In this respect, evidence in the immediate aftermath of Lehman's collapse indicated small businesses were finding it much harder to obtain credit, were experiencing the withdrawal of previously made offers of credit, and were experiencing large increases in the cost of borrowing. Even firms with good credit histories were affected by these issues (see FSB, 2008). Survey evidence from the UK Survey of Small and Medium Sized Enterprise Finance (UKSMEF) 2008 confirmed anecdotal suspicions and indicated that rates of loan denial and loan margins had both increased (Fraser, 2009a). In addition, more small businesses were having their loans denied due to a lack of collateral suggesting banks had become more risk averse. An important study of Spanish loans by Jiménez *et al.* (2012) identified a reduction in lending to small firms due to bank balance sheet impairment following the GFC. Evidence from other countries in North America, Europe, and Asia suggests

³Three month LIBOR rates peaked at 6.3075% on 1st October 2008, which was over 130 basis points above the Bank of England base rate (source: www.bba.org.uk).

⁴A key difference between the UK and US policy response to the financial crisis was that the UK government re-capitalized the banks whereas the US government established a Troubled Asset Relief Program (TARP) to purchase toxic assets from the banks (Berger *et al.*, 2014). As a result of its re-capitalization policy, the UK Government became the main shareholder in the Royal Bank of Scotland Group (RBSG) after taking an initial 58% stake in the bank in November 2008. The government equity was required to re-capitalise RBSG due to write-downs on risky loans and a loss-making takeover of ABN Amro carried out in 2007.

that businesses worldwide were facing similar very difficult financing conditions following the GFC (Campello *et al.*, 2010).

The GFC has also had an impact on academic researchers in the field of banking, raising new questions about: the relationship between financial development and growth, and the role of the state in the financial system; the role and importance of financial innovation and securitisation in bank performance; the costs and benefits derived from the increased size of banks; and the links between banking competition and risk (Berger *et al.*, 2014). Some of these issues directly bearing on entrepreneurial borrowing are considered later in this review.

1.2 Purpose and Scope of the Review

The purpose of the review, broadly, is to review the extant literature on entrepreneurial borrowing and to provide insights into some of the key concepts and findings in the literature. The term ‘entrepreneurial borrowing’ is used as shorthand for ‘borrowing by Small and Medium Sized Enterprises (SMEs)’. The ‘entrepreneur’ in this context is therefore synonymous with the owner-manager of the SME. Accordingly, ‘entrepreneur’ encompasses both ‘lifestyle entrepreneurs’, who form the vast majority of SMEs, as well as the high growth aspiring innovator in the tradition of Schumpeter (1934) and Baumol (1990, 1993). Speaking directly to this point, De Bettignies (2008) provides comparisons between the financing of lifestyle and high growth ventures and highlights that lifestyle ventures use predominantly debt to fund their ventures whereas high growth ventures mainly use equity type instruments.

The emphasis on the term ‘borrowing’ (as opposed to ‘lending’) indicates there is a particular interest in this review in exploring issues related to the demand for credit. In this respect, issues of entrepreneurial cognition and cognitive biases (e.g., Baron, 1998; Mitchell *et al.*, 2007), along with related insights from the behavioral finance literature (e.g., Baker and Wurgler, 2013; Barberis and Thaler, 2002), receive due attention insofar as they may affect entrepreneurs’ borrowing decisions. Of course, examining the other (supply) side of the equation (i.e., ‘banks’ and ‘lending’ to SMEs) is unavoidable in view of its prominence and coverage in the literature (e.g., Udell, 2015). However, taking an

‘entrepreneurial borrowing’ perspective on the topic seems apt for the journal *Foundations and Trends in Entrepreneurship*.

A discussion of entrepreneurial finance more generally relating to venture capital, angel finance, or equity crowdfunding is out-with the scope of this review. The reader is referred to articles by Manigart and Wright (2013) and Edelman *et al.* (2017), and Wallmeroth *et al.* (2018) for comprehensive coverage of the literature relating to non-debt sources of entrepreneurial finance.

1.2.1 Previous Reviews of the Entrepreneurial Credit Literature

What value added can this review provide compared to previous reviews of the literature relating to the availability of SME credit (e.g., Parker, 2002; Udell, 2015)? A first general point of difference with Parker (2002) is that there is more coverage in the current review of the business and management literature on entrepreneurial borrowing, an area of the literature that has grown rapidly since Parker’s article. Relatedly, issues of ethnic and gender discrimination in entrepreneurial credit markets and the role of peer-to-peer lending following the GFC, have received increased attention in recent years especially in the business/management literature, and are therefore covered in this review. Equally, the evidence regarding the impact of the GFC on entrepreneurial credit conditions is another new and important area of discussion.

Another issue, which has received much more attention in both the economics/finance and business/management literatures since Parker (2002), relates to discouraged borrowers. This literature recognises that credit market imperfections may lead some entrepreneurs with credit needs to self-ration (Han *et al.*, 2009a; Kon and Storey, 2003). That is, despite having credit needs, the entrepreneur refrains from applying for credit for fear of rejection by an imperfectly informed lender. Increasingly, it has become recognised that self-rationing is potentially a greater constraint on entrepreneurship than traditional credit rationing (Fraser, 2014a). The issue of discouraged borrowers therefore receives much more attention in this review.

More recently, Udell (2015) provides a thorough assessment of what we know from the academic literature about SME access to

intermediated credit, through the prisms of SME lending technologies and lending channels. In particular, the idea of SME lending technologies builds on earlier work by Berger and Udell (2002, 2006), which emphasizes that banks lend to SMEs using a variety of different relational and transactional lending technologies, involving both soft and hard information, to overcome information asymmetries (see also Liberti and Petersen, 2018; Stein, 2002).

An SME lending channel “is a two dimensional concept that pairs a lending technology with a type of financial institution that offers the technology” (Udell, 2015, p. 21). The concept of SME lending channels was introduced by Taketa and Udell (2007) to analyze the impact of the Japanese banking crisis on SME credit. More generally, a key benefit of the SME lending channels paradigm is that it can be used to frame the effects of financial shocks on SME access to credit. Applying this paradigm to the GFC, and looking at a number of studies which identify credit supply effects using European data sources (e.g., Carbó-Valverde *et al.*, 2016; Jiménez *et al.*, 2012), Udell (2015) concludes:

Overall these studies have found, among other things, evidence of a significant credit crunch with a bigger effect associated with banks under more stress and in countries under more stress.

(Udell, 2015, p. 24)

In terms of points of difference with Udell (2015) paper, the emphasis in the current review on ‘entrepreneurial borrowing’ (rather than ‘bank lending’) leads to more discussion of issues such as discouraged borrowers, and ethnic/gender discrimination in the credit market. In addition, in contrast to Udell (2015), the current work reviews the financial constraints literature that has traditionally looked at the relationship between the firm’s internal finances and investment for evidence of financial constraints. (In a perfect capital market there should be no relationship between the firm’s financing and investment decisions, as suggested in the seminal paper on capital structure by Modigliani and Miller, 1958.) However, a key issue highlighted in this review is that internal finance tests are unable to distinguish supply side financial

constraints from demand side cognitive constraints. That is, internal finance tests are unidentified. An alternative, better identified, test of underinvestment based on external funding gaps (due to non-borrowing, discouragement, or rejection by a lender) is therefore proposed. However, inevitably, there is some overlap between Udell's (2015) review and the current review, including the topics of lending technologies and the impact of the GFC on SME lending.

1.3 Entrepreneurial Credit Journeys

To help structure the review, and frame its core themes and concepts, the overarching concept of the 'entrepreneurial credit journey' is developed. The entrepreneurial credit journey follows the entrepreneur from the development of credit needs, through application and lending decisions and, beyond, to the consequences of these earlier decisions for firm performance. The entrepreneurial credit journey is therefore: dynamic by its very nature; relates to issues affecting both the demand and supply of credit; places the entrepreneur at the heart of the discussion; but, at the same time, highlights the external credit market issues that may inhibit the entrepreneur's access to credit and constrain firm performance.

Specifically, the entrepreneurial credit journey encompasses:

- Firm level contextual factors determining whether the firm develops credit needs in the first place. This relates to the stage of the firm in its life cycle, or financial growth cycle (Berger and Udell, 1998), which affects credit needs (and availability). In addition, control aversion (Shaver and Scott, 1991) may lead entrepreneurs to prefer self-finance even if this results in lower firm performance (Cressy, 1995). Control aversion seems to be a particular issue for family owned firms (Mishra and McConaughy, 1999; Romano *et al.*, 2001).
- The factors affecting whether or not credit needs are translated into a credit application (Kon and Storey, 2003). If the entrepreneur is discouraged, this may lead to a demand-side 'self-

rationing' credit gap even if the origins of discouragement lie in (supply side) information asymmetries (Kon and Storey, 2003).

- If the entrepreneur applies for credit, the potential issue of a supply-side credit gap due to classical credit rationing caused by information asymmetries between the firm and bank (e.g., Stiglitz and Weiss, 1981).
- The role of screening, contracting and monitoring activities ('lending technologies') conducted by the bank to reduce information asymmetries and improve credit supply (e.g., Berger and Udell, 2002, 2006; Udell, 2015).
- The real effects of credit gaps/unmet credit needs, due to self-rationing and credit-rationing, on new venture creation and firm performance (e.g., Evans and Jovanovic, 1989; Hvide and Møen, 2010).

The literature shows that market conditions play an important role in SME financing conditions (e.g., Beck and Demirgüç-Kunt, 2006; Hefferman, 2006). In this regard, Figure 1.1 indicates that the entrepreneurial credit journey is also affected by market level factors relating to competition in the credit market (Berger *et al.*, 2004). Competition affects not only on the cost and availability of credit (Petersen and Rajan, 1995) but also on the likelihood of discouragement (Han *et al.*, 2009a). In particular, higher bank concentration may encourage banks to invest more in their relationships with small firms. This may improve information flows and lower the likelihood of discouragement among creditworthy firms (Han *et al.*, 2009a).

A fundamental issue highlighted by Figure 1.1 is that the entrepreneurial credit journey is a dynamic recurrent process.⁵ In particular, the entrepreneur may require several infusions of credit at different

⁵This relates to the more general idea of a 'financial growth cycle' (Berger and Udell, 1998). Start-ups traditionally tend to rely on insider finance, trade credit and, to a lesser degree, angel finance. Since the GFC, start-ups may also use crowdfunding and accelerators as sources of funding. As the firm grows and gains a track record, it is more likely to become 'investor ready' allowing it to access external finance in the form of bank debt, and venture capital. For the most informationally transparent firms, public debt and equity may also become available.

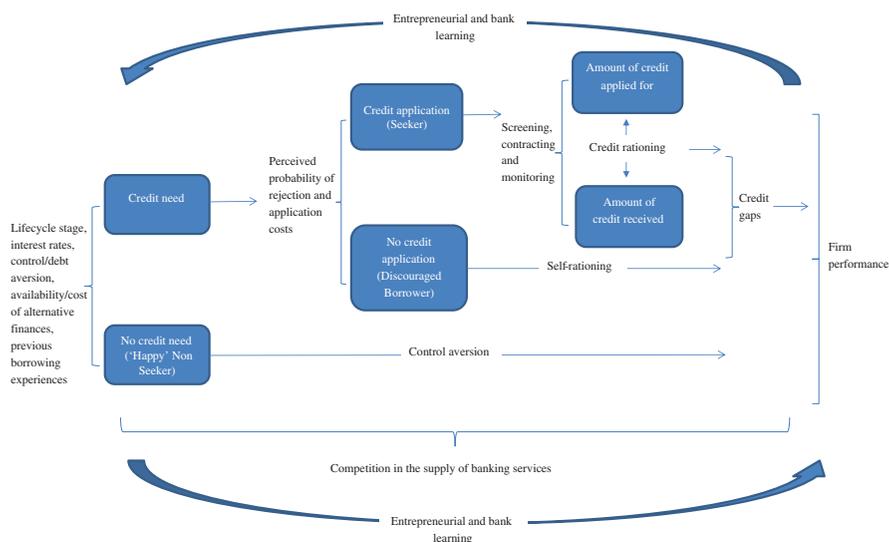


Figure 1.1: Entrepreneurial credit journey.

stages in the firm's lifecycle necessitating multiple credit journeys over time. By implication, learning by both entrepreneurs (Jovanovic, 1982) and banks (Petersen and Rajan, 1994) will take place with the experiences obtained over repeated credit journeys. In this respect, previous borrowing experiences which are good (e.g., a successful application), bad (e.g., an unsuccessful application), and ugly (e.g., an unsuccessful application aggravated by poor handling of the denial by the bank), and indeed the absence of previous borrowing experiences, may affect both entrepreneurial financing decisions and banks' lending decisions in subsequent credit journeys (see directions for future research below).

1.4 Structure of the Review

In this context, the core of the review involves reviewing the literature relating to (information) issues affecting the supply and demand for entrepreneurial credit and the policy responses aimed at addressing these issues. Specifically, the review contains the following sections:

- Section 2 reviews key data sources and empirical findings relating to the demand and supply of entrepreneurial credit. The literature

on recent trends in entrepreneurial credit and the impact of the GFC on entrepreneurial credit conditions is also reviewed. This section is largely about stating facts and commenting on issues relating to entrepreneurial credit journeys without going into rigorous theoretical explanations, which are explored in more detail in subsequent sections.

- Section 3 reviews the literature relating to supply-side credit-rationing and market mechanisms designed to overcome information asymmetries (i.e., the lending technologies used by finance providers in the entrepreneurial credit market).
- Section 4 reviews the literature relating to demand-side self-rationing (discouragement) and issues of control/debt aversion that inhibit the development of credit needs.
- Section 5 reviews the issue of financial constraints on firm performance caused by credit-rationing and discouragement. Existing internal finance tests of underinvestment are critiqued and an alternative external funding gap test is proposed.
- Section 6 reviews policy issues, in particular the role of loan guarantee schemes and small firm banking competition policy in improving credit supply to entrepreneurs.
- Section 7 reviews the literature on gender and racial/ethnic discrimination in entrepreneurial credit markets. There is also a discussion of other underrepresented groups of entrepreneurs in the credit market (the young, religious minorities, and those geographically located at a distance from lenders).
- Section 8 reviews the literature relating to peer-to-peer lending facilitated by online platforms, a key development in entrepreneurial borrowing since the GFC, and the factors affecting the chances of entrepreneurs successfully receiving credit on online platforms.
- Section 9 concludes with a recap of the main findings from each previous section and provides directions for future research.

Each section concludes with its own comprehensive summary to help the reader keep track of the issues as they progress through the review. In addition, italicised text in the summaries highlights areas where there are substantial gaps in our understanding and therefore scope for further research. These gaps feed in to the main directions for future research proposed in Section 9.

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