Ross Brown and Neil Lee

Funding issues confronting high growth SMEs in the UK

Report

FUNDING ISSUES CONFRONTING HIGH GROWTH SMEs IN THE UK

Ross Brown
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by

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FOREWORD

How do we ensure that companies with the potential to grow do so? Does a lack of finance prevent firms from growing and benefiting the wider economy? These are important questions if we are looking for economic growth. There has been much focus and debate on the funding issues affecting small and medium sized entities (SMEs), but this report takes that debate a stage further by investigating 'high growth SMEs'. These firms are considered to have more potential than most to have a positive impact on the economy and on job creation.

One of the 14 published policies of the Department of Business, Innovation and Skills (BIS) is 'Making it easier to set up and grow a business'. This report aims to provide evidence for the debate on how this policy can be achieved and covers both supply and demand issues for high growth SMEs. It does so by a review of the existing literature, an analysis of the *Small Business Survey*, undertaken by BIS, and a series of in-depth interviews with a small number of high growth SMEs.

The study finds that although high growth SMEs are 9% more likely to apply for finance than other SMEs, they are no more or less likely to be successful. They tend to want access to bank finance rather than equity finance and are more likely than other firms to use a 'mixed cocktail' of finance, using both internal resources and external (mostly debt) finance to fund growth, often through acquisition.

Importantly, these firms are identified as highly 'reluctant borrowers' rather than 'discouraged borrowers' – that is they are just unwilling to borrow, even to fund growth. This reluctance stems from a lack of trust of banks and a resistance to any dilution of their own autonomy. This is an important policy issue; if firms are reluctant to borrow to grow then growth is restricted to the element that can be funded internally and the potential for wider economic growth is also restricted.

A number of policy implications are drawn from this research by the authors, with recommendations for both the supply and the often neglected demand-side of funding. In particular, policy makers are encouraged to target supply initiatives at SMEs with growth potential and increase the focus on long term debt finance. This is something which the new British Business Bank may assist with. Most important, though, there is a need to consider how 'reluctant borrowers' may be transformed into 'willing borrowers' and how demand for finance may be stimulated in the future.

This project was funded by the Scottish Accountancy Trust for Education and Research (SATER – see page 65). The Research Committee of ICAS has also been pleased to support this project. The Committee recognises that the views expressed do not necessarily represent those of ICAS itself, but hopes that the results of this research will be of benefit to policy makers, funders and those advising SMEs. The Committee and the researchers plan to extend this work to further address these important issues.

Allister Wilson
Convener of ICAS Research Committee
June 2014

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EXECUTIVE SUMMARY

Introduction

In the wake of the global financial crisis, there has been increased concern about the availability of external finance for small and medium sized enterprises (SMEs). A lack of external finance has been seen as a significant contributory factor behind the UK economy's slow recovery. This issue is now a highly prominent policy issue within the current UK and Scottish Parliaments.

At the same time, there is a growing awareness that relatively few firms have a significant impact on economic growth. A small group of 'high growth firms' are responsible, according to some estimates, for the majority of new job creation. Yet, despite the interest in both access to finance and high growth firms, few studies have specifically investigated the demand and supply of external finance for rapidly growing SMEs in the UK. This research report helps address this gap through an investigation into the use of external finance amongst rapidly growing SMEs in the UK.

Research objectives and methodology

This report's overriding aim is to investigate the funding constraints faced by high growth SMEs in the UK. It meets this broad aim through a series of specific research objectives which aim to investigate:

- the extent to which high growth SMEs in the UK apply for external finance;
- the sources and types of finance sought by high growth SMEs and the reasons for applying for external finance;
- whether high growth SMEs are more likely than other SMEs to face funding constraints; and
- the implications of these findings for policy in this area.

The research methodology had three main elements. The first phase was a review of the existing literature on access to finance and high growth firms. The second phase consisted of quantitative analysis of the *Small Business Survey*, an SME survey conducted by the UK Department for Business, Innovation and Skills (BIS). In addition to descriptive statistics on access to finance, the data was also used for econometric analysis. The third phase was a series of in-depth interviews with a small number of high growth SMEs. These interviews were used to unpack the descriptive findings in the quantitative phase of the research.

Key findings

The research presents a number of novel findings. The quantitative research shows that most rapidly growing SMEs tend to draw finance from banks, rather than raising equity finance. High growth firms are also significantly more likely to apply for finance than other firms. They are more likely than less rapidly growing SMEs to be borrowing to grow and to fund acquisitions of other businesses. They are less likely to be applying for working capital than slower growers (although a large share apply for this reason).

However, in contrast to expectations and the findings from previous research, high growth firms are not more or less likely to find it hard to access finance than other firms. However, the research found many of these firms draw on their own internal financial resources to fund their growth which is consistent with previous academic research. High growth firms are also more likely to use a 'mixed cocktail' of finance and use a mix of internal and external (mostly debt) finance.

The qualitative analysis also yielded novel insights. As with the quantitative research, the firms investigated in more depth commonly use conventional sources of bank finance and internal sources of finance rather than equity finance. Acquisition was also important and buying new firms was an important part of the growth strategy of many of the fast-growing SMEs. Yet many of these firms were also quite cautious in their financial strategies. Firms were not driven by excessive risk-taking, but were keen to maintain balanced growth. Because of this, retained earnings were a popular source of finance for growth. The ability to fund investment largely through internal resources may explain why high growth SMEs do not report credit availability issues.

Entrepreneurs were often resistant to outside intervention in their businesses and were against the idea of borrowing, even to fund growth. Rather than being 'discouraged borrowers', i.e. discouraged from applying because they believe that they would be turned down, many firms are in fact highly 'reluctant borrowers' who are just unwilling to borrow. One of the main factors behind this reluctance was the fear of banks or other lenders having too much control over their business, such as having the ability to alter or re-negotiate lending conditions.

Policy implications

The findings have significant implications for policy and practice. In recent years, there have been considerable efforts by the governments to promote the supply of credit to SMEs. However, this research suggests that this is often poorly targeted to firms which are not likely to achieve significant growth. It may, therefore, prove harder to ensure reluctant borrowers, such as many high growth firms, seek external sources of borrowing to expand further.

Similarly, the report has implications for policy towards high growth firms. Expanding access to sources of equity finance is often a priority for policy makers. Much of this policy has been focused at new entrepreneurial firms, and may actually miss the existing firms with growth potential which are the primary focus of this report. However, many of these rapidly growing firms do not feel risk capital meets their needs and are reluctant to relinquish equity in their business. Rather than focus on promoting sources of entrepreneurial finance for start-ups, policy may be better targeted towards ensuring existing firms can access the finance they need to grow without diluting equity.

Overall, despite current government policy frameworks there is evidence to suggest that the market is not providing long-term sources of large-scale debt finance. Given the findings of this research, recent policy initiatives in this area like the new British Business Bank seem appropriate. This initiative should examine demand stimulation mechanisms so that growth-oriented SMEs are encouraged to seek external finance. New market entrants and newer forms of finance, such as crowd funding and peer to peer lending, also offer opportunities to alleviate the reluctance of SMEs to utilise traditional sources of funding from mainstream banks. Encouraging these activities seems appropriate.

The policy implications arising from this study are summarised below:

Supply-side initiatives:

- Policy initiatives to promote the supply of credit to SMEs should be more targeted towards those SMEs with growth potential.
- There is a need to address certain systematic issues within UK banking, such as the lack of competition and weak local or regional banks, which may impede access to finance for SMEs.

- More focus should be given by policy makers towards the supply of long term finance, particularly debt finance, to growing firms rather than the current focus on start-up finance.
- Given the reluctance of high growth SMEs towards equity finance, government initiatives should be targeted at providing debt rather than equity finance.
- Policy makers should explore how high growth SMEs might be able to access alternative forms of finance and encourage these activities.

Demand-side initiatives

- Future BIS surveys should address the nature of 'reluctant borrowers' and the complex array of factors which shape these disengaged or 'debt shy' SMEs.
- Attitudinal change is required to transform 'reluctant borrowers' to 'willing borrowers' for both debt and equity finance. Pro-active efforts are required by policy makers and funders to promote the demand for finance.
- The new British Business Bank initiative should examine demand stimulation mechanisms.

1. INTRODUCTION

This report examines the funding issues confronting high growth small and medium sized enterprises (henceforth HG-SMEs) in the UK. High growth firms (henceforth HGFs) have become a key focus for policy makers in recent years, owing to their perceived role in promoting economic growth and employment creation (Anyadike-Danes *et al.*, 2009; 2013; OECD, 2010; Henrekson and Johansson, 2010; Lerner, 2010; Lee, 2013; Brown *et al.*, 2014). Indeed, the current Holyrood and Westminster governments view these firms as a central part of their policy frameworks to promote productivity and economic growth. Creating and supporting these firms is a key part of the UK's new small business strategy 'Small Business: Great Ambition' (BIS, 2013a).

In recent years, numerous metrics have been used to measure high growth firms (Henrekson and Johansson, 2010; Coad *et al.*, 2014). The standard definition adopted by the majority of researchers is the OECD definition of high growth (Hart and Anyadike-Danes, 2014). Under this definition, a high growth firm is considered to be 'an enterprise with average annualised growth (in number of employees or turnover) greater than 20% per annum over a three year period, with a minimum of 10 employee at the beginning of the growth period' (OECD, 2008, p. 61). The downside with this narrow metric is its reliance on backward-looking financial information. Therefore, for the purposes of this research project, HGFs are defined as firms who have experienced 20% employment growth for one year and who predict 20% growth for the subsequent year. By including a forward-looking element within this definition, it should capture firms who are currently experiencing rapid growth.

At the same time, concern that smaller firms find it harder to access finance than larger firms is well established in the academic literature on small business funding (Berger and Udell, 2006; Freel *et al.*, 2012; Cowling *et al.*, 2012). Indeed, the evidence that SMEs face problems accessing finance now seems irrefutable. However, most of the literature tends to focus on SMEs as a whole rather than examining the funding constraints faced by rapidly growing firms (e.g. Vos *et al.*, 2007). Surprisingly little work in the UK has considered access to finance amongst HG-SMEs (Lee, 2011), despite the fact that HGFs account for the majority of employment growth within economies (Shane, 2009; Lerner, 2010; Coad *et al.*, 2014).

This report examines whether rapidly growing SMEs face more acute funding problems than other SMEs. Rapid business expansion often requires firms to invest in new people, premises, new products, processes, prototypes and capital equipment - all of which require additional finance. Funding issues are therefore a pressing issue for rapidly growing companies, especially SMEs who may find access to finance more problematic than larger and older established firms with a more established lending and growth track record.

This issue is particularly important in the context of the current funding climate for SMEs, where difficulties in obtaining finance by smaller firms appear to have worsened since the financial crisis (Hutton and Nightingale, 2011; Hutton and Lee, 2012). Indeed, despite the recent resumption in economic growth, business investment levels remain a quarter below their pre-financial crisis levels (Financial Times, 2014). Given the current focus of policy makers on both HGFs and access to finance for SMEs, the lack of evidence on this topic is a significant gap in the evidence base.

This aim of this report is to help rectify this omission and investigate the funding constraints faced by HGFs in the UK. More specifically, the research objectives are to:

- Investigate the extent to which HG-SMEs in the UK apply for external finance.
- Investigate the sources and types of finance sought and their reasons for doing so.
- Consider whether HG-SMEs are more or less likely than other SMEs to face funding constraints.
- Explore the implications of these findings for policy in this area.

The research project had three main components. First, a review of the current literature was undertaken. Second, the *Small Business Survey*, an SME survey which is undertaken by the Department for Business, Innovation and Skills (BIS) was analysed. Thirdly, interviews were conducted with a small number of HG-SMEs. These interviews were used to unpack some of the empirical findings which had been raised during the survey analysis research phase.

The report is structured as follows. Chapter two begins with a review of the academic literature on funding for SMEs. In chapter three the results from the aggregate survey analysis are presented. In chapter four the findings from the interview research are outlined. Finally, the report ends with some brief conclusions and outlines some of the policy implications which arise from this research.

2. LITERATURE REVIEW

Introduction

The availability of finance for SMEs is a topic of considerable interest to academics, policy makers and business people across the world (Berger and Udell, 2006). Interest in the topic has heightened since the financial crisis of 2008 (Fraser *et al*., 2013). However, the issue is not new. Indeed, it was first noted in the Report of the Committee on Finance and Industry, the *MacMillan report*, published in 1931. This noted particular difficulties SMEs face when attempting to raise capital which subsequently became known as the 'MacMillan Gap' (Johnman and Murphy, 2000). Since this time, the idea that smaller firms face particular problems in terms of financing has become deeply entrenched within public policy in the UK (Hughes, 1997). Indeed, during the 1970s when small firms started to come to prominence, the *Bolton* (1971) and *Wilson* (1979) reports reinforced the belief that SMEs confronted particular difficulties obtaining external sources of finance. More recently, the *Rowlands Review* (2009) reinforced the view that problems existed for SMEs in the provision of growth capital to help aid their growth and expansion.[1]

At the present time, it is widely accepted that an 'equity gap' exists in the provision of modest amounts of equity finance to SMEs. The equity gap is often quantified 'as a set of boundaries relating to the amount of equity finance sought in which potentially viable and profitable businesses are unable to raise the finance they need' (BIS, 2012, p. 10). In turn, it is believed that smaller firms face higher interest charges or more severe security conditions than larger firms (Storey, 1994; BIS, 2012) which in turn constrains their growth capacity (Carpenter and Peterson, 2002). These funding limitations are thought to have played a pivotal role in undermining the performance of various national economies owing to the financial straight jacket placed upon SMEs compared to larger enterprises (Beck and Demirguc-Kunt, 2006).

Indeed, successive governments within the UK and elsewhere have attributed a lack of funding for SMEs as a key contributory factor behind the UK's weak economic performance (Hughes, 1997). One consequence of this viewpoint is that governments have deployed various policy measures to tackle these perceived 'market failures' in the supply of finance to SMEs (Storey, 1994). During the 1980s, in the UK, the Loan Guarantee Scheme (LGS) was introduced alongside the Business Expansion Scheme (BES). It is fair to say that the effectiveness of many of these early policy interventions is thought to be questionable (Storey, 1994). Despite the lack of evidence discerning market failures in terms of the funding for SMEs, subsequent governments continued with this belief strongly intact (Hughes, 1997).[2]

If anything the belief that SMEs confront barriers to finance has become an even greater issue since the recent financial crises (Fraser *et al*., 2013). Since the onset of the financial crisis in 2008, there has been increasing recognition that the lack of availability of finance could be a major contributory factor for the lack of growth within the economy (Armstrong *et al*., 2013). A decline in consumer confidence in the banking system allied to less relational forms of personal banking seem to have exacerbated the problem. Owing to the costs of applications and the imperfect screening of applicants by banks, some claim there are a large amount of 'discouraged borrowers' within the SME community (Kon and Storey, 2003). This occurs when 'a good borrower may not apply to a bank, because they feel they will be rejected' (Kon and Storey, 2003 p. 37). As a consequence, lending to SMEs is currently at sub-optimal levels exacerbating the effects of the financial crisis which prolonged the last recession (Hutton and Nightingale, 2011).

Recently Vince Cable, the Secretary of State for Business, Innovation and Skills claimed: 'Small and medium-sized businesses are still telling me that access to finance is their number one problem, preventing them from investing and growing' (BIS, 2013b). Indeed, data from the *Small Business Survey* 2010 shows that over half of all SMEs who applied for funding experienced difficulties obtaining finance from their first source (BIS, 2011). In addition, according to data from the Bank of England, net lending to SMEs is falling at an annual rate of 4% (Bank of England, 2013). According to new data, collated by the British Bankers Association at the request of the UK government, lending to small businesses fell in more than 80% of the UK's postcode areas (i.e. 98 of the 120) between 2011 and 2012 (Treanor, 2013).

In response to the problems faced by SMEs in accessing finance, the UK government has introduced the high profile 'Funding for Lending scheme' (FLS).[3] This was designed to encourage UK banks to invest in the real economy with incentives skewed towards lending to SMEs. In addition to this the UK government has currently announced the creation of a 'SME bank' called the British Business Bank.[3] The government has committed £1 billion to this new policy approach, although exact details of the bank's *modus operandi* have yet to be announced. In recent years, local development agencies are also playing a role in trying to foster relationships between financial institutions and small firms, often promoting 'investor readiness' within SMEs and co-investment schemes with local equity investors (Mason and Pierrakis, 2013). Despite this policy activity, the funding environment facing SMEs remains extremely difficult.

It is important to note that the funding constraints for SMEs are not uniform across the population of these firms. Studies show that most SMEs manage to obtain the finance they seek, although a significant minority of firms may find accessing finance problematic and this share may have increased since the recession (Vos *et al*., 2007; Cowling *et al*. 2012). However, the majority of research demonstrates that it is smallest and youngest SMEs which have the worst perceptions of access to credit (Canton *et al*, 2013). Plus, there appears to be mounting evidence to suggest that rapidly growing SMEs face a different set of funding challenges from the population of SMEs as a whole (Lee, 2011). Rapid business expansion often requires firms to invest at short notice in new people, premises, new products, processes, prototypes and capital equipment - all of which require additional finance. According to the current UK government, finance is a 'disproportionately important obstacle for high-growth firms compared to other businesses' (BIS, 2012, p. 7). Owing to this, the focus of this empirical study is on growth-oriented SMEs rather than the SME population as a whole.

Financial constraints faced by SMEs

The basis for public policy in this area owes to the notion of market failures (Hughes, 1997). These mainly relate to the concepts of imperfect or asymmetric information (BIS, 2012). In addition, there are information market failures which affect the demand-side of businesses seeking external finance.

One of the dominant views taken by many observers attributes the problem to a lack of sufficient 'supply' of finance, especially for SMEs. Within this perspective, information asymmetries are seen as barriers which prevent small firms being able to receive the levels of finance necessary to expand. Information asymmetries, arise when buyers know more about the product than their customers. In contrast to neo-classical economics which assumes perfect information, there is now a widespread belief that a lack of information creates adverse selection effects (Ackerlof, 1970). Asymmetric information is probably one of the most important reasons why external finance is more costly compared to the use of internal funds, such as retained earnings (Berger and Udell, 1998). Not only that, but SMEs are sometimes denied access to finance owing to their lack of security and loan track record. Unlike larger firms, SMEs may not have audited financial statements which again increases 'informational friction' between borrowers and lenders (Pollard, 2003). This problem has been accentuated by the removal of localised decision-making structures within UK banks (Durkin *et al*., 2013). Indeed, just over half of all SMEs who applied for finance, experienced difficulties obtaining finance from their first source (BIS, 2011). Compounding this problem is the fact that over two-thirds (71%) of SMEs only approach one lender (typically their main bank) when seeking new sources of credit (BIS, 2014). Since the onset of the financial crisis in 2008, there has been increasing recognition that the issue of access to finance could be a major contributory factor behind the tepid economic recovery witnessed within the UK economy (Cowling *et al*., 2012; Armstrong *et al*., 2013).

Not everyone subscribes to this 'supply-side' perspective. Indeed, others point to the fact there has been a large reduction in the demand for finance within the economy, especially since the financial crisis of 2008 (Giles, 2013). Owing to weak overall economic growth, some firms may be becoming more 'risk averse' which limits their desire to seek external sources of finance. This can result in investment decisions being postponed; capital expenditure decisions being delayed; levels of training within the workforce being reduced; and new product and process innovation put on hold. Cumulatively, this can harm the long-term growth potential of businesses and the economy as a whole and reduce the demand for credit, especially within more risk-averse smaller firms.

There is undoubtedly a complex interplay between demand and supply issues in terms of finance which makes disentangling causal relationships a difficult process. One of the main obstacles obstructing insight into these complex processes is that research typically takes a very supply-side focus and neglects the role of 'demand' for finance. It is therefore crucial to examine both supply-side and demand-side issues when examining the true nature of the factors preventing SMEs from accessing growth capital.

High growth SMEs

Before examining the funding issues faced by rapidly growing SMEs it is worth examining the overall characteristics of SMEs.[4] Previously there has been a strong tendency to treat SMEs as a single homogeneous grouping using the basic European Union classification system (Ghobadian and O'Regan, 2004). In reality however, SMEs will vary enormously in terms of their ability to marshal resources, obtain new customers, develop innovative new products/services and to obtain funding to grow into larger entities. Predicting which firms become high growth is something of a coin toss. Indeed, firm growth is a 'random walk' (Coad, 2009). So universal SME classification systems seem inappropriate to capture the considerable heterogeneity within this cohort of firms (Nightingale and Coad, 2014). Interestingly, and in parallel with the increasing policy interest in funding issues, there has been a resurgence of policy interest in a small cohort of dynamic, rapidly growing firms. Owing to the disproportionate impact of these firms of the economy, there has been a huge upsurge of interest in HGFs in recent years. HGFs were originally christened 'gazelles' during the 1970s by the American economist David Birch (1981). This recent interest within the UK has undoubtedly been stimulated by a series of high profile reports by the National Endowment for Science Technology and Arts (NESTA) (Anyadike-Danes *et al.*, 2009; Lee, 2011; Brown *et al.*, 2014). Indeed, there is now quite large degree of consensus within the entrepreneurship literature that some firms within economies are disproportionately important for economic development (for a review of the literature on these firms see Henrekson and Johansson, 2010). Owing to their ability to grow very rapidly many of these firms tend to be relatively young dynamic SMEs.

For a wide variety of reasons, such as their strong contribution to productivity (Du *et al.*, 2013), high innovation levels (Mason *et al.*, 2009), strong levels of employment growth (Anyadike-Danes *et al.*, 2009; 2013), high levels of business internationalisation (BIS, 2010) and their positive impact on skills and human capital (Mason *et al.*, 2012), HGFs have been hailed as a vital source of economic competitiveness (Shane, 2009; Henrekson and Johansson, 2010; Lerner, 2010). However, it has been their role as generators of new employment which has tended to grab the most attention. According to some, interest in HGFs 'can be explained in one word: jobs' (Coad *et al.*, 2014). Indeed, a large body of evidence shows that a small cohort of HGFs is responsible for a disproportionate share of net new employment growth (Henrekson and Johansson, 2010).

Despite the importance of these firms, academic knowledge of this highly dynamic collection of firms is very limited at present. This partly owes to the fact that the vast majority of research on these firms has focused on quantifying the number of HGFs within economies (Henrekson and Johansson, 2010) and estimating their overall contribution to the economy on a number of different levels, such as employment creation (Anyadike-Danes *et al.*, 2013). Most research on high growth has failed to establish strong causal foundations explaining rapid growth (Coad, 2009). Indeed, a major conclusion of the empirical research in this area concluded that the 'stochastic part of the variation by far outweighs the systematic part. In other words, explained variance in growth research is notably low' (McKelvie and Wiklund, 2010, p. 277). Much less attention has been paid to understanding the dynamics of these firms; what triggers periods of rapid growth (Brown and Mawson, 2013); and how they fund their growth and expansion (Lee, 2011).

Finance issues and high growth SMEs

The focus of this section is to examine the existing literature on the funding issues faced by a specific cohort of firms known as high-growth SMEs (henceforth HG-SMEs). Financial capital is one of the key resources required by firms to support business growth (Binks and Ennew, 1994; Carpenter and Peterson, 2002). Obtaining funding enables firms to access these kinds of additional resources and forms the 'primary resource base from which other factor inputs are acquired' (Dobbs and Hamilton, 2007, p. 306). For obvious reasons, access to finance is a particularly pressing issue for HG-SMEs as most high growth companies 'have considerable outside financing needs' (Vanacker and Manigart, 2010, p. 54).

However, such firms often find access to finance more problematic than larger and older established firms both in the UK (Armstrong *et al*., 2013) and across much of Europe (ECB, 2012). This point was made recently by the *Rowlands Review* (2009) which identified a gap in the provision of growth capital for viable SMEs. According to some observers, firms with the highest growth potential are the ones most likely to face funding problems which in turn will lead to a 'discouraged economy' (Hutton and Nightingale, 2011).

Despite the fact that financial management is of critical importance for firms undergoing rapid growth, relatively little is known specifically about the financial issues confronting high-growth companies (Vanacker and Manigart, 2010). A key dimension of the literature on entrepreneurial finance is that it is heavily focused on private equity funding (e.g. Baum and Silverman, 2004). Whilst there has been a lot of research examining the way in which very early stage HGFs receive sources of equity funding, such as from business angels and venture capital (Lerner, 2009; Mason, 2009; OECD, 2011), much less research has explicitly examined the funding situation confronting the majority of HG-SMEs, who typically use a wider variety of funding sources, especially traditional forms of debt finance and retained earnings (Eckhardt *et al*., 2006). For example, only a tiny proportion of SMEs receive equity funding (e.g. 1-2% of SMEs), whereas half of SMEs who use external finance seek traditional sources of funding, such as bank lending, credit cards or overdrafts (BIS, 2012). Even in the US, the home of venture capital, less than 2% of start-ups are funded by venture capital and business angels (SBA, 2014).

The relatively small amount of research undertaken reveals two main factors in relation to fast growth businesses: problems of availability and sources of finance. First, in terms of availability or the supply of finance, the evidence seems quite mixed as to whether fast growth firms find accessing finance more difficult than other firms (Cowling *et al*., 2012). For example, research shows that growing businesses in Northern England were more likely to have experienced problems with their banks than slower-growing counterparts (Storey *et al*., 1989). In contrast, research by Binks and Ennew (1996) found that credit constraints faced by growing firms were no greater than for other firms. However, they did find that firms who expect to achieve rapid growth in the future do perceive tighter credit constraints. Firms operating in areas of high-technology were found to be the ones most likely to perceive funding issues as an impediment to rapid growth (Westhead and Storey, 1997). More recent research for NESTA reveals that nearly 20% of high growth ventures consider access to funding to be the most important barrier to growth they face (compared to 13% for other firms) (Lee, 2011). Interestingly, research suggests that during the recent recession in the UK, lending institutions have become less focused on growth ambition and tend to award funding to larger firms, irrespective of their growth ambitions (Cowling *et al*., 2012).

Second, fast growing firms appear to adopt preferences for particular sources of finance. Business owners can finance growth in a variety of different ways, but the fundamental decision for many business owners is whether or not to relinquish ownership of part of their business to external investors. Under the 'pecking order hypothesis' of fund raising (Myers and Majluf, 1984), firms generally minimise outsider influence within their business and ownership dilution. Many entrepreneurs are opposed to relinquishing control of their business to external investors and resist equity finance (Carter and Van Auken, 2005). Therefore, firms have a pecking order of types of finance, which begins with the use of internal funds generated by retained earnings, then recourse to debt finance from banks, and then, as the least preferable option, equity finance which dilutes ownership of the business. Interestingly, contrary to the current prominence given to sources of entrepreneurial finance from business angels or venture capitalists, internal finance in the shape of retained earnings and debt funding are the most frequently used financing options for high growth companies (Vanacker and Manigart, 2010). Whilst more research is needed to explore these issues further, on the face of it, HGFs prefer to finance from internal sources of finance or through debt (Barclay *et al*., 2006) rather than through sources of equity finance. Indeed, some researchers have discovered that some SMEs only seek out venture capital owing to the rent-seeking behaviour of their main bank (Berger and Schaeck, 2011). This contrasts to financing for new start-ups, especially new technology based firms (NTBFs), which often seek venture capital funding owing to the high levels of associated risk (Cassar, 2004).

Summary

There is a deeply held view that the growth of SMEs is constrained by a lack of finance to help these firms grow and expand. This has translated into various attempts by policy makers to correct this perceived 'market failure'. At the same time there is a growing acceptance that not all SMEs are the same, and that a small cohort of these firms contribute disproportionately to wealth creation within the economy (Henrekson and Johansson, 2010). How these rapidly growing SMEs are funded is not currently well understood. What some research shows is that HG-SMEs appear to suffer disproportionately when trying to obtain funding and that often these firms prefer internal sources of funding or bank finance over equity forms of funding, in accordance with the 'pecking order hypothesis' (Myers and Majluf, 1984). Little is known about the causal factors behind these credit constraints on HG-SMEs, such as:

- the degree of 'discouraged borrowers' (Kon and Storey, 2003) within this cohort of businesses;
- how the decline of localised decision-making autonomy within the UK's retail banking sector has affected this situation (Durkin *et al*., 2013); and
- how the lack of small banks reduces the likelihood of 'relationship banking' in the UK banking sector (Berger and Black, 2011).

Neither is much known about how HG-SMEs may be constrained from growing even faster due to their desire to retain full ownership of their business. Shedding further light on these important dimensions of this growth-funding nexus is therefore a key objective of this research.

3. ANALYSIS OF THE SMALL BUSINESS SURVEY

The data for the quantitative section of this study is the combined *Small Business Survey* (SBS) for 2007/8, 2010 and 2012.[5] This is an SME survey commissioned by the UK Department for Business, Innovation and Skills (BIS). The survey is conducted as a Computer Assisted Telephone Interview (CATI) and questions are asked of owners or senior decision makers in each firm. Firms are selected using a stratified sample, with quotas for nation/region, size and sector. Firms are selected randomly from the Dun & Bradsteet database. The survey includes firms across the UK, although weights are used in the analysis to account for oversampling of some regions or nations.

For the purposes of this study two sets of firms were removed from the data. First, as is standard in the literature on HGFs (Anyadike-Danes *et al*., 2009), firms with less than 10 employees in the initial year of analysis are excluded. Including very small firms in the measure would bias the interpretation of high growth, as it is easier for a small firm to achieve rapid growth than one which starts larger (for example, a sole trader taking on a single employee would be counted as having doubled in size although the absolute increase is minimal). Second, firms with missing values for the variables used are excluded. This is largely a random process as some firms are only asked a sub-set of questions in each year. This resulted in a total sample of 8,830 firms, of which 4,060 were sampled in 2007/8, 2,145 in 2010 and 2,625 in 2012.

Defining high growth firms

Two different methods were used to identify HGFs. The basic method uses the full, combined SBS dataset for 2007/8, 2010 and 2012. There are debates in the literature about whether to use a turnover or employment measure of high growth. However, SBS only includes reliable data on past employment, not turnover (although it does ask whether turnover has increased), therefore in this study, employment growth is used as the measure of firm growth.

Firms in the SBS are asked their total number of employees at present and one year ago. They are also asked to predict employment growth in the subsequent year. Following NESTA research using this dataset (Lee 2011), HGFs are defined as those which have grown at 20% for one year and which predict 20% growth for the next. As an additional check, firms which say that they have not achieved ‘growth’ in a further question are excluded. Whilst this is not a perfect measure of firm growth it does correlate strongly with actual firm growth measures.[6]

This method has two important limitations. First, firms may not be able to reliably predict future growth. This may lead to a bias either towards optimistic firms, which are more likely to be seen as high growth, and away from pessimistic firms, which are less likely to be seen as high growth. A second problem is that by only using a two year time period, rather than the three year period used in other recent UK studies (although there is significant variation in the definitions used for HGFs, Henrekson and Johansson, 2009), this may lead to an overestimate of the share of firms which achieve high growth relative to other work which has adopted a longer timespan. Unfortunately, data limitations mean a two year timespan like this is the only possible method. However, the advantage of this method is that it captures firms who are undergoing a spell of rapid growth, rather than those who have exited it. The results need to be interpreted with these limitations in mind.

Table 3.1 shows the share of HGFs in the sample using this method. Of the full sample, just fewer than 5% are HGFs. More firms were high growth in 2007/8, before the financial crisis, than immediately after in 2010 or in 2012 when 3.6 and 4.5%, respectively, were high growth. This shows a significant uplift between 2010 and 2012. These figures are slightly below other estimates for the earlier periods (for example, Anyadike-Danes *et al*., 2009, estimate 6% of firms achieved high growth). This provides some evidence to suggest the results of this project are not unduly affected by optimism bias. The Anyadike-Danes *et al*. (2009) study, however, considered all firms with more than 10 employees, rather than focusing on SMEs.

Table 3.1 Share of high growth firms from all SMEs, by year

Type of SME		2007/8	2010	2012	Total
Non-high growth	%	94.6	96.4	95.5	95.3
	Number	3,806	2,052	2,477	8,335
High growth	%	5.4	3.6	4.5	4.7
	Number	254	93	148	495
Total	%	100	100	100	100
	Number	4,060	2,145	2,625	8,830

Source: *Small Business Survey*, 2007/8, 2010, 2012.

Notes

Where figures given are percentages weights are used so the figures are representative of the wider SME population and generalisations can be made.

Where figures given are numbers they are given to indicate sample size and so weights are not used.

Access to finance for high growth firms

Applications and difficulty accessing finance

A number of variables on access to finance are constructed (see Table 3.2), following Lee *et al*. (2013). These covered applications for finance, success of first applications and overall success in obtaining finance from any source.

Table 3.2 Applications for finance and reported difficulties

Type of SME	Percentage of firms which				
		Of those who applied:			
	Applied for finance	Had trouble obtaining finance from first source	Did not get all finance from first source	Did not get any finance from first source	Did not get finance from any source
Non-high growth	32.82	34.22	26.70	20.37	15.81
High growth	43.68	31.65	22.99	17.02	13.29
Overall	33.33	34.06	26.50	20.16	15.66
P-value	0.00	0.537	0.332	0.332	0.405

Source: *Small Business Survey*, 2007/8, 2010, 2012.

Notes

Sample: 8,830 firms, 3,152 of which applied for finance.

Weights are used to ensure figures are representative of the UK SME population.

The P-value is a measure of statistical significance, and is calculated from a simple probit regression (with weights applied). Lower values indicate a higher probability that differences between the categories do not arise from random chance.

Difficulties in obtaining finance are nested, so firms which did not get any finance are included in the three previous categories

HGFs are significantly more likely to apply for finance than other firms. Exactly a third of all firms applied for finance in the previous 12 months, with 33% of all non-HGFs applying. But 44% of HGFs applied, a significant difference (p=0.000).

Firms were asked whether they had difficulty obtaining finance from their first source, and then whether they obtained all the finance they needed or any of the finance they needed.

HGFs have fewer relative problems in accessing finance than other firms. Thirty four percent of firms who applied for finance had trouble, with 32% of HGFs. HGFs were slightly less likely to not get all the finance they sought (23% compared to an average of 27%) or fail to get any finance from the first source (17% compared to an average of 20%). This may owe to HGFs being more ambitious and growth oriented than non-HGFs. None of these differences are statistically significant.

Overall, 13% of HGFs did not get finance from any source – compared to 16% of firms on average. Again this difference is not statistically significant.

In short, despite being more likely to apply HGFs are statistically no more or less likely than other SMEs to find it harder to obtain finance from their first source or to obtain finance from any source.

Sources of finance for high growth firms

An important consideration is whether HGFs are more likely to be funding their growth through internal resources, such as retained earnings, rather than through external sources of finance. In the SBS, firms which aimed to grow were asked whether they would fund this expansion using internal or external finance in both the 2007/8 and 2010 surveys (unfortunately, this question was not asked in the 2012 survey). This information is used to assess whether HGFs are more likely to seek to fund growth using internal resources. Table 3.3 gives the results.

The results show that HGFs are more likely to fund expansion using a combination of both internal and external finance than non-HGFs. Thirty four percent of HGFs would do this, compared to 24% of other firms. This shows that the HGFs are more inclined to use a 'cocktail' approach to funding, involving both retained and external sources of finance. In contrast, HGFs are less likely to use internal finance (only 51% of firms compared to 61% of others).

As shown in Table 3.2, HGFs are more likely than other firms to apply for finance. To test if this affects the results, Table 3.3 also includes the share accessing each type of finance from the share of all firms, regardless of whether they apply for finance. When considering all firms, HGFs are more likely to finance growth using all three measures, than other firms. The largest gap, however, is that HGFs seem particularly likely to look to finance growth through both internal and external resources: 11% of other firms look to finance growth in this manner, but 21% of HGFs do. This contrasts to a study of HGFs in Belgium, which found that HGFs had a stronger preference for using internal sources of finance, such as retained earnings (Vanacker and Manigart, 2010).

Table 3.3 External and internal sources of finance

Do you expect to fund your business growth using internal finances or from external sources?			
Source of finance	**Non-high growth**	**High growth**	**Total**
Percentage of firms which apply:			
Internal finance	61.4	50.7	60.7
External finance	15.2	14.9	15.2
Both	23.5	34.4	24.1
Percentage of all firms:			
Internal finance	11.3	13.6	11.4
External finance	7.4	12.1	12.1
Both	10.5	20.5	11.0

Source: *Small Business Survey*, 2007/8, 2010.

Notes

Sample: 4,860 firms from 2007/8 and 2010 surveys – all of which aim to grow.

Weights are used to ensure figures are representative of the UK SME population.

Percentages may not total to 100 due to rounding.

Reasons for applying for finance

An important secondary consideration is that HGFs may be applying for finance for different reasons to other firms. This may then affect their likelihood of receiving finance. For example, banks may be more willing to lend to a firm to purchase buildings than to lend to one aiming to invest in R&D owing to the 'sunk costs' involved in such activities. The SBS contains data on a number of reasons for accessing finance, such as use of working capital, buying new buildings and capital equipment, R&D and acquisitions, although as only 3,152 firms in the sample applied for finance the sample size is relatively small for each of these sub-categories. Table 3.4 presents the results of the breakdown and shows that HGFs differ significantly in the reasons they are accessing finance.

Table 3.4 Reasons for applications for finance

Reason for applying for finance (percentage of firms which apply)						
Type of SME	Working capital	Buying or improving buildings	Acquiring capital equipment or vehicles	Research and development	Buying another business	To fund expansion
Non-high growth	47.2	18.5	26.4	3.4	1.6	3.3
High growth	35.7	18.9	25.8	3.8	6.6	8.8
Total	46.5	18.5	26.3	3.4	1.9	3.6
P-value	0.007	0.905	0.881	0.761	0.000	0.003

Source: *Small Business Survey*, 2007/8, 2010, 2012.

Notes

Sample: 3,152 firms – all of which applied for finance

Weights are used to ensure figures are representative of the UK SME population.

The P-value is a measure of statistical significance, and is calculated from a simple probit regression (with weights applied). Lower values indicate a higher probability that differences between the categories do not arise from random chance.

HGFs are significantly less likely to be accessing finance to use as working capital[7], although a high share are still likely to be doing so. Around a third (36%) of HGFs are accessing finance for this reason, compared to almost half (47%) of other firms. Many HGFs are accessing capital to invest in buildings or equipment. Nineteen percent of applications are to buy or improve buildings and 26% to acquire capital equipment of vehicles. These are high figures, but differ little from the share of the average firm.

Only a small share of all SME firms are applying for finance for research and development (R&D) purposes. Given the profile of the firms and their small size, this is perhaps unsurprising. Yet we might expect HGFs to be more likely to be trying to fund innovation and growth. One potential explanation is the small sample size. Another is that HGFs may have applied in the past, with the funding application predating rapid growth. An alternative explanation is given in Mason and Brown (2013), who suggest that many HGFs use customers and end-users as innovation inputs rather than formal R&D spending.

HGFs are more likely to apply for finance for two growth related reasons: to buy another business (7% of HGFs, compared to 2% overall) and to fund expansion (9%

compared to 3%). Both these differences are statistically significant. That HGFs are more likely to be buying other businesses suggests that the general perception of HGFs growing through non-organic means is true. These different patterns of growth create demand for a different composition of long and short-term funding which requires further investigation (Fraser *et al.*, 2013).

Types of finance sought by high growth firms

Next, the types of finance sought are considered. The SBS asks firms who apply for finance what type of finance they seek, and a number of responses are given (ranging from bank loans to Community Development Finance). However, many of the smaller categories are only asked in single waves and can have very small sample sizes. To prevent this from biasing the results, only seven base categories of finance are considered: bank loans; bank overdrafts; venture capital; grant; leasing and hire purchase; loans from family/business partners/directors; and mortgages for property purchases/improvements (see Table 3.5).

Table 3.5 Type of finance sought

What type of finance did you seek? (percentage of firms which apply)							
Type of SME	Bank loan	Bank overdraft	Venture capital	Grant	Leasing /hire purchase	Loan from family/ directors	Mortgage
Non-high growth	39.0	26.8	1.0	8.1	12.9	2.1	5.8
High growth	48.6	18.4	4.8	5.9	12.5	2.2	5.7
Total	39.6	26.3	1.2	8.0	12.9	2.1	5.8
P-value	0.025	0.020	0.001	0.238	0.868	0.945	0.943

Source: *Small Business Survey*, 2007/8, 2010, 2012.

Notes

Sample: 3,152 firms which applied for finance, of which 230 were high growth.

Weights are used to ensure figures are representative of the UK SME population.

The P-value is a measure of statistical significance, and is calculated from a simple probit regression (with weights applied). Lower values indicate a higher probability that differences between the categories do not arise from random chance.

Only selected categories of finance are included, those with very small sample sizes are excluded.

The most common type of finance applied for is a bank loan (40% of firms in the sample). Forty-nine percent of HGFs apply for bank loans, compared to 39% of other firms (this difference is statistically significant). The second most common form of finance is bank overdrafts, which 26% of firms apply for. However, in this case HGFs are significantly less likely to apply (18% compared to 27%). As bank loans tend to be offered on cheaper interest rates than overdrafts, this suggests that HGFs may in fact have access to less expensive capital than other firms. It may also reflect the greater reliance of other firms on working capital, rather than growth finance.

Significantly, venture capital seems to be used by a very small proportion of HGFs with just 4.8% attempting to access venture capital. The figure for the overall SME population was 1%. This suggests that while more significant for HG-SMEs, sources of equity finance are not a dominant form of funding for most HGFs, despite the perception within the policy community (Brown *et al*, 2014).

One of the key research questions in this report is whether HGFs are able to access finance as easily as other firms. The analysis above (in particular, table 3.2) suggests that HGFs who apply for finance find it no harder or easier to obtain than other firms. However, the relationship may be more complicated than simple statistics allow us to analyse. HGFs are likely to have particular characteristics, such as a size or sector, and these characteristics themselves may confound any relationship. For example, firms run by entrepreneurs with qualifications may be more likely to achieve high growth – but firms run by entrepreneurs with qualifications would also make better applications. A 'regression model' was used to separate out effects like these. This is a statistical technique which investigates the relationship between a 'dependent variable', in this case whether a firm successfully accesses finance or not, and a group of 'independent variables' such as firm size, sector, age and the characteristics of the management team. Each of these independent variables will have a different impact on the dependent variable, and regression analysis allows these impacts to be analysed individually. The results of this regression analysis are presented in appendix one.

Summary

This chapter has used survey data to investigate applications for finance of SMEs experiencing rapid growth. It shows that HGFs are more likely to apply for finance than those growing less rapidly. They are also more likely to use a combination of both internal and external finance than other SMEs. The types of finance they are seeking differs and they are less likely to be applying for working capital than other firms, although a significant proportion still do so. Fast-growing firms are more likely to seek finance to buy another business or simply to fund expansion. They are relatively more likely to apply for bank loans than overdrafts, suggesting they may have access to longer term, cheaper capital. Overall, in contrast to expectations, HGFs are no more or less likely to find it hard to access finance. This finding is explored in more detail in the next chapter.

4. FINDINGS FROM INTERVIEWS WITH HIGH GROWTH SMEs

Interview sample

The second key empirical element of this research involved in-depth interviews with a small number of UK SMEs who have recently undertaken a period of rapid growth. A list of these anonymous HG-SMEs is highlighted in Table 4.1.

Table 4.1 Nature of firms interviewed

Year established	Turnover (2012/13)	Employment	Sector	Location
2003	£50m	75	Clothing Supplier	London
2003	£20m	150	Telecommunications	London
2002	£10m	35	Internet Retailer	Yorkshire
1989	£13m	200	Fashion Accessories	London
2004	£26m	90	Whisky Industry	Scotland
1991	£25m	165	Commercial Windows/Partitions	Yorkshire
1995	£43m	70	Housebuilder	Yorkshire
2003	£37m	160	Medical equipment	Yorkshire

Note

Comments are not attributed to firms in the text, as might be possible in other contexts. This is because there are relatively few HGFs which match each of those described above, and labelling comments may prejudice anonymity.

For inclusion in the qualitative component of this research, SMEs had to have encountered a period of high growth in the last three years. The OECD's definition of high growth was adopted to identify these firms (2008). This is different from the high growth definition used in the survey analysis because databases can only identify firms who have grown rapidly ex-post and do not include firms based on their predicted growth rates (Lee, 2011). With one exception, the firms interviewed were privately owned, predominantly family-owned firms.[8]

The firms were identified using the business database FAME. In total, a sample of around 400 HGFs (comprising a mixture of size groups) was identified from FAME. A list of suitable firms was drawn up; unsuitable organisations were de-selected, such as charitable organisations, business associations, large firms, holding groups etc. Only firms who met the EU definition of a SME were selected. In total around, 83 firms were contacted with around half indicating that they would consider taking part in the research. Firms were then contacted to ascertain whether they were available for interview. In total, 43 firms were contacted during this period, with eight firms finally agreeing to take part. Prior to the interviews, the firms were then examined using secondary sources such as firm websites, FAME, newspapers etc.

In around half the cases the interviews were conducted with the financial directors of the firms and in the other half interviews were with the owner manager or CEO. The interviews were used to explore some of the findings which were uncovered by the initial survey analysis. All bar one of the interviews were undertaken by telephone. The majority of the interviews lasted 30 minutes but some were considerably longer. One interview was conducted by telephone and by email, with the firm providing the majority of their answers to the questions via the later channel. All the firms and their responses remain anonymous to protect those who participated in the research.

Nature of companies interviewed

Firms who experience rapid growth are highly heterogeneous in terms of their demographic composition. This is a common feature of much of the academic literature on HGFs in recent years (Mason and Brown, 2013). According to one high growth observer, this 'pervasive heterogeneity' means they cannot be 'worked out from the armchair' (Coad, 2009, p.7). The interviews helped to open up the 'black box' of funding issues within these HG-SMEs.

As can be seen from the eight firms examined, this heterogeneity had a number of different dimensions including *inter alia*; age, size, sectoral classification etc. As others have noted, firms of all ages can experience a period of rapid growth (Acs *et al.*, 2008). Interestingly, however, this sample of firms interviewed were all relatively youthful. All the companies were less than 25 years of age and over half the firms were around 10 years of age. What is also interesting is that many of these firms had their origins in pre-existing companies and were not traditional *de novo* start-ups. For example, one of the firms established ten years ago was in actual fact the amalgamation of two existing businesses. In another case, the firm that was established used the assets from a previously liquidated business to then form the basis of the current enterprise.

In terms of size, all the firms in the sample, fitted the SME classification criteria meaning they had fewer than 250 employees. Only SMEs who had a balance sheet threshold or turnover of below 43m euros and 50m euros respectively, were included in the sample. Overall, the firms were quite substantial in terms of their size and resources. Owing to the OECD high growth measurement criteria the sample did not include any micro firms with less than 10 employees. The smallest firm had 35 employees and the largest employed 200 people. This divergence in size was also marked in terms of turnover, with firms ranging between £10m-£50m. Clearly, there are quite substantial differences between businesses within this size range.

Another feature of these firms is their sectoral heterogeneity. All eight firms were in quite distinctive business areas ranging from contact lenses production/retailing to telecommunications. An interesting feature is that three of the firms were involved either directly or indirectly in retail-related markets. Another strong feature of these firms was their consumer-oriented nature and over half were business to consumer firms (i.e. B2C). In common with other research on HGFs, high-tech firms were a small component (Henrekson and Johansson, 2010; Mason and Brown, 2012).

Finally, although no attempt was made to select the geography of the firms contacted for interview, they were strongly biased towards London and the 'north' of England. Four of the firms interviewed were based in Yorkshire and three of the firms were based in London. The one remaining firm was based in Scotland. Whilst unintentional, this 'spatial bias' enables us to undertake comparisons between firms located in the 'south' versus high SMEs located in the 'north'. Spatial variations such as these are something which are often neglected in research on access to finance where firms are typically depicted as 'placeless entities' (Pollard, 2003, p. 440).

Main sources of funding utilised

There were a number of interesting issues which were discovered during the interviews in relation to the main sources of funding for HG-SMEs. Some of these findings corroborate the earlier survey analysis in chapter three, whilst others are more contradictory in nature.

A very clear finding from the interviews was that the dominant form of funding for HG-SMEs is traditional forms of bank lending rather than entrepreneurial sources of risk finance. All the firms use banks as their main source of finance to fund either their day-to-day working capital and/or to fund growth within their businesses primarily through bank loans. The two main methods of bank lending used were invoice-funding (where firms receive funding against invoices) and asset-based lending (where firms receive lending against their corporate assets such as machinery, buildings and stock). Typically, firms use a mixture of trade credit (or factoring) and invoice-funding while they were growing. As firms increased in size they then move up the funding ladder towards a greater use of asset-based lending. The latter type of finance is obviously important for funding 'speculative' business expansion, such as the procurement of new plant and machinery. This suggests that larger firms with more assets will find it easier to obtain loans against their assets.

Whilst the dominant form of funding for these businesses is traditional bank lending many of the firms reported difficulties with their main bank and many had switched their banks over the last five years. It appears that the financial crisis resulted in more onerous terms and conditions for banks loans. The majority of firms sought to move banks during the late 2000s. However, in the words of one of the firms, many were 'stuck with them' owing to the terms of the current lending arrangements and facilities. However, the easing of the financial situation over the last few years has encouraged firms to seek out better lending terms with alternative bank lenders. These re-financing decisions were often very expensive for the firms. One firm remarked that there was an 'aggressive cost to that'. Another firm claimed that the decision to re-finance with another bank resulted in a loss of £1.6m to 'buy out' their relationship with their current lender.

A key issue which was evident in all the cases was the strong desire to avoid external sources of funding whenever possible. This was possibly the result of the financial credit crunch which increased the reluctance of firms to borrow. This is a finding which strongly chimes with other research on HGFs (Vanacker and Manigart, 2010). The firms interviewed felt that the best approach towards funding their growth was through the use of internal profits or retained earnings. These internally generated surpluses were viewed as the most useful source of expansion capital. One firm stated that 'we are able to take advantage of the investments we do like from own resources'. This strong preference primarily owes to the cash rich nature of many of the firms which enables them to fund expansion through internal funds.

However, this proclivity towards the use of internal resources is also due to quite a risk averse approach by the firms. Whilst all these firms are currently growing rapidly, they are clearly highly selective when selecting and assessing growth opportunities when they arise. Growth opportunities are closely examined to ensure that there is an adequate return on capital employed (ROCE). This is displayed by the remark by one of the firms:

> *Yes. We are pretty cautious allocators of capital, and ours is a very tough market, and so we don't see a ton of opportunities to invest at a ROCE which justifies taking the underlying risk.*

The risk averse nature and frequent use of retained earnings by these firms was also strongly driven by their desire to remain independent from external funders. A strong recurring theme during the interviews was the desire not to become overly reliant on external sources of finance owing to the owner's wish to remain autonomous and to avoid 'intrusion from outside'. In the majority of the firms interviewed, they seem to 'body-swerve' external sources of funding wherever possible. Again, the key driver was the desire to remain in control, as was exemplified by one respondent:

> *I have seen first hand how Private Equity investors, and/or bank debt can wreck an otherwise good business and we don't want to lose control of the company or be burdened with the risk of debt... I value having control of the business, and not having gearing, very highly.*

Only one of the cohort of firms had used venture capital (VC) to grow their business. The VC-backed firm was established by a serial entrepreneur who had used investment from a business angel to acquire two businesses which were recombined into the entrepreneur's new venture. As the business expanded they sought more funding from other sources of VC. Despite being in operation for nearly ten years the firm had just started to become profitable. A couple of interesting issues were raised during the interview with this online retail company. The firm use a mixture of funding sources to fund their expansion, including venture capital, trade credit, retained earnings and traditional bank lending. Again, this stresses the 'cocktail' approach towards funding which was outlined earlier. Despite being VC-backed, another interesting issue was the company's desire for longer-term sources of debt funding in the future.

This backs up the findings from the survey analysis which found VC and other forms of risk finance to be a very atypical source of funding for rapidly growing

SMEs. Indeed, within the cohort of firms interviewed there was considerable hostility towards this type of finance. Most VCs were seen as 'too aggressive' in terms of what they wanted in return for an equity stake. Neither did entrepreneurs want the organisation complexities, which additional 'interfering' stakeholders may bring. Indeed, a common point made by the entrepreneurs interviewed was that they 'didn't want any more shareholders'.

Main obstacles and problems for high growth SMEs

It is now time to examine some of the obstacles (both real and perceived) which confront rapidly growing SMEs in relation to their dealings with providers of external funding. An interesting point is that the majority of firms had managed to access funding from their bank lenders in recent years. Of the eight firms interviewed, six of these had secured loans of one sort or another during the last five years. None of the firms had been rejected for loans by their banks. Even during the current financial crisis the majority of firms had been able to access bank loans and overdrafts which enabled them to continue growing during the late 2000s. Indeed, according to one firm, despite the credit crunch banks were 'happy to give us funding'.

Often loans were used in conjunction with other sources of finance, such as retained earnings, to invest in their businesses. However, in recent years the mix of funding had strongly moved away from debt funding to a greater proportion of internal funding resources. One of the firms reported that in the past they used a balance of about 50/50 retained earnings and bank debt to fund their expansion, whereas now they had moved to a situation where they used two-thirds retained earnings and one-third bank lending to fund their growth.

The key problem for many of the firms interviewed was not the availability of funding *per se* but more a factor of the unattractive terms of lending being offered. The nature of the lending conditions granted meant that these growing businesses often eschewed finance from external sources, especially during the post-2008 credit crunch. This seems to be the main driver behind the desire to utilise higher levels of retained earnings as the key source of growth capital. Indeed, it appears that these firms have been able to grow in spite, rather than because of, external sources of finance. As one of the firm's remarked: 'SMEs have to ensure their survival through their own means'.

The interviews also revealed a number of quite recurring and deep-rooted perceptions of bank lenders which makes these firms highly 'reluctant borrowers'.

This had a number of dimensions. First a very strong common perception within the firms interviewed concerned the lack of understanding of the specific needs of SMEs. These businesses felt that the banks did not take sufficient interest in ascertaining the nature of their business operations -'they didn't understand the business'- to be able to properly assist the firms in question. A common perception was that SMEs were often viewed by banks as being 'relatively insignificant' for the UK's main banks. A key consequence of this was that less time was given to these 'accounts' compared to larger companies. Therefore, connections and knowledge about the nature of rapid growth within SMEs and how certain 'growth triggers' (Brown and Mawson, 2013) have to be managed and financed is believed to be lacking within most banks. One firm poignantly remarked to one of the researchers that 'banks' knowledge of growing companies isn't as good as yours'.

Another factor underpinning the relationships between the banks and these customers was the process by which these firms were managed by their banks. This had a size and a spatial dimension. As firms grow in size they often get 'transferred' from a local branch manager to another manager who works with larger firms with higher funding requirements. This then means that SMEs have to start afresh with the new manager to make them familiar with the nature of their business. Therefore, relationships are difficult to form between banks and SMEs and the banks 'don't get under the skin of the people'. In some cases, as the SMEs grow they were spatially transferred from their local branch operations in Leeds to being 'looked after by London'. This transferral of operations to London meant that the bank was not 'looking to support us' and resulted in the firm moving to another bank with a local team in Leeds.

The outcome of this was that many of the HG-SMEs did not feel that the banks were offering them the types of services they required. A major sticking point was that the banks were too slow and too conservative given the funding requirements for these fast-moving businesses. Many firms also felt the conventional loan structure by banks was 'too conservative' given their funding needs. Under the current system a firm submits an application which is then reviewed by a 'credit committee' within a bank. These firms felt that the decision-making structures needed to be 'quicker than that'. This point may relate to the need to fund acquisitions at very short notice, a growth strategy many of the firms deployed. Indeed, the only firm which did not encounter this problem was a subsidiary of a US-owned firm.

Another issue raised was the fact that banks spent too much time trying to 'sell products' rather than providing bespoke financial offerings for their customer. This point was made by several firms and entrepreneurs remarked that increasingly 'most banks pushed to sell products' rather than offer solutions to their funding requirements. This relates to the standardisation within the main high street banks which have become more uniform in terms of what they can offer their customers. This lack of flexibility was raised frequently during the interviews and many felt this undermined lack of trust between the firms and their customers. This was nicely summed up by one firm when they said: 'when it doesn't fit the format it's a no'. The nature of the sample enabled the research to gauge whether any of these issues varied between the firms in the 'north' versus firms located in the 'south'. Although a very small sample, there appeared to be no differences in opinion between firms located in either part of the UK. Probably, of greater significance was the difference between privately-owned firms and the one firm owned by a larger corporate entity. The research discovered that one of the case study firms was a wholly-owned US-owned subsidiary. Although initially a UK-owned firm, the firm was acquired by their present US owners in 2007. This firm was able to grow much more rapidly since being acquired because of the access it now had to the parent firm's source of finance in the US. Indeed, the firm had a strong acquisition-led approach towards growth and now had access to the HQ's 'acquisition pot'.

Finally, there seemed to be a perception within the cohort of firms that they were part of the 'squeezed middle' as one firm coined it. Many firms felt that banks and the government were predominantly focused on providing funding for start-up businesses and larger enterprises and 'forget us in the middle'. This is in line with other research which finds that access to finance is often a reflection of the size of a firm (Cowling *et al.*, 2012) which may account for the difficulties SMEs experience obtaining appropriate types of finance. This is also consistent with research which shows that larger banks, such as those found in the UK, rely more on 'hard information' and metrics about companies whereas smaller localised banks rely more on qualitative judgements about the nature of the firm's credit history, payment record and managerial abilities (Berger and Udell, 2006).

Summary

Like the population of HGFs as a whole, the sample of firms interviewed during this study was very heterogeneous. Common features across the firms include erratic growth patterns and a strong disposition towards the use of acquisition for their growth. Whilst the statistical analysis found HG-SMEs were more predisposed towards this form of growth strategy, the fact that five of the sample of interviewed firms grew in this manner shows the importance of this growth strategy. As expected banks were the dominant funder for vast majority of the SMEs interviewed, but many were very keen to avoid external sources of funding wherever possible. This was mostly driven by the desire to retain control over their financial affairs rather than being dependent on external lenders. There are a number of recurring and deep-rooted perceptions of banks which makes many SMEs highly ‘reluctant borrowers’.

5. CONCLUSIONS AND POLICY IMPLICATIONS

Summary of research findings

Little research has explored the specific nature of the financial activities and concerns encountered by smaller firms who grow rapidly. In general 'little is known about the financial policy of high-growth companies' let alone rapidly growing SMEs (Vanacker and Manigart, 2010). This study aimed to address this omission in the academic literature and so contribute to policy debates on this topic.

It is worth re-iterating the crucial role that finance plays in determining the success of small firms. The ability to access finance is a critical resource which enables firms to expand, and to access other growth resources such as people, ideas and new markets (Dobbs and Hamilton, 2007). There is no doubt financial management within companies is an intricate process mediated by a number of internal and external considerations. The ability to juggle and manage these financial affairs seems to be a central element determining the success of rapidly growing SMEs. As one of the case study firm's commented 'managing cash is the hardest thing in any business'.

Survey analysis

This research on rapidly growing SMEs presents a number of novel findings. The survey analysis finds that despite the current focus in the literature on risk equity finance, the main source of finance for HG-SMEs is actually banks. Interestingly, the research identifies that HG-SMEs make greater use of bank loans and are less likely to apply for loans for working capital than other SMEs. The work also revealed that these firms are significantly more likely to apply for finance than other firms. These HG-SMEs are around 9% more likely to apply for finance than other SMEs, a finding which is statistically significant. This was an expected finding and one which confirms previous empirical research (Vanacker and Manigart, 2010). Interestingly, HG-SMEs were significantly more likely to apply for finance to fund growth and to buy other businesses.

Some of the research results are contrary to some other recent studies on high growth enterprises (Vanacker and Manigart, 2010). HG-SMEs were less likely to only use internal finance to fund business growth than other SMEs. On the other hand, the survey analysis revealed that they were more inclined to use a 'cocktail' approach to funding, involving both retained earnings and external sources of finance, than other SMEs.

Finally, a somewhat less expected finding was that HG-SMEs do not have any greater problems accessing finance than other SMEs. Therefore, in spite of being more likely to apply for finance they are no less likely to find it harder to obtain from the first source of finance they approach. This suggests that financing problems are no more acute for this cohort of firms than for other SMEs. This is a similar finding to those who have examined innovative growth-oriented SMEs (Mina *et al*., 2013).

The fact that HG-SMEs do not appear to have greater problems accessing finance than other SMEs was unexpected. Some lenders may view firms who undertake rapid growth as 'riskier' and more likely to default on their borrowings, especially as a period of rapid growth can, in some instances, be quite destabilising for some firms. Further research is required to investigate the perceptions of HG-SMEs within lending institutions.

Interview findings

The findings from the interviews also revealed a number of interesting insights which in turn illuminate some of the survey results discussed. These firms are highly heterogeneous and do not correspond with some of the high-tech perceptions policy makers portray, which are often associated as being venture-capital backed firms (Brown *et al*., 2014). The majority of these firms operate with conventional bank finance and use internal and debt finance to fund their growth.

Another interesting finding was the strong role played by acquisition in the growth of these SMEs. Whilst this growth strategy is typically synonymous with larger-scale entities, SMEs are also now increasingly 'buying to build'. This bears out the findings from the survey analysis but the fact that five of the eight case study firms had grown in this manner shows the importance of this growth strategy within SMEs. This potentially has considerable implications in terms of the financial resources required by these rapidly expanding enterprises.

Somewhat paradoxically, the financial strategy within these firms is also quite cautious in certain respects. Rather than being instilled with dynamic risk-oriented entrepreneurs these firms seem keen to 'cut their cloth' accordingly rather than to pursue growth opportunities for the sake of it. This was heavily driven by a strong desire to remain independent from external funders. In line with the 'pecking order hypothesis' (Myers and Majluf, 1984), this was reflected by the strong preference for the use of retained earnings as their primary source of expansion capital rather than seeking recourse to external sources of finance. These firms are fiercely committed to remaining in charge of their own destiny.

The case studies also strongly suggest that there remains a high level of reluctance to undertake borrowing even by UK firms who are growing at a very rapid rate. Rather than 'discouraged borrowers', depicted by Kon and Storey (2003) as those who fear their request for loans will be turned down, a more appropriate term for these HG-SMEs is 'reluctant borrowers'. Reluctant borrowers are firms who can obtain external sources of finance but choose to avoid it whenever possible. These 'reluctant borrowers' can and do use external sources of finance at times but have a strong awareness of the problems entailed by the use (or over-reliance) on external sources of finance. Owing to the high level of surpluses generated by rapidly growing firms, these firms can continue to grow without recourse to external funding. Where they do need to use external funding, they often do so via 'cocktails' of internal and external sources of finance.

Finally, the findings from interviews very much chime with other research which shows that the internal operating structures of UK banks can have quite severely negative consequences for the 'relational understanding' between banks and their SME customers (Durkin *et al*., 2013). As the forces of ever increasing centralisation lead to the erosion of local decision-making autonomy within the main UK banks, there appears to be an ever widening 'service gap' between banks and SMEs in the UK (Chaston, 1994; Durkin *et al*., 2013). These problems seem to have been exacerbated by the recent financial crisis and disillusionment with banks seems to remain deep-seated within rapidly growing SMEs. This could result in sub-optimal levels of investment undertaken by SME which in turn hinders economic growth.

Research limitations and future research issues

There are a number of limitations of this research. The quantitative research focused on the *Small Business Survey* which, while the best available data source for this project, leaves a number of questions unanswered. In particular, while the sample size is large it is not detailed enough to give breakdowns on the reasons why firms were seeing their funding applications rejected with any degree of confidence. Perhaps in future some consideration should be given to future BIS surveys to the nature of 'reluctant borrowers' and the complex array of factors which shape these disengaged or 'debt shy' SMEs.

In terms of the interview findings a number of observations are necessary. Owing to the very small nature of the sample the findings contained in chapter four cannot be generalised to the overall business population of HG-SMEs. However, there are a numbers of factors which help to triangulate the veracity of some of these findings. First, some of the issues raised were corroborated by the wider findings from the survey analysis. The widespread use of bank funding as opposed to equity funding, the use of acquisition as a growth strategy within HG-SMEs and the use of funding 'cocktails', involving a strong use of internal finance, were all findings which were borne out by the firms interviewed. Second, the findings align with recent research on the nature of HGFs. Although this work looked at firms of all sizes, the findings around the 'reluctance' of HGFs to engage in external borrowing and a strong preference for internal funding strongly chimes with recent research (Vanacker and Manigart, 2010; Mason and Brown, 2013). However, more qualitative research on HG-SMEs is needed to further explore this phenomenon.

Policy implications

As noted at the outset of this report there has been an active interest by policy makers in the funding issues faced by SMEs for quite some considerable time (Hughes, 1997). More recently, policy makers have also become very interested in the role played by rapidly growing firms within the economy not just in the UK but across many advanced economies (OECD, 2013; Brown *et al*, 2014). There appear to be a number of potential policy implications which arise from this research which address the confluence of these policy strands.

In recent years there have been several policy initiatives in the UK to promote access to capital within SMEs. In this respect, a key initiative was the UK government's high profile 'Funding for Lending scheme' (FLS). This was introduced by the government to incentivise UK banks to invest in the real economy with incentives skewed to help fund SMEs. Since the FLS was introduced in mid-2012, lending by the banks participating in the scheme has reduced by £2.3 billion. In fact, a recent enquiry into business lending to small companies by the Public Accounts Committee found that 'far from encouraging more lending to SMEs, investment has declined' (PAC, 2013). In addition to this, the UK government is currently in the process of creating the new British Business Bank to aid the process of lending to SMEs. The Bank will receive an injection of around a £1 billion in new funding and will coordinate all the current BIS funding initiatives, such as seed funding, and public sector venture capital programmes, such as the Business Angel co-investment fund.

The overall thrust of these supply-side initiatives is designed to make it easier for SMEs to obtain access to credit. However, the critical problem with these efforts is threefold. First, they are not targeted and therefore they are aimed at all SMEs irrespective of their growth potential. In other words, they may end up helping less capable businesses obtain new sources of funding rather than specifically addressing the funding needs of those with the greatest levels of growth potential. This may increase bad decision-making by lenders. Second, they do little to foster the kind of attitudinal change which is needed to increase the likelihood of growing firms wishing to access credit. The 'reluctant borrowers' discovered during the research are unlikely to change their behaviour on the basis of these initiatives. This will require much more proactive and nuanced efforts to promote the 'demand' for accessing external funding within these SMEs. Some research suggests that having networks within the financial community increases the demand for finance within growing firms (Seghers and Manigart, 2012). Policies such as the Growth Accelerator programme help ensure firms are 'investment ready', but will only change attitudes of firms which volunteer to undertake training. More research on the 'how' to stimulate the 'demand' for finance is necessary.

Given the perceived lack of success with some of the policy initiatives outlined above, the Treasury Select Committee have just launched an enquiry into SME lending practises to further investigate these matters. The causes behind some of these problems seem deep-rooted within the UK economy. For example, many of these efforts effectively ignore the structural or systemic issues within the UK banking system, such as the lack of competition and weak local or regional banks (in contrast to countries like Germany), which impedes local SMEs from accessing bank lending (Klagge and Martin, 2005). One firm interviewed remarked that the lack of competition in the UK banking sector was one of the key weaknesses impeding SMEs in the UK. For example, the big four banks in the UK (Barclays, HSBC, Lloyds and RBS) account for almost 80% of SME lending (BIS, 2014). Due to this, the current coalition government are attempting to foster greater competition in the UK banking sector by promoting greater sharing of SME lending data and by promoting challenger banks (i.e. new market entrants). These steps seem appropriate because considerable evidence exists which suggests that increasing the availability of data on the credit worthiness of SMEs enhances the supply of credit to them (Love and Mylenko, 2003). Whilst this is a positive development, until these systemic factors are properly addressed changes to current policy frameworks are unlikely to produce wholesale change. As some observers note to avoid a repeat of the recent financial crisis the UK needs 'a greater diversity of banking institutions' (Hutton and Lee, 2012, p. 335).

In terms of public policies geared towards HGFs, a lot of the policy initiatives undertaken have been focused towards promoting additional sources of early stage risk finance for new ventures (Brown *et al*., 2014; Stucki, 2014). This has taken the form of incentives such as the Enterprise Investment Scheme and the Seed Enterprise Investment Scheme. A related strong thread of public policy over the last decade has been the promotion of public sector co-investment schemes which sees the public sector co-invest with business angels and venture capitalists (Mason, 2009). Whilst these initiatives may help new entrepreneurial firms get started, they do not assist SMEs who can potentially embark upon a period of rapid growth such as the firms interviewed. The vast majority of HG-SMEs do not obtain (nor wish to obtain) equity sources of risk finance, so the strong policy focus on promoting these sources of funding seems slightly out of step with the objective of producing more HGFs.

The balance of funding initiatives needs to be re-calibrated away from promoting micro businesses and start-ups towards a stronger focus on growth-oriented SMEs (Nightingale and Coad, 2014). From the evidence presented here it seems that more focus should be on creating better access to larger sums of longer-term funding. There seems an increasing recognition of a shift in policy in this direction with the recent establishment of the Business Growth Fund (BGF), which promotes larger chunks of ‘expansion capital’ of between £2 and £10 million for HG-SMEs. Whilst these sums of money are the level these ambitious SMEs probably need to fund significant business expansion, the equity based model of this programme is likely to deter a lot of good companies from participating in the BGF. Indeed, one of the companies interviewed had been approached by the BGF but was unwilling to release equity in their business. Whilst this move away from promoting smaller sums of funds towards business start-ups is welcomed, the focus of this kind of programme may be better if it had been a long-term source of debt funding. Perhaps this issue, and some of the other issues discussed above around stimulating the demand for finance, is something which the UK government should consider when establishing the new British Business Bank.

Another positive development which may increase the flows of funding to growth-oriented SMEs is the recent upsurge in alternative sources of finance such as crowd funding, peer-to-peer lending and invoice-based finance. Recent research estimates that these alternative funding sources now comprise almost £1 billion, helping to support over 5,000 early stage start-ups and SMEs between 2011-2013 (NESTA, 2013). Given the anticipated growth of these sources of funding, policy makers might wish to explore how growth-oriented SMEs might be able to access these newer forms of funding in future. Indeed, there seems some tentative evidence from this study that these newer forms of funding (especially non-equity dilutive models) may appeal to more innovative, HG-SMEs.

ENDNOTES

1. Growth capital is a 'broad term used to describe funding that enables established businesses to expand' (BIS, 2012, p. 11). The *Rowlands Review* claimed there was a gap located in the region of £2 to £10 million. This reflects the £2m ceiling of existing government interventions (below which most start-up funds are focused) and the £10m threshold below which venture capital rarely invests.
2. A particular cohort of businesses known as 'New Technology Based Firms' (NTBFs) became a particular priority for policy makers during the 1990s (Storey and Tether, 1997; Tether, 1997). These high-tech SMEs were deemed to have particularly onerous funding requirements which required risk capital (Gompers and Lerner, 2001; Lerner, 2010). Measures to stimulate the market for risk or equity finance were introduced by the UK government during the 1990s. As a consequence, governments implemented a wide range of co-investment schemes which jointly invest funds in tandem with private equity investors (Mason, 2009).
3. The Funding for Lending scheme provides cheap finance for banks and building societies with the aim of increasing the scale and reducing the cost of lending to the UK economy. In 2013, the scheme was focused on lending to SMEs. Further information is available at: http://www.bankofengland.co.uk/markets/Pages/FLS/default.aspx

   The British Business Bank manages new funding from government and has also consolidated existing funds of UK business lending. It offers both direct lending, as in the Venture Capital Catalyst Fund, and schemes designed to stimulate private sector lending, such as Wholesale Guarantees to incentives banks to lend to SMEs. More information on the British Business Bank can be found on their website at: http://british-business-bank.co.uk/
4. The most commonly used definition of a SME is the one used by the European Union (EU). Under the EU definition, SMEs are defined as firms employing less than 250 employees with a turnover of less than 50 million euros or a balance sheet total of less than 43 million euros. Throughout this project the definition of SMEs is relaxed to incorporate just the employment definition of a SME (i.e. less than 250 employees). Using joint employment and turnover definitions becomes problematic as there is concern regarding the usefulness of the turnover criteria for defining SMEs. Owing to the changing nature of the economy you can have the situation where firms remain very small in terms of the employment but

have huge levels of turnover. The example of the Finnish computer games firm Supercell is testament to this definitional ambiguity. Founded in 2010, the firm employ 85 people but already has a turnover of $105m. While still well within the size of a SME in terms of employment, the firm has now far exceeded the size classification of a SME in turnover terms.

5. Note that in 2007/8 this survey was called the Annual *Small Business Survey*.
6. The 2010 wave can be linked into the Business Structure Database which gives actual employment growth over the subsequent year. Using this method to test the robustness of firm predictions shows a strong and positive correlation between expected growth and actual growth of 0.8 ($p = 0.0000$). While these predictions will be wrong for a minority of firms, the majority of firms seem able to predict employment growth over the forthcoming year with some degree of accuracy.
7. 'Working capital' is everyday finance used by a firm to pay basic outgoings, rather than finance used for a specific source, such as investment.
8. In practice it proved difficult to discern the precise ownership structure of the firm from company websites. The inclusion of the one company which was a foreign-owned subsidiary only became apparent during the course of the interview.

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APPENDIX 1

Regression models

Model

A key research question is whether HGFs are more or less likely to find it hard to access finance than other firms. To test whether the results reported in this study are driven by high growth status, or other characteristics of firms which are likely to achieve high growth, a set of probit regression models are estimated. These estimate the likelihood of firms finding it hard to access finance, as a function of a set of other variables, such as size, sector and age.

The basic model is as follows:

$$FINANCE_i = \alpha + \beta_1 \, GROWTH_i + \beta_2 \, FIRM_i + \beta_3 \, OWNER_i + \beta_4 \, YEAR_i + \phi + \varepsilon$$

For firm 'i'. Where 'FINANCE' is one of a series of variables for difficulty in obtaining finance (as outlined in Table 3.2), α is the constant, 'GROWTH' is whether the firm is high growth or not, 'FIRM' is a series of firm level characteristics such as size and age, 'OWNER' is the characteristics and qualifications of the owner or management team, ϕ are sectoral controls and ε is the error term.

The estimation method takes two forms. First, simple probit regression results are estimated. However, a complication is that certain firms are more likely to apply for finance, and this may be related to the decision to apply, leading to a bias in the results. To address this in a second set of models selection effects are controlled for, and estimate a two-stage heckman probit regression. This requires a variable to be included in the selection equation (which estimates probability of applying for finance) which is not in the basic regression (which estimates likelihood of problems obtaining finance). Following other work in this area, legal status is used as the selection variable (Mina *et al.*, 2013).

Justification of control variables

Other factors may influence the ability of firms to access finance or not. To ensure these are not affecting the link between HGFs and access to finance, the model controls for a series of other potential explanatory variables.

Table A Variables and definitions

Variable	Definition
Year: 2010	Firm sampled in the *Small Business Survey*, 2010
Year: 2012	Firm sampled in the *Small Business Survey*, 2012 (reference category = Annual *Small Business Survey* 2007/8)
Size: 100+	Firm has 100 or more employees
Size: 50-99	Firm has 50 – 99 employees (reference category < 50 employees)
Female led	Firm is majority female led
Ethnic led	Firm is majority ethnic led
Qualified owner	Owner is qualified to degree level or above
Multiple directors	Firm has multiple directors
Aims to grow	Aims to grow
Age: 10 +	Age: 10 +
Age: 5–9	Age: 5 – 9 (reference category < 5 years)
Partnership	Firm is a partnership
Limited Company	Firm is a limited company

First, the sample of firms spans a five year time period which included considerable economic change and problems with access to finance. As a number of studies have shown, bank lending conditions tightened considerably following the financial crisis (Armstrong *et al*., 2013; Cowling *et al*., 2012). To control for this cyclical effect, two binary variables are used which take the number one if a firm is sampled in 2010 or 2012. The reference category is before the recession (2007/8) and so we expect both variables to be positive.

Size will also be an important determinant of lending decisions (Cowling *et al*., 2012). Larger firms will often represent safer investments, and size is sometimes used a proxy for risk by banks. Because of this, you would expect larger firms to be better able to access finance. The model controls for this using three size dummies, based on total employment in the year before the survey.

Similarly, age will be important for receiving finance as new and smaller firms often face credit constraints. Older firms will have longer-track records and so seem a 'safer bet' for banks. Two dummy variables (which take the value 0 or 1) are used to account for this, whether firms are 5-9 years old, or 10 +. The reference category is young firms under 5 years old, so you would expect each dummy variable to be positively related to difficulties accessing finance.

Entrepreneur characteristics are a more controversial area of research. Because banks often make decisions based on firm size, age and balance sheets, rather than the characteristics of entrepreneurs, it might be argued that this is unimportant. Research on whether ethnic entrepreneurs find it harder to access finance supports this interpretation and finds less impact (Fraser, 2009). The model controls for three entrepreneur characteristics: whether firms are female-led; ethnic-led; and whether the entrepreneur has a qualification. Because research has suggested both female entrepreneurs and those from ethnic minorities may face discrimination in the credit market, these variables may be positively associated with problems accessing finance. However, as educated entrepreneurs may be able to produce higher quality applications for funding, qualified entrepreneurs should be find it easier to access finance.

An additional variable for entrepreneurial human capital is the number of directors. Where firms have more directors, they may be better prepared to access finance. A variable for this is therefore included.

The growth ambitions of a company may also be important and a variable for whether firms aim to grow is included. Clearly, aiming to grow is likely to be positively related to applications for finance, as past research has shown (Lee *et al.*, 2013). Firms which aim to grow will, on the one hand, make more ambitious applications, yet they may also have better business plans and/or more attractive financial projections. Because of this, the sign of the coefficient is ambiguous.
Finally, two legal dummies for whether a firm is a partnership or a limited company are included. Past research has shown a link between legal structure and applications for finance, but shows little relationship with the success of applications (Mina *et al.*, 2013). Because of this, this is included in latter regressions as a 'selection variable'.

Results of regression models

The basic models for access to finance are included in Table B. The first set of models are estimated as simple probit regressions, without controlling for selection. For ease of interpretation, we present marginal effects – essentially a measure of the impact of a unit change in the independent variable (for example, whether the firm is a high growth firm or not) on the probability of the dependent variable taking the value one (for example, a firm being turned down for finance).

Table B Probit model: High growth firms and difficulty accessing finance

	Firm applied for finance	Firm applied and had difficulty obtaining from first source	Firm applied and did not obtain all requested from first source	Firm applied and did not obtain any from first source	Firm obtained nothing from any source
High growth firm	0.0903***	0.0251	0.0128	0.00993	0.00277
	(0.0302)	(0.0205)	(0.0170)	(0.0145)	(0.0114)
Year: 2010	0.0196	0.0826***	0.0762***	0.0715***	0.0271***
	(0.0213)	(0.0174)	(0.0167)	(0.0157)	(0.0101)
Year: 2012	-0.0249	0.0308**	0.0274**	0.0386***	0.0121
	(0.0191)	(0.0143)	(0.0133)	(0.0131)	(0.00945)
Size: 100 +	0.0518**	-0.0234*	-0.0258**	-0.0211**	-0.0228***
	(0.0221)	(0.0123)	(0.0102)	(0.00858)	(0.00640)
Size: 50 - 99	0.0611***	-0.000892	0.00441	0.000318	0.00123
	(0.0190)	(0.0116)	(0.0106)	(0.00921)	(0.00799)
Female led	-0.0214	0.0134	0.0101	0.00230	0.000990
	(0.0257)	(0.0189)	(0.0166)	(0.0128)	(0.0104)
Ethnic led	-0.000226	0.0395	0.0437	0.0334	0.0234
	(0.0365)	(0.0287)	(0.0275)	(0.0246)	(0.0210)
Qualified owner	0.0362*	0.0229*	0.0148	0.0115	0.0114
	(0.0190)	(0.0122)	(0.0110)	(0.00954)	(0.00704)
Multiple directors	0.00578*	0.00241	0.00162	0.00102	0.00146
	(0.00302)	(0.00189)	(0.00173)	(0.00150)	(0.00109)
Aims to grow	0.0736***	0.0275**	0.0173	0.0146	0.0172**
	(0.0201)	(0.0128)	(0.0115)	(0.00952)	(0.00700)
Age: 10 +	0.0205	-0.0142	-0.0180*	-0.0151*	-0.00853
	(0.0173)	(0.0107)	(0.00924)	(0.00796)	(0.00668)
Age: 5 - 9	-0.00240	-0.0216	-0.0240	-0.00254	-0.00671
	(0.0426)	(0.0264)	(0.0238)	(0.0182)	(0.0156)
Partnership	0.0513	0.0177	0.0114	0.0325	0.0181
	(0.0475)	(0.0285)	(0.0245)	(0.0254)	(0.0184)
Limited Company	0.0146	-0.0326	-0.0307	-0.0162	-0.0169
	(0.0578)	(0.0299)	(0.0235)	(0.0198)	(0.0158)
Partnership	0.0182	-0.0128	-0.00980	0.00639	0.00679
	(0.0463)	(0.0354)	(0.0307)	(0.0188)	(0.0165)
Observations	8,186	8,078	8,078	8,078	8,117
Pseudo R2	0.0200	0.0417	0.0535	0.0567	0.0479

Source: *Small Business Survey*, 2007/8, 2010, 2012.

Notes

Results given are from a probit regression model and are given as marginal effects (i.e. the impact of a one unit change in the independent variable on the average probability of a firm finding it hard to obtain finance in the way indicated above).

Figures in parenthesis are robust standard errors, a measure of the precision of the estimate.

Stars are applied to indicate statistical significance: *** $p<0.01$; ** $p<0.05$; * $p<0.1$.

All models also include 16 sector dummies although these are not reported for reasons of space.

Where sample sizes vary this is because the dependent variable is perfectly predicted by independent variables.

Column one gives the results for whether firms apply for finance. They show that HGFs are around 9% more likely to apply for finance than other firms, a finding which is statistically significant.

The results also suggest other drivers of finance applications. As expected, firms which aim to grow are considerably more likely to apply for finance. Firms with qualified owners are also more likely to apply for finance, a finding which reflects a large literature on this topic, and the fact that qualified owners are more likely to help achieve firm growth. Multiple directors may be a proxy for more systematic top management teams. Gender and ethnicity are unimportant. Larger firms are also more likely to apply for finance, although age does not appear to matter.

Columns two to five consider whether applications are successful. In no case is the high growth firm variable significant, although it is positive in each case. Despite their increased likelihood of applying, HGFs are no more or less likely than other firms to find it hard to access finance. The effect is similar across all four measures of difficulty.

Other factors are also important in determining whether firms find it hard to access finance. It is clear that the credit crunch worsened conditions. Controlling for recent growth, firm and owner characteristics, firms in 2010 were over 8% more likely to say they had difficulty obtaining finance than those in 2007/8, while those from 2012 were around 3% more likely.

Size is also important. Larger firms are less likely to find it hard to access finance, perhaps reflecting an increased use of company scale as a risk metric by banks (Cowling *et al*., 2012). In contrast to other studies, neither ethnicity or gender seems to matter – at least without selection effects (Marlow & Patton, 2005; Smallbone *et al*., 2003). Firms which aim to grow are, perhaps counter-intuitively, more likely to be turned down although this may reflect increased likelihood of applying. And there is some evidence that older firms are less likely to be rejected.

In Table C, the models control for selection and the likelihood of firms applying for finance.

Table C Probit model with Heckman sample selection: High growth firms and difficulty accessing finance

	Firm applied and had difficulty obtaining from first source	Firm applied and did not obtain all requested from first source	Firm applied and did not obtain any from first source	Firm obtained nothing from any source
High growth firm	-0.0595	-0.0749	-0.0350	-0.0425
	(0.0415)	(0.0460)	(0.0562)	(0.0544)
Year: 2010	0.141***	0.168***	0.222***	0.0970**
	(0.0486)	(0.0587)	(0.0486)	(0.0467)
Year: 2012	0.113***	0.120***	0.176***	0.0814*
	(0.0333)	(0.0380)	(0.0546)	(0.0476)
Size: 100 +	-0.128***	-0.143***	-0.119**	-0.124
	(0.0375)	(0.0394)	(0.0594)	(0.0753)
Size: 50 - 99	-0.0786***	-0.0597**	-0.0493	-0.0335
	(0.0276)	(0.0304)	(0.0418)	(0.0386)
Female led	0.0582	0.0532	0.0163	0.00839
	(0.0368)	(0.0450)	(0.0520)	(0.0438)
Ethnic led	0.107*	0.144**	0.151*	0.120
	(0.0569)	(0.0700)	(0.0791)	(0.0789)
Qualified owner	0.00615	-0.00304	0.00996	0.0267
	(0.0307)	(0.0349)	(0.0383)	(0.0301)
Multiple directors	-0.00125	-0.00260	0.000365	0.00187
	(0.00417)	(0.00513)	(0.00551)	(0.00413)
Aims to grow	-0.0312	-0.0478	-0.00503	0.0219
	(0.0356)	(0.0409)	(0.0516)	(0.0380)
Multiple sites	-0.0645**	-0.0867***	-0.0814**	-0.0542
	(0.0281)	(0.0322)	(0.0375)	(0.0369)
Age: 10 +	-0.0675	-0.0894	-0.0235	-0.0352
	(0.0581)	(0.0656)	(0.0724)	(0.0667)
Age: 5 - 9	-0.0474	-0.0524	0.0572	0.0230
	(0.0665)	(0.0720)	(0.0821)	(0.0686)
Observations	8,072	8,072	8,072	8,030
LR Test	5.27	3.26	0.48	0.33
P-value	0.0217	0.0629	0.4886	0.5684
Log-likelihood	-690.6281	-671.4344	-652.116	-631.9703

Source: *Small Business Survey*, 2007/8, 2010, 2012.

Notes

Results given are from a probit regression model with Heckman correction applied – a way of controlling for the likelihood of applying for finance, which would otherwise bias results (the selection variables are legal status and whether a firm seeks advice).

The table presents marginal effects (i.e. the impact of a one unit change in the independent variable on the average probability of a firm finding it hard to obtain finance in the way indicated above).

Figures in parenthesis are robust standard errors, a measure of the precision of the estimate.

Stars are applied to indicate statistical significance: *** $p<0.01$; ** $p<0.05$; * $p<0.1$.

All models also include 16 sector dummies although these are not reported for reasons of space.

Where sample sizes vary this is because the dependent variable is perfectly predicted by independent variables.

When controlling for selection effects, HGFs actually appear, if anything, less likely to find it hard to obtain finance. Whilst no effect is significant, the results are negative and in some cases are close to significance at standard levels (for column 1, $p=0.156$). This suggests that financing problems are no more acute for HGFs than they are for other SMEs.

As with the simple regression models, even controlling for different likelihoods of applying for finance, firms in general are more likely to find it hard to access finance than before the recession. Size is particularly important, and larger firms are more likely to obtain finance. Controlling for their size, firms operating from multiple sites are less likely to find it hard to obtain finance. While research on access to finance in ethnically owned SMEs found no greater funding difficulties for these types of firms (Fraser 2009), in contrast, the current work found that rapidly growing ethnically owned SMEs do have greater difficulty accessing finance. Gender, however, appears unimportant.

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ABOUT SATER

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David Spence
Chairman of SATER
June 2014

How do we ensure that companies with the potential to grow do so? Does a lack of finance prevent firms from growing and benefiting the wider economy? These are important questions if we are looking for economic growth. There has been much focus and debate on the funding issues affecting small and medium sized entities (SMEs), but this report takes that debate a stage further by investigating 'high growth SMEs'.

One of the 14 published policies of the Department of Business, Innovation and Skills (BIS) in the UK is 'Making it easier to set up and grow a business'. This report aims to provide evidence for the debate on how this policy can be achieved and covers both supply and demand issues for high growth SMEs. It does so by a review of the existing literature, an analysis of the *Small Business Survey,* undertaken by BIS, and a series of in-depth interviews with a small number of high growth SMEs.

The study finds that although high growth SMEs are 9% more likely to apply for finance than other SMEs, they are no more or less likely to be successful. Importantly, these firms are identified as highly 'reluctant borrowers' rather than 'discouraged borrowers' – that is they are just unwilling to borrow, even to fund growth. This reluctance stems from a lack of trust of banks and a resistance to any dilution in their own autonomy.

A number of policy implications are drawn from this research by the authors, with recommendations for both the supply and the often neglected demand-side of funding. Most importantly, though, there is a need to consider how 'reluctant borrowers' may be transformed into 'willing borrowers' and how demand for finance may be stimulated in the future.

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