

Project 7: Finance Barriers to Growth and Productivity

Interim Report

Context

Going as far back as the MacMillan (1931), Bolton (1971) and Wilson (1979) Committees, there have been concerns in academic and policy circles about funding gaps in the supply of debt and equity to smaller businesses. More recently attention has been focussed on funding gaps following the Great Financial Crisis of 2007-8 (Rowlands, 2009; Breedon, 2012; NIESR, 2013; Fraser, 2014a). And since 2014 the British Business Bank has published an annual report providing up to date evidence on funding gaps in different SME finance markets (British Business Bank, 2017). The issue of funding gaps matters because smaller businesses are important for employment and improving productivity (British Business Bank, 2017; Acs and Audretsch, 1988).

Evidence of a funding gap is usually interpreted as a gap between the demand and supply of a particular type of finance (Fraser et al, 2015) as manifested, for example in survey data, by an incidence of financial rejection or discouragement (e.g. NIESR, 2013; Fraser 2014a, 2014b; British Business Bank, 2017). However, this can be misleading as rejection/discouragement may signify a lack of viability rather than a missed opportunity (Fraser et al 2015). Therefore it is important to look beyond the funding gap *per se* and examine its relationship with business performance to establish the presence or otherwise of a financial constraint. This idea is at the core of the current research programme.

Another strand of research into financial constraints has focussed on the relationship between internal finance (e.g. entrepreneurial wealth) and business performance (e.g. Evans and Jovanovic, 1989; Carpenter and Petersen, 2002; Hurst and Lusardi, 2004). The rationale for internal finance tests of financial constraints is that if, due to market failure (caused by information asymmetries: Stiglitz and Weiss, 1981), the business is unable to obtain sufficient external finance then an increase in internal finance will relax the constraint and increase business performance. Accordingly, in the presence of financial constraints, a positive relationship between internal finance and performance is predicted. However, the fundamental problem with this approach is that it provides ambiguous evidence for financial constraints because internal finances may be linked to factors other than liquidity (e.g. Hurst and Lusardi, 2004; see also Fraser et al 2015 for a full critique of internal finance tests).

So, in short, the current research rectifies the deficiencies of previous research which has either looked at funding gaps, but stopped short of looking at the relationship with business performance, or which has tried to infer financial constraints from a relationship between internal finance and performance.

Policy implications

Two scenarios with very different policy implications can be envisaged in relation to funding gaps. In the first scenario, the funding gap (related to an incidence of rejection or discouragement) has a negative effect on performance (holding constant all other factors that might impact on performance). In this case the relationship points to a financial constraint since performance would have been higher absent the gap; in essence, there has been a missed opportunity. In this scenario

policy should be directed towards improving supply through e.g. debt/equity market interventions and promoting diversity in finance markets (e.g., British Business Bank, 2017).

In the second scenario, the funding gap has a non-negative (i.e., zero or positive) effect on performance (holding other factors constant). In this case the issue is not a missed opportunity; instead the cause of the 'funding gap' is entrepreneurial misperceptions about funding needs. The classic example in this case is the overoptimistic entrepreneur who overestimates their productivity and underestimates their risk and therefore seeks too much capital (de Meza and Southey, 1996; Fraser and Greene, 2006). Policy in this situation should be directed towards improving entrepreneurs' financial skills e.g., through the provision of mentoring and business planning advice (e.g., Business Finance Taskforce, 2010; Fraser, 2014b).

Initial findings

One reason for the lack of research hitherto into the relationship between funding gaps and business performance has been the absence of appropriate data. In short, longitudinal data is required to establish a causal relationship between rejection/discouragement events, experienced by the business at a particular point in time, with its performance at a later time. In this respect, the Longitudinal Small Business Survey (LSBS), which currently tracks business finances and performance in 2015 and 2016 with further waves planned in the future, is beginning to fill the data gap.

Preliminary analysis of these data has so far involved a summary analysis of different measures of business performance (in 2016) and previous (2015) financing needs/experiences (relating to debt and equity) along with regressions of performance on previous financing experiences controlling for a wide range of business and owner characteristics. In terms of previous experiences, the data shows that 10% of business in 2015 needed external finance but felt discouraged from applying; 3% sought external finance but failed to obtain any (failed seeker); 2% sought external finance and were partially successful; 16% sought external finance and were fully successful; and the remainder (69%) had no need for external finance (self-sufficient businesses).

In terms of the impact of financing experiences on business performance, the regression analysis indicates that fully successful seekers are over 50% points more likely to experience employment growth in 2015-16 compared to failed seekers. Also productivity (sales per employee) is almost 7 times higher for fully successful seekers compared to discouraged borrowers; and just under 6 times higher for fully successful seekers compared to failed seekers. Overall these initial findings suggest that funding gaps caused by rejection or discouragement have quite a significant negative impact on firm performance. However the caveat with these findings is that, while they control for systematic observable differences between businesses (due e.g. to firm size, age and sector) there may remain systematic unobservable differences (due e.g. to entrepreneurial talent) which might bias these estimates.

Next steps

The theoretical framework developed in the research suggests that previous experiences of rejection or discouragement may constrain not only finances but also entrepreneurial learning. This suggests additional testing to examine the impact of previous financing experiences on the entrepreneur's perceived capabilities. In addition it will be important to use more advanced statistical methods,

which will allow us to take into account systematic unobservable differences between businesses, so that we can estimate the impacts of funding gaps more robustly.

Looking beyond the current project, with future waves of LSBS it will be possible to investigate how business dynamics unfold over the long term following financing experiences. In particular it will be possible to investigate how financing experiences affect the financial growth cycle (or 'funding escalator') of the business (Berger and Udell, 1998). The financial growth cycle is essentially the idea that the optimal capital structure of the business varies over time. So whereas smaller/younger businesses rely on insider finance and trade credit (and possibly angel finance for the more venturesome), as the business develops it gains access firstly to intermediated finance (from banks, finance companies and, in some instances, venture capitalists) and eventually, if the business survives, it may even tap public equity and debt markets.

Currently we simply do not know how financing experiences, resulting from interactions with finance providers at one stage in the financial growth cycle, affect businesses' progress through later stages of the cycle. Yet, from a policy perspective, it would seem absolutely vital that we know more about this. For example, do negative experiences cause stagnation in the development of the business (leading e.g. to a state of 'permanent non-borrowing' and low growth)? Or, in some instances, does adversity provide learning experiences that benefit business performance (at least, among those which survive) in the long term? Where do alternative finances fit into this story? Are businesses rejected/discouraged from mainstream finance providers more likely to seek alternative finance (and does it benefit performance)? It is only with further research that it will be possible to shed light on these and many other related issues.

References

Acs, Z. J., & Audretsch, D. B. (1988) Innovation in large and small firms: an empirical analysis. *The American Economic Review*, 678-690.

Berger, A.N. and Udell, G.F., (1998) The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance*, 22(6), pp.613-673.

Bolton Committee (1971) *Report of the Committee on Small Firms*, Cmnd. 4811, HMSO, London.

Breedon, T. (2012) Boosting Finance Options for Business. Department for Business Innovation and Skills.

British Business Bank (2017) *Small Business Finance Markets 2016/17*, www.british-business-bank.co.uk

Business Finance Taskforce (2010) Supporting UK Business - A Business Finance Taskforce Report: evidence of influence on government strategies in credit provision to SMEs.

Carpenter, R.E., and Petersen, B.C. (2002) Is the growth of small firms constrained by internal finance? *Review of Economics and Statistics*, 84(2), 298-309.

de Meza, D., and Southey, C. (1996) The borrower's curse: Optimism, finance and entrepreneurship. *The Economic Journal*, 106(435), 375-386.

Evans, D.S. and Jovanovic B. (1989) An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy*, 97(4), 519-35.

Fraser, S. (2014a) The Impact of the Late 2000s' Financial Crisis on the Supply of Bank Credit to Small Businesses: Evidence from the UK. *International Review of Entrepreneurship*, 12(4), pp163-190.

Fraser, S. (2014b) Back to Borrowing? Perspectives on the Arc of Discouragement, 2014, Enterprise Research Centre, White Paper 8.

Fraser, S., Bhaumik, S. and Wright, M. (2015) What Do We Know About Entrepreneurial Finance and Its Relationship with Growth? *International Small Business Journal*, 33(1) 70–88.

Fraser, S. and Greene, F.J. (2006) The effects of experience on entrepreneurial optimism and uncertainty. *Economica*, 73(290), pp.169-192.

Hurst, E. and Lusardi, A. (2004) Liquidity constraints, household wealth, and entrepreneurship, *Journal of Political Economy*, 112(2), 319-347.

MacMillan Committee (1931) *Report on the Committee on Finance and Industry*, Cmnd. 3897, HMSO, London.

NIESR (2013) Evaluating changes in bank lending to UK SMES over 2001-12 – On-going tight credit? National Institute of Economic and Social Research (NIESR) Discussion Paper No. 408

Rowlands, C (2009) The Provision of Growth Capital to UK SMEs. Department for Business Innovation and Skills.

Stiglitz, J.E. and Weiss, A., (1981) Credit rationing in markets with imperfect information. *The American Economic Review*, 71(3), pp.393-410.

Wilson Committee (1979) *The Financing of Small Firms, Interim Report of the Committee to Review the Functioning of the Financial Institutions*, Cmnd. 7503, HMSO, London.