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# Public intervention in UK small firm credit markets: Value-for-money or waste of scarce resources?



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## ABSTRACT

Loan guarantee schemes are used in many countries to provide financial support to small firms by guaranteeing loans from commercial banks, but questions remain about whether public intervention in private credit markets to support entrepreneurial firms is justified. This paper examines whether the UK Small Firms Loan Guarantee Scheme (SFLG) provides value-for-money to the UK tax payer, presenting a regression based performance approach which then feeds into a formal cost–benefit analysis. Specifically, we consider whether firm performance post-investment is such that it justifies the governments' presence in the lending market and the costs associated with it. Our findings suggest that entrepreneurial firms that are able to access new finance through SFLG achieve superior performance in the form of improved sales, job creation and exports and that this justifies public intervention in private credit markets.

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## 1. Introduction

Bruce Kirchoff was one of the first scholars in the post-Birch Job Generation Study period to not only update the job generation findings of Birch (1979), but add to our understanding of the relative dynamics of job creation across different size classes of firm. As a result of his early work (Kirchoff and Phillips, 1988), and the consistent evidence that small, and specifically new, firms create a disproportionately high number of net new jobs, he became more widely interested in questions around how policy-makers could support smaller and younger entrepreneurial firms to maximise their potential to the wider benefit of the economy. Of particular concern to Kirchoff was (a) that policy had up until that point ignored smaller firms, and explicitly the creation of new firms (Kirchoff, 1996, p. 628), (b) that rigidities in the labour market had created barriers that prevented entrepreneurial firms from hiring more workers (Kirchoff and Phillips, 1988, pp. 271–272), and (c) that the removal of barriers to new firm entry was critical to future economic dynamism and growth (Kirchoff, 1994, p. 199).

Given the centrality of new firms and smaller firms in general to job creation and economic growth, Kirchoff (and his co-authors) not only empirically justified the role of small firms as an important agent of economic development, but explicitly shaped the future

research agenda by emphasising the key role that government policy could play in supporting or diminishing the ability of smaller firms to maximise their potential. In this paper we focus on the most widely used, and long-standing, public policy mechanism worldwide for supporting small firms: the (partial) credit guarantee scheme. Examples of these schemes include the SBA 7(a) loan programme in the US, founded in 1953; the Canadian core guarantee programme (CSBFP), founded in 1961; and the UK Small Firm Loan Guarantee programme, founded in 1981, as well as programmes in many other countries, including France, Germany, India and Korea.

Why are credit guarantee programmes such a widely used form of policy intervention in developed and developing countries, and is there an empirical basis for their use? Given that the growth of small firms is generally constrained by access to internal capital (Carpenter and Peterson, 2002; Beck and Demircug-Kunt, 2006), a common concern raised in the small business literature is that capital market imperfections exist and limit the availability of finance to small firms (Laeven, 2003; Love, 2003; Gelos and Werner, 2002). Beck and Demircug-Kunt (2006) state that small firm financing obstacles have almost twice the effect on annual growth than large firm financing obstacles. Headd and Kirchoff (2007) express the importance of 'available financing' in allowing small businesses to maintain their role as major actors in the economic system. This allows them to continue as a major source of net new job generation (Phillips and Kirchoff, 1989). Access to finance is particularly relevant for innovative firms, which have considerable job creation potential

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but suffer from gaps in knowledge and provision of capital, leading to underfunding (Peneder, 2008). Given that innovation is a costly (Saemundsson, 2005) and uncertain (Wang et al., 2008) process, innovative firms tend to be persistently financially constrained (Westhead and Storey, 1997; Carpenter and Peterson, 2002).

The sources of capital that firms use to address their financial needs are therefore important. The 'pecking order hypothesis' of Myers and Majluf (1984) suggests that firms will prefer debt to equity capital. While forms of equity investment such as venture capital are commonly discussed in the literature (Cornelius and Persson, 2006), in practice venture capital-backed firms represent only a small fraction of the total population of firms—in the US approximately 0.625% of firms founded in any year will receive VC (Puri and Zarutskie, 2008), while 55% of firms access debt capital (Bitler et al., 2001). Consequently, given the high demand for capital from growing firms, credit is a crucial part of the funding ecosystem for small firms, including those with innovation activities (Colombo and Grilli, 2007; Aaboen et al., 2006). For innovative firms, the availability of credit reduces the reluctance to adopt new technologies that raise mean income levels (Ghosh et al., 2000), allowing firms to use new technologies that then facilitate further growth.

This leads us to the key issue surrounding the rationale for loan guarantee schemes, that of credit rationing. Credit rationing refers to the phenomenon where some borrowers receive loans while others do not, all else being equal (Bester, 1985). Given the importance of credit for firms and their growth, much attention (see Cowling, 1997) has been paid to credit rationing in the form of loan denial, what Ghosh et al. (2000) refer to as macro credit rationing (As opposed to micro credit rationing, which refers to credit limits (i.e. the amount that firms can raise)). Loan guarantee schemes are predicated on the notion small firms cannot gain access to (proportionally) as much credit, or credit on equally favourable terms, as larger firms of equal risk. Concerns about credit rationing for small firms have led to the widespread use of loan guarantee programmes throughout the developed (Cowling and Mitchell, 2003; Riding, 1998) and developing (Klapper et al., 2006; Honaghan, 2008) world. Almost without exception this type of intervention in the capital market has sought to provide loan security to smaller firms who would not otherwise be able to obtain debt finance through conventional means (Riding, 1998; Cowling and Clay, 1995). The major benefits of public financing initiatives have been identified as supporting the validation of technology (Freel, 1999) and acting as a catalyst for broader economic development (Wonglimpiyarat, 2006).

Despite this, the existence of credit rationing (and consequently the rationale for loan guarantee schemes) has remained difficult to clearly identify. The challenge behind public intervention may be viewed in light of Astebro and Bernhardt's (2003) framework of Type 1 and Type 2 errors: if a loan guarantee programme advances a loan to a firm that subsequently fails, this represents a Type 1 error, indicating that banks made the correct decision in the first instance not to lend to the firm in the absence of a loan guarantee scheme. By contrast, government backed loans which are successfully repaid would, in the absence of a guarantee scheme, represent a missed opportunity for the bank. This would be termed a type 2 error. Broadly speaking, if defaults increase as constrained firms become unconstrained via the loan guarantee, then banks are, under certain conditions, better off without a scheme. This occurs as loan guarantees raise the equilibrium price (via the government interest rate premium) and volume (number of loans and the total value of loans) traded in the market. This can lead to a situation where banks are lending at levels above their profit maximising level (Cressy, 1996; Devinney, 1986; Cowling, 2010). The fact that not all

potential entrepreneurs and/or small businesses get access to loans is a necessary, but not a sufficient condition, for justifying public intervention in credit markets.

Crucial to loan guarantee schemes is that bank screening processes remain in place to avoid risky investments. Riding (1998) argues that the objective of loan guarantee schemes is to assist small firms, not to subsidise risky firms. Further, Fraser (2009) suggests that it is the task of the credit markets to discriminate according to quality of borrower. For example, firm size and firm age are often taken to be good proxies for firm risk (see Beck and Demirguc-Kunt, 2006; Cowling, 1999a respectively). In a world of imperfect (or incomplete) information, lending institutions often look for easily verifiable factors when making lending decisions. Empirical evidence reported by Hyytinen and Pajarinen (2007) finds that when a small business ages 1 year, its cost of debt decreases by 1–2 basis points. Importantly, they also find that within firms' growth of collateralisable wealth is not driving this age–cost of debt relationship. Gregory et al. (2005) find that only firm size is a predictor of capital structure decisions. Whilst both may be true in a wider sense, it is also true that within each size and age category of firm there is a distribution of risk across firms within that group. Thus the objective of loan guarantee schemes is to facilitate capital formation for small firms, a contention supported by Green (2003) and Graham (2004). To this end, the offer of a loan guarantee by a potential lending bank is made after due diligence is conducted according to conventional lending criteria.

## 2. Credit guarantee schemes

In this section we briefly review the empirical literature on several international loan guarantee programmes, discussing their effectiveness and impact on small businesses and regional or national economies. Key to the literature evaluating loan guarantee schemes is what is termed additionality in the UK, and incrementality in North America. Additionality refers to the requirement that guaranteed loans are only issued to borrowers who had exhausted all other potential sources of loan funding, and studies addressing this topic generally seek to identify the additional economic benefit provided by these additional guaranteed loans.

### 2.1. Canadian small business financing (CSBF) programme

The Canadian Small Business Financing program (CSBF) evolved from the original 1961 Small Business Loans Act primary loan guarantee program. In its current form, the program is available for any (non-farm) profit oriented business with sales less than \$5 m Canadian, and loans up to \$250,000 can be issued. Loans are limited to term loans, and for the purchase of premises and equipment, land, or leasing but not working capital. The guarantee is for 80% of the outstanding balance. Lenders have complete discretion over the loan approval process.

Riding (1998) focuses on additionality in CSBF, estimating a loan 'outcomes' model to identify which firms successfully applied for loans and which were turned down based on observable characteristics. They then apply this approval/turn-down model to a sample of loan guarantee program borrowers. Their key finding was that 81% of their loan guarantee sample would have been turned down for conventional loans, and after further testing (Riding et al. 2007) amounted to 74.8% additionality. Further analysis for jobs created suggested that of the 10,000 guaranteed loans per annum, CSBF contributed to an additional 22,000 full-time jobs in Canada each year. This builds on previous research (Riding and Haines, 2001) showing the guarantee

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