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International Perspectives on Small Businesses, Bank Credit and the Global Financial Crisis

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1. Introduction

Small businesses with growth potential are an important source of new jobs and economic growth (Wong et al, 2005; Shane, 2009). Yet, there are longstanding concerns that information asymmetries in financial markets (Jaffee and Russell, 1976; Stiglitz and Weiss, 1981) may result in financial constraints on the development of ambitious small businesses (Evans and Jovanovic, 1989). These concerns, combined with the perceived economic and social benefits derived from some, if not all, small businesses underpin the plethora of public assistance available to them internationally (OECD, 2012). Indeed, the level of support has increased since the global financial crisis in 2007-8 due to evidence of widening funding gaps (Eurostat, 2011; Fraser, 2012; Dunkelberg and Wade, 2013)

The aim of this special issue is to examine the role and importance of bank credit for small businesses before, during and after the global financial crisis in 2007-8. Why focus on bank credit? The main reason is that bank credit is the principal source of external finance for small businesses. Data from the UK Survey of SME Finances (Fraser, 2009) indicates that while bank credit is used by around 20% of small businesses, less than 1% use venture capital (VC). US data similarly suggests the main external source of finance is bank credit (used by 16%) with only a very small percentage using VC (Berger and Udell, 1998). Whilst recognising that VC backed firms may contribute disproportionately to growth, discussion of this 'elite' group merits its own special issue.

Equally, given the importance of bank credit, it seems particularly relevant to investigate what impact the 2007-8 global financial crisis (the epicentre of which was the banking sector) had on bank lending to small businesses. The articles presented here provide some interesting and contrasting insights into this issue.

2. Issues Relating to Bank Credit and Small Businesses

The articles in this special issue address the following specific issues:

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- Does access to credit matter for small businesses?
- What has been the impact of the global financial crisis on access to credit for small businesses?
- How have small businesses and policy makers responded to the global financial crisis?

The issue of whether access to credit matters is the subject of the first article in this special issue: 'The Role of Credit Access in Firm Sustainability: A comparison of the 1998 and 2003 Surveys of Small Business Finances [SSBF]', by Traci Mach. Using US data (SSBF) for two cohorts of small businesses interviewed in 1998 and 2003 respectively, Mach analyses the role of credit access and credit quality measures on 5 year survival rates. Whilst both cohorts experienced a recession 3-4 years after they were interviewed (beginning in 2001 and 2007 respectively) the recession experienced by the 2003 cohort was deeper, longer and accompanied by a credit crunch.

Regarding credit access, looking at the 1998 cohort, businesses that did not apply for credit because they feared being turned down ('discouraged borrowers') were actually less likely to shut down. Discouragement may have reduced the debt levels of these firms as they entered the 2001 recession (increasing survival chances). On the other hand, borrowing on trade credit significantly increases the likelihood of going out of business for the 2003 cohort. One explanation for this is that the financial crisis reduced the availability of bank credit which may have forced some businesses to substitute bank credit with smaller amounts of trade credit. Across the cohorts, lower credit quality (poorer credit scores and financial delinquency) also significantly reduces survival probabilities reflecting the impact of credit quality on access to finance.

Mach also uses a Blinder-Oaxaca decomposition to disentangle the extent to which differences in survival probabilities across the cohorts are due to differences in business/owner characteristics as opposed to differences relating to the period of study. This provides insights into the question: 'how would the 2003 cohort have fared in the (relatively benign) 1998 world?' Interestingly (and surprisingly given the more severe recession experienced by the 2003 cohort) the results indicate that the 1998 cohort has a lower survival probability than the 2003 cohort and that this is driven by differences between periods in the effects of credit access/quality on survival rather than differences in business/owner characteristics. Indeed, a business from the 2003 cohort would be 1-2 percentage points more likely to have shut down after 5 years if placed in the 1998 world.

What underlies this surprising result? One explanation may be the aforementioned unprecedented levels of government intervention following the financial crisis which may have eased credit access conditions for the 2003 cohort. Alternatively, the 2003 cohort may have built up greater cash reserves

during the credit boom of the early-mid noughties placing them in a stronger position to weather the downturn. Or perhaps the data simply do not track the 2003 cohort for long enough after the onset of recession to fully capture the extent of business closures; and some reports suggest that banks kept alive so-called 'zombie' firms to avoid further write-downs on their balance sheets. Whilst Mach's article is unable to give a definitive explanation for the differences in survival probabilities between the cohorts, what is clear is that access to credit does matter to small businesses, although in a more complex and nuanced manner than might have been envisaged.

The second article, 'The Impact of the Late 2000s' Financial Crisis on the Supply of Bank Credit to Small Businesses: Evidence from the UK', by Stuart Fraser, directly addresses the issue of the impact of the financial crisis on small business lending. This paper uses data from the UK Survey of SME Finances (a survey inspired by SSBF) to investigate the impact of the 2007-8 financial crisis on the availability and terms of bank credit provided to UK small businesses. Specifically the paper tests three hypotheses relating to the progressive tightening of bank credit supply as the financial crisis evolved from a liquidity crisis, starting in 2007, into a full blown insolvency crisis starting in 2008. The collapse of Lehman Brothers in September 2008 was a tipping point in this latter phase which led to paralysis in capital markets and the near collapse of the largest UK bank at the time, Royal Bank of Scotland Group.

The first hypothesis is that small businesses which applied for bank credit in 2007-8 and 2008-9 respectively were increasingly more likely to be rejected compared to small businesses with the same level of risk which applied for bank credit in 2001-4. The econometric analysis used to test this hypothesis supports the view that: i) bank credit rejection rates increased following the financial crisis; and ii) the impact was greater in the insolvency phase (2008-9) of the financial crisis compared to the liquidity crisis (2007-8). Bank credit rejection rates were up to 2.5 times greater in 2008-9 compared to 2001-4 holding credit risk constant.

The second hypothesis is that small businesses which successfully applied for bank credit in 2007-8 and 2008-9 respectively paid increasingly higher margins compared to small businesses with the same level of risk which obtained bank credit in 2001-4. The analysis relating to this hypothesis indicates that businesses that applied successfully in 2007-8 actually paid lower margins than otherwise similar businesses in 2001-4. However those applying successfully in 2008-9 paid significantly higher margins on bank credit – up to 2% points higher compared to 2001-4 holding credit risk constant. This supports the view that bank credit became relatively more expensive in the insolvency phase of the crisis. Also, in conjunction with the results for the first hypothesis, the findings suggest that banks were beginning to adjust their SME loan portfolios towards less risky loans during the initial phases of the crisis (explaining the lower margins on successful applicants in 2007-8). However borrowing became more expensive

for successful applicants in 2008-9 due to the hike in the cost of capital following Lehman Brothers' collapse.

The third hypothesis tested is that small businesses which successfully applied for loans in 2007-8 and 2008-9 respectively provided increasingly greater amounts of collateral, as a proportion of the value of the loan, compared to small businesses with the same level of risk which obtained loans in 2001-2004. The findings here indicate that collateral ratios on loans obtained in 2007-8 were over 87% points higher compared to loans obtained in 2001-4. This provides some support for the view that collateral requirements increased during the financial crisis. However collateral ratios in 2008-9 were over 130% points *lower* compared to 2001-4. A possible explanation for this result is that the value of collateral fell significantly during the insolvency phase of the financial crisis due to rapidly falling asset prices.

Accompanying evidence suggests that small businesses in the UK responded to gaps in bank credit by increasing their use of trade credit. The findings also seem to support the significant increase in scale and widening in scope of public assistance provided to small businesses in the UK following the financial crisis. This includes over £2bn in lending support through the Enterprise Finance Guarantee (EFG) and the establishment of a state backed economic development bank, the British Business Bank, whose objectives include supporting the development of diverse sources of debt and equity finance and promoting competition and diversity in small business finance markets.

The third and final article, 'SME Financing in Japan during the Global Financial Crisis: Evidence from Firm Surveys', by Arito Ono and Iichiro Uesugi, looks directly at all three issues: the impact of the financial crisis on Japanese small businesses; the responses of small businesses and policy-makers in Japan to the crisis; and the impact of bank, trade and government assisted credit on businesses' ex-post performance ('does credit matter?').

This paper provides some interesting contrasts with those reported in Fraser's article. At the outset the paper notes that banks in Japan were less exposed to toxic property backed assets than US and European banks. In this context a key finding by Ono and Uesugi is that small businesses in Japan were principally affected by a decline in orders from their customers ('demand shocks') rather than a deterioration in the availability of credit from their main bank ('financial shocks'). In order to cope with these demand shocks the 'first line of defence' for businesses was bank credit provided by the main bank rather than an increase in trade credit.

These findings seem to reflect the 'bank-based' financial system in Japan which emphasises the importance of relationship lending over more 'arms-length' transactional approaches to lending (e.g., credit and behavioural scoring). In this respect, relationship banks are more willing to 'lean against the wind' and continue supporting the business during a downturn. This is in contrast with the aforementioned evidence for the UK (which has a 'market-based' financial

system and relies more on transactional lending) which saw falling bank credit accompanied by increased use of trade credit. Further, supporting the view that the financial system affected the impact of the crisis, Ono and Uesugi also note that businesses in Japan which experienced difficulties obtaining credit from their main bank had likely obtained transactional loans from other banks before the crisis which undermined the relationship with their main bank.

Ono and Uesugi also look at the role of public assistance in Japan following the financial crisis: principally the Emergency Credit Guarantee (ECG). However their article is critical about the functioning of the scheme inasmuch as they find evidence that it crowded out commercially available loans. In particular relationship lenders appear to have exploited their informational advantage to identify low quality firms to receive ECGs instead of commercial loans. Supporting the view that ECGs were assisting lower quality firms, Ono and Uesugi report evidence that the performance of ECG assisted firms was no better than the performance of non-assisted firms. In this respect the article raises important issues regarding the design of lending programs that align the interests of public and private stakeholders in the scheme.

Similar issues have been considered in recent years in relation to loan guarantees in the UK (Graham, 2004). However, again Ono and Uesugi's findings contrast with evidence regarding the UK's Enterprise Finance Guarantee (EFG) which was introduced in 2009 and extended the scale and scope of the previous Small Firms Loan Guarantee. Evaluation evidence of the EFG suggest the scheme has helped businesses obtain finance they would not otherwise have been able to obtain (suggesting 'finance additionality') and has created additional economic output and employment (Allinson et al, 2013).

Finally Ono and Uesugi look at the impact of bank, trade and government assisted credit on businesses' ex-post performance, over the period 2008-2012, using a 'difference in differences' approach. The findings here suggest that businesses which relied on their main bank for credit experienced a short-lived dip in profitability (return on assets) and a more persistent drop in employment. The latter result may reflect the influence of the main (relationship) bank, urging their clients to cut staff costs during the Great Recession. Regarding the dip in profitability, this may be because the increased availability of funding facilitated increased investment (resulting in an increase in assets and a fall in the return on assets in the short-run). In contrast the interest coverage ratio, which measures debt repayment capacity, improved for businesses which relied on their main bank for credit. This may reflect a willingness by the relationship bank to provide a temporary 'holiday' on debt repayments during a difficult period. As with Mach's findings for the US, these results point to a nuanced relationship between credit and small business performance.

3. Conclusions

The articles in this special issue draw attention to contrasting impacts of the global financial crisis on lending to small businesses in countries with different financial systems. In particular banks in the US and UK (both market based financial systems) experienced greater losses on toxic assets than banks in Japan leading to a greater tightening in the supply of bank credit in the US and UK compared to Japan (a bank based financial system). Direct evidence of this tightening in the UK is reported in Fraser's article (along with an accompanying rise in trade credit). In finding that users of trade credit had lower survival prospects, Mach's article points indirectly to bank credit constraints in the US during the crisis period: the amount of trade credit these businesses were using may have been inadequate to fill funding gaps left by insufficient bank credit. Ono and Uesugi's article, on the other hand, highlights that relationship banks continued lending to small businesses during the crisis so there was less need for trade credit to take up the slack. The only small businesses in Japan which experienced bank credit constraints seem to have been those whose relationships with their main bank was weakened by obtaining transactional loans from other banks. Still, enterprise support during the financial crisis appears to have been more effective in the UK than Japan.

The articles by Mach and by Ono and Uesugi also suggest bank credit matters for small business performance although the relationship is not straightforward. Indeed the relationship between bank credit and ex post performance depends on the particular performance measure under consideration and also seems to depend on a variety of contextual factors including the economic cycle and the country's financial system. More research is required to better understand this critical relationship (see Fraser et al, 2014).

Looking forward there remains considerable uncertainty amongst small businesses, in the UK if not elsewhere, about what the new 'norms' are for bank lending in the post crisis world (Fraser, 2014): what are the (new) criteria for obtaining bank credit; how much is available; and on what terms? Higher regulatory capital requirements under Basle III, designed to increase financial stability, may create further restrictions on bank lending to small businesses (Allen et al, 2012). In this environment there seems scope for non-bank finances to play an increasing role in funding small businesses; not only VC but also newer 'on-line' sources such as the various forms of crowd-funding available (Schwienbacher, Belleflamme and Lambert, 2013). And yet these non-bank sources of finance are currently used by only a very small minority of small businesses due to both a lack of availability and behavioural barriers limiting take-up. Again, more research is required to develop our understanding of the role and importance of these novel sources of finance going forward.

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