BIS | Department for Business Innovation & Skills

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Access to Finance for Creative Industry Businesses

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Report Prepared for BIS and DCMS† by

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† The findings and interpretations in this report are those of the authors and do not necessarily represent the views of BIS or DCMS.

Executive summary

- The ability of Creative Industry Businesses (CIBs) to obtain finance has been widely debated by Government and stakeholders. This research aims to move the debate forward by examining whether there are any differences in CIBs' access to finance compared to other businesses. To achieve this aim, the research uses both econometric and qualitative methodologies to see if there are any differences in access to finance and, if there are, explore the underlying reasons for these differences.
- The Creative industries are made up of a number of diverse sub-sectors, and so it is difficult to talk about them as a single entity. Whilst the research begins by looking at the data for all the sub-sectors together, this masks the variation between different sectors and so produces less meaningful results than taking into account the different kinds of CIBs.
- Analysis carried out on separate sectors reveals that Creative Content sectors[1], in particular: Software and Other Creative Content sectors (consisting of Publishing; Video, Film and Photography; and Radio and TV) are more likely to have their finance applications rejected by finance providers than non-CIBs with similar risk profiles.
- In contrast, CIBs in Music/Visual Performing Arts (Creative Content sectors) and those in Creative Service sectors (Advertising and Architecture) experienced rejection probabilities similar to those of comparable non-CIBs[2].
- The evidence therefore points to market failures being more acute in the supply of finance to Software and Other Creative Content sectors. This may be due to greater uncertainty about the viability of these CIBs and/or a misalignment of interests between these CIBs and finance providers[3].
- The report also examines instances of financial discouragement, where business owners do not apply for finance in the first place because they believe they will be rejected. Differences in the probability of discouragement between CIBs and non-

1 The segmentation of Creative Industry (CI) sectors into Content and Service sectors follows the approach set out in: Technology Strategy Board (2009), Creative Industries: Technology Strategy 2009-2012.
2 The specific CI sub-sectors used in the analysis, in particular the grouping together of the music industry with the visual performing arts, follows the approach set out in DCMS (2010a), Creative Industries Economic Estimates: Technical Note: http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/images/research/Creative_Industries_Economic_Estimates_2010_technical_note.pdf. These groups are used because they are based on SIC 2003 code definitions which is the only way to identify CI's in the data used in the econometric analysis. However, a limitation of this approach is that it is not possible to separate the music industry from the visual performing arts using SIC 2003 codes. Accordingly, it is acknowledged that, were it possible to look at the music industry separately from the visual performing arts, the respective findings for these industries might differ from the aggregate findings for Music/Visual Performing Arts combined.
3 In some instances CIB owners may be more motivated by the creative process rather than commercial objectives. As a consequence their primary interests may be at odds with the commercial objectives of finance providers. This may lead to a situation of moral hazard where the failure to adhere to commercial objectives, after the finance is received, increases the risk to the finance provider.

CIBs reflect differences in risk profiles or, holding risk profiles constant, different perceptions about supply conditions in the loan market.

- This analysis indicates that owners of CIBs in Other Creative Content sectors are more likely to feel discouraged than owners of non CIBs with similar risk profiles. This finding suggests these CIB owners have worse perceptions about supply conditions in the loan market than owners of comparable non-CIBs[4].
- Analysis of the impacts of differences in rejection and discouragement probabilities on business growth indicates that CIBs in Software and Other Creative Content sectors experienced lower growth relative to comparable non-CIBs due to their higher likelihoods of rejection/discouragement.
- Overall the findings of the econometric and qualitative analyses are consistent. For example, both analyses suggest that risk assessments of CIBs are adversely affected by greater uncertainty about the prospects of CIBs; and that the availability of collateral is a greater issue for CIBs than non-CIBs in their access to finance.
- However, a key additional insight of the qualitative analysis is that CIBs are more likely to turn down loan offers due to the terms of the offer (including requests for personal security).

4 This perceptions difference is consistent with greater pessimism about the chances of obtaining finance among the owners of Other Creative content CIBs relative to owners of comparable non-CIBs. However, the size of the perceptions difference is small relative to the difference in their actual rejection probabilities (holding risk profiles constant). This suggests that these CIB owners aren't pessimistic enough about their chances of obtaining finance. In general the analysis indicates that CIB owners have a tendency to under-estimate their actual likelihood of rejection.

Introduction

The term 'Creative Industries' (CI's) refers to those industries which have their origin in individual creativity and which have potential for wealth and job creation through the exploitation of intellectual property. This covers a wide range of activities including art, advertising, architecture, design, music, fashion, publishing, computer games and software development, the performing arts, film, TV and radio[5]. A common factor across this sector is an emphasis on the talent and creativity of the people involved with these businesses. Many Creative Industry Businesses (CIBs) are therefore highly innovative with significant growth potential. In fact, CI's account for 6.2% of GVA and between 1997 and 2007 grew by 5% on average compared to 3% for the economy as a whole[6]. The strength and originality of creative talent in the UK is also recognised internationally with the UK ranking third in the world for the exported value of creative services and sixth in the world for exports of creative goods[7]. However, uncertainty naturally accompanies doing something which is novel or unusual and which is so heavily reliant on talented individuals for success.

Indeed, uncertainty may be a particular issue for CIBs due to uncertainty about the demand for their products[8] (who can predict the next hit film?) and uncertainty about the talent of the business owner (who can spot the next great artist?). At a time when banks and other finance providers are more risk averse, this uncertainty may present particular funding challenges for businesses in CI's. In particular, this uncertainty may lead to problems of adverse selection[9]. The implication is that the higher level of uncertainty in funding CIBs may give rise to more acute market failures (caused by adverse selection) and, consequently, lenders may require CIBs to provide more collateral in order to obtain funding. However, CIBs may lack business assets to offer as collateral leading to poorer access to finance relative to comparable non-CIBs[10].

Another potential cause of market failure is a misalignment of interests between the owners of CIBs and finance providers. This may give rise to problems of moral hazard where owners of CIBs are more motivated by the creative process than by pecuniary gain ('art for art's sake'[11]). In this circumstance, finance providers may be more likely to ask for collateral from CIBs to ensure interests are aligned. Again, however, the issue of collateral may be an impediment to obtaining finance.

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[5] See DCMS (2010a) *op. cit.*

[6] DCMS (2010b), Creative Industries Economic Estimates Statistical Bulletin (February 2010).

[7] UNCTAD, World Creative Economy Report, 2008; CIA World Factbook, 2005.

[8] See Caves, Richard E (2000), *Creative Industries: Contracts between Art and Commerce*, Harvard University Press.

[9] In essence the problem is that the lender is unable to distinguish high risk from low risk borrowers. In that case it may be profit maximising for the lender to limit the supply of credit ('credit-rationing') rather than set interest rates at a level which clears the market. The reason for this is that raising the interest rate to clear the market may cause low risk borrowers to refrain from borrowing leaving behind a pool of higher risk borrowers resulting in lending being less profitable (adverse selection). In practice credit-rationing may mean there is less finance available to viable businesses.

[10] Rather than leading directly to rejection, a lack of business assets may result in lenders asking for personal security instead. However, accepting the loan on these terms may put the business owner in the position of risk losing their home; in these circumstances the business owner may prefer to turn down the loan offer. Either directly or indirectly, a lack of business assets to offer as collateral may lead to poorer access to finance.

[11] See Caves (2000) *op. cit.*

Whatever the causes of market failure, adverse selection or moral hazard, the consequences may be that CIBs are financially constrained resulting in lower growth. These potential consequences for growth are particularly important at a time when policy makers are looking to the private sector to lead economic recovery. In this context, the recent Finance Green Paper announced that the Departments for Business, Innovation and Skills (BIS) and Culture, Media and Sport (DCMS) would work together to understand whether CIBs 'are suffering more than others in accessing finance'[12]. This research report is the result of this collaboration.

Objectives of the research

The principal objective of this report is to rigorously analyse the extent to which businesses in CI's have found it harder to raise finance, before and after the credit crisis, compared to otherwise similar businesses in other sectors of the economy. This analysis looks at both: businesses which applied for finance and were rejected; and businesses which did not apply for finance because they believed they would be rejected ('discouraged borrowers').

Comparisons of the likelihood of rejection between CIBs and comparable non-CIBs, relate directly to the issue of the severity of market failure in the supply of finance to CIBs relative to other businesses[13]. If CIBs have a higher likelihood of rejection than non-CIBs with similar risk profiles, then it suggests that finance providers are more risk averse towards CIBs due to greater problems of uncertainty/moral hazard[14].

The reason for also looking at discouraged borrowers is that owners of CIBs may be more likely to feel discouraged from applying for external finance due to the *perception* that they have a higher likelihood of rejection. These perceptions may result from a feeling that the nature of their business (uncertainty/non-pecuniary objectives) would make finance providers particularly risk averse towards them. So, comparisons of the likelihood of discouragement between CIBs and comparable non-CIBs show the indirect effects of market failure through business owners' perceptions of the supply conditions confronting them. An additional objective of this report is to examine the effects of differences in access to finance, as measured by differences in rejection and discouragement probabilities, on the growth of businesses in CI's. The analysis of the impacts on growth of differences in rejection/discouragement provides specific insights into the economic consequences of more acute market failures in the supply of finance to CIBs relative to other businesses.

[12] BIS/HMT (2010) Financing Business Growth: the Government's response to *Financing a Private Sector Recovery*, October 2010.

[13] It is well known that market failure issues, rooted in problems of uncertainty/imperfect information and moral hazard, may adversely affect the supply of finance to small businesses in general. The point of the analysis in this report is to address the question of whether issues of market failure are more acute for CIBs compared to the rest of the small business population.

[14] Whilst there is a good basis in economic theory for these explanations, the interviews with finance providers conducted in the qualitative analysis provides them with empirical support. Other specific explanations for differences in rejection probabilities between CIBs and non CIBs with similar risk profiles include: i) CIBs may be bad at pitching their ideas to finance providers; and ii) CIBs may reject the terms of the offer of finance including collateral requirements. However these specific reasons relate to the more general issue of uncertainty: poor pitching reduces confidence (increases uncertainty) in the talent of the business owner; and banks ask for more collateral when they are uncertain about the firm's ability to repay the loan.

The research uses both econometric and qualitative methodologies to fully understand the underlying reasons for differences in access to finance and growth between CIBs and non-CIBs. The econometric and qualitative analyses are complementary: rigorous econometric analysis of large sample of data provides a robust basis for informing policy decisions; case studies, on the other hand, provide an opportunity to delve deeper into issues than is possible with econometric analysis alone. The joint findings of the econometric and qualitative analyses are brought together in the conclusions to this report. These joint findings forms the basis for recommendations regarding the way forward for CIB finances.

The econometric analysis, conducted by Stuart Fraser of Warwick Business School, is presented in Appendix 1 whilst a full discussion of the qualitative analysis, which was conducted by IFF Research Ltd, is provided in Appendix 2.

Methodology

Econometric data

The data used in the econometric analysis are obtained from a longitudinal survey of UK Small and Medium-Sized Enterprises (SME) finances (UKSMEF 2004, 2005, 2008 and 2009). These surveys provide detailed information on the characteristics of SMEs, their owners and experiences of obtaining finance. The use of longitudinal data allows for the effects of unobserved firm specific effects ('entrepreneurial talent') to be controlled for in the analysis[15].

In total there are 7,160 observations in the sample: 435 observations on CIBs; and 6,725 observations on non-CIBs. 314 of the CIB observations involve the use of, or application for, any type of finance (financial demands) encompassing overdrafts, term loans, leasing and hire-purchase agreements, invoice finance and equity finance. There are 5,306 non-CIB observations involving the demand for any type of finance.

Analysis is also presented based on the segmentation of CI's into Content and Service sectors[16] (of which there are 287 and 145 observations respectively[17]). Content sectors are comprised of: Software[18], Computer Games and Electronic Publishing (134 observations – referred to simply as 'Software' hereafter); Music and the Visual Performing Arts (97); Publishing (35); Video, Film and Photography (13); and Radio and TV (8) (the latter 3

[15] In essence, this is achieved by allowing the observations for a given business to be correlated over time (conditional on the observed risk profile). This correlation arises in the presence of unobserved firm specific effects. So, for example, a business may have consistently better access to finance (implying positive correlation) than other businesses with the same observed risk profile due to the greater talent of its owner.

[16] This rationale for this segmentation approach is set out in Technology Strategy Board (2009) *op. cit.* The actual groupings used in the analysis are based on the CI sub-sectors set out in DCMS (2010a) *op. cit.* which are defined using SIC 2003 codes. As noted previously, this is the only possible basis for forming the CI sub-sectors with the available data.

[17] There are 3 observations in the overall CIB sample relating to antique businesses (classified by the Technology Strategy Board, 2009, as an artifact sector).

[18] Some other classifications class software as a service sector, but for the purpose of this analysis it is classified as a content sector (consistent with the Technology Strategy Board classification).

sectors being grouped together under the heading 'Other Creative Content' due to the low sample sizes). Service sectors consist of Advertising (36) and Architecture (109)[19].

It is noted at the outset that whilst these CI sub-sector groups follow established definitions, it might be informative to further disaggregate some of the groups in the analysis. Music and the Visual Performing Arts is a good example: separate analysis of music and visual performing arts businesses would undoubtedly offer better insights into access to finance for these different types of businesses. However, this is not possible due primarily to limitations in the SIC 2003 code definitions used to define the CI sub-sector groups; these codes are unable, for example, to separate out musicians from other individuals engaged in 'artistic and other literary creation and interpretation'[20]. The analysis therefore proceeds with the caveat that whilst the CI sub-sector analysis offers more insights than simply looking at outcomes for the average CIB, it may still mask variation in access to finance among different types of CIBs within these sub-sectors.

Qualitative sampling frame

In order to add understanding to the econometric findings a number of qualitative in-depth interviews were conducted with SMEs that have had problems obtaining finance, or who felt discouraged from seeking finance in the first place. Forty in-depth interviews were conducted: 22 with CIBs, seven others with SMEs deemed to be 'otherwise innovative', and 11 with a general sample of SMEs that had problems gaining finance. The purpose of the non-CIB interviews was to see if there were any differences in the reasons why they encountered problems.

The SMEs interviewed had all previously taken part in the Small Business Survey, a large-scale quantitative study of SMEs that had taken place in the summer of 2010[21]. On that occasion they had indicated that they had been unable to obtain finance, had otherwise had problems gaining finance, or were discouraged from seeking it. The vast majority had sought bank finance in the form of a term loan or overdraft. The qualitative interviews showed that the majority of those that had not gained finance had not been rejected outright for finance, but had in fact rejected the terms that were offered to them. Typically these terms involved personal securitisation, with some evidence of arrangement fees being rejected because the SMEs considered them to be too high.

In addition, ten in-depth interviews were conducted with financiers: representatives of the four main UK banks, and spokespeople from business angel associations, VCs, specialist funders and other interested parties. All interviewing took place between the 13th January and 15th February 2011.

[19] The distribution of observations for the CI sub-sectors over time are as follows (pre-2008/2008-9): Software (34.2%/27.9%); Music/Visual Performing Arts (26.7%/18.5%); Other Creative Content (15.8%/10.3%); Advertising (7.9%/8.6%); and Architecture (13.9%/34.8%). The only sector which has a significant difference in the proportions pre-2008 versus 2008-9 is Architecture.

[20] This corresponds to a SIC 2003 code of 92.31.

[21] There was also an additional CIB boost to the 2010 Small Business Survey, to assess current finance conditions affecting CIBs. 200 additional CIB businesses were interviewed by IFF in December 2010, and the results are presented in Appendix 2.

Econometric analysis

The econometric analysis consists of 3 stages:

1. Estimate models for the probability of financial rejection and discouragement for both CIBs and non-CIBs.

   This stage allows an examination of the determinants of rejection/discouragement and whether there are any differences in these determinants between CIBs and non-CIBs. In particular, the determinants of rejection relate to factors used in finance providers' risk assessments of the business. The determinants of discouragement relate to factors which affect the business owner's perceived likelihood of rejection.

2. Estimate differences in the probability of rejection/discouragement between CIBs and non-CIBs.

   The total difference in the probabilities of rejection (obtained from the first stage) is decomposed into the sum of an assessment difference and profile difference. The assessment difference is the difference in rejection probabilities holding risk profiles constant; this difference captures the effect of greater risk aversion towards CIBs on the probability of rejection and relates to the issue of market failure. The profile difference, on the other hand, relates to the difference in rejection probabilities due to differences in risk profiles between CIBs and non-CIBs.

   Similarly, the total difference in the probabilities of discouragement is decomposed into the sum of a perceptions difference and profile difference. The perceptions difference is the difference in discouragement probabilities holding risk profiles constant. It captures the indirect effects of market failure in the supply of finance to CIBs via CIB owners' perceptions of the supply conditions confronting them.

3. Estimate the relationship between financial rejection/discouragement and growth.

   This involves estimating the relationship between financial rejection/discouragement and growth controlling for other firm/owner characteristics. In particular, rejection/discouragement causes lower growth if and only if they result in the business receiving less finance than required. This analysis therefore provides a test of financial constraints on small business growth. Finally, the assessment/perceptions differences in rejection/discouragement probabilities (obtained from stage 2) are input into the growth model to examine the impact of these differences on growth. This analysis therefore relates to the impact of market failure in the supply of finance on the growth of CIBs.

Key findings

Summary analysis findings

Summary analysis of the UKSMEF data indicates that:

- On average, CIBs have fewer assets and are younger than non-CIBs.
- Analysis of CI sub-sectors indicates that CIBs in Software and Architecture sectors have significantly fewer assets than an average non-CIB.
- Owners of CIBs are more likely to have an undergraduate/postgraduate degree or professional qualification, and are less likely to have no qualifications at all, than non-CIB owners.
- Also owners of Software and Other Creative Content CIBs are younger than an average non-CIB owner.
- In contrast owners of architecture firms are older than an average non-CIB owner.

The summary analysis also indicates that:

- Overall, the proportion with financial demands (i.e., those that used or applied for finance) is lower among CIBs, although a higher proportion of CIBs had demands for equity finance.
- The main financial demands among both CIBs and non-CIBs are for overdrafts, leasing and hire purchase agreements and term loans respectively.
- Less than 10% of CIBs and non-CIBs had demands for invoice finance or equity finance.
- Analysis by CI sub-sectors indicates that Software and Other Creative Content CIBs have lower overall financial demands than non-CIBs. Other CI sub-sectors (Music/Visual Performing Arts, Advertising and Architecture) have overall financial demands which are similar to non-CIBs.

Regarding financial rejection and discouragement:

- Software and Other Creative Content sectors have significantly higher rates of rejection/discouragement than non-CIBs.
- However, other CI sub-sectors have statistically the same rates of rejection/discouragement as non-CIBs.

This summary analysis suggests that Software and Other Creative Content CIBs are more likely than non-CIBs to have problems raising finance. **However, this may be due to the characteristics/risk profile of these businesses rather than reflecting unwillingness *per se* among finance providers to fund CIBs**. For instance, CIBs are found to have on average, fewer assets and are younger than non-CIBs (which will tend to increase the risk profile of CIBs relative to non-CIBs). Indeed the purpose of the econometric analysis is to examine the extent to which these differences in access to finance are due to a greater unwillingness *per se* to fund CIBs (because of underlying issue of greater uncertainty/moral hazard) or simply reflect differences in risk profiles.

Econometric analysis findings

The key findings of the econometric analysis are therefore discussed next. These findings are presented below under 3 headings relating to the 3 stages involved in the econometric analysis.

Determinants of rejection/discouragement

Analysis of the determinants of rejection probabilities indicates that finance providers' risk assessments of CIBs are more sensitive to assets, sales, previous loan defaults, business and owners' age and owners' education compared to non-CIBs. In other words the availability of collateral and business/personal track records appears to be more important for access to finance among CIBs compared to non-CIBs. This may be because finance providers are more risk averse toward CIB finance applications due to issues of greater uncertainty/moral hazard affecting these businesses. On the other hand, credit ratings are the main determinant of non-CIB rejection probabilities. The implication is that these ratings are more useful in risk assessing non-CIBs due to lower uncertainty about these businesses.

Longer financial relationships appear to have a stronger effect in reducing the likelihood of rejection for non-CIBs than CIBs. In other words, access to finance among CIBs does not appear to benefit from longer relationships in the same way as they benefit non-CIBs. This finding points to a higher level of uncertainty regarding CIB prospects which is not alleviated by building up a track record with a finance provider.

Equally, regarding the determinants of discouragement, while non-CIBs with greater assets are less likely to experience discouragement, there is no relationship between assets and discouragement among CIBs. This suggests that having greater tangible assets makes no difference to the perceived likelihood of rejection among owners of CIBs. This is consistent with perceptions among CIB owners that lenders apply tighter lending criteria in evaluating their businesses (even with greater assets CIB owners still feel discouraged). Interestingly, and consistent with the analysis of rejection, while longer financial relationships reduce the likelihood of discouragement among non-CIBs there is no corresponding effect among CIBs. The indication here is that, unlike non-CIB owners, CIB owners do not expect a longer relationship to have any beneficial effect on the likelihood of rejection. In other words, stable financial relationships do not seem to make CIB owners more positive about the outcome of their finance applications.

Differences in rejection/discouragement probabilities

Rejection

For an average CIB, the total difference in rejection probabilities (for any type of finance) is about 5.6% points. Over half of this difference (almost 3% points) is due to an assessment difference. This suggests that, looking over finances as a whole, finance providers are more risk averse in their assessments of CIBs, compared to otherwise similar non-CIBs, leading to a higher probability of rejection. The higher risk profile of the average CIB accounts for the remainder of the total difference in the rejection probability (i.e., the profile difference is 2.6% points).

Looking at an average difference is potentially misleading as it does not take into account variation across different sectors. Accordingly, looking at CI sub-sectors, for CIBs in Other Creative Content industries[22] the assessment difference is 12.5% points. This indicates that CIBs in Other Creative Content industries are significantly more likely to be rejected than non-CIBs with similar risk profiles (pointing to issues of greater risk aversion towards these CIBs). For Software CIBs, the assessment difference is about 5.2% points which is again indicative that finance providers are more risk averse towards these CIBs than non-CIBs with similar risk profiles.

On the other hand, there are no significant differences in rejection probabilities for CIBs in Music and the Visual Performing Arts. This suggests that finance providers are not especially risk averse towards these CIBs. The same also appears to be the case for Creative Service sectors (Advertising and Architecture)[23].

This analysis also looks at differences in rejection probabilities for businesses with different risk profiles. These profiles are summarised by 3 hypothetical risk types, high, medium and low risk, depending on the level of business assets, credit history, lengths of financial relationships and experience/qualifications of the business owner. The findings here indicate that high risk types (with few assets, poor credit histories, short relationships and little experience) have a higher likelihood of rejection, but low risk types (with many assets, good credit histories, long relationships and much experience) actually have a lower likelihood of rejection, than comparable non-CIBs. This suggests that finance providers are more risk averse towards high risk types, but less risk averse towards low risk types, than comparable non-CIBs. This analysis mirrors the analysis by CI sub-sectors (albeit the findings are more extreme for the high risk type due to the extreme combination of characteristics which define this type) with Software/Other Creative Content sectors representing high risk sectors and Advertising/Architecture relating to low risk sectors.

What effect has the credit crisis had on the availability of finance for the average CIB? The analysis here suggests that during the credit boom (2004) the average CIB had better access to finance (lower rejection probabilities) than comparable non-CIBs (assessment difference=-2.7% points). However, by 2008 finance providers had become significantly more risk averse towards CIBs than comparable non-CIBs (assessment difference=8.9% points); but by 2009 the (assessment) difference in rejection probabilities had fallen to zero. What this points to is increased risk aversion towards CIBs early in the credit crisis with risk aversion spreading to other businesses, and hence closing the gap in rejection probabilities, by 2009. In other words, CIBs may have felt the impact of the credit crisis early on with other businesses affected later.

22 Which includes Publishing; Video, Film and Photography; and Radio and TV

23 Note that the average CIB difference is a weighted sum of the CI sub-sector differences (where the weights are the respective proportions of CIBs in each sub-sector). This means that the average CIB difference is driven by both the size of the differences in each sub-sector as well as the proportion of CIBs in each sub-sector. In practical terms this means that the average CIB difference reflects both the moderately large differences, noted for the large number of Software firms in the sample, as well as the more extreme differences noted for the smaller number of Other Creative Content CIBs in the sample.

Discouragement

Regarding differences in discouragement probabilities (for any type of finance), whilst the probability of discouragement is higher for an average CIB (by 3 percentage points) this is due to differences in risk profiles rather than a difference in perceptions about the supply conditions confronting the business. In other words, the owner of an average CIB is no more or less pessimistic about their chances of obtaining finance than an owner of a comparable non-CIB. This inconsistency with the assessment difference for an average CIB (which is positive) suggests there are misperceptions among business owners about the likelihood of rejection. Indeed, further analysis indicates that owners of CIBs tend to under-estimate their likelihood of rejection. The finding of a positive profile difference, on the other hand, is unsurprising since the average CIB is smaller and younger, and therefore more susceptible to discouragement, than an average non-CIB[24].

In contrast to the results for the average CIB, the analysis reveals significant perceptions differences for certain types of CIB. In particular, owners of CIBs in Other Creative Content sectors are about 9.2% points more likely to feel discouraged than owners of non-CIBs with similar risk profiles. This suggests that these CIB owners are more pessimistic about their chances of obtaining finance than owners of non-CIBs with similar risk profiles. This pessimism would appear to be well grounded since the analysis of differences in rejection probabilities indicates that finance providers are more risk averse towards CIBs in Other Creative Content sectors relative to comparable non-CIBs. The size of the perceptions difference nonetheless is smaller than the corresponding assessment difference suggesting these CIB owners still under-estimate their likelihood of rejection. There are no perception differences for other CI sub-sectors.

Analysis by hypothetical risk types also indicates that owners of high risk CIBs have a higher perceived likelihood of rejection than comparable non-CIBs. However, the size of the perceptions difference is smaller than the corresponding assessment difference which, again, is consistent with these CIB owners under-estimating their actual rejection probabilities. Owners of medium risk CIBs also appear to under-estimate their actual rejection probabilities.

To summarise, this analysis suggests there is evidence of market failure affecting the supply of finance to Software, Other Creative Content sector, and high risk CIBs, both directly, through an increased probability of rejection, and indirectly on the demand side (for Other Creative Content CIBs and hypothetical high risk types) via an increased probability of discouragement (relative to non-CIBs with similar risk profiles). There is no evidence that CIBs in Service sectors, Music/Visual Performing Arts or hypothetical low risk types are affected by more acute issues of market failure relative to other businesses with similar risk profiles.

Another specific implication of the discouragement analysis is that there are misperceptions, on the demand-side, about the likelihood of rejection. These misperceptions may relate to underlying issues of a lack of financial understanding, in particular regarding how financial applications are assessed.

24 The average CIB has a higher risk profile and is therefore more likely to be rejected on account of this profile. Accordingly the perceived likelihood of rejection of an average CIB will also be higher reflecting their riskier average profile.

Impacts of differences in rejection/discouragement probabilities on growth

This analysis relates directly to the consequences of more acute problems of market failure in the supply of finance to CIBs. The findings here suggest there is some evidence that an average CIB experienced lower sales growth relative to comparable non-CIBs due to poorer access to finance (the total reduction in growth is 2% points but this estimate is only marginally statistically significant). The total reduction in growth due to higher rejection/discouragement probabilities is much larger in magnitude for Software and Other Creative Content sectors (5.3% points and 16.8% points respectively) reflecting the significantly poorer access to finance experienced by these CIBs relative to comparable non-CIBs. For the more extreme hypothetical high risk type the total reduction in growth is over 37% points. However there are no adverse consequences for the growth of Service and Music/Visual Performing Arts sector CIBs, or hypothetical low risk types, reflecting the finding that their access to finance is at least as favourable as that of comparable non-CIBs.

Qualitative evidence

The Small Business Survey[25] does indicate that CIBs are less likely to apply for finance than SMEs generally, although to an extent this is because there appears to be little demand for finance in the architecture sector which accounts for a high proportion of all CIBs in the SBS sample[26]. However, of those that did apply for finance the proportion encountering problems was significantly higher than for non-CIBs. This was particularly so in the film/video and publishing sub-sectors.

These problems exist despite the fact that CIBs have, on average, better Dun & Bradstreet risk ratings than non-CIBs. This applies both to all CIBs and those that applied for finance. Those with the poorest risk rating are more likely to apply for finance than those with better ratings, but this is again true of both CIBs and non-CIBs. Although it looks like those CIBs with poor ratings are more likely to encounter problems than non-CIBs with the same ratings, the low sample sizes analysed mean this finding is inconclusive, although it appears to corroborate the evidence from the econometric analysis (regarding high risk types).

In the qualitative data there was no discernable difference between the reasons given for not obtaining finance between the CIBs and non-CIBs. The banks themselves state that there is no discrimination in lending policy between CIBs and non-CIBs, and that in fact many CIBs (particularly the larger and more established ones) are very attractive propositions for lending. Banks claim that lending policy to all SMEs is equal. Decisions on whether to lend or not are based on the history of the current account, cashflow patterns etc., but there is also an element of behavioural scoring, which assesses the view of a lending manager on

25 Please note that the Small Business Survey is a different data source from that analysed in the econometric component of this research. It was not possible to combine the Small Business Survey dataset into the UKSMEF survey due to differences in the sample of firms and the way questions are asked.

26 There is a higher proportion of architecture firms in the SBS sample (44%) compared to the UKSMEF sample (25%). Differences between the UKSMEF and SBS samples are to be expected as they are based on different sampling frames. However, this is not believed to be a cause for concern since analysis is carried out for CI sub-sectors and not just all the sub-sectors together.

the integrity of the prospective borrower. In the banks view: (a) there may be more of the type of SME that gets rejected for finance within the CIBs that apply for loans; and (b) it may be harder for certain CIBs to demonstrate their ability to repay.

Interestingly, there was little evidence of outright rejection by banks in the qualitative interviews, but rather it was the SMEs that rejected the banks' terms. This is consistent with the views of the banks that whilst lack of business assets or security does not affect the decision on whether to lend, it does affect the price and other terms of the lending. Therefore, personal securitisation, or fees/pricing in line with the increased risk of the lending through lack of business assets, might be required to approve the loan or overdraft.

The characteristics of certain CIBs are such that much of their value is vested in intangible assets. Certain sub-sectors such as publishing and film appear to have high risk profiles, according to financiers and SMEs alike, due to irregular payment cycles, and long periods required from research and development to production.

The visual and performing arts sector, which includes theatre, dance and galleries, differs from other CIB sectors in that a proportion of these sectors have access to funding through patronage, donations and grants. A number of organisations in this sector, many of whom are charities, tend to apply for as many grants as they can get, with low expectations of success in all they apply for. Although they have survived so far, the recent economic environment may cause them to struggle in the future. At the same time it has focussed them to become more commercial.

Even though the qualitative sampling specifically tried to include CIBs that had applied for non-bank finance, very few of those interviewed had seriously pursued equity through VCs and business angels as an option. Although some VCs and business angel associations specialise in CIs, there are few of these, as the majority tend to prefer to invest in technology or general SMEs. There is a feeling among financiers that it is difficult to take equity in CIBs, as much of the creative content is invested in individuals rather than the company, and the individuals themselves tend to be reluctant to relinquish control, or understand that they themselves are required to provide an exit strategy that will make them attractive to investors. Among CIBs there appears to be little awareness of business angels, or how to seek an investment. Generally, there is a view from financiers that CIBs have a below average understanding of how to seek business finance, which is corroborated to an extent by the CIBs interviewed themselves.

Factoring and invoice discounting are unlikely to be utilised by CIBs with irregular payment patterns, and there is a suggestion that using these as a form of raising money can look bad in certain industries (e.g. fashion).

A finance gap appears to exist for certain CIB sub-sectors like Software and Publishing, especially among start-ups, where long development periods are required, with no payment received until completion. Business angels tend to consider this model risky, and VCs are generally less interested in small projects. Specialist product funders do exist, although it needs to be proven whether this is a replicable model more widely. Small amounts of money have in the past been provided through Government matching schemes and Small Business Centres, and these make the businesses more attractive for banks and equity investors alike, but the future of this finance is uncertain.

Conclusions

The report began by arguing that uncertainty/moral hazard issues may be a greater issue for CIBs leading to more acute problems of market failure in the supply of finance to CIBs relative to other businesses. It is not possible to isolate whether it is uncertainty or moral hazard which is driving the results and so these issues need to be considered together. However, the econometric analysis appears to support the general argument, among Software and Other Creative Content (Publishing; Video, Film and Photography; and Radio and TV) sector CIBs at least, as there are significant differences in the probability of rejection between these Content sector CIBs and non-CIBs with similar risk profiles. The suggestion is that finance providers are more risk averse towards these CIBs due to greater issues of uncertainty/moral hazard and, consequently, they require greater levels of security. In other words, the supply of finance to Software/Other Creative Content sector CIBs is adversely affected by more acute issues of market failure relative to comparable non-CIBs.

The case studies enabled a close-up look at these issues. For example, the owners of the software firms interviewed spoke of how a lack of tangible business assets led to a lack of finance. In some cases, this left the business owners to fund the business out of their personal finances. This restricted growth and even led to redundancies in some cases. Similarly, interviews with owners of film/video businesses highlighted requests for (personal) security that the owners were either unable or unwilling to comply with. For one TV and online video production firm, the resulting lack of finance led to the redundancies of all six of its employees; now the owner says she 'staffs-up' as required when projects come in.

Equally there are significant differences in the probability of discouragement between Other Creative Content sector CIBs and non-CIBs with similar risk profiles. The implication here is that owners of Other Creative Content CIBs are aware of finance providers' risk aversion towards them and are less likely to apply for loans as a consequence[27]. In this case, discouragement represents an indirect effect of market failure on access to finance via business owners' *perceptions* of the market conditions confronting them[28]. Interestingly, the case studies also highlighted instances where owners of publishing and film businesses felt discouraged from applying for finance because they felt their lack of assets would result in them being turned down anyway.

The qualitative analysis was able to speak directly to the issue of finance providers' attitudes towards the risks of lending to CIBs. In this regard, interviews with finance providers highlighted issues of greater uncertainty about the demand for CIB products: "Banks don't discriminate against the creative industries, but they do discriminate against people who they think can't repay. It may just be in our eyes that there are more of them in the creative industries." The root cause of this greater uncertainty among CIBs is that nobody knows, for example, how well a new book or film will sell.

27 Although, as noted previously, it seems that CIB owners tend to under-estimate their actual likelihood of rejection leading to perceptions differences which are less than the corresponding assessment differences.

28 The awareness of business owners in this context is not to be confused with good information on the supply-side. If finance providers were well informed about borrowers' default risk there would be no issue of market failure in the first place.

This uncertainty still applies even if the business has had major success in the past. The following comments made by a venture capitalist are particularly telling in this regard: "I've known the producers [of the 'King's Speech'] a long time, and the film has been a huge performance hit for them, but with their next two or three productions you don't know if they will be hits, so you can't predict revenue streams." By implication, the likelihood of rejection may not improve even with a track record of success. Consistent with this, the econometric analysis indicated that longer financial relationships do not reduce the likelihood of rejection or discouragement among CIBs (whereas non-CIBs' access to finance improves with longer relationships). In other words, longer financial relationships do not appear to alleviate the uncertainty associated with the supply of finance to CIBs.

The interviews with finance providers also highlighted the issue of uncertainty about the talent of the CIB owner: "If somebody comes to us and tells us they are a great musician or a great film maker, how are we in a position to make a call on that?" In this light, it is possible to better understand one of the findings of the econometric analysis which pointed to the greater importance of owner characteristics in reducing the likelihood of rejection among CIBs. Finance providers may have greater confidence in the talents of CIB owners who are older/more experienced and who have formal qualifications in their CVs.

A related issue, highlighted by the interviews with finance providers is that CIB owners are often viewed by finance providers as lacking credibility. Equally, the interviews with CIB owners suggested a mixed awareness, and understanding, of finance. This is consistent with the econometric analysis which suggests CIB owners misperceive their likelihood of rejection. This mixed level of understanding/misperceptions may reflect a natural tendency for owners of CIBs to come from arts based backgrounds and to have limited financial knowledge. Again, however age/experience may add a degree of gravitas to finance applications and increase finance providers' confidence in the business owner. Also, a specific finding of the qualitative analysis is that owners of visual performing arts businesses are the most financially aware as they spend a lot of their time applying for grants. This might help to improve access to finance for these CIBs.

Moral hazard/non-pecuniary business motives are also an issue highlighted by the interviews with finance providers: "Banks don't fund people to paint pictures." In addition, the qualitative analysis supports the view that owners of CIBs are control averse; control aversion is linked with a desire for independence and non-pecuniary business motives. A risk identified by the interviews with finance providers is that the success of the business is tied to the vision/talent of a single key individual (increasing the risk that the business will be run to fulfil the personal/non-pecuniary objectives if its owner).

Whether the root causes of market failure lie in uncertainty or moral hazard, a symptom of market failure is that finance providers are more likely to ask for collateral. In this regard, a notable finding which is common to both the econometric and qualitative analyses is that the availability of collateral is a greater issue for access to finance among CIBs than non-CIBs. What the case studies were able to reveal in more detail was that, rather than leading directly to rejection, a lack of business assets often resulted in lenders asking instead for personal security from CIB owners. In these circumstances the owners usually preferred to turn down the loan offer rather than find themselves in the invidious position of possibly losing their homes. Either way, the underlying issue is the same: a lack of business assets led to poorer access to finance for some CIBs.

On a specific collateral issue, the interviews with finance providers indicate that they find lending to music businesses with back catalogues attractive as these assets are viewed as good security. In contrast the intellectual property held by software firms is viewed as lower quality security because it quickly becomes obsolete. This is entirely consistent with the econometric analysis which found that CIBs in Music/Visual Performing Arts have access to finance which is similar to comparable non CIBs whereas Software CIBs have relatively poor access to finance[29].

The econometric analysis also looked at the consequences of market failure in the supply of finance on CIB growth. The findings here point to quite a severe curtailment of growth among CIBs in Software and Other Creative Content sectors due to poorer access to finance. As noted previously, the qualitative analysis also highlighted several individual cases (notably in Software and Publishing) where, in the opinion of the business owner, finance rejections resulted in lower growth.

To reiterate, there is a great deal of consistency between the econometric and qualitative analyses. The essence of this joint analysis is that: there are more acute problems of market failure in the CI sector on average (rooted in uncertainty/moral hazard issues) relative to other comparable businesses; these problems affect Software and Other Creative Content sectors in particular; and market failure has adverse consequences for the growth of these CIBs.

Recommendations

This analysis suggests that Government should consider whether there is more that could be done to encourage better access to finance for CIBs, in particular addressing the issues facing CIBs in Software and Other Creative Content sectors. That's not to say that Music/Visual Performing Arts and Creative Service sectors are problem free. It's just that their problems don't seem to be any greater than those affecting other comparable businesses.

A general caveat should be made here. Since the econometric analysis only covers periods up to 2009, it's unable to pick up the impact of spending cuts to the arts made in October 2010[30]. This is also largely the case for the CIB boost of the Small Business Survey that took place in December 2010. This may have direct consequences for access to commercial finance since the presence of grants/public sector finance schemes may help businesses in these sectors to lever in additional finance from the private sector. Indeed this very point is noted in the qualitative interviews with finance providers who, as a consequence, seemed pessimistic about the growth prospects of grant subsidised organisations. So, it's possible that the situation for CI sub-sectors which are more reliant on grants, such as the visual performing arts, has deteriorated leading to more CIBs in this sector facing a funding gap[31]. It's also re-iterated here that the CI sub-sector groups used in

29Subject to the caveat made previously that the grouping together, by necessity, of music and visual performing arts businesses may mask variation in the financial outcomes for these CIBs.
30 Arts Council England saw its budget cut by 30% in the October 2010 spending review; and the total budget for DCMS is to be cut by 24% by 2014/2015.
31 The case studies, carried out in January/February 2011, highlight that CIBs in the visual performing arts are finding it much harder to obtain grants following the cuts in public spending.

the analysis (defined by SIC 2003 codes) may hide differences in access to finance among the different types of CIBs that comprise the sub-sectors.

In terms of the Government's role in assisting potentially viable CIBs to get finance, what forms might this assistance take? For the most part CIBs, like other small businesses, are largely reliant on overdrafts, leasing and hire-purchase agreements and term loans. The priority for policy makers should therefore be to facilitate good access to these types of finance. In view of finance providers' greater risk aversion towards Software and Other Creative Content sectors, policy options that make lending to these CIBs a more attractive proposition to finance providers could be considered.

On the demand-side, discrepancies between assessment and perceptions differences point to a lack of understanding/misperceptions about how loan applications are assessed. This supports initiatives by the Business Finance Taskforce to help make loan applications easier/more transparent for business owners[32].

Supporting equity finance may be appropriate for high growth potential CIBs with longer product development times and few tangible assets. Indeed demand for equity finance is higher among CIBs than non-CIBs. However, very few businesses are capable of generating the returns required by venture investors, who may look to get back 10 times what they invested over a 5 year investment period. There may, nonetheless, be social returns from assisting this small group of businesses[33]. Government should work with investors and businesses to ensure funding opportunities are visible and accessible, including business angels who will also help to play a part in the provision of finance to CIBs.

It is not sufficient, however, simply to use public money to help provide investments in CIBs. Improving the supply of equity finance to CIBs in the long run also requires a critical mass of investment ready CIBs. In addition it is important to increase the number of investors with CI sector specific knowledge[34]. Only then is there a chance that investments in CIBs will make the returns that will attract future private investment[35].

On the issue of investment readiness, mentoring from business angels and independent financial advice may help CIB owners seeking equity finance with writing business plans and improve their pitching skills. Again, given the mixed level of financial knowledge among CIBs in general, mentoring/advice may have more widespread benefits. In this regard, the introduction of a small business mentor network by the Business Finance Taskforce is welcomed; this may be particularly beneficial for CIBs so long as they are aware of the network and are encouraged to make use of it. However, it is also important that CIBs have access to advisors who are knowledgeable about the CI sector. There may be a role for

32 See BBA (2010), Supporting UK businesses. The report of the Business Finance Taskforce.
33 A recent evaluation of UK government support for early stage venture capital suggests that, after an initial drop in performance, assisted firms out perform comparable unassisted firms in a number of metrics including capitalisation and employment growth (see BVCA, 2009, From funding gaps to thin markets: UK government support for early stage venture capital).
34 This specialism would give investors a comparative advantage in screening, monitoring and providing non-financial services to CIBs relative to non-specialist investors. The effect of this is to make investment viable for the specialist investor whereas the same investment might be unviable for the non-specialist investor.
35 Another critical factor here is ensuring there are viable exit routes so that value can be realised.

Government in ensuring that mentoring includes experienced mentors from the creative sectors so that CIBs can benefit from these proposals.

On the supply-side, currently there are very few investors which specialise in the CI sector: the Creative Arts Investment Network (CAIN) is an example from angel finance; and London Venture Partners (LVP) is one of very few specialist venture capitalists. Compounding the problem, CIBs are largely unaware of these specialist investors. In this regard, Government should improve the way in which funding sources are profiled and promoted to CIBs, and should consider whether an on-line specialist funding guide may help.

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