

The Financing of Diverse Enterprises: Evidence from the SME finance monitor

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ABSTRACT

This paper contributes to our understanding of the finance issues currently facing diverse SMEs by presenting a new analysis of the SME Finance Monitor. While prior studies have contributed substantial evidence regarding the effects of either gender or ethnicity on finance outcomes, these analyses have typically focused on either women-owned or ethnic minority owned enterprises. This study considers the experiences and outcomes of both women-owned and ethnic minority-owned enterprises, including the interaction effects of ethnicity and gender. Central to this analysis is the development of a new typology of borrowers that categorises SMEs across six groups: existing borrowers; new/renewed borrowers; declined borrowers; partial borrowers; potential borrowers; and indifferent non-borrowers. Using this typology as the analytical lens enables a more granular view of the SME Finance Monitor dataset, and reveals both a broader set of potential borrowers and a wider set of antecedents of debt-avoidance than have previously been identified. As prior studies have indicated, gender effects that were notable and significant in the initial phases of the analysis were mainly dissipated when other factors, such as legal form and firm age, were considered. Analyses of ethnicity, however, suggest a different experience. While structural factors such as sector, firm size, the presence of a business plan, firm age, and legal form all impact on finance outcomes, after controlling for these structural factors the relative likelihood of borrowing success remains lower among Black and Minority Ethnic (BME) business owners as compared their White British and Irish (WBI) counterparts.



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1. INTRODUCTION

Attempts to increase the participation rates of under-represented groups in enterprise and to increase the growth rates and ambitions of their entrepreneurial ventures have to date resulted in only modest changes (Alexander et al., 2009; Marlow et al, 2008; Ram and Jones, 2008; Bates, 2011). The Enterprise Research Centre work package on 'Diversity and SMEs in the Emerging Economy' seeks to understand the reasons for this, exploring the drivers and barriers to business development and growth among diverse social groups with a focus on the inter-relationship between individuals' entrepreneurial decision making and their household context. Understanding relative access to finance (Ram et al, 2002; Fraser, 2009) and access to markets (Jones et al., 2000; Ram and Smallbone, 2003) form core components of this work.

The first strand of this work package entails secondary analysis of existing datasets to better understand the drivers and barriers of entrepreneurial growth in under-represented groups. This paper, based on a new analysis of the SME Finance Monitor, is the first in a series of papers reporting insights from secondary data analysis. Future papers will report insights from the British Household Panel Survey and Understanding Society survey, focusing on how household resource conditions shape attitudes towards business start-up and growth in different social groups.

2. THE CHARACTERISTICS OF DIVERSE ENTERPRISES

While it is recognised that diversity takes many forms, this ERC Work Package focuses on two main groups of diverse enterprises: ethnic minority and women owned businesses. Both groups have been the subject of considerable, albeit separate, research efforts in recent years in the UK and internationally. Although the context of disadvantage for ethnic minorities and women is distinctive and different experiences of business ownership are evident within both groups - indeed, each group is itself



highly heterogeneous - research evidence demonstrates that at an aggregate level both groups share three common characteristics (Carter et al., 2013). These characteristics, sometimes referred to as the 3Ms, relate to concerns surrounding their relative access to and usage of finance (money); the effects of structural disadvantage arising from businesses located in intensely competitive industry sectors including small-scale retailing, catering and services (markets); and the frequently noted mismatch between well-educated individuals and their self-employment occupation, coupled with a focus on the small scale, under-performing nature of their business operations and the management challenges faced in diversifying business activities into higher paying sectors (management).

Ethnic minority-owned businesses (EMBs) are a complex, rapidly evolving group of enterprises that include both long-standing communities, notably South Asians and African-Caribbeans and comparatively new arrivals from Eastern Europe and Africa. Overall, EMBs account for about 8% of small businesses in the UK, though a substantially higher proportion of businesses within the main urban areas of London, Birmingham, Manchester and Leeds (IFF Research 2011). In recent years, two important shifts have taken place in the world of ethnic minority business (Zhou, 2004; Jones et al., 2011). Firstly, there have been drastic changes in migration flows to the UK as the traditional migrant flows of replacement labour from a small handful of countries have been replaced by new migrants from dozens of geographically diverse countries driven by a host of different motives, a phenomenon sometimes referred to as 'superdiversity' (Vertovec, 2007). Because these new populations tend be highly educated and often possess transnational contacts, some view them as having the potential for mould-breaking enterprise (Sepulveda et al, 2011), while others predict that they are destined to follow much the same disadvantaged enterprise path as the 'old' migrants (Jones et al 2012). Secondly, falling levels of self-employment among young UK-born Indians coupled with evidence of entry into highly credentialised professional careers has led some commentators to suggest that self-employment may be a transitional solution for groups new to a society (Jones et al.,



forthcoming). However, mixed embeddedness theory (Kloosterman, 2010) perhaps offers a more realistic view of structure versus culture in the creation of ethnic minority business. This theory posits that any firm is simultaneously grounded both in its own social capital – resources supplied by family, community and other social ties – and the wider surrounding economic and legal environment of markets and states. Thus, while explicitly acknowledging the entrepreneur's debt to social relationships it equally insists that the firm must act within parameters laid down by this powerful context. Consequently, immigrant-origin firms cannot be viewed as unique and subject to their own rules, rather they are simply specific versions of a universal genre (Jones et al., 2011).

While the future of ethnic minority businesses may be subject to debate, there is greater certainty about the concerns that they currently face. Among these, access to finance is often cited as one of the most significant barriers for EMBs (Ram and Jones, 2008; Ram et al., 2011). The most detailed study of EMB finance in the UK (Fraser, 2009) highlighted some stark findings. First, credit outcomes were found to be worse for entrepreneurs from particular ethnic groups, with Black African firms more than four times as likely as White firms to be denied a loan outright, while Black Caribbean, Bangladeshi and Pakistani firms were also found to be disproportionately more likely to have loan applications denied. Despite these findings, direct discrimination was not found to be the cause. Instead, standard risk factors such as age of business and financial track records accounted for discrepancies between different ethnic minority groups. As Fraser (2009:601) reported, "The analysis of loan denials and interest rates points to differences in creditworthiness, not ethnic discrimination, as the probable explanation for poorer EMB credit outcomes."

Women's enterprise can be difficult to precisely define and enumerate, but it is estimated that about 20% of the UK's 4.8 million enterprises are women-led and that women comprise about 30% of the UK's self-employed population. Despite many initiatives to increase the number of women in enterprise, men are still almost twice as likely to start businesses as



women. As with EMBs, access to finance is regarded as the major obstacle preventing women from starting and growing a successful enterprise (Marlow and Patton, 2005; Hughes et al., 2012). Although access to finance appears to be gender neutral, research has shown that women perceive higher financial barriers to business ownership (Roper et al., 2006) and an analysis of GEM data demonstrated that 'being female increases the probability that an individual will perceive financial barriers to business start-up by around 7.5 percentage points' (Roper and Scott, 2009). Studies have consistently shown that women-owned businesses start with lower levels of overall capitalization (Carter et al, 2007), use lower ratios of debt finance (Rosa et al, 1996), and are much less likely to use private equity or venture capital (Brush et al, 2001).

Studies investigating gender-based differences in business financing have focused on two related themes. Early studies of gender, entrepreneurship and finance sought to unravel the complex relationship between gender and bank finance with regard to the volume of finance lent, the terms of credit negotiated and the perceived attitudes of bank lending officers to female entrepreneurs (Orser and Foster, 1994; Fabowale et al., 1995; Coleman, 2000). More recently, researchers have attempted to demonstrate whether gender-based differences are a consequence of supply-side discrimination by bank lenders, demand-side aversion to debt or risk by women entrepreneurs, or simply the result of structurally dissimilar businesses owned by men and women (Wilson et al., 2007).

The view that finance differences between men and women are explained by their ownership of structurally diverse businesses has dominated much of the debate (Watson, 2002; Johnsen and McMahon, 2005). Recent studies by BDRC Continental (2012) and Marlow et al (2012) have continued the well-rehearsed view that finance differences between male and female owned businesses are best explained as a product of differences in business size, age and sector. Intriguingly, however, studies using matched samples of male and female entrepreneurs report residual gender differences even after structural factors have been controlled (see



Carter et al., 2007 for a review). In a sophisticated attempt to unpack the debate as to whether it is structure or gender that determines finance outcomes, Wu and Chua (2012: 459) identify the presence of second-order gender effects in US small business borrowing costs, arguing that "the 'gendering' of structure is itself a gender effect". This study has powerful implications; arguments that variations in bank lending are a consequence of structure and not gender become meaningless if gender and structure are coterminous. Alternative explanations for different finance outcomes have asserted that supply-side gender discrimination may account for the different finance profiles between men and women (Hertz, 2011), though there is virtually no evidence to support this claim. Finally, demand-side risk aversion (Cliff, 1998; Bird and Brush, 2002), more accurately described as debt avoidance, has been mooted as the cause of gender based finance differences. This perspective has some indirect empirical support as it has been well established that the comparatively lower earnings of women in employment (Perrons, 2009) are reproduced among the female selfemployed (Marlow, 1997; Parker, 2004).

3. DIVERSE ENTERPRISES AND DISCOURAGEMENT

Given the concerns noted within both the EMB and, to a lesser extent, the gender and entrepreneurship literature regarding the proportion of discouraged borrowers within these groups, it is worth considering some of the recent research regarding financial discouragement within the SME sector. Current interest in discouraged borrowers dates from Kon and Storey's (2003) seminal work identifying the conditions in which there is the potential for discouraged borrowers to exist. These conditions include both demand side factors (application costs varying between firms), and supply side factors (imperfect screening of applicants by banks) resulting in good borrowers failing to apply for bank lending because they believe they will be rejected. Information asymmetries are central to understanding the causes of discouraged borrowing. The lack of availability of reliable information about small businesses, which have been described as 'informationally opaque' (Han et al., 2008:415), and the consequent inability of banks to



accurately appraise the quality of small business borrowers gives rise to discouragement. Kon and Storey (2003: 37) argued that the scale of discouragement was at its greatest "where there is some, but not perfect, information." Discussions of discouragement have focused on the extent to which discouraged borrowers share greater resemblance to rejected applicants or to accepted borrowers. Using the US Survey of Small Business Finances, Han et al., (2008: 415) reported that riskier borrowers had higher levels of discouragement, concluding that 'discouragement is an efficient self-rationing mechanism'. A later study using the Canadian SME Financing Data Initiative dataset similarly found discouraged borrowers to be generally smaller and riskier than applicants (Chandler, 2010), while an analysis of the World Bank's Enterprise Surveys showed older and larger firms to be less likely to be discouraged (Chakravarty and Xiang, 2012). While discouragement of 'bad' borrowers is widely believed to demonstrate market efficiency, the discouragement of 'good' borrowers is problematic. Understanding the characteristics of discouraged borrowers is vital in assessing whether or not discouragement is problematic. Given that the SME sector is largely characterized by firms where ownership and management is undertaken by a single person or small team of (often) family members, the characteristics of discouraged borrowers include both firm level and personal attributes.

Studies of discouragement drawn from UK datasets confirm that the likelihood of discouragement diminishes with firm size (Freel et al., 2010), but also point to a number of distinguishing characteristics of discouraged borrowers including firm-level strategy, industry sector. entrepreneurial experience and perceived quality of existing banking relationships. Of particular note to this review is the reported finding that 24% of female-owned businesses, compared with fewer than 14% of maleowned firms, were discouraged, a fact explained by the greater prevalence of cost-based strategies used by female-led firms rather than gender alone (Freel et al., 2010). The view that discouragement may be associated with particular characteristics of business owners was given greater support by Fraser's (2009) analysis of the UK Survey of SME Finances (UKSMEF)



which found rates of discouragement to be higher among EMBs than among White firms, with 44% of Black African, 39% of Black Caribbean, 31% of Bangladeshi, 21% of Pakistani and 9% of Indian firms compared to 4% of White firms reporting that fear of rejection had led them to not apply for loans. Controlling for the effects of other explanatory factors, such as poorer credit worthiness, ethnicity remained a key explanatory factor for discouragement, particularly for Black Caribbean firms and, to a lesser extent, Indian firms. However, the focus on personal characteristics of owners as a determinant of discouragement was challenged by Van Hulten's (2012) analysis of SME finance in Australia which found that not only did gender not influence the probability of reporting denial, discouragement or financial constraint, female migrants were also no more likely to report discouragement.

4. A TYPOLOGY OF SME BANK BORROWING

This analysis of the SME Finance Monitor is intended to provide further insights into the perceptions and experiences of diverse enterprises regarding access to finance. The SME Finance Monitor is a large-scale UKwide quarterly survey of SMEs undertaken by BDRC Continental, commissioned following the Banking Taskforce Report and the green paper Private Sector Recovery' (http://www.sme-financemonitor.co.uk/). The first nine waves of the survey used in this analysis provide a usable sample in excess of 45,000 cases. To ensure a representative sample, quotas are set by sector and region then allocated within employee size bands. The resulting sample is weighted to ensure representativeness to the total UK SME population based on BIS SME data. The SME Finance Monitor does not apply quotas or weightings to personal characteristics of owners, such as gender or ethnicity, however, the overall proportions of female and EMB owners within the survey population closely match those within the overall UK SME population. Small Business Survey data from 2012 shows that 21% of businesses with no employees and 19% of businesses with employees were majority women-led and 8% of all SMEs were EMB led, though the proportions



varied from 16% of very young businesses (less than 1 year) to 5% of mature businesses (over 20 years).

The starting point in this analysis of the SME Finance Monitor was to develop a typology of SME borrowers which encapsulated the entire population of SMEs as the notional demand for borrowing (Figure 1). As Figure 1 shows, the notional demand for borrowing is initially broken down into three different groups: Patent Demand, a category of SMEs who have made an application for bank credit irrespective of outcome; Partial Demand, a category of SMEs that have successfully applied for some bank credit but had not applied for all the bank borrowing they required; and Latent Demand, a category of SMEs that are currently non-borrowers and non-applicants for bank credit.

The Patent Demand group can be further broken down into three categories (row 2): Extant borrowers who have made no new application for credit within the past 12 months; New/Renewed Borrowers, SMEs that have successfully made a new or a renewed application for finance within the past 12 months; and Newly Declined Borrowers, applicants for bank credit who have been declined by the bank or who have declined the bank's offer of credit (row 3).

The Partial Borrowers group comprises SMEs who are simultaneously both successful applicants, having successfully applied for some borrowing facility, but who also exhibit debt-aversion as they do not apply for all of the funding they require or they require but do not apply for a different type of funding mechanism.

The Latent Demand group can be broken down into two separate categories of Indifferent Borrowers and Potential Borrowers (row 2). Indifferent Borrowers comprises SMEs with no present need for bank credit, of which some will be Listless Non-Borrowers having never applied for bank credit and some will be Defunct Borrowers having previously used bank credit but have no present need (row 3). Of this latter group, some will have ceased borrowing having repaid the debt and some will have been



dismissed (row 4). The category of Indifferent Borrowers closely resembles 'Happy Non-Seekers', while the category of Listless Non-Borrowers overlaps with the 'Permanent Non-Borrower' group identified in the SME Finance Monitor Q3 2013 report (BDRC, 2013). The Potential Borrowers category of SMEs who require credit but have made no formal application can be broken down into two categories of Disinterested Borrowers who need finance but prefer non-bank sources so do not apply for bank borrowing, and Discouraged Borrowers who need and want bank credit but certain factors discourage their application. Discouraged Borrowers can be further segmented into two categories of the Directly Discouraged and the Indirectly Discouraged (row 4). Directly Discouraged SMEs have been directly discouraged by direct bank actions, either because they have been Dissuaded by bank personnel from applying for bank credit or they are Disillusioned because a previous application for bank credit had been rejected with the rejection handled so poorly by the bank that the borrower is discouraged from applying again (row 5). SMEs that are Indirectly Discouraged by non-bank factors can be further segmented into four categories: those that believe banks offer Undesirable Deals, unsuitable products, prices or procedures; Self-Diagnosed SMEs, the classic discouraged category whose self-evaluation suggests that they would be declined; Daunted SMEs who are intimidated by perceived notions of the complexities of bank borrowing, such as highly demanding and legalistic terms and conditions; and Distracted SMEs who are discouraged for a range of other reasons, including media reports and hearsay about the difficulties of bank borrowing and consequently predict the likely rejection of any bank application.

This typology of borrowers identifies a potentially larger pool of discouraged borrowers than has previously been acknowledged, in so far as it includes both potential borrowers and partial borrowers. The typology also identifies a wider range of causes of discouragement than has previously been identified. While the research literature has not previously differentiated between types of discouragement, bank practice has started to differentiate between direct and indirect discouragement, where direct discouragement



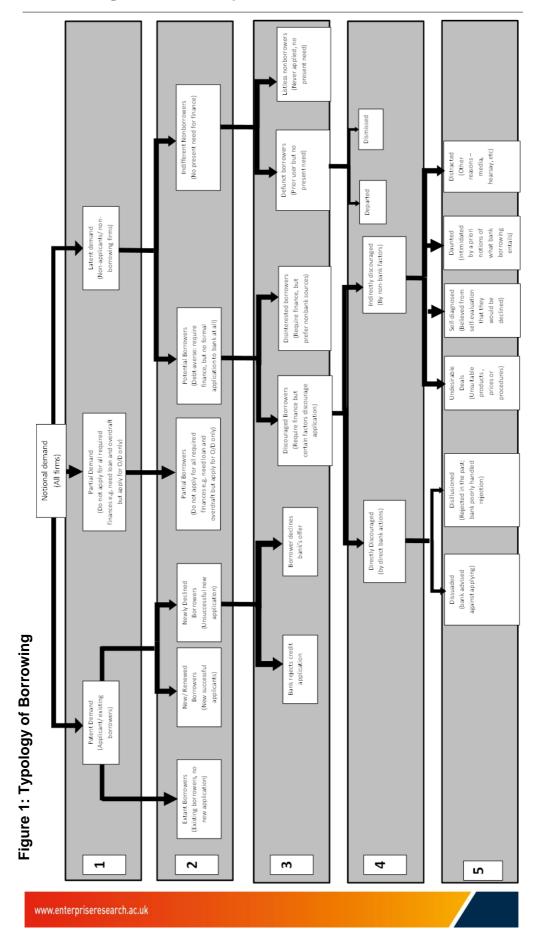
is a consequence of bank dissuasion and indirect discouragement is a consequence of other reasons such as media reports or hearsay (encapsulated in this typology as distracted SMEs). Using this new typology as the basis of a re-analysis of the SME Finance Monitor enables some insight into the scale and importance of different types of discouragement.

5. EVIDENCE FROM THE SME FINANCE MONITOR

The distribution of borrowers across the categories in this typology is shown in Figure 2. This figure shows that across the three main categories of borrower, the largest fraction of SMEs (49%) are non-borrowers and in the category of Latent Demand, 45% of SMEs are new and existing borrowers and within the category of Patent Demand, and 6% of SMEs come into the category of Partial Demand, having successfully applied for some bank facility but requiring either further funding or a different facility without making a further application. For reasons of caution, partial borrowers were not included within the potential borrower group but were treated as their own analytical category.

Of those SMEs within the Patent Demand category, 22% of the total sample (50% of Patent Demand) are existing borrowers who have made no new application within the past twelve months, 20% of the total sample (44% of Patent Demand) are new borrowers having made a successful application within the past twelve months, while just 2% of the total sample (5% of Patent Demand) are within the Declined Borrowers group. Of these, the largest proportion (1.6% of the total sample, 72% of Declined Borrowers) was rejected by the bank, while 0.6% of the total sample (28% of Declined Borrowers) rejected a bank's offer of finance.







Non-borrowers 33% (92%) istless Non-borrowers Indifferent 36% (71%) Dismissed Distracted 4.6% (65%) borrowers 3% (8%) Defunct Latent demand Departed 49% 0.4% (5%) Disinterested borrowers Daunted 6% (44%) discouraged 7% (89%) Indirectly Self-diagnosed Borrowers 14% (29%) 1% (17%) Potential Discouraged borrowers Undesirable deals (%95) %8 1% (13%) Notional demand Partial Demand (All firms) Partial Borrowers %9 %9 Figure 2: Typology of Borrowing with Percentages Disillusioned 0.2% (20%) Borrower declines bank's offer 0.6% (28%) discouraged 1% (11%) Directly Borrowers 2% (5%) Declined Dissuaded 0.8% (80%) application 1.6% (72%) Bank rejects Patent Demand New/Renewed Borrowers 20% (44%) 45% Borrowers 22% (50%) Existing



Within the Latent Demand category, the largest proportion of SMEs is within the Indifferent Borrowers category which accounts for 36% of the total sample (71% of Latent Demand). Of these, 33% of the total sample (92% of Indifferent Borrowers) are Listless Non-Borrowers, having never applied for bank finance, while 3% of the total sample (8% of Indifferent Borrowers) are prior users of bank credit but have no present need for this facility. Potential Borrowers account for 14% of the total sample (29% of Latent Demand), of which 6% of the total sample (44% of Potential Borrowers) are Disinterested Borrowers, while 8% of the total sample (56% of Potential Borrowers) are Discouraged Borrowers. Among Discouraged Borrowers, relatively few (1% of the total sample, 11% of Discouraged Borrowers) are directly discouraged by banks either dissuading them against application (0.8% of total sample) or through disillusionment having been rejected in the past (0.2% of total sample). A larger proportion of Discouraged Borrowers are indirectly discouraged by non-bank factors (7% of the total sample, 89% of Disheartened Borrowers). Of this group, the largest proportion is distracted by the media reports or hearsay (4.6% of total sample, 65% of Disheartened Borrowers), and the next largest proportion self-diagnose their likelihood of rejection (1% of total sample, 17% of Discouraged Borrowers). Very few SMEs are either discouraged by undesirable deals and unsuitable products, prices or procedures (1% of total sample, 13% of Discouraged Borrowers) or daunted by notions of what bank borrowing entails (0.4% of total sample, 5% of Discouraged Borrowers).

6. WOMEN-OWNED BUSINESS AND FINANCE

An analysis of the SME Finance Monitor using this typology allows some insight into the financing issues facing diverse enterprises. The six main categories of borrower identified in row 2 of Figure 1 and Figure 2 are used as main analytical groups (existing borrowers, new borrowers, declined borrowers, partial borrowers, potential (debt-avoiding) borrowers, indifferent non-borrowers). This section describes the data analysis for women-owned businesses.



Table 1 presents the distribution of borrower types by gender of owner. As mentioned above, the proportion of female owners within the survey is on a par with that of UK enterprises as a whole (18%). In addition to the identification of male and female business-owners, the SME Finance Monitor also captures businesses that are jointly owned by men and women (3.2% of all sampled firms). This is notably fewer jointly owned firms than is observed in the 2012 Small Business Survey where 16% of businesses with no employees and 23% of businesses with employees were equally co-owned. Nevertheless, this category provides a useful counterpoint for the analysis of gender and how these joint partnerships compare with their male and female only counterparts may provide a different insight into the data.

Table 1: Distribution of Borrower Type by Gender

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Gender	Existing Borrowers	New / renewed Borrowers	Declined Borrowers	Partial Borrowers	Potential (debt- averse) Borrowers	Indifferent Non- borrowers	Total
Male	8,142	7,173	826	2,143	4,832	12,192	35,308
	(18%)	(16%)	(2%)	(5%)	(11%)	(27%)	(79%)
Female	1,573	1,414	161	503	1301	3246	8198
	(3%)	(3%)	(0.4%)	(1%)	(3%)	(7%)	(18%)
Joint	307	384	18	99	199	437	1,444
Partners	(0.7%)	(1%)	(0.04%)	(0.2%)	(0.4%)	(1%)	(3.2%)
Total	10,022	8,971	1,005	2,745	6,332	15,875	44,950
	(22%)	(20%)	(2%)	(6%)	(14%)	(35%)	(100%)
Pearson	chi2(10) =	203.6322	P = 0.000				

Between male-led and female-led firms, however, there are readily observable differences in terms of the distribution of borrower types. In particular, while the male-female ratio of existing borrowers and newly accepted/renewed borrowers is roughly 6:1 (at 18:3 and 16:3 per cent respectively), more undesirable borrower types appear to relatively disfavour women. Both the male - female ratios of declined and partial borrowing are 5:1, worsening further to under 4:1 for debt-aversion and indifferent non-borrowing. Indeed, statistically, the Chi-square test suggests that there is a likely underlying relationship between gender and borrower type as the shares observed are different from what would be expected if they were truly independent of each other. As such, gender may have an influence on firm's borrowing behaviour.



This can be analysed further by comparing absolute differences in the rates of the various types of borrowing categories for males, females and joint partners with those observed at the sample level with gender unspecified. A crucial caveat here is that the sample, and indeed the market, is dominated by male-led firms. Notwithstanding the larger question of the overall participation rates by gender, it would appear that key imbalances stand out. Women-led firms are underrepresented in the successful borrower categories, i.e. the existing and new/renewed borrowers, and over-represented in the discouraged borrowers and the indifferent nonborrower groups. The shares of women-led firms in the existing and new/renewed borrower groups are about 3 percentage points lower than the rates observed at the sample level. In relative terms, female representation in both existing and new/renewed borrowing arrangements is 14% lower than the overall sample norm. The incidence of debtavoidance among women-led firms is also 12.6% higher than the incidence of debt-avoidance observed among all firms regardless of gender. There is also an overrepresentation of women in firms that are not borrowing at all as they have no present need for credit. This suggests that female-led firms may be characterised by other weaknesses, such as low or no growth, hence these high non-need rates, more than is the case generally. An encouraging point, nevertheless, is that rejection rates are 12.5% lower than normal for women. Better still, jointly owned male and female partnerships have an almost 7% absolute advantage over everybody else in new/renewed acceptance rates. This is complemented by 44% lower rejection rates.

There are indications, further, that small firms jointly led by men and women have relative advantages, perhaps relating to superior size and scale or to the nature of family ownership. This may be conjectured from the rates of new/renewed borrowing as well as rates of indifferent non-borrowing. Whilst non-borrowing attributable to non-need is high among female-led firms, for male and female jointly led firms such investment indifference is 14% lower than the prevailing indifference among all small firms. In fact, the relative incidence of indifferent non-borrowing among



male-female collaborations is far lower than that observed among firms led by male managers. Simultaneously, while only 20% of all firms fall under the new/renewed borrowers group, almost 27% of jointly led firms have managed to either secure a new facility or have a successful renewal in the last year. Nevertheless, the rate of partial borrowing among jointly led firms is a percentage point higher than for all firms.

An alternative way of assessing gender differences in borrowing behaviour is to compare the rates applying to a given borrower category against the overall enterprise participation rate applying to the given gender group (Table 2). Here, the representativeness of participation is not considered. Rather, we seek to uncover further imbalances within the already gender skewed enterprise landscape. The data suggests that male-led firms express their borrowing demands disproportionately more than their enterprise rates would suggest. In contrast, for female-led firms, rates of latency with respect to borrowing are higher than the rates of participation in enterprise. Thus, while the sample suggests that women account for 18.2% of all firms, when it comes to the sub-groups of potential borrowers and indifferent non-borrowers, female-led firms account for over 20% of such firms. Male-led firms on the other hand have disproportionately higher representation in the existing borrowers, newly accepted/renewed borrowers as well as the declined borrower categories. While the latter may not be a desirable category, it is possible that lessons learned in the borrowing process are themselves valuable and may over-compensate the adversities of rejection. Indeed, only 2.2% of all firms are declined borrowers (comprising less than 10% of all new applicants) and only 0.2% of all firms cite past rejection as a reason for debt-avoidance. Most borrowing attempts can therefore be said to be fruitful, directly by securing the desired credit, or indirectly by learning from the process. Female-led firms not participating in this process at all may fail to secure funding for their businesses and also fail to acquire useful knowledge and experience as well as the opportunity to build a borrowing record.



Table 2: Borrower Type by Gender and Participation Rates

Gender	Borrower Neutral (Enterprise participation rates)	Existing Borrowers	Newly Accepted/ renewed Borrowers	Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent Non- borrowers
Male	78.6%	+2.7%	+1.4%	+3.6%	-0.5%	-2.2%	-1.8%
Female	18.2%	-2.5%	-2.5%	-2.2%	+0.1%	+2.3%	+2.2%
Joint Partners	3.2%	-0.2%	+1.1%	-1.4%	+0.4%	-0.1%	-0.5%
Total	100.0%						

For firms that do apply for bank borrowing, there may be some prima facie gender-related biases in the amount requested (Table 3). The male-female ratio of amount requested appears to diverge as the amount increases. For sums below £5,000, the ratio is roughly 3:1. This increases to 4:1 for amounts lower than £25,000, then 5:1 for sums of up to £100,000, beyond which the male-female ratio diverges even further to about 8.4 to 1. As Table 4 further demonstrates, there is a clear over-representation of women requesting lower volumes of finance, and disproportionately low participation rates in requests for higher bands of finance volume. For women-led firms the share of borrowers requesting more than £100,000 is 43% lower than the sample average and 43% lower than what would be expected of women if general enterprise participation rates were expected to apply in the amount borrowed categories as well. If women had the same representation in requesting sums above £100,000 as their enterprise participation rates, the frequency for this band would have been 565 as opposed to the 325 returned by the present sample. It is notable that relatively few male and female jointly led firms also return high comparative differences.

The ostensible gender bias in volume requested follows the same pattern in terms of credit supplied. For lower amounts of credit, the ratio of male to female is 3:1. Since the overall enterprise ratio is roughly 4:1, the relative over-representation of women in the lower bands is evident (Tables 5-6).



Table 3: Amount Requested by Gender

Amount requested/ Gender	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000- £24,999	£25,000- £49,999	£50,000- £99,999	Above £100,000	Total
Male	28,320 (62.7%)	906 (2.0%)	675 (1.5%)	1,224 (2.7%)	877 (1.9%)	847 (1.9%)	2,651 (5.9%)	35,500 (78.6%)
Female	6,778 (15.0%)	313 (0.7%)	165 (0.4%)	301 (0.7%)	173 (0.4%)	176 (0.4%)	325 (0.7%)	8,231 (18.2%)
Joint	1,096	29	27	69	56	46	129	1,452
Partners Total	(2.4%) 36,194	1,248	(0.1%)	1,594	1,106	1,069	(0.3%) 3,105	(3.2%) 45,183
	(80.1%)	(2.8%)	(1.9%)	(3.5%)	(2.4%)	(2.4%)	(6.9%)	(100.0%)
Pearson	chi2(12) =	209.0723	Pr = 0.000					

Table 4: Amount Requested by Gender and Participation Rates

Amount demanded/ Gender	Enterprise participation rates	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000 - £24,999	£25,000 - £49,999	£50,000 - £99,999	£100,000 and above
Male	78.57	-0.4%	-7.6%	-0.9%	-2.3%	+0.9%	+0.8%	+8.7%
Female	18.22	+2.8%	+37.7%	+4.4%	+3.6%	-14.2%	-9.7%	-42.5%
Partners	3.21	-5.6%	-27.7%	-3.1%	+34.9%	+57.6%	+34.0%	+29.3%

Table 5: Amount Supplied by Gender

Amount Requested / Gender	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000 - £24,999	£25,000 - £49,999	£50,000 – £99,999	£100,000 and above	Total
Male	29,668 (65.7%)	633 (1.4%)	522 (1.2%)	977 (2.2%)	765 (1.7%)	705 (1.6%)	2,230 (4.9%)	35,500 (78.6%)
Female	7,037	240	124	253	150	152	275	8,231
	(15.6%)	(0.5%)	(0.3%)	(0.6%)	(0.3%)	(0.3%)	(0.6%)	(18.2%)
Partners	1,130 (2.5%)	26 (0.1%)	29 (0.1%)	55 (0.1%)	54 (0.1%)	41 (0.1%)	117 (0.3%)	1,452 (3.2%)
Total	37,835	899	675	1,285	969	898	2,622	45,183
	(83.7%)	(2.0%)	(1.5%)	(2.8%)	(2.1%)	(2.0%)	(5.8%)	(100.0%)
Pearson	chi2(12) =	201.7578	P = 0.000		•	•	•	



Table 6: Amount Supplied by Gender and Participation Rates

Amount Requested /Gender	Enterprise participation rates	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000 - £24,999	£25,000 - £49,999	£50,000 - £99,999	£100,000 and above
Male	78.6%	-0.2%	-10.4%	-1.6%	-3.2%	+%	-0.1%	+8%
Female	18.2%	+2%	+47%	+1%	+8%	-15.0%	-7.1%	-42.4%
Partners	3.2%	-6.9%	-10.0%	+34%	+33%	+74%	+42%	+39%

Within the SME Finance Monitor, risk-rating data are provided not by the SME but from the external credit rating agency that supplies the dataset from which the sample is derived. Borrowing decisions are largely dependent on risk assessment, using data-based risk assessment of the borrower by external credit-rating agencies. Common complaints among SMEs are that these opinions are frequently based on limited and sometimes incorrect and inconsistent data and that a perhaps richer and assessment of every case on its merits would be fairer. Nevertheless, risk ratings remain pivotal in lending decisions. Table 7 suggests that, while no direct relationship is pre-supposed, risk-ratings and gender are not statistically independent of each other as the relevant frequencies are significantly different from what would be expected if risk-rating and gender had no relationship. Echoing the earlier finding that female-led firms have disproportionately lower participation rates in borrowing processes, the data indicates that female-led firms have 21% higher incidences of credit anonymity than their enterprise participation rates would stipulate (Table 8). This means that while only about 8% of male led firms have an unknown credit rating, more than a tenth of female led firms do not have an adequate track record or financial information that a financial institution can use to approximate a risk-rating for the firm. Female-led firms are also significantly under-represented in the minimum and low risk categories. When coupled with the high rates of credit anonymity, the general perception that is likely to emerge is that female led firms may be too risky to lend to. This data supports previous studies of discouragement that have reported the high incidence of information opacity among SMEs, though for the first time demonstrates the gendered dimension of this.



Table 7: Risk-rating by Gender

Gender	Minimum	Low	Average	Above Average	Not Known	Total
Male	5993	7076	9355	10167	2909	35500
	(13.3%)	(15.7%)	(20.7%)	(22.5%)	(6.4%)	(78.6%)
Female	1147	1413	2288	2512	871	8231
	(2.5%)	(3.1%)	(5.1%)	(5.6%)	(1.9%)	(18.2%)
Joint Male/ Female	296 (0.7%)	302 (0.7%)	373 (0.8%)	310 (0.7%)	171 (0.4%)	1452 (3.2%)
Total	7436	8791	12016	12989	3951	45183
	(16.5%)	(19.5%)	(26.6%)	(28.7%)	(8.7%)	(100.0%)
Pearson	chi2(8) =	178.7853	P = 0.000	·	·	

Table 8: Risk-rating by Gender and Participation Rates

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Gender	Enterprise participation rates	Minimum	Low	Average	Above Average	Not Known					
Male	78.6%	+2.6%	+2.4%	-0.9%	-0.4%	-6.3%					
Female	18.2%	-15.4%	-11.8%	+4.5%	+6.1%	+21.0%					
Partners	3.2%	+24.0%	+7.2%	-3.4%	-25.5%	+34.9%					

7. ETHNIC MINORITY BUSINESSES AND FINANCE

The SME Finance Monitor started to collect detailed data on ethnicity in wave 5 of the quarterly survey. This results in a reduction in the size of the usable dataset from around 45,000 cases to just under 25,000 cases. The following tables report the findings relating to the perceptions and experiences of Black and Minority Ethnic (BME) business owners with regard to their access to and usage of finance. As Table 9 shows, the largest proportion of the sample (85.8%) defined their ethnic group as White British, with White Irish and White Other accounting for a further 6% of the sample. The remainder of the sample were distributed across a wide range of other ethnic groups, with the largest proportion being Asian Indian accounting for 550 cases (2.2% of the total sample). Although small sample sizes are a major caveat and hence the results should be treated with some caution, the data shows variations by ethnic group across the borrower categories. In particular, rates of discouragement are substantially higher among certain ethnic groups: Black African (+35.5%), Asian



Bangladeshi (+20.1%), Asian Pakistani (+19.7%) and Mixed White and African (+17.1%) business owners. Respondents in the Black Other ethnic group were both over-represented in the discouraged borrower category (+9.6%) and within the unfulfilled borrower category (+14.9%).

Table 9: Borrower Type by Ethnicity

Ethnicity	Existing Borrowers	New/ renewed Borrowers	Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent Non- borrowers	Total
White	3,809	3,764	264	1940	4694	6941	21412
British	(15.28%)	(15.10%)	(1.06%)	(7.78%)	(18.83%)	(27.84%)	(85.88%)
White Irish	95	119	4	77	124	153	572
	(0.38%)	(0.48%)	(0.02%)	(0.31%)	(0.50%)	(0.61%)	(2.29%)
White Other	187	131	13	90	243	341	1005
	(0.75%)	(0.53%)	(0.05%)	(0.36%)	(0.97%)	(1.37%)	(4.03%)
Mixed: White /Caribbean	7 (0.03%)	2 (0.01%)	3 (0.01%)	14 (0.06%)	13 (0.05%)	13 (0.05%)	52 (0.21%)
Mixed: White / African	4 (0.02%)	4 (0.02%)	1 (0.00%)	6 (0.02%)	15 (0.06%)	8 (0.03%)	38 (0.15%)
Mixed: White /Asian	17 (0.07%)	8 (0.03%)	2 (0.01%)	6 (0.02%)	20 (0.08%)	29 (0.12%)	82 (0.33%)
Mixed -	13	7	1	7	18	25	71
Other	(0.05%)	(0.03%)	(0.00%)	(0.03%)	(0.07%)	(0.10%)	(0.28%)
Asian -	80	72	9	55	163	171	550
Indian	(0.32%)	(0.29%)	(0.04%)	(0.22%)	(0.65%)	(0.69%)	(2.21%)
Asian –	12	14	1	11	45	24	107
Pakistani	(0.05%)	(0.06%)	(0.00%)	(0.04%)	(0.18%)	(0.10%)	(0.43%)
Asian -	6	4	0	3	17	10	40
Bangladeshi	(0.02%)	(0.02%)	(0.00%)	(0.01%)	(0.07%)	(0.04%)	(0.16%)
Asian Other	14	13	1	11	27	38	104
	(0.06%)	(0.05%)	(0.00%)	(0.04%)	(0.11%)	(0.15%)	(0.42%)
Black	7	5	1	9	23	18	63
Caribbean	(0.03%)	(0.02%)	(0.00%)	(0.04%)	(0.09%)	(0.07%)	(0.25%)
Black	6	3	2	9	44	12	76
African	(0.02%)	(0.01%)	(0.01%)	(0.04%)	(0.18%)	(0.05%)	(0.30%)
Black Other	1	3	1	6	8	6	25
	(0.00%)	(0.01%)	(0.00%)	(0.02%)	(0.03%)	(0.02%)	(0.10%)
Chinese	8	7	1	3	16	22	57
	(0.03%)	(0.03%)	(0.00%)	(0.01%)	(0.06%)	(0.09%)	(0.23%)
Other Ethnic group	5 (0.02%)	6 (0.02%)	0 (0.00%)	1 (0.00%)	3 (0.01%)	2 (0.01%)	17 (0.07%)
Ethnicity unstated	140	93	5	34	113	277	662
	(0.56%)	(0.37%)	(0.02%)	(0.14%)	(0.45%)	(1.11%)	(2.66%)
Total	4411	4255	309	2282	5586	8090	24933
	(17.69%)	(17.07%)	(1.24%)	(9.15%)	(22.40%)	(32.45%)	(100.00%)



Table 10 presents summary data showing borrower type by ethnic group against the overall enterprise participation rate applying to the given ethnic group, and again, the caveats with regard to small sample sizes should be noted. This table shows the deviation from expected results of each ethnic group across each of the six borrower categories. Among the category of existing borrowers, there are substantially fewer than expected within the following ethnic groups: Black Other (-80%), Black African (-53%), Mixed White and African (-40%), Asian Pakistani (-37%), Black Caribbean (-36%), Asian Other (-23%), Chinese (-21%) and Asian Indian (-18%). Within the existing borrower category, there are substantially more than expected respondents from Other Ethnic Groups (+57%) and Mixed White and Asian (+18%). Within the new and renewed borrower category a similar pattern emerges, with substantially fewer respondents than expected within the following ethnic groups: Black African (-76%), Mixed White and Caribbean (-76%), Black Caribbean (-52%), Asian Bangladeshi (-43), Mixed Other (-42%), and Mixed White and Asian (-42%). The numbers within the declined borrower category are so small as to be virtually meaningless and will not be discussed. Similarly, the partial borrower category also contains some rows with very small cell sizes, although it is perhaps notable that Asian Indians, who comprise a reasonably large cell size within the partial borrower category (55) are slightly over-represented within this group (+9%). Within the potential borrower category there is a clear overrepresentation among certain ethnic groups, including Black African (+163%), Asian Pakistani (+88%), Asian Bangladeshi (+87%), and Mixed White and African (+80%).

Tables 11 and 12 present data on the volume of finance requested by ethnicity, where the number of ethnic groups has been reduced to two broad categories in order to increase cell sizes and aid statistical analyses. The largest proportion of both White British and Irish SMEs, as well as minority SMEs, requesting bank finance sought amounts of £100,000 or more (5.6%, and 0.6% of all firms respectively). However, relative to their participation rates (Table 12), fewer respondents in the broad BME group requested the largest volume of finance. Indeed, relative to their numbers,



there were fewer BME applicants than expected across all of the finance volume sizes. This suggests that non-borrowing is highly prevalent amongst BME communities. Note that the Not Applicable column includes respondents who did not answer the question as it did not apply as well as refused and don't know responses.

Tables 13 and 14 show the volume of finance received by broad ethnic group. The results indicate that on top of the lower than expected application rates, BME business owners had even lower rates of success in securing finance of any volume. For example, while the overall business participation rate is almost 12%, BME businesses only account for 9% of all businesses securing more than £100, 000. BME representation in this credit band is therefore 22% lower than the Overall BME participation rate.

Table 10: Borrower Type by Ethnicity and Participation Rates

ETHNICITY	Enterprise participation rates	Existing Borrowers	New/ renewed Borrowers	Declined Borrowers	Partial Borrowers	Potential Borrowers	Indifferent Non- borrowers
White British	85.88%	+0.5%	+3.0%	-0.5%	-1.0%	-2.2%	-0.1%
White Irish	2.29%	-6.1%	+22.3%	-43.7%	+47.2%	-3.1%	-17.5%
White Other	4.03%	+5.2%	-23.6%	+4.5%	-2.2%	+7.9%	+4.7%
Mixed - White and Caribbean	0.21%	-23.8%	-76.2%	+361.9%	+190.5%	+9.5%	-23.8%
Mixed - White and African	0.15%	-40.0%	-40.0%	+113.3%	+73.3%	+80.0%	-33.3%
Mixed - White and Asian	0.33%	+18.2%	-42.4%	+97.0%	-21.2%	+9.1%	+9.1%
Mixed - Other	0.28%	+3.6%	-42.9%	+14.3%	+10.7%	+14.3%	+10.7%
Asian – Indian	2.21%	-18.1%	-23.5%	+31.7%	+9.0%	+32.1%	-4.5%
Asian - Pakistani	0.43%	-37.2%	-23.3%	-25.6%	+11.6%	+88.4%	-30.2%
Asian - Bangladeshi	0.16%	-12.5%	-43.8%	-100.0%	-18.8%	+87.5%	-25.0%
Asian Other	0.42%	-23.8%	-26.2%	-23.8%	+14.3%	+14.3%	+11.9%
Black Caribbean	0.25%	-36.0%	-52.0%	+28.0%	+56.0%	+64.0%	-12.0%
Black African	0.30%	-53.3%	-76.7%	+116.7%	+30.0%	+163.3%	-50.0%
Black Other	0.10%	-80.0%	-30.0%	+220.0%	+160.0%	+40.0%	-30.0%
Chinese	0.23%	-21.7%	-30.4%	+39.1%	-43.5%	+26.1%	+17.4%
Other Ethnic group	0.07%	+57.1%	+100.0%	-100.0%	-42.9%	-28.6%	-71.4%
Ethnicity unstated	2.66%	+19.2%	-17.7%	-39.1%	-44.0%	-24.1%	+28.6%
Total	100%						



Table 11: Amount Requested by Ethnicity

Amount requested/ Ethnicity	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000- £24,999	£25,000 - £49,999	£50,000- £99,999	£100,000 and above	Total		
White British/ Irish	17,605 70.3%	708 2.8%	461 1.8%	840 3.4%	529 2.1%	525 2.1%	1,403 5.6%	22,071 88,2%		
Black and Minority Ethnic	2,486 9.9%	88	57 0.2%	80	54 0.2%	45 0.2%	151 0.6%	2,961 11.8%		
Total	20,091	796	518	920	583	570	1,554	25,032		
	80.3%	3.2%	2.1%	3.7%	2.3%	2.3%	6.2%	100.0 %		
	Pearson chi2(6) = 33 9593 P = 0 000									

Table 12: Amount Requested by Ethnicity and Participation Rates

Amount demanded /Ethnicity	Enterprise participation rates	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000 - £24,999	£25,000 -£49,999	£50,000 £99,999	£100,000 and above
White British/								
Irish	88.17%	-0.6%	+0.9%	+0.9%	+3.5%	+2.9%	+4.5%	+2.4%
Black and Minority Ethnic	11.83%	+4.6%	-6.5%	-7.0%	-26.5%	-21.7%	-33.3%	-17.8%
Total	100.00%							

Table 13: Amount Supplied by Ethnicity

Amount supplied/ Ethnicity	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000 - £24,999	£25,000 - £49,999	£50,000- £99,999	£100k and above	Total	
White British/ Irish	18,296 73.1%	559 2.2%	376 1.5%	701 2.8%	471 1.9%	452 1.8%	1,216 4.9%	22,071 88.2%	
Black and Minority Ethnic	2,622 10.5%	49 0.2%	37 0.1%	54 0.2%	40 0.2%	36 0.1%	123 0.5%	2,961 11.8%	
Total	20,918 83.6%	608 2.4%	413 1.6%	755 3.0%	511 2.0%	488 1.9%	1,339 5.3%	25,032 100.0%	
	Pearson chi2(6) = 63.4525 Pr = 0.000								



Table 14: Amount Supplied by Participation Rates

Amount supplied/ Ethnicity	Enterprise participation rates	Not applicable	Less than £5,000	£5,000 - £9,999	£10,000 - £24,999	£25,000 - £49,999	£50,000 – £99,999	£100,000 and above
White British/ Irish	88.17%	-0.8%	+4.3%	+3.3%	+5.3%	+4.5%	+5.0%	+3.0%
Black and Minority Ethnic	11.83%	+5.9%	-31.9%	-24.3%	-39.6%	-33.8%	-37.6%	-22.3%
Total	100.0%							

Tables 15 and 16 show risk ratings by broad ethnic groups, highlighting the frequency of occurrence in each risk rating categories by broad ethnic group (Table 15) and deviation from expected risk rating group by participation rates (Table 16). These tables show similar results but in rather different ways. While 29% of SMEs as a whole bear the above average risk rating, within the BME group the share of firms rated as above average is 35%, representing a 19% higher share of risky businesses than the enterprise participation rate.

Table 15: Risk-ratings by Ethnicity

Ethnicity	Minimum	Low	Average	Above Average	Not Known	Total		
White British/ Irish	3,618 14.5%	4,315 17.2%	5,897 23.6%	6,301 25.2%	1,940 7.8%	22,071 88.2%		
Black and Minority Ethnic	469 1.9%	482 1.9%	744	1,029 4.1%	237	2,961 11.8%		
Total	4,087 16.3%	4,797 19.2%	6,641 26.5%	7,330 29.3%	2,177 8.7%	25,032 100.0%		
Pearson chi2(42) = 53.7289 P = 0.000								



Table 16: Risk-rating by Ethnicity and Participation Rates

Ethnicity	Enterprise participation rates	Minimum	Low	Average	Above Average	Not Known
White						
British/ Irish	88.17%	+0.4%	+2.0%	+0.7%	-2.5%	+1.1%
Black and						
Minority			-			
Ethnic	11.83%	-3.0%	15.0%	-5.3%	+18.7%	-7.9%
Total	100.0%					

8. MULTINOMIAL REGRESSION RESULTS

The descriptive analysis reported above strongly suggests that both gender and ethnicity have an effect on the borrowing behaviour of small firms; however, it is possible that gender and ethnicity mask other factors that influence finance related outcomes. Prior studies have demonstrated that gender and ethnicity effects noted at the bivariate level, are no longer significant when other factors are included within the analysis (Fraser, 2009; Freel et al., 2012). A basic multinomial regression technique is used here in an attempt to uncover these effects. Given that gender and ethnicity are inherently 'givens', interest here is focused on establishing the relationship between the various firm-level factors, such as sector, legal form, employment size, business age, business planning, that may have effect on finance outcomes.

In Table 17, the borrowing categories are regressed excluding any other factors. This produces the intercept only results where all other factors are not considered. The base borrower category is new/renewed borrowers. The results suggest that SMEs are more likely to secure credit than get declined, less likely to be partial borrowers relative to new/renewed borrowers, and less likely to be debt-averse than a successful borrower. However, with other factors unconsidered, a random SME is more likely to be an indifferent non-borrower with no investment needs than a successful borrower.



Table 18 investigates a scenario where only the gender of the businessowner is considered a factor in SME borrowing. Here, the results suggest that even when not accounting for other factors, women business owners are no more likely than men to have their applications for financing rejected. However, the relative risk of partial borrowing, debt-avoidance and indifferent non-need of finance is higher amongst women compared to men.

Table 19 assesses the situation when only ethnicity is considered a factor with all others unheeded. Compared to White British and Irish business owners, the relative risk of rejection, partial borrowing, debt-avoidance and investment indifference over recent success in securing credit is higher amongst Black and Minority Ethnic entrepreneurs. BME businesses are also more likely to have existing facilities than new ones, suggesting that there is less dynamic borrowing activity amongst BME businesses.

Table 20 includes gender and ethnicity together. Here, the estimated relative risk ratios changed somewhat suggesting that there are some gender effects accounted for by ethnicity and vice versa. Table 20a therefore investigates the interaction effects between gender and ethnicity. The reference category is WBI Male. The results suggest that while both WBI Female and BME Females are no more likely to be declined credit than WBI Males, BME Females have a higher relative risk of being partial borrowers, debt-averse potential borrowers, and indifferent non-borrowers. Indeed, although BME Males have a statistically significant higher relative risk of rejection compared to WBI Males while BME Females do not, the relative risk of partial borrowing, debt-aversion and indifference is highest amongst BME Females. On the whole, it would appear that women business-owners borrow less but those that do are just as likely to secure finance as White British and Irish Males. Curiously, however, there are no statistically significant differences in terms of borrowing outcomes between businesses run jointly by BME male and female partners and those run by WBI Males. Besides the BME Males rejection, it is clear that BME Females fare worse than other businesses.



Although there is debate on the meaningfulness of the Pseudo R-Squared estimated in non-linear models, it is worth noting that the Pseudo R-Squared figure of 0.003 obtained by regressing borrower type on gender and ethnicity suggests that these two variables do very little (less than half a percentage point) in terms of accounting for the variability of SME borrower types. Given that a relative risk ratio of 1 suggests that the relative risk of being in the category in question and not the base one is the same from the perspective of the variable under consideration, it would appear that even within an estimation with a low goodness of fit, the effect of gender and ethnicity is yet rather small. Thus, the bulk of the variability in finance outcomes may not be a product of gender and ethnicity, and exploring the effect of other factors may be more illuminating.

As noted earlier, prior studies have found that structural factors, such as the sector in which the firm operates, play a larger role in determining borrowing success than does ethnicity and gender. Table 21 controls for sector (and the reference category is agriculture). On the whole, with the exception of manufacturing, firms in non-agricultural sectors appear to have significantly higher relative risks of being in a disfavoured borrower category versus the new/renewed borrowers group relative to firms in the agricultural sector. Rather curiously, this includes the indifferent group where non-borrowing is attributable to non-need of investment. This suggests that relative to other sectors the agricultural sector may not be as inert in terms of investment as may be casually perceived, in part because agricultural businesses may have a higher diversity of operations, including for example, some form of food processing and other complementary businesses such as farm shops, than other sectors.

More importantly, even after controlling for sector, a significant ethnicity effect remains for BME Males in terms of rejection, as well as BMEs and WBI Females in terms of partial borrowing, debt-avoidance and investment indifference. Indeed, given the attention in the literature to the role of structure in determining finance outcomes, it is worth considering the distribution of gender and ethnicity across industry sectors. In line with



other studies that have demonstrated the sectoral distribution of male- and female-led firms, within the SME Finance Monitor dataset male-led firms are over-represented in manufacturing, wholesale & retail and transport, storage & communications, while women-led firms are over-represented in hotel & restaurants and health and other social and personal services. Again as expected, SMEs jointly led by men and women, often family enterprises, are substantially more likely to occur within the agriculture and hotel & restaurants sectors. Similarly, it has been well established by prior studies that EMBs are typically clustered in a narrow range of fiercely competitive market sectors. The SME Finance Monitor dataset also reflects this, with an over-representation of the ethnic minority enterprises within the hotel & restaurant sector, transport, storage & communications, and health and social services.

Controlling for firm size in Table 22 (reference category: firms with no employees), the relative risk of partial borrowing over new/renewed borrowing success among WBI Females relative to WBI males is no longer significant and debt-aversion and non-need is quite low. For BME females, investment indifference also abates although partial borrowing and debt-aversion remains significant. The effect of gender is considerably diminished once firm size is controlled for. Overall, the relative risk that firms with employees fall in the disfavoured borrowing categories is significantly lower relative to merely self-employing enterprises. For BME Male enterprises, however, the highly significant relative risk of rejection, partial borrowing, debt-aversion and indifference persists.

A further factor likely to influence borrowing outcomes is having a formal written business plan, without which the likelihood of securing bank credit is minimal. Given the uncertainty surrounding small ventures, especially in the prevailing economic climate, a written business plan may be viewed as necessary for effective small business management. However, as business plans have become a more conventional and expected part of small business management (about half of the sampled firms have one) their differential beneficial effect across firms may have diminished, such that



only marginal benefits accrue to a business plan per se. Nevertheless, controlling for the use of a formal business plan (Table 23) appears to lower the effects of ethnicity.

Table 24 accounts for firm age, the effect of which is to eliminate the significant gender effect among WBI Females in the disfavoured groups and indeed to suggest that WBI female-led firms may have lower relative risks of being declined over finding favour with banks relative to WBI male-led firms once ethnicity, sector, size, age and the use of a business plan are accounted for. Including these additional factors reduces BME firms' funding setbacks further. Moreover, as may be expected, the relative risk that small firms' fall in disfavoured borrowing categories over new/renewed borrowing successes is lower for older firms relative to new firms under a year old.

The legal status of ownership (Table 24) accounts for further borrower variability among small firms, albeit to a lower degree than other variables. While accounting for all the previously discussed factors, partnerships, limited liability partnerships and limited liability companies appear to be no different from sole proprietorships in terms of the relative risk of being recently declined or having partial borrowing demands versus being a new/renewed borrower. However, sole proprietorships have higher relative risks of being debt-averse or indifferent, and are less likely to have existing credit facilities compared to limited companies

Table 25 finds some minor regional differences amongst SMEs in the UK. Only Wales and London are significantly different from Scotland. However, the relative risk of rejection amongst BME Males compared to WBI Males is no longer statistically significant. This suggests that some ethnicity effects are captured by minor regional differences. Minor temporal differences between the different survey waves in 2012 and 2013 are also detected (Table 26).



Table 27 accounts for risk and managerial capacity indicators. A poor credit record observed as having County Court Judgments (CCJs), Time To Pay (TTP) arrangements with HM Revenue and Customs department and having had missed loan repayments, bounced cheques and other missed payments as self-reported by respondents, is significantly associated with rejection. SMEs unable to arrange trade credit are also significantly likely to have their credit applications declined. Once these factors are accounted for, the residual effect attributable to independent risk ratings per se for the relative risk of rejection is not statistically significant. However, more risky firms, as graded by rating agencies, are more likely to be partial borrowers and debt-averse suggesting a case of efficient self-rationing. Nevertheless, a more risky SME is less likely to be indifferent than be successful in securing credit than a less risky firm. Risky firms that are investment active are still able to secure bank credit.

In terms of human capital and managerial capacity, firms whose owners have vocational qualifications, professional qualifications or a university degree appear to have unfulfilled investment needs for which they have not sought credit as do firms that indicate they intend to grow significantly in the coming year. However, firms with a financial professional in charge of business finances are significantly less likely to be rejected, to be partial borrowers and to be indifferent. While these human capital and risk factors are important, residual ethnicity effects remain with regard to the relative risk of partial borrowing, or a debt-aversion and investment indifference as compared to borrowing success for BME Males and Females over WBI Males.

Assessments of robustness found that the model was not undermined by issues of multi-collinearity. In all the estimations, standard errors were clustered using the weighting variable reported in the dataset.



Table 17: Factors Determining Small Firm Borrowing (Intercept only)

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debtaverse) Borrowers	Indifferent (No need) Non- Borrowers
Constant	1.117*** (0.020)	0.112*** (0.004)	0.306*** (0.008)	0.706*** (0.020)	1.770*** (0.033)
Observations	44,950	44,950	44,950	44,950	44,950
Pseudo R- squared	0.000	0.000	0.000	0.000	0.000

Robust seeform in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 18: The effect of gender on small firm borrowing

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent (No need) Non- Borrowers
Female	0.980	0.989	1.191***	1.366***	1.351***
	(0.041)	(0.092)	(0.070)	(0.063)	(0.050)
Equal partners	0.704***	0.407***	0.863	0.769***	0.670***
	(0.057)	(0.099)	(0.101)	(0.073)	(0.051)
Observations	44,950	44,950	44,950	44,950	44,950
Pseudo R- squared	0.001	0.001	0.001	0.001	0.001
Model p-value	0.000	0.000	0.000	0.000	0.000

Robust seeform in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 19: The effect of ethnicity on small firm borrowing

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt-averse) Borrowers	Indifferent (No need) Non- Borrowers
Minority Ethnic	1.356*** (0.098)	1.597*** (0.287)	1.371*** (0.113)	1.664*** (0.118)	1.466*** (0.094)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R- squared	0.001	0.001	0.001	0.001	0.001
Model p-value	0.000	0.000	0.000	0.000	0.000

Robust seeform in parentheses
*** p<0.01, ** p<0.05, * p<0.1

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Table 20: The effect of gender and ethnicity on small firm borrowing

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debtaverse) Borrowers	Indifferent (No need) Non-Borrowers
Б 1	0.015***	0.020	1 2 40 ***	1 446444	1 202444
Female	0.815***	0.829	1.240***	1.446***	1.292***
	(0.052)	(0.140)	(0.086)	(0.080)	(0.066)
Equal Partners	0.617***	0.335**	0.786*	0.749***	0.642***
_	(0.074)	(0.152)	(0.107)	(0.083)	(0.070)
Minority	1.340***	1.572**	1.375***	1.676***	1.468***
ethnic	(0.097)	(0.283)	(0.113)	(0.119)	(0.095)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R- squared	0.003	0.003	0.003	0.003	0.003
Model p-value	0.000	0.000	0.000	0.000	0.000

Robust seeform in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 20a: The interaction effect of gender and ethnicity on small firm borrowing

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Female	0.828***	0.845	1.208***	1.427***	1.306***
	(0.054)	(0.151)	(880.0)	(0.083)	(0.070)
WBI Partners	0.628***	0.299**	0.819	0.763**	0.648***
	(0.077)	(0.152)	(0.112)	(0.087)	(0.072)
BME Male	1.374***	1.591**	1.340***	1.656***	1.502***
	(0.106)	(0.299)	(0.122)	(0.129)	(0.104)
BME Female	0.970	1.115	2.052***	2.623***	1.764***
	(0.213)	(0.588)	(0.424)	(0.436)	(0.285)
BME Partners	0.679	0.975	0.563	0.973	0.847
	(0.281)	(1.013)	(0.321)	(0.357)	(0.298)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R- squared	0.003	0.003	0.003	0.003	0.003
Model p-value	0.000	0.000	0.000	0.000	0.000



Table 21: The interaction effect of gender and ethnicity on small firm borrowing (controlling for sector)

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Female	0.807***	0.844	1.222***	1.405***	1.228***
	(0.054)	(0.153)	(0.091)	(0.082)	(0.067)
WBI Partners	0.706***	0.315**	0.841	0.762**	0.680***
	(0.086)	(0.162)	(0.114)	(0.085)	(0.073)
BME Male	1.304***	1.514**	1.295***	1.610***	1.442***
	(0.101)	(0.290)	(0.119)	(0.125)	(0.100)
BME Female	0.916	1.114	2.098***	2.592***	1.611***
	(0.203)	(0.590)	(0.435)	(0.433)	(0.263)
BME Partners	0.693	0.971	0.564	0.932	0.808
	(0.287)	(1.021)	(0.321)	(0.337)	(0.284)
Manufacturing	2.682***	1.292	1.151	0.743**	1.463***
	(0.308)	(0.396)	(0.148)	(0.087)	(0.151)
Wholesale/Retail	2.006***	2.245***	1.717***	1.447***	1.685***
	(0.204)	(0.568)	(0.184)	(0.146)	(0.159)
Hotel/Restaurants	2.142***	2.987***	2.265***	1.869***	1.898***
	(0.256)	(0.877)	(0.280)	(0.214)	(0.200)
Trans/Comms	2.309***	2.685***	1.790***	1.563***	1.700***
	(0.274)	(0.785)	(0.242)	(0.186)	(0.184)
Estates/prof servs	2.322***	1.891**	1.355**	1.454***	1.907***
	(0.254)	(0.534)	(0.161)	(0.163)	(0.196)
Health/soc servs	2.371***	1.683*	1.194	1.226**	2.112***
	(0.247)	(0.476)	(0.138)	(0.121)	(0.202)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R- squared	0.009	0.009	0.009	0.009	0.009
Model p-value	0.000	0.000	0.000	0.000	0.000



Table 22: The interaction effect of gender and ethnicity on small firm borrowing (controlling for sector and size)

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Female	0.869**	0.745	1.063	1.137**	1.113*
	(0.058)	(0.136)	(0.079)	(0.069)	(0.062)
WBI Partners	0.744**	0.294**	0.751**	0.792**	0.715***
	(0.091)	(0.151)	(0.103)	(0.090)	(0.077)
BME Male	1.292***	1.545**	1.345***	1.724***	1.504***
	(0.101)	(0.297)	(0.123)	(0.136)	(0.105)
BME Female	0.966	0.993	1.843***	2.175***	1.489**
	(0.217)	(0.526)	(0.382)	(0.367)	(0.245)
BME Partners	0.710	0.968	0.542	0.993	0.857
	(0.295)	(1.022)	(0.317)	(0.385)	(0.310)
Manufacturing	2.213***	1.870**	1.680***	1.372***	1.977***
	(0.250)	(0.584)	(0.213)	(0.153)	(0.202)
Wholesale/Retail	1.812***	2.625***	2.025***	1.749***	1.846***
	(0.180)	(0.666)	(0.218)	(0.166)	(0.165)
Hotel/Restaurants	1.792***	4.100***	3.094***	3.240***	2.510***
	(0.213)	(1.218)	(0.397)	(0.378)	(0.260)
Trans/Comms	2.031***	3.324***	2.248***	2.048***	1.940***
	(0.236)	(0.973)	(0.305)	(0.233)	(0.202)
Estates/prof servs	2.075***	2.266***	1.637***	1.878***	2.174***
	(0.222)	(0.638)	(0.193)	(0.191)	(0.211)
Health/soc servs	1.972***	2.337***	1.683***	2.135***	2.789***
	(0.204)	(0.664)	(0.199)	(0.211)	(0.263)
1- 9 employees	1.205**	0.723*	0.829**	0.381***	0.459***
	(0.106)	(0.129)	(0.071)	(0.028)	(0.032)
10-49 employees	1.734***	0.383***	0.471***	0.126***	0.298***
	(0.150)	(0.070)	(0.040)	(0.010)	(0.020)
50-99 employees	1.958***	0.244***	0.234***	0.082***	0.274***
	(0.195)	(0.065)	(0.029)	(800.0)	(0.024)
100-249	1.834***	0.201***	0.189***	0.054***	0.232***
employees	(0.210)	(0.077)	(0.034)	(0.008)	(0.023)
Over 250	1.847***	0.487	0.120***	0.054***	0.218***
employees	(0.318)	(0.213)	(0.044)	(0.013)	(0.038)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R- squared	0.050	0.050	0.050	0.050	0.050
Model p-value	0.000	0.000	0.000	0.000	0.000



Table 23: The interaction effect of gender and ethnicity on small firm borrowing (controlling for sector, size and strategy)

WBI Female 0.869** 0.742 1.061 1.135** 1.114* (0.058) (0.135) (0.079) (0.069) (0.062) WBI Partners 0.744** 0.295** 0.754** 0.793** 0.712*** (0.091) (0.152) (0.104) (0.090) (0.077) BME Male 1.294*** 1.520** 1.331*** 1.718*** 1.525*** (0.101) (0.293) (0.122) (0.135) (0.107) BME Female 0.967 0.979 1.823*** 2.165*** 1.506** (0.217) (0.518) (0.378) (0.366) (0.247) BME Partners 0.713 0.933 0.528 0.986 0.884 (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219*** 1.828* 1.654*** 1.367*** 2.017*** Mholesale/Retail 1.814*** 2.613*** 2.017*** 1.749*** 1.855*** (0.180) (0.665) (0.217) (0.165)	VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt-averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Partners	WBI Female	0.869**	0.742	1.061	1.135**	1.114*
WBI Partners 0.744** 0.295** 0.754** 0.793** 0.712*** BME Male 1.294*** 1.520** (0.104) (0.090) (0.077) BME Female 1.294*** 1.520** 1.331*** 1.718*** 1.525*** BME Female 0.967 0.979 1.823*** 2.165*** 1.506** BME Partners 0.713 0.933 0.528 0.986 0.884 (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219*** 1.828* 1.654*** 1.367*** 2.017*** Mholesale/Retail 1.814*** 2.613*** 2.017*** 1.749*** 1.855*** Moles/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** Moles/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** Moles/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** Moles/Restaurants 1.797*** 4.016*** 3.046*** <			(0.135)		(0.069)	(0.062)
BME Male	WBI Partners		, ,		, ,	
BME Male 1.294*** (0.101) 1.520*** (0.293) 1.331*** (0.122) 1.718*** (0.105) 1.525*** (0.107) BME Female 0.967 0.979 1.823*** (0.135) 1.506** 1.506** BME Partners 0.217) (0.518) (0.378) (0.366) (0.247) BME Partners 0.713 0.933 0.528 0.986 0.884 (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219**** (0.574) (0.209) (0.153) (0.208) Wholesale/Retail 1.814*** 2.613*** 2.017*** (0.165) (0.186) (0.665) (0.217) (0.155) (0.208) Wholesale/Retail 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** (0.217) (0.166) (0.166) (0.165) (0.166) Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.239*** 2.046**** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.266) Trans/Comms 2.033**** 3.305*** 2.239*** 2.046*** 1.949*** (0.204) 1.543*** 1.584*** 1.860*** 2.262*** (0.226*** (0.226) (0.970) (0.303) (0.233) (0.204) Esta						
BME Female	BME Male					
BME Female 0.967 0.979 1.823*** 2.165*** 1.506** BME Partners (0.217) (0.518) (0.378) (0.366) (0.247) BME Partners 0.713 0.933 0.528 0.986 0.884 (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219*** 1.828* 1.654*** 1.367*** 2.017*** (0.251) (0.574) (0.209) (0.153) (0.208) Wholesale/Retail 1.814*** 2.613*** 2.017*** 1.749**** 1.855*** (0.180) (0.665) (0.217) (0.165) (0.166) Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230**** 2.556*** (0.214) (1.195) (0.391) (0.377) (0.266) Trans/Comms 2.033*** 3.305*** 2.239*** 2.046*** 1.949*** (0.225) (0.233) (0.233) (0.204) Estates/prof servs 2.987*** 2.163*** 1.584**		(0.101)	(0.293)	(0.122)	(0.135)	
BME Partners 0.713 0.933 0.528 0.986 0.884 (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219*** 1.828* 1.654*** 1.367*** 2.017*** (0.251) (0.574) (0.209) (0.153) (0.208) Wholesale/Retail 1.814*** 2.613*** 2.017*** 1.749*** 1.855*** (0.180) (0.665) (0.217) (0.166) (0.166) Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.5566*** (0.214) (1.195) (0.391) (0.377) (0.266) Trans/Comms 2.033*** 3.305*** 2.239*** 2.046*** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.204) Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** Health/soc servs 1.982**** 2.245*** 1.635*** 2.119*** 2.891*** (0.220) (0.643)	BME Female					
BME Partners 0.713 0.933 0.528 0.986 0.884 (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219*** 1.828* 1.654*** 1.367*** 2.017*** (0.251) (0.574) (0.209) (0.153) (0.208) Wholesale/Retail 1.814*** 2.613*** 2.017*** 1.749**** 1.855*** (0.180) (0.665) (0.217) (0.165) (0.166) (0.166) Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** (0.214) (1.195) (0.391) (0.377) (0.266) Trans/Comms 2.033**** 3.305*** 2.239*** 2.046*** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.204) Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** Health/soc servs 1.982**** 2.245*** 1.635*** 2.119*** 2.891*** (0.220)		(0.217)	(0.518)	(0.378)	(0.366)	(0.247)
Manufacturing (0.297) (0.982) (0.307) (0.381) (0.321) Manufacturing 2.219*** 1.828* 1.654*** 1.367*** 2.017*** (0.251) (0.574) (0.209) (0.153) (0.208) Wholesale/Retail 1.814*** 2.613*** 2.017*** 1.749*** 1.855*** (0.180) (0.665) (0.217) (0.165) (0.166) Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** (0.214) (1.195) (0.391) (0.377) (0.266) Trans/Comms 2.033*** 3.305*** 2.239*** 2.046*** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.204) Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** (0.224) (0.617) (0.187) (0.190) (0.221) Health/soc servs 1.982*** 2.245*** 1.635*** 2.119*** 2.891*** (0.202) (0.643)	BME Partners		,			
Wholesale/Retail		(0.297)	(0.982)	(0.307)	(0.381)	(0.321)
Wholesale/Retail (0.251) (0.574) (0.209) (0.153) (0.208) Wholesale/Retail 1.814*** 2.613*** 2.017*** 1.749*** 1.855*** (0.180) (0.665) (0.217) (0.165) (0.166) Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** (0.214) (1.195) (0.391) (0.377) (0.266) Trans/Comms 2.033*** 3.305*** 2.239*** 2.046*** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.204) Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** (0.224) (0.617) (0.187) (0.190) (0.221) Health/soc servs 1.982*** 2.245*** 1.635*** 2.119*** 2.891*** (0.205) (0.643) (0.194) (0.210) (0.273) 1-9 employees 1.210** 0.696** 0.809** 0.378*** 0.473*** 1-9 employees 1.75	Manufacturing					
Wholesale/Retail 1.814*** 2.613*** 2.017*** 1.749*** 1.855*** Hotel/Restaurants 1.797*** 4.016*** 3.046*** 3.230*** 2.556*** (0.214) (1.195) (0.391) (0.377) (0.266) Trans/Comms 2.033*** 3.305*** 2.239*** 2.046*** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.204) Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** (0.224) (0.617) (0.187) (0.190) (0.221) Health/soc servs 1.982*** 2.245*** 1.635*** 2.119*** 2.891*** (0.205) (0.643) (0.194) (0.210) (0.273) 1- 9 employees 1.210** 0.696** 0.809** 0.378*** 0.473*** (0.107) (0.125) (0.069) (0.028) (0.033) 10-49 employees 1.750*** 0.352*** 0.445*** 0.124*** 0.319*** (0.152) (0.06	J	(0.251)	(0.574)	(0.209)	(0.153)	(0.208)
Hotel/Restaurants	Wholesale/Retail					
Hotel/Restaurants		(0.180)	(0.665)	(0.217)	(0.165)	(0.166)
Trans/Comms 2.033*** 3.305*** 2.239*** 2.046*** 1.949*** (0.236) (0.970) (0.303) (0.233) (0.204) Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** (0.224) (0.617) (0.187) (0.190) (0.221) Health/soc servs 1.982*** 2.245*** 1.635*** 2.119*** 2.891*** (0.205) (0.643) (0.194) (0.210) (0.273) 1- 9 employees 1.210** 0.696** 0.809** 0.378*** 0.473*** (0.107) (0.125) (0.069) (0.028) (0.033) 10-49 employees 1.750*** 0.352*** 0.445*** 0.124*** 0.319*** (0.152) (0.066) (0.039) (0.010) (0.022) 50-99 employees 1.985*** 0.216*** 0.216*** 0.080*** 0.304*** (0.229) (0.060) (0.027) (0.008) (0.027) 100-249 1.864*** 0.174***	Hotel/Restaurants					
Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** (0.224) (0.617) (0.187) (0.190) (0.221) (0.221) (0.617) (0.187) (0.190) (0.221) (0.221) (0.205) (0.643) (0.194) (0.210) (0.273) (0.273) (0.194) (0.210) (0.273) (0.194) (0.194) (0.210) (0.273) (0.107) (0.125) (0.069) (0.028) (0.033) (0.194) employees (0.107) (0.125) (0.069) (0.028) (0.033) (0.033) (0.194) employees (0.152) (0.066) (0.039) (0.010) (0.022) (0.069) (0.028) (0.031) (0.022) (0.069) (0.028) (0.031) (0.022) (0.069) (0.028) (0.003) (0.010) (0.022) (0.060) (0.027) (0.008) (0.027) (0.008) (0.027) (0.008) (0.027) (0.008) (0.027) (0.008) (0.027) (0.008) (0.027) (0.008) (0.027) (0.008) (0.027) (0.202) (0.202) (0.060) (0.027) (0.008) (0.027) (0.008) (0.027) (0.202) (0.218) (0.068) (0.031) (0.008) (0.027) (0.027) (0.008) (0.028) (0		(0.214)	(1.195)	(0.391)	(0.377)	(0.266)
Estates/prof servs 2.087*** 2.163*** 1.584*** 1.860*** 2.262*** (0.224) (0.617) (0.187) (0.190) (0.221) (0.221) (0.617) (0.187) (0.190) (0.221) (0.221) (0.224) (0.617) (0.187) (0.190) (0.221) (0.221) (0.205) (0.643) (0.194) (0.210) (0.273) (0.273) (0.205) (0.643) (0.194) (0.210) (0.273) (0.273) (0.107) (0.125) (0.069) (0.028) (0.033) (0.033) (0.104) (0.107) (0.125) (0.069) (0.028) (0.033) (0.033) (0.152) (0.066) (0.039) (0.010) (0.022) (0.052) (0.066) (0.039) (0.010) (0.022) (0.020) (0.060) (0.027) (0.008) (0.027) (0.008) (0.027) (0.022) (0.020) (0.060) (0.027) (0.008) (0.027) (0.0249 (0.218) (0.068) (0.031) (0.008) (0.027) (0.0249 (0.218) (0.068) (0.031) (0.008) (0.027) (0.025) (0.250 (0.218) (0.068) (0.031) (0.008) (0.027) (0.025) (0.250 (0.328) (0.188) (0.040) (0.013) (0.044) (0.044) (0.045) (0.178) (0.067) (0.049) (0.032) (0.032) (0.052 (0.	Trans/Comms	2.033***	3.305***	2.239***	2.046***	1.949***
Health/soc servs 1.982*** 2.245*** 1.635*** 2.119*** 2.891*** (0.205) (0.643) (0.194) (0.210) (0.273) (0.273) (0.194) (0.210) (0.273) (0.273) (0.194) (0.210) (0.273) (0.194) (0.210) (0.273) (0.194) (0.210) (0.273) (0.194) (0.194) (0.210) (0.273) (0.194) (0.194) (0.210) (0.273) (0.194) (0.194) (0.194) (0.210) (0.273) (0.194) (0.195) (0.069) (0.028) (0.033) (0.017) (0.125) (0.069) (0.069) (0.028) (0.033) (0.019) (0.152) (0.066) (0.039) (0.010) (0.022) (0.152) (0.066) (0.039) (0.010) (0.022) (0.099) (0.010) (0.022) (0.090) (0.027) (0.008) (0.028)		(0.236)	(0.970)	(0.303)	(0.233)	(0.204)
Health/soc servs 1.982*** 2.245*** 1.635*** 2.119*** 2.891*** (0.205) (0.643) (0.194) (0.210) (0.273) (0.273) (0.194) (0.210) (0.273) (0.273) (0.194) (0.210) (0.273) (0.273) (0.194) (0.210) (0.273) (0.194) (0.210) (0.273) (0.194) (0.194) (0.210) (0.273) (0.194) (0.194) (0.210) (0.194) (0.195) (0.069) (0.028) (0.033) (0.010) (0.028) (0.033) (0.194) (0.194) (0.195) (0.195) (0.066) (0.039) (0.010) (0.022) (0.195) (0.066) (0.039) (0.010) (0.022) (0.094) (0.027) (0.008) (0.028)	Estates/prof servs	2.087***	2.163***	1.584***	1.860***	2.262***
1- 9 employees (0.205) (0.643) (0.194) (0.210) (0.273) 1- 9 employees 1.210** 0.696** 0.809** 0.378*** 0.473*** (0.107) (0.125) (0.069) (0.028) (0.033) 10-49 employees 1.750*** 0.352*** 0.445*** 0.124*** 0.319*** (0.152) (0.066) (0.039) (0.010) (0.022) 50-99 employees 1.985*** 0.216*** 0.216*** 0.080*** 0.304*** (0.202) (0.060) (0.027) (0.008) (0.027) 100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032)		(0.224)	(0.617)	(0.187)	(0.190)	(0.221)
1- 9 employees	Health/soc servs	1.982***	2.245***	1.635***	2.119***	2.891***
(0.107) (0.125) (0.069) (0.028) (0.033) 10-49 employees 1.750*** 0.352*** 0.445*** 0.124*** 0.319*** (0.152) (0.066) (0.039) (0.010) (0.022) 50-99 employees 1.985*** 0.216*** 0.216*** 0.080*** 0.304*** (0.202) (0.060) (0.027) (0.008) (0.027) 100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249**** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052 0.052		(0.205)	(0.643)	(0.194)	(0.210)	(0.273)
10-49 employees 1.750*** 0.352*** 0.445*** 0.124*** 0.319*** 60.152) (0.066) (0.039) (0.010) (0.022) 50-99 employees 1.985*** 0.216*** 0.216*** 0.080*** 0.304*** (0.202) (0.060) (0.027) (0.008) (0.027) 100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052 0.052	1- 9 employees	1.210**	0.696**	0.809**	0.378***	0.473***
(0.152) (0.066) (0.039) (0.010) (0.022) 50-99 employees 1.985*** 0.216*** 0.216*** 0.080*** 0.304*** (0.202) (0.060) (0.027) (0.008) (0.027) 100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052		(0.107)	(0.125)	(0.069)	(0.028)	(0.033)
50-99 employees 1.985*** 0.216*** 0.216*** 0.080*** 0.304*** 100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052 0.052	10-49 employees	1.750***	0.352***	0.445***	0.124***	0.319***
(0.202) (0.060) (0.027) (0.008) (0.027) 100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052 0.052		(0.152)	(0.066)	(0.039)	(0.010)	(0.022)
100-249 1.864*** 0.174*** 0.171*** 0.052*** 0.262*** employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052 0.052	50-99 employees	1.985***	0.216***	0.216***	0.080***	0.304***
employees (0.218) (0.068) (0.031) (0.008) (0.027) Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052		(0.202)	(0.060)	(0.027)	(0.008)	(0.027)
Over 250 1.880*** 0.419* 0.108*** 0.052*** 0.249*** employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052	100-249	1.864***	0.174***	0.171***	0.052***	0.262***
employees (0.328) (0.188) (0.040) (0.013) (0.044) Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052	employees	(0.218)	(0.068)	(0.031)	(0.008)	(0.027)
Formal Business 0.965 1.354** 1.227*** 1.078* 0.767*** Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052	Over 250	1.880***	0.419*	0.108***	0.052***	0.249***
Plan (0.045) (0.178) (0.067) (0.049) (0.032) Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052	employees	(0.328)	(0.188)	(0.040)	(0.013)	(0.044)
Observations 24,933 24,933 24,933 24,933 24,933 Pseudo R-squared 0.052 0.052 0.052 0.052 0.052	Formal Business	0.965	1.354**	1.227***	1.078*	0.767***
Pseudo R- squared 0.052 0.052 0.052 0.052 0.052	Plan	(0.045)	(0.178)	(0.067)	(0.049)	(0.032)
squared 0.052 0.052 0.052 0.052 0.052		24,933	24,933	24,933	24,933	24,933
		0.052	0.052	0.052	0.052	0.052
	Model p-value	0.000	0.000	0.000	0.000	0.000



Table 24: The interaction effect of gender and ethnicity on small firm borrowing (controlling for sector, size, age and strategy)

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt- averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Female	0.858**	0.704*	1.030	1.042	1.086
WBI Partners	(0.057)	(0.128)	(0.077)	(0.064)	(0.060)
	0.763**	0.320**	0.785*	0.882	0.735***
BME Male	(0.093)	(0.165)	(0.108)	(0.103)	(0.080)
	1.266***	1.391*	1.268***	1.458***	1.471***
	(0.099)	(0.269)	(0.117)	(0.118)	(0.104)
BME Female	0.928	0.828	1.659**	1.619***	1.397**
	(0.208)	(0.439)	(0.348)	(0.281)	(0.233)
BME Partners	0.721	0.991	0.547	1.146	0.906
Manufacturing	(0.299)	(1.048)	(0.318)	(0.424)	(0.324)
	2.170***	1.662	1.562***	1.184	1.925***
	(0.245)	(0.522)	(0.197)	(0.126)	(0.196)
Wholesale/Retail	1.753***	2.263***	1.866***	1.426***	1.738***
	(0.174)	(0.573)	(0.201)	(0.126)	(0.154)
Hotel/Restaurants	1.697***	3.125***	2.642***	2.277***	2.268***
	(0.201)	(0.931)	(0.337)	(0.256)	(0.233)
Trans/Comms	1.960***	2.800***	2.047***	1.569***	1.816***
	(0.227)	(0.812)	(0.275)	(0.165)	(0.188)
Estates/prof servs	1.996***	1.833**	1.448***	1.466***	2.108***
	(0.214)	(0.522)	(0.172)	(0.139)	(0.203)
Health/soc servs	1.902***	1.882**	1.480***	1.647***	2.673***
	(0.197)	(0.544)	(0.175)	(0.153)	(0.250)
1- 9 employees	1.251**	0.811	0.898	0.492***	0.513***
	(0.110)	(0.147)	(0.076)	(0.035)	(0.036)
10-49 employees	1.895*** (0.168)	0.522*** (0.106)	0.573*** (0.052)	0.253*** (0.020)	0.387*** (0.028)
50-99 employees	2.191***	0.350***	0.290***	0.187***	0.381***
	(0.228)	(0.103)	(0.038)	(0.020)	(0.035)
100-249	2.061***	0.283***	0.231***	0.124***	0.330***
employees	(0.246)	(0.115)	(0.043)	(0.018)	(0.034)
Over 250	2.099***	0.703	0.148***	0.129***	0.318***
employees	(0.371)	(0.326)	(0.055)	(0.033)	(0.056)
Formal Business	0.948	1.258*	1.175***	0.913*	0.744***
Plan	(0.044)	(0.167)	(0.065)	(0.042)	(0.031)
Age: 1 – 2 yrs	1.151	0.290***	0.584**	0.380***	0.565***
Age. 1 – 2 yrs	(0.324)		(0.141)	(0.077)	(0.123)
Age: 2 – 5 yrs	1.165	(0.111) 0.283***	0.403***	0.202***	0.587***
Age: 6 – 9 yrs	(0.301)	(0.087)	(0.085)	(0.036)	(0.112)
	1.070	0.239***	0.365***	0.098***	0.462***
Age: 10 – 15 yrs	(0.275)	(0.073)	(0.077)	(0.018)	(0.088)
	1.056	0.182***	0.277***	0.076***	0.379***
	(0.268)	(0.058)	(0.058)	(0.013)	(0.071)
Age: Over 15 yrs	0.918	0.126***	0.260***	0.059***	0.365***
	(0.232)	(0.038)	(0.054)	(0.010)	(0.068)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R-squared	0.070	0.070	0.070	0.070	0.070
Model p-value	0.000	0.000	0.000	0.000	0.000



Table 25: The interaction effect of gender and ethnicity on small firm borrowing (controlling for sector, size, age, strategy, ownership status, and UK Region)

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt-averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Female	0.899	0.713*	1.026	1.032	1.103*
	(0.060)	(0.129)	(0.077)	(0.064)	(0.062)
WBI Partners	`1.227 [′]	0.441	0.831	`1.173 [´]	`1.077 [′]
	(0.164)	(0.249)	(0.130)	(0.154)	(0.128)
BME Male	ì.179* [*]	1.347 [°]	ì.251* [*]	1.391***	1.430***
	(0.093)	(0.265)	(0.116)	(0.114)	(0.101)
BME Female	`0.856 [´]	0.774	ì.626* [*]	ì.500* [*]	1.342*
	(0.193)	(0.409)	(0.342)	(0.265)	(0.226)
BME Partners	`1.156 [´]	`1.371 [′]	0.573	`1.536 [′]	`1.350 [′]
	(0.487)	(1.479)	(0.337)	(0.575)	(0.490)
Manufacturing	1.857***	1.567 [°]	1.586***	`1.183 [´]	1.777***
J	(0.210)	(0.492)	(0.201)	(0.127)	(0.178)
Wholesale/Retail	1.531***	2.143***	1.873***	1.404***	1.627***
	(0.152)	(0.545)	(0.203)	(0.124)	(0.140)
Hotel/Restaurants	1.599***	2.982***	2.593***	2.207***	2.187***
	(0.189)	(0.898)	(0.329)	(0.246)	(0.218)
Trans/Comms	1.719***	2.608***	2.040***	1.511***	1.681***
	(0.197)	(0.759)	(0.274)	(0.158)	(0.169)
Estates/prof servs	1.699***	1.731*	1.460***	1.468***	1.986***
_σιαισσ, ρ.σ. σσ. τσ	(0.181)	(0.500)	(0.177)	(0.140)	(0.187)
Health/soc servs	1.698***	1.792**	1.475***	1.612***	2.528***
	(0.175)	(0.518)	(0.175)	(0.150)	(0.231)
1- 9 employees	1.026	0.880	0.993	0.615***	0.557***
	(0.102)	(0.178)	(0.097)	(0.050)	(0.044)
10-49 employees	1.362***	0.562**	0.659***	0.344***	0.416***
	(0.148)	(0.136)	(0.074)	(0.033)	(0.037)
50-99 employees	1.526***	0.373***	0.336***	0.257***	0.404***
oo oo omployooo	(0.187)	(0.120)	(0.049)	(0.031)	(0.042)
100-249	1.418**	0.299***	0.266***	0.169***	0.347***
employees	(0.194)	(0.127)	(0.052)	(0.027)	(0.041)
Over 250	1.442*	0.747	0.171***	0.176***	0.334***
employees	(0.271)	(0.354)	(0.064)	(0.046)	(0.062)
Formal Business	0.922*	1.255*	1.192***	0.936	0.743***
Plan	(0.043)	(0.170)	(0.066)	(0.044)	(0.031)
Age: 1 – 2 yrs	1.134	0.287***	0.584**	0.377***	0.560***
	(0.320)	(0.109)	(0.142)	(0.076)	(0.122)
Age: 2 – 5 yrs	1.141	0.279***	0.402***	0.198***	0.575***
go. = 0). 0	(0.295)	(0.085)	(0.085)	(0.035)	(0.110)
Age: 6 – 9 yrs	1.030	0.233***	0.363***	0.096***	0.451***
go. o o j. o	(0.266)	(0.072)	(0.077)	(0.017)	(0.086)
Age: 10 – 15 yrs	1.013	0.178***	0.276***	0.075***	0.370***
7.ge. 10 .e j.e	(0.258)	(0.056)	(0.058)	(0.013)	(0.070)
Age: Over 15 yrs	0.915	0.126***	0.262***	0.058***	0.366***
7.gc. c.cc.j.c	(0.232)	(0.038)	(0.054)	(0.010)	(0.068)
Partnership	0.858	0.639	0.818*	0.562***	0.615***
. a	(0.096)	(0.178)	(0.094)	(0.054)	(0.056)
Ltd partnership	1.038	0.699	0.798	0.460***	0.593***
Farm.o.o.ub	(0.149)	(0.276)	(0.127)	(0.065)	(0.075)
Ltd company	1.673***	0.946	0.831**	0.688***	0.959
	(0.137)	(0.168)	(0.073)	(0.048)	(0.063)
North East	1.155	1.662	0.995	1.335**	1.261*
	(0.155)	(0.537)	(0.151)	(0.171)	(0.152)
Yorks/Humber	1.118	0.772	0.959	0.992	1.135
	(0.124)	(0.245)	(0.120)	(0.110)	(0.107)
	(U.124)	(0.243)	(0.120)	(0.110)	(0.107)



(Table 25 continued)

North West	1.041	1.054	1.094	1.058	1.188*
	(0.116)	(0.307)	(0.137)	(0.119)	(0.116)
West Mids	1.027	1.105 [°]	0.892	0.934	1.067
	(0.109)	(0.316)	(0.112)	(0.096)	(0.098)
East Mids	1.161 [°]	1.271	1.098	1.175 [°]	1.249**
	(0.132)	(0.408)	(0.155)	(0.140)	(0.141)
East Anglia	1.049	1.064	0.988	1.061	1.184*
	(0.123)	(0.330)	(0.123)	(0.114)	(0.116)
Wales	1.067	1.335	1.303**	1.277**	1.171
	(0.128)	(0.427)	(0.170)	(0.152)	(0.125)
South West	0.939	1.020	1.158	1.034	1.077
	(0.112)	(0.297)	(0.139)	(0.107)	(0.109)
London	1.426***	1.267	1.156	1.329***	1.245**
	(0.149)	(0.353)	(0.136)	(0.134)	(0.123)
South East	1.113	1.031	1.006	1.075	1.112
	(0.115)	(0.285)	(0.124)	(0.105)	(0.105)
Northern Ireland	0.800*	0.805	0.945	0.837	0.822*
	(0.102)	(0.278)	(0.139)	(0.104)	(0.088)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R-squared	0.074	0.074	0.074	0.074	0.074
Model p-value	0.000	0.000	0.000	0.000	0.000
•			- 41		



Table 26: The interaction effect of gender and ethnicity on small firm borrowing (controlling for sector, size, age, strategy, ownership status, UK Region and Period (wave))

VARIABLES	Existing Borrowers	Newly Declined Borrowers	Partial Borrowers	Potential (Debt-averse) Borrowers	Indifferent (No need) Non- Borrowers
WBI Female	0.902	0.714*	1.023	1.037	1.107*
	(0.060)	(0.130)	(0.077)	(0.065)	(0.062)
WBI Partners	1.246	0.444	0.828	1.187	1.091
	(0.168)	(0.250)	(0.130)	(0.156)	(0.130)
BME Male	1.185**	1.357	1.248**	1.403***	1.442***
	(0.094)	(0.266)	(0.116)	(0.115)	(0.102)
BME Female	0.868	0.780	1.641**	1.515**	1.364*
DME Danta and	(0.195)	(0.413)	(0.345)	(0.269)	(0.232)
BME Partners	1.197	1.417	0.564	1.605	1.407
Manufacturing	(0.508) 1.856***	(1.526) 1.572	(0.331) 1.582***	(0.604) 1.187	(0.511) 1.779***
Manufacturing	(0.209)	(0.491)	(0.202)	(0.125)	(0.172)
Wholesale/Retail	1.531***	2.146***	1.870***	1.407***	1.629***
vviiolesale/ivetali	(0.153)	(0.543)	(0.203)	(0.121)	(0.135)
Hotel/Restaurants	1.602***	2.987***	2.589***	2.212***	2.192***
110to#1toolaarano	(0.190)	(0.896)	(0.328)	(0.243)	(0.213)
Trans/Comms	1.721***	2.616***	2.042***	1.515***	1.688***
	(0.201)	(0.759)	(0.274)	(0.157)	(0.168)
Estates/prof servs	1.707***	1.741*	1.458** [*]	1.475***	1.996***
·	(0.182)	(0.500)	(0.176)	(0.138)	(0.183)
Health/soc servs	1.701***	1.798**	1.472***	1.617***	2.536***
	(0.177)	(0.517)	(0.175)	(0.148)	(0.224)
1- 9 employees	1.021	0.878	0.995	0.611***	0.552***
	(0.101)	(0.178)	(0.098)	(0.049)	(0.043)
10-49 employees	1.353***	0.562**	0.661***	0.341***	0.412***
	(0.147)	(0.136)	(0.075)	(0.032)	(0.036)
50-99 employees	1.510***	0.371***	0.337***	0.253***	0.398***
100 040	(0.184)	(0.120)	(0.050)	(0.030)	(0.041)
100-249	1.427***	0.302***	0.266***	0.169***	0.348***
employees Over 250	(0.195) 1.442*	(0.128) 0.759	(0.053) 0.170***	(0.027) 0.178***	(0.042) 0.336***
employees	(0.273)	(0.360)	(0.064)	(0.047)	(0.063)
Formal Business	0.925*	1.254*	1.190***	0.938	0.743***
Plan	(0.043)	(0.169)	(0.066)	(0.044)	(0.031)
Age: 1 – 2 yrs	1.154	0.289***	0.583**	0.381***	0.566***
, igo. 1 j.o	(0.326)	(0.110)	(0.141)	(0.077)	(0.124)
Age: 2 – 5 yrs	1.137	0.279***	0.403***	0.198***	0.575***
J	(0.294)	(0.085)	(0.085)	(0.035)	(0.111)
Age: 6 – 9 yrs	1.038	0.234***	0.362***	0.097***	0.454***
	(0.267)	(0.072)	(0.077)	(0.017)	(0.087)
Age: 10 – 15 yrs	1.012	0.177***	0.277***	0.075***	0.369***
	(0.258)	(0.056)	(0.058)	(0.013)	(0.070)
Age: Over 15 yrs	0.921	0.126***	0.262***	0.058***	0.367***
	(0.233)	(0.038)	(0.054)	(0.010)	(0.069)
Partnership	0.853	0.637	0.817*	0.564***	0.617***
	(0.095)	(0.178)	(0.094)	(0.054)	(0.056)
Ltd partnership	1.025	0.687	0.804	0.455***	0.590***
I dal a same and	(0.148)	(0.271)	(0.128)	(0.064)	(0.075)
Ltd company	1.671***	0.941	0.829**	0.689***	0.962
North East	(0.137)	(0.167)	(0.073)	(0.048)	(0.064)
North East	1.157 (0.155)	1.661	0.995	1.338**	1.262**
Yorks/Humber	(0.155) 1.119	(0.539)	(0.151)	(0.169) 0.994	(0.150) 1.136
I OINS/I IUIIIDEI	(0.122)	0.775 (0.246)	0.959 (0.120)	(0.105)	1.136 (0.102)
	(0.122)	(0.240)	(0.120)	(0.100)	(0.102)

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(Table 26 continued)					
	1.044				
North West		1.056	1.094	1.060	1.190*
	(0.114)	(0.306)	(0.137)	(0.116)	(0.112)
West Mids	1.027 [°]	1.107 [°]	0.892	0.935	1.068
	(0.107)	(0.317)	(0.111)	(0.094)	(0.096)
East Mids	1.163	1.273	1.100	1.177	1.249**
	(0.133)	(0.410)	(0.157)	(0.136)	(0.135)
East Anglia	1.049	1.064	0.986	1.061	1.183*
	(0.122)	(0.330)	(0.123)	(0.111)	(0.113)
Wales	1.063	1.333	1.297**	1.275**	1.167
	(0.127)	(0.426)	(0.169)	(0.151)	(0.123)
South West	0.939	1.021	1.159	1.035	1.076
	(0.111)	(0.298)	(0.139)	(0.104)	(0.106)
London	1.424***	1.268	1.155	1.328***	1.244**
	(0.149)	(0.353)	(0.135)	(0.132)	(0.121)
South East	1.118	1.036	1.007	1.080	1.116
	(0.114)	(0.288)	(0.124)	(0.105)	(0.105)
Northern Ireland	0.795*	0.801	0.940	0.836	0.817*
	(0.101)	(0.277)	(0.138)	(0.103)	(0.085)
wave5	0.599***	0.772	1.225**	0.631***	0.622***
	(0.043)	(0.145)	(0.102)	(0.045)	(0.043)
wave6	0.618***	0.804	1.145*	0.770***	0.753***
	(0.046)	(0.151)	(0.093)	(0.056)	(0.050)
wave7	0.747***	0.824	1.060	0.909	0.922
	(0.053)	(0.157)	(0.091)	(0.066)	(0.061)
wave8	0.754***	1.031	1.063	1.014	0.944
	(0.055)	(0.203)	(0.094)	(0.073)	(0.063)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R-squared	0.077	0.077	0.077	0.077	0.077
Model p-value	0.000	0.000	0.000	0.000	0.000

Table 27: The interaction effect of gender and ethnicity on small firm borrowing: controlling for sector, size, age, strategy, ownership status, UK Region, period (wave), risk, management and future plans)

VARIABLES	Existing Borrowers	Newly Declined	Partial Borrowers	Potential (Debt-averse)	Indifferent (No need) Non-
WBI Female	0.905	Borrowers 0.722*	1.049	Borrowers 1.046	Borrowers 1.102*
WDI FEIIIAIE		(0.132)			
M/DI Dortnoro	(0.061)	` ,	(0.080)	(0.066) 1.188	(0.062)
WBI Partners	1.232	0.454	0.853		1.069
DMC Mala	(0.167)	(0.257)	(0.138) 1.242**	(0.159) 1.382***	(0.129) 1.440***
BME Male	1.168*	1.349			
DMC Comple	(0.093)	(0.269)	(0.119)	(0.114) 1.511**	(0.103)
BME Female	0.861	0.786	1.649**		1.389*
DME Danta and	(0.193)	(0.417)	(0.352)	(0.268)	(0.237)
BME Partners	1.145	1.393	0.534	1.513	1.387
	(0.492)	(1.525)	(0.325)	(0.573)	(0.496)
Manufacturing	2.023***	1.529	1.346**	1.101	1.971***
	(0.233)	(0.483)	(0.180)	(0.117)	(0.196)
Wholesale/Retail	1.707***	2.011***	1.514***	1.310***	1.828***
	(0.175)	(0.522)	(0.175)	(0.114)	(0.156)
Hotel/Restaurants	1.780***	2.918***	2.166***	2.116***	2.427***
	(0.217)	(0.881)	(0.289)	(0.236)	(0.246)
Trans/Comms	1.856***	2.580***	1.819***	1.447***	1.833***
	(0.222)	(0.762)	(0.257)	(0.150)	(0.188)
Estates/prof servs	1.771***	1.780**	1.381**	1.412***	2.134***
	(0.194)	(0.515)	(0.176)	(0.133)	(0.200)
Health/soc servs	1.779***	1.845**	1.423***	1.592***	2.686***
	(0.188)	(0.536)	(0.177)	(0.146)	(0.241)
1- 9 employees	1.038	0.854	0.921	0.615***	0.574***
	(0.103)	(0.170)	(0.091)	(0.050)	(0.046)
10-49 employees	1.297**	0.599**	0.672***	0.368***	0.413***
	(0.142)	(0.144)	(0.076)	(0.035)	(0.037)
50-99 employees	1.405***	0.416***	0.363***	0.275***	0.394***
, ,	(0.174)	(0.136)	(0.054)	(0.033)	(0.042)
100-249	ì.325* [*]	0.352* [*]	0.291***	0.188***	0.349***
employees	(0.182)	(0.154)	(0.060)	(0.030)	(0.043)
Over 250	1.325	0.932	0.205***	0.197***	0.334***
employees	(0.255)	(0.451)	(0.077)	(0.052)	(0.063)
Formal Business	0.927	1.278*	1.176***	0.935	0.772***
Plan	(0.044)	(0.175)	(0.068)	(0.045)	(0.033)
Age: 1 – 2 yrs	1.177	0.289***	0.571**	0.387***	0.579**
71go. 1 2 y10	(0.334)	(0.110)	(0.139)	(0.078)	(0.127)
Age: 2 – 5 yrs	1.126	0.282***	0.415***	0.210***	0.584***
7.go. 2 0 7.0	(0.294)	(0.086)	(0.089)	(0.038)	(0.113)
Age: 6 – 9 yrs	0.999	0.258***	0.408***	0.109***	0.449***
rigo. o o yio	(0.260)	(0.081)	(0.088)	(0.020)	(0.087)
Age: 10 – 15 yrs	0.933	0.203***	0.329***	0.087***	0.354***
71gc. 10 10 yls	(0.241)	(0.066)	(0.070)	(0.016)	(0.068)
Age: Over 15 yrs	0.814	0.150***	0.347***	0.070***	0.333***
rigo. Over 10 yrs	(0.209)	(0.047)	(0.073)	(0.012)	(0.063)
Partnership	0.825*	0.652	0.864	0.571***	0.605***
i aitiicisiiip			(0.101)		
Ltd partnership	(0.093)	(0.183)		(0.055) 0.467***	(0.056) 0.581***
Liu parineisiip	0.967	0.706	0.872		
I td company	(0.141) 1.576***	(0.281)	(0.144)	(0.067) 0.700***	(0.074)
Ltd company	1.576***	0.982	0.876		0.943
North East	(0.132)	(0.174)	(0.077)	(0.050)	(0.064)
North East	1.166	1.593	0.953	1.336**	1.297**
Varies/Li	(0.157)	(0.519)	(0.147)	(0.169)	(0.154)
Yorks/Humber	1.135	0.741	0.899	0.981	1.170*
	(0.124)	(0.236)	(0.115)	(0.104)	(0.106)



(Table 27 continued)	4.007	4.000	4.040	4.040	4 00 4**
	1.067	1.028	1.042	1.049	1.234**
North West					
	(0.117)	(0.300)	(0.132)	(0.115)	(0.117)
West Mids	1.044	1.070	0.841	0.922	1.103
	(0.109)	(0.307)	(0.107)	(0.093)	(0.100)
East Mids	1.193	1.246	1.036	1.172	1.295**
	(0.136)	(0.404)	(0.153)	(0.137)	(0.142)
East Anglia	1.053	1.053	0.971	1.059	1.204*
	(0.124)	(0.326)	(0.122)	(0.113)	(0.118)
Wales	1.090	1.270	1.212	1.266**	1.207*
	(0.130)	(0.410)	(0.161)	(0.151)	(0.127)
South West	0.962	0.991	1.097	1.026	1.118
	(0.115)	(0.290)	(0.136)	(0.104)	(0.111)
London	1.428***	1.258	1.143	1.315***	1.283**
	(0.150)	(0.352)	(0.138)	(0.131)	(0.124)
South East	1.127 [°]	1.004	0.970	1.063	1.143 [°]
	(0.115)	(0.280)	(0.121)	(0.103)	(0.108)
Northern Ireland	0.779*	0.778	0.915	0.836	0.833*
	(0.102)	(0.271)	(0.136)	(0.103)	(0.089)
wave5	0.532***	0.821	1.407***	0.685***	0.536***
	(0.044)	(0.181)	(0.146)	(0.058)	(0.042)
wave6	0.547***	0.881	1.349***	0.828**	0.648***
	(0.046)	(0.193)	(0.134)	(0.070)	(0.049)
wave7	0.747***	0.846	1.095	0.915	0.915
	(0.053)	(0.162)	(0.096)	(0.066)	(0.061)
wave8	0.754***	1.060	1.095	1.030	0.938
wavco	(0.056)	(0.209)	(0.099)	(0.075)	(0.063)
Vocational Quals	0.725***	1.049	1.244**	1.085	0.734***
vocational Quais	(0.058)	(0.221)	(0.127)	(0.085)	(0.053)
Professional Qual	0.832**	1.063	1.268**	1.052	0.811***
FTUIESSIUITAI QUAI	(0.067)	(0.252)	(0.141)	(0.091)	(0.060)
Dograd Ougl	0.847**	1.306	1.389***	1.157*	0.792***
Degree Qual					
Tinanaa muaf	(0.062)	(0.280) 0.718**	(0.143)	(0.097)	(0.057)
Finance prof	1.047		0.807***	0.952	0.880***
Mantina and an	(0.050)	(0.096)	(0.048)	(0.047)	(0.038)
Next year plan:	0.835**	0.916	1.215**	1.070	0.666***
Substantial growth	(0.067)	(0.200)	(0.113)	(0.084)	(0.050)
Bad credit history	0.554***	1.841***	2.556***	0.875**	0.388***
(ccj,ttp,miss pyts)	(0.037)	(0.241)	(0.159)	(0.052)	(0.024)
No trade credit	0.802	2.762***	3.874***	2.446***	0.508***
	(0.128)	(0.646)	(0.489)	(0.327)	(0.082)
Risk: Low	0.796***	0.949	1.450***	1.108	0.671***
	(0.050)	(0.211)	(0.157)	(0.093)	(0.042)
Risk: Average	0.675***	0.841	1.886***	1.227***	0.629***
	(0.043)	(0.187)	(0.199)	(0.095)	(0.039)
Risk: Above avg	0.699***	1.351	2.360***	1.573***	0.671***
	(0.053)	(0.305)	(0.260)	(0.136)	(0.048)
Risk: Unknown	0.735***	1.248	1.793***	1.502***	0.709***
	(0.076)	(0.344)	(0.247)	(0.157)	(0.065)
Observations	24,933	24,933	24,933	24,933	24,933
Pseudo R-squared	0.106	0.106	0.106	0.106	0.106
Model p-value	0.000	0.000	0.000	0.000	0.000



9. Conclusions

This analysis contributes to our understanding of the finance issues currently facing diverse SMEs by presenting a new analysis of the SME Finance Monitor. Central to this analysis is the development of a new typology of borrowers that captures the SME population across three groups based on finance demand: Patent Demand, Partial Demand and Latent Demand. This permits categorisation of SMEs into six analytical groups: existing borrowers; new/renewed borrowers; declined borrowers (Patent Demand); Partial borrowers (Partial Demand); potential borrowers; and indifferent non-borrowers (Latent Demand). Using this typology as the analytical lens enabled a more granular view of the SME Finance Monitor dataset and a more detailed analyses of types of discouragement than has been previously presented.

With regard to debt avoidance, the analysis reveals both a broader set of discouraged borrowers and a wider set of antecedents of discouragement than have previously been identified. For reasons of caution, partial borrowers were not included within the potential borrower group but were treated as their own analytical category. Within the Latent Demand group, the typology distinguished between SMEs that are discouraged and those that are disinterested. Among discouraged SMEs, relatively few were found to be directly discouraged by banks either dissuading them against application or through disillusionment having been rejected in the past. A much larger proportion was found to be indirectly discouraged by non-bank factors including media reports or hearsay, self-diagnosed likelihood of rejection, unsuitable products on offer, or daunted by a priori notions of what bank borrowing entailed. Given the greater impact of indirect, rather than direct, discouragement, there is a need for further consideration of an appropriate policy response tackle the effects indirect to discouragement.

While a strong gender and ethnic minority effect was observed with regard to overall debt-aversion, it is not possible to state whether diverse



enterprises are more prone to particular types of discouragement or more influenced by specific antecedents. Even with such a remarkably large dataset as is provided by the SME Finance Monitor, the cell sizes for discouragement and diversity are too small to provide meaningful conclusions.

It is, however, possible to comment on the broader finance outcomes of diverse enterprises. While bivariate analysis revealed significant and notable gender and ethnic effects in finance outcomes, for White British and Irish women-owned firms these effects were mainly dissipated when other factors, such as legal form and firm age, were considered. Multivariate analysis of ethnicity suggests a different experience. While structural factors such as sector, firm size, the presence of a business plan, firm age, and legal form all impact on finance outcomes, even after controlling for these structural factors, the relative risk of partial borrowing, debt avoidance even when in need of finance, and investment indifference (non-need) over borrowing success remains higher among Black and Minority Ethnic enterprises.

Interestingly, this analysis shows that employment by a business of professional financial services reduces the risk of these outcomes. This suggests that greater attention needs to be given to the education, training and advice provided to diverse enterprises to ensure that they are able to build the strongest possible business case and to manage their businesses finances more professionally to enhance their likelihood of pursuing and securing finance. An important element is ensuring that firm-level informational opacity is minimised and that risk ratings are known in advance. Even then, however, diverse SMEs should endeavour to avoid obvious risk factors, such as CCJs and missed payments, and should also pursue other non-bank credit arrangements such as trade credit. This is particularly apparent for ethnic minority owned businesses, but also for women-owned enterprises. As this analysis has shown, diverse enterprises typically have lower levels of external investment, a factor that prior studies have associated with longer term under-performance. While this analysis



focused only on finance outcomes rather than performance outcomes, it is likely that the relative under-funding seen in this study in the lower average levels of finance volume requested and received will lead to poorer longer term performance of these firms.



APPENDIX 1: OPERATIONALISING THE TYPOLOGY OF BORROWERS USING SMEFM DATASET

Empirical observation of the borrower categories largely followed the filtered responses within the SME Finance Monitor questionnaire. The first category "Patent demand" captures respondents who either have an existing credit facility or have had a new application event over the last 12 months. Q15 captures the forms of external finance the business currently uses (existing facilities) and Q26 (and subsequent filtering) addresses new applications and their outcomes, including acceptance (whether outright or after issues) and whether it was the business or the bank that declined the offer or application. Businesses that neither had a successful or a declined application in the preceding 12 months but still had a facility were categorised as existing borrowers. The small number of applications that were reported to be pending was not considered in the categorisation.

Finances taken out in the personal name of the business owner were excluded in the above category since interest was in the businesses themselves. Such finances were therefore taken to be equivalent to finances supplied by the owner to the business (i.e. non-bank sources) and hence counted as "latent demand" from the perspective of the business. These elements were observed in Q15bbb, Q26e, Q51a, Q52 and Q148a. The latent demand group included all firms in the sample whose responses had not placed them within the existing, new/renewed and declined borrowers. Subsequently, firms were categorised as debt-averse potential borrowers if the business needed external financing but had not made a formal application or indifferent non-borrowers where there was no indication of present need for finance.

Potential borrowers were captured where the business owner had put in their own money in the business (Q15d_d2), taken out credit in their own personal names (Q15bbb, Q26e) including converting business facilities to personal loans (Q26-27-28), or indicated that they needed finance even though they had not applied (Q115, Q209). Subsequently, discouragement



was observed where the business owner "felt" they had to put personal money in rather than "chose" (Q15d_d2) and more importantly, in accordance with responses to Q115 and Q209. What was given as the main reason was then used to identify the form of discouragement in Layer 5 and, in turn in Layer 4, where direct discouragement included a situation where the bank dissuaded a formal application following an informal inquiry, or a previous rejection resulted in present discouragement. Disinterested borrowers were observed as those businesses that indicated that they needed finance but had not applied (potential borrowers) but were not captured within the discouraged group. This was comprised firms that had indicated a preference for non-bank financing, choosing to use personal finances or finances from family and friends.

The indifferent non-borrowers (no present need) group comprises a residual group of firms that did not have a credit facility, had not made an application and had not indicated that they needed finance. Businesses within this residual category that had had a facility in the past (q14q15x, q27) were categorised as defunct. Businesses that had never applied for external finance were categorised as listless non-borrowers.

In establishing mutual exclusivity between the groups, it was found that certain firms had been captured as potential borrowers with respect to one facility (e.g. loan) but either had another facility (e.g. overdraft) in place or applied for. This led to the creation of a category of partial borrowers, i.e. firms that were existing customers or recent applicants for a given facility (patent demand), which also demonstrated latent demand (discouragement) with respect to other financial products.



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