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Abstract

Previous surveys of Canadian and U.S. business owners suggest that access to financing in Canada may be more problematic than in the United States. Using the 2003 Survey of Small Business Financing in the United States and the 2004 Survey on Financing of Small and Medium Enterprises in Canada, this paper examines whether this perception can be better quantified. Compared to U.S. SMEs, Canadian SMEs are found to have greater reliance on loans from individuals (family, friends and others) and less reliance on loans from financial institutions. This result can be interpreted either as indicative of lower availability of formal credit in Canada, or a lower need for formal credit. Furthermore, while evidence validating the perception that Canadian financial institutions are less likely to approve loan application of risky SMEs cannot be found, there is evidence that supports the notion that Canadian financial institutions are following a more uniform pricing policy than U.S. financial institutions.

JEL classification: G21, C21

Bank classification: Financial services

Résumé

Si l'on en croit diverses enquêtes menées auprès des propriétaires d'entreprises canadiennes et américaines, l'accès au financement serait plus difficile au Canada qu'aux États-Unis. En se fondant sur les données d'une enquête concernant le financement des petites entreprises effectuée en 2003 aux États-Unis et sur celles d'une enquête analogue réalisée en 2004 au Canada auprès des petites et moyennes entreprises (PME), les auteurs examinent si cette perception peut être quantifiée avec plus de précision. D'après les chiffres avancés, les PME canadiennes ont davantage recours aux prêts de particuliers (famille, amis, etc.) que les PME américaines et font moins appel aux institutions financières. Ce résultat témoigne soit d'une moindre accessibilité au crédit classique au Canada, soit d'une demande plus faible pour ce type de financement. En outre, si rien ne confirme la perception voulant que les institutions financières canadiennes accordent moins facilement de prêts aux PME jugées risquées, d'autres éléments donnent à penser que leur politique de tarification est plus uniforme que celle de leurs homologues américaines.

Classification JEL : G21, C21

Classification de la Banque : Services financiers

1. Introduction

There is much empirical evidence that the financial environment in which firms operate impacts their behaviour and the economic performance of the country in which they reside.¹ There is also evidence that the financing environment disproportionately effects smaller firms.² Correspondingly, financing constraints figure prominently in theoretical models that examine firm growth, the firm-size distribution and productivity.³ It is therefore important to understand the financing impediments faced by small firms. The goal of this paper is to offer a descriptive account of the sources of financing used by small and medium sized enterprises (SMEs) in Canada and the United States.

Both Canada and the United States have small business financing surveys. The latest surveys were in 2004 for Canada and 2003 for the United States. Around the time of the release of these data, a comprehensive summary of the data collected was also released.⁴ The contribution of this paper is to compare and contrast the findings of these surveys. The necessity of a Canada-U.S. comparison stems from evidence that suggests financing constraints are more of a concern for Canadian business owners than for American business owners. For example, the World Economic Forum's 2004 *Executive Opinion Survey* of business executives and entrepreneurs asks what are the five most problematic factors for doing business?⁵ Access to financing, cited by 13% of respondents in Canada, was the third most important factor. For the United States, access to financing was not among the top five factors and was only cited by 5% of U.S. respondents. More pertinent to SMEs, an Ipsos-Reid poll of 1200 Canadian and American SMEs, done for CFIB et al. (2002), finds that one of the few

¹ See Kalckreuth and Murphy (2005) and Fazzari et al. (1988) for evidence on how financing constraints effect the ability of a firm to adjust capacity and investment behavior. See Levine (2005) for a review of the literature on financial development and growth.

² Using cross-industry, cross-country data, Beck et al. (2004) find that financial developments have a disproportionate effect on the growth of industries that are more dependent on small firms. Ghosal and Loungani (1996) find that increases in the uncertainty about future profits lowers investment in industries dominated by small firms who have less access to external capital, but has a negligible effect on other industries.

³ See for example, Jovanovic (1982), Cooley and Quadrini (2001), Cabral and Mata (2003), and Leung et al. (2007).

⁴ See Mach and Wolken (2006) in the case of the United States and Statistics Canada (2006) for Canada.

⁵ See Porter et al. (2004) for details and other findings of the survey.

Canada-U.S. distinctions was that a modestly higher fraction of respondents in Canada cite access to financing as a barrier to growth.⁶ A comparison of the sources of financing and the extent to which types of financing are used by Canadian and U.S. SMEs cannot prove the existence of more financial constraints in one country than the other. This is because the responses to the surveys are the result of both supply and demand conditions that are difficult to disentangle. It does, however, focus attention on areas where the equilibrium outcomes do differ and where future research can be concentrated.

It is found that Canadian SMEs are as likely as U.S. SMEs to be using some form of debt financing. However, U.S. SMEs are more likely to use formal channels, such as loans and credit lines from financial institutions, and Canadian SMEs are found to rely more heavily on loans from family, friends and other individuals. These differences cannot be explained by differences in observable firm/owner characteristics. If one takes the stand that loans from individuals tend to be loans of last resort, then this finding is consistent with the notion that Canadian SMEs have less access to formal debt financing than U.S. SMEs. If one takes the stand that loans from individuals are the least expensive form of debt, then the greater availability of this type of financing in Canada explains the lower use of formal financing.

Previous studies suggest that there is a perception that Canadian loan suppliers are more risk adverse, do not price risk and consequently are not prepared to loan to higher risk firms. However, this paper finds that the probability of making a loan application for formal financing in the past year and having the application accepted is the same for Canadian and U.S. SMEs. Furthermore, based on observable characteristics that do not include income and balance sheet items, evidence that risky firms in Canada are more likely to have their loan applications rejected can not be found. On the other hand, evidence that U.S. lenders price risk, while Canadian lenders follow a more uniform pricing policy, can be found. The range of borrowing rates is greater in the United States than in Canada, and there is a steeper relationship between the interest rate paid on loans and proxies for risk in the United States than in Canada. The uniform pricing policy likely benefits riskier SMEs, but the aggregate

⁶ In this poll, access to capital covers both the cost of borrowing and access to equity capital. In both areas, a higher percentage of respondents in Canada indicated it was a barrier to growth.

effects are uncertain.

The rest of the paper is organized as follows. Section 2 discusses in more detail the Canada-U.S. differences in SME financing that have already been brought to light. Section 3 presents the two data sets that are used in the paper and discusses their comparability. Section 4 presents the main findings and section 5 offers some concluding remarks.

2. Background

It is not straightforward to determine whether the financing environment is more or less constraining in one country than another. There is some evidence that counters the survey results presented in the introduction that suggest Canadian businesses face more financing constraints than their counterparts in the United States. For example, the Canadian Bankers Association (2003) cites evidence that suggests the cost of borrowing and access to funds is more favorable or at least comparable to that in the United States, and that the concentration of the banking sector in Canada has no relation to the cost of and access to finance.⁷ Included in the evidence they cite is the same CFIB et al. (2002) report mentioned in the introduction, which also finds that the spread between typical borrowing and deposit rates in Canada is the fourth lowest among 75 countries and lower than in the United States.^{8,9} CFIB et al. (2002) also reports that the lower spread paid by Canadian businesses does not come at the expense of access to funds, as loan authorization rates are between 80 to 90 per cent.

⁷ This final point is of particular interest since the MacKay Task Force on the Future of the Canadian Financial Services Sector (1998) concluded that there was a need for enhanced competition in banking services. In particular, they maintain that there was too little competition in the provision of banking services to the small business market.

⁸ RBC (2002) used the difference in borrowing and lending rates found in the International Monetary Fund's *International Financial Statistics*. Similar results are found in other studies. McKinsey & Co. (1998) quotes a study completed by the Loan Pricing Corporation (a New York-based pricing service) that finds the spread between the average rate and the costs of funds to be significantly lower in Canada than in the United States, and that the Canada-U.S. difference in the spread among smaller firms (with less than \$20 million sales) to be even wider.

⁹ In the realm of other fees, the evidence on Canada-U.S. differences is mixed. It is found by McKinsey & Co. (1998) that for a representative small business, Canadian businesses pay less than American businesses (\$18 per month in Canada versus \$27 in the United States). At the same time, Canadian businesses face higher merchant rates, the percentage of transaction value paid to credit card companies. Canadian businesses paid an average of 1.9 per cent, compared to 1.6 per cent in the United States. While the dollar value difference of the latter likely outweighs the former, these fees do not directly affect the cost of borrowing or access to financing.

However, a cross-country comparison is not made.

Despite the high approval rates, access to financing is an issue that was raised in the MacKay Task Force Report on the Future of the Canadian Financial Services Sector (1998):

There is also a widespread perception that Canadian deposit-taking institutions may be more risk-averse than institutions in other countries and that they are not prepared, or perhaps encouraged, to price appropriately for higher levels of credit risk or to develop creative high-risk debt financing packages, preferring instead to refuse credit entirely.¹⁰

Indeed, McKinsey & Co. (1998) finds that while most loans to small businesses in Canada are priced below prime plus 3 percentage points, loans in the United States are priced at an average of prime plus 3.25 percentage points, priced as low as prime and as high as prime plus 8 percentage points. Given the perception that credit is more widely available in the United States, the MacKay Task Force Report (1998) interprets this finding as evidence that U.S. financial institutions offer a wider range of terms and prices and have a greater willingness to price risk. Indeed, Klyuev (2008) reports that in interviews with Canadian bank representatives the use of a uniform pricing policy - whereby if the loan request is approved, clients receive a loan on the same conditions, regardless of location, nature and history of their business - was used. Klyuev (2008) speculates that this approach leaves riskier borrowers without access to credit. If this is true, then the lower effective interest rates differentials in Canada could be due to the absence of higher risk loans. Consistent with the hypothesis that lending is somehow more restricted in Canada than in the United States is the finding pointed out by Chant and Godin (2008) that private sector lending by banks and other financial institutions as a percentage of GDP in Canada (100.3 per cent) lags far behind that of the United States (216.9 per cent).¹¹ However, it is possible that lower demand for credit from financial institutions is behind the lower percentage for Canada.

Although lower interest rate spreads can be rationalized by the finding that higher risk businesses have difficulties accessing financing in Canada, it cannot account for the survey

¹⁰ MacKay Task Force Report, p.60.

¹¹ Based on this metric, the United States is ranked number one, while Canada is ranked number 16. These numbers are based on the World Bank's Financial Structure Data set in 2004.

finding that the cost of borrowing is higher. The higher costs of borrowing may be related to generally higher real rates in Canada over a long period of time, rather than interest rate spreads. McKenzie and Thompson (1997) argue that higher real interest rates in Canada caused the cost of capital to be generally higher than in the United States during the 1971-1995 period, but more substantially so in the 1984-1997 period. However, higher real rates are not determined by the financial sector per se, but by a multitude of interacting forces that affect the economy.

3. Data

Nationally representative surveys on small business finance are carried out by Statistics Canada and by the National Opinion Research Center for the Board of Governors of the Federal Reserve System. The latest of these surveys was in 2004 for Canada and 2003 for the United States.¹² The target populations of the surveys are similar. Both Statistics Canada's Survey of Financing of Small and Medium Enterprises (SFSME) and the U.S. Survey of Small Business Finances (SSBF) cover non-subsidary, for-profit-business enterprises with fewer than 500 employees, excluding financing and leasing companies. The SSBF also excludes farms, but these can be excluded in the SFSME. Given the coarseness of the available industry classifications and the fact the U.S. firms are classified according to SIC and Canadian firms are classified according to NAICS, all firms in primary industries (agriculture, mining, oil and gas, and utilities) are excluded in this paper's analysis.

In all, there are 4114 observations for the United States and 10726 observations for Canada. The effective number of observations for Canada for some questions is actually smaller than for the United States because of the survey design in Canada. The SFSME is split into two parts. The first part, done by phone-interview, collects firm demographics and information concerning the details of credit and equity events during 2004. For example, the type of loan applications, whether the request was approved, the amount approved and the interest rate paid. Balance sheet information, such as the amount and type of loans currently

¹² Canada also had a survey in 2000, and the United States also had surveys in 1987, 1993 and 1998.

held, is collected through a follow-up mail-in questionnaire that has a much lower response rate than the phone interview. Part two of the survey is answered by roughly one-quarter of the respondents of the first part of the survey. Because of this attrition, the weight attached to each firm in the first part of the survey differs from that in the second part.

The reported balance-sheet information in both the SFSME and the SSBF are for the end of the fiscal year. For the U.S. 2003 SSBF, the end of the fiscal year ranges from July 2003 to July 2004. Roughly 50 per cent of Canadian firms in the 2004 SFSME have fiscal years that end in that period. Thus despite the difference in the survey years, there is some overlap in term of coverage.

Optimally, a Canada-U.S. comparison should be made when the countries are at a similar point in the business cycle because economic conditions likely have a major impact on the demand and supply of business credit. The United States experienced a recession in 2001 and the effects were felt throughout 2002 and the early part of 2003. Overall, 2003 U.S. GDP growth at 2.5 per cent was substantially stronger than in 2001 at 0.8 per cent and 2002 and 1.6 per cent, but still weaker than 3.5 per cent average growth in the 2004-2006 period. Canada avoided a recession in 2001, but it did have a periods of lower than average GDP growth in 2001 at 1.8 per cent and 2003 at 1.9 per cent. In 2004, Canada's GDP grew at a robust 3 per cent. Although 2004 for Canada and 2003 for the United States were both years directly following one of weaker than average growth, the economic environment in Canada was arguably slightly stronger, so results should be taken in this context. If it is found that Canadian SME do indeed face higher loan rejection rates than U.S. SMEs, it is not due to poorer economic conditions.

Cross-country differences in the sources and amounts of financing used might also differ because of differences in the characteristics of small businesses across countries. The summary statistics in Table 1 show that the average Canadian SME differs in many respects from the average U.S. SME.¹³ Firstly, Canadian SMEs are generally smaller than their American counterparts. Nearly three-quarters of Canadian SMEs have only 0-4 employees, while the

¹³ The statistics provided throughout this paper take into account the multiple imputations in the U.S. data set.

number for the U.S. is slightly less than 60 per cent.¹⁴ In the larger SME ranges, 20-99 employees and greater than 100 employees range, the U.S. has almost double the percentage of firms. The percentage of U.S. SMEs in these ranges are 9.1 and 1.1, respectively, while for Canada they are 5.1 and 0.6 per cent. In terms of number of employees, Canadian SMEs are 60 per cent the size of U.S. SMEs. This difference is entirely due to the difference in the 100 employee and over category where the average Canadian SME has 142 employees and the average U.S. SME has 187. The average Canadian SME is also smaller than the average U.S. SME in terms of sales, assets, and profits.¹⁵ The Canada-U.S. ratio for sales and assets is 46 and 75 per cent, respectively. Profits are also substantially lower in Canada; Canadian SME profits are 30 per cent of U.S. SME profits. However, the large gap in profits is partially due to the fact that the U.S. figures are before tax and the Canadian figures are net of tax. Part of the difference in size could be related to a difference in age. Canadian SMEs are 1.5 years younger than U.S. SMEs.¹⁶

Canadian SMEs are also distributed differently across industries than U.S. SMEs. The U.S. has a higher fraction of SMEs in manufacturing and trade, while Canada has a higher fraction in the other category. Recall, however, that some of these differences may be smaller or wider because of the difference in the industrial classification system employed.

With respect to the differences in the characteristics of the owner of the business, Canadian SME business owners are younger and have less experience running a firm. The fraction of SME owners 50 and over is 46 per cent in Canada and 55 per cent in the United States, while the fraction of SME owners with 10 or more years of experience is 66.6 percent in Canada and 72.9 per cent in the United States. The percentage of SME owners that have

¹⁴ The employee counts include contract and temporary workers, but exclude working owners.

¹⁵ To obtain the Canadian values, the 2004 Canadian dollars were deflated by the consumer price index and then adjusted using Statistics Canada bilateral purchasing power parity for aggregate Canada-U.S. GDP of 1.18.

¹⁶ This difference is probably a lower bound because of the way in which the questions concerning firm age are phrased. In the SFSME, the question is: "During what year did the business first start selling goods and services?" In contrast, in the SSBF, the question is: "How many years ago was the business established/purchased/acquired by current owners?" In the latter question, the age of the firm pertains to the age from when the current owner obtained control of the business, while in the former, the response would be more directly linked to the age of the business itself.

majority female ownership is higher in Canada than in the United States, but the proportion of businesses owned by visible minorities is similar. However, the distribution within the visible minority group is likely different because of the larger African American population in the United States.

In summary, Canadian SMEs are generally smaller and younger than U.S. SMEs, and their owners are also younger and have less business experience. To ensure that the results are not driven by the fact U.S. SMEs are larger than Canadian SMEs, the results in the next section are also presented by firm size categories.

4. Results

4.1 Sources and Amounts of Debt Financing Used

This section compares the types and amounts of debt financing used by Canadian and U.S. SMEs. Table 2 presents the percentage of firms that have each type of loan.¹⁷ The first line in Table 2 shows the percentage of firms that have loans and credit lines from financial institutions,¹⁸ loans from government agencies, capital leases, credit card debt, and loans from individuals (from stock holders, friends, relatives, or other individuals). Overall, SMEs in Canada and the United States are equally as likely to be *using*¹⁹ some form of debt financing. However, the type of debt financing used differs substantially. U.S. SMEs are more likely to be using debt from formal channels, such as loans and credit lines from financial institutions and capital leases, whereas Canadian SMEs are more likely to be using debt from informal channels, such as loans from family and friends. In the loans from financial institution category, 23 per cent of Canadian SMEs use this type of debt, compared to 39 per cent in the United States. The situation is similar for credit lines. The incidence of

¹⁷ See the data appendix for details on how the comparison between the Canadian and U.S. is made.

¹⁸ Financial institutions include banks, trust companies, credit unions, caisses populaires and other financing entities in Canada, and commercial banks, savings banks, savings and loan associations, credit unions, finance companies, insurance companies, brokerage and mutual fund companies, leasing companies and mortgage companies in the United States.

¹⁹ This does not include credit lines that are not drawn or credit cards where the entire balance is paid monthly. It would also be interesting to compare the two countries in these respects because they could be viewed as measures of the availability of financing. Unfortunately, the Canadian survey is unclear whether individuals should report unused credit lines or cards. See the data appendix for more details.

using a credit line is 24 per cent in the U.S. and 16 per cent in Canada. In both countries, few SMEs use capital leases, but once again the incidence at 9 per cent in the United States is higher than in Canada at 5 per cent. The only formal loan category where the incidence of usage is higher for Canadian SMEs is loans from government agencies.²⁰ Here, 2.9 per cent of Canadian SMEs report using this type of financing, compared to 1.1 per cent of U.S. SMEs. Credit cards are often cited as an alternative when formal financing is not available.²¹ However, at 23 per cent compared to 16 per cent, U.S. SMEs are more likely to usually have a balance on their credit card after monthly payments.

The finding that the U.S. SMEs are likely to use more formal debt and credit cards could be due to supply constraints or a lack of demand in Canada. However, as pointed out in the previous section, the possible lack of demand for debt in Canada relative to the United States cannot be accounted for by general economic conditions.²² It could possibly be partially explained by the finding that a much higher percentage of Canadian SMEs have access to loans from individuals; 38 per cent of Canadian SMEs and 22 per cent of U.S. SMEs have individual loans. According to the “pecking order” financing strategy of Myers (1984) and Myers and Majluf (1984), businesses draw upon the least expensive types before moving on to more expensive types. At the top of the pecking order are funds of the business owners, relatives and friends. Greater availability of these types of funds could account for less reliance on other types of financing.

Individuals loans can come from business owners themselves or from others. The former might be influenced by a variety of tax regulations or strategic factors that affect the decision of whether to invest funds in their company as debt or equity. To abstract from this, the incidence of individual loans is divided into loans from the business owner and loans from other individuals. The incidence of loans from stockholders in Canada and the United States

²⁰ These do not include loans from financial institutions that are guaranteed by government.

²¹ See for example, Blanchflower and Evans (2004).

²² The lower incidence of credit card use in Canada could be related to higher interest rates on outstanding balances. Carrick (2001) indicates that the spread between credit card rates and the bank rate (discount rate in the United States) is higher in Canada than the United States, and that Canadian credit card rates are slower to react to changes in the bank rate.

are similar, the probability of having a loan from other individuals is substantially higher in Canada: 28 per cent versus 6 per cent. The same tax regulations and strategic factors might also affect whether investment from other individuals enter as debt or equity, but are likely of second-order importance compared to the decision of whether to bring in new owners.

Another possible explanation for the Canada-U.S. difference in the propensity to use debt is the difference in SME characteristics between the two countries. At first glance, the findings in Table 2 suggests this might be possible as in every case for formal financing, larger firms with more employees tend to have a higher incidence of debt use than smaller firms, and on average Canadian SMEs are smaller. It is not surprising that there still exists differences between Canadian and U.S. SMEs in the greater-than-20 employee range because the summary statistics showed a substantial size difference in this upper range. However, the Canada-U.S. difference in the incidence of debt usage in the 0-19 employee range remains similar to the difference in incidence when all firms are used, even though the size difference between firms is much smaller. Therefore, employment size differences are likely not a major factor in accounting for differences in the frequency of debt usage.

Table 3 explores the possibility that other SME characteristics are driving the Canada-U.S. differences. In this table, a discrete choice probit is used to model the binary use versus non-use outcome. Variables presented in Table 1 (except profits) are used as regressors and an indicator for Canadian SMEs is added to capture residual Canada-U.S. differences that are not accounted for by the other characteristics.²³ Table 3 presents the marginal effect of this Canadian SME dummy on the probability of using each type of debt. The differences in the incidence of debt usage between Canadian and U.S. SMEs remain largely the same even after controlling for observable differences in size, age and industry, etc. For example, the second row of Table 3 indicates that Canadian SMEs are 16.0 percentage points less likely to have some type of formal financing than U.S. SMEs after conditioning on other observables. This can be compared to the unconditional difference presented in Table 2 of 17.7 percentage

²³ A more detailed specification that allows the coefficient on each explanatory variable to differ across countries is found to give similar results. It is differences in the constant term that accounts for the cross-country differences.

points.

Overall, the question of whether supply constraints or lack of demand drives the Canada-U.S. differences in the frequency of using debt remains unanswered. The high use of loans from individuals in Canada could point to a lower need for external finance because of the greater availability of internal funds, which in turn suggests a lack of demand, but it is unclear why this type of finance is more readily available in Canada than in the United States. Furthermore, loans from relatives and friends are not without their costs. Although the interest rate charged by a family member may be low, there is likely a greater psychic cost that weighs on the business owner because of the “personal” nature of the loan. For example, the pressures of repaying a loan may be much higher if one knows they are using part of a relative’s life savings. Indeed, a number of small business finance experts advise caution when borrowing money from relatives or friends, and speak of these types of loan as last resorts. For example, family business advisor Paul Karofsky says: “It’s a risky business to borrow from family members. It needs to be a last resort, not a first resort. Family members need to know you’re exhausted all other possibilities.”²⁴ Al Korn, the chairman of the U.S. Small Business Administration’s (SBA) Counselors to America’s Small Business programs says: “A banker will send you a nasty letter. A relative will remind you [about the money] every time they see you.”²⁵ John Miller, a spokesmen for the SBA’s New York District Office says: “Of course it’s not ideal, but if you don’t have good credit, for example, you won’t get a loan from anyone else.”²⁶

The finding that Canadian SMEs have a higher propensity to use individual loans and a lower probability of using other forms of debt relative to the United States is interesting and potentially important. It could be the case, that despite high usage rates, the amount contributed by these loans are small. Table 4 shows that this is not the case. For firms with at least one type of loan, the amount outstanding for each loan type as a fraction of the amount outstanding for all loans is calculated, and the average across all firms taken.

²⁴ See Galland (2006).

²⁵ See Galland (2006).

²⁶ See Galland (2006).

It is found that not only do Canadian SMEs have a higher propensity to use other loans from individuals, but the dollar amount of these loans account for a higher percentage of the total amount of debt. At 32.5 per cent, the amount of total debt accounted for by other individual loans in Canada is many times higher than that of the United States at 5.2 per cent. In contrast, loans and credit lines are more important for U.S. SMEs. Credit cards, capital leases, loans from government agencies, and stockholder loans account for roughly the same fraction of debt in both countries when all SMEs are considered.

4.2 Recent Loan Application and Approval Rates

Since some loans are long-term arrangements, the examination of the stock of loans outstanding that was shown in the previous section was affected not only by the current macroeconomic conditions but potentially by conditions many years in the past. A cleaner comparison would be to examine the information on the most recent loan applications. Table 5 shows the fraction of SMEs that made loan applications in the past year and the fraction of those that were approved. Unlike the previous section, these numbers do not include loan applications for credit cards, capital leases, loans from government agencies, and individual loans. They also do not include renewal of existing credit lines and increases to the credit limit of existing lines of credit. Also, unlike in the previous section, it is possible to split mortgages out from other loans from financial institutions.²⁷

Table 5 shows that there are no statistically significant Canada-U.S. differences in either application or approval rates for any loan type.²⁸ For both countries, the application rate is around 12.5 per cent and the approval rate is high at around 78 per cent, although not as high

²⁷ An important way in which the U.S. survey differs from the Canadian survey is that the U.S. survey asks for information on both the most recent loan approved and the most recent loan denied. Only one loan type is allowed to be chosen for each of the two loans. The Canadian survey asks for information on the last request to a credit supplier for credit during the past 12 months, and multiple loans types can be chosen. To make the Canada-U.S. comparison, only the most recent U.S. loans request is considered and that request had to have been made within one-year of the interview date. In the Canadian data, only the loan type with the largest amount requested is considered. The vast majority of requests, 97 per cent, consist of only one loan type.

²⁸ Previous versions of the paper showed higher application rates and approval rates in the United States, when renewal of credit lines and applications for increases in credit limits were included. However, it was decided not to carry these results forward as the Canadian survey does not ask specifically for credit line renewals. They could only be reported in the other type of debt financing section.

as when credit line renewals are included. Loan applications are distributed similarly across loan types, and approval rates also similar across loan types. There is not any evidence to suggest that Canadian firms are more likely to be rejected, or are less likely to apply because they fear rejection.

As in the previous section, a discrete choice probit model can be used to model the binary approval/rejection outcome of a loan application. Table 6 presents the results from this regression. First, it should be noted that statistically significant Canada-U.S. differences in approval rates do not emerge after controlling for differences in unobservables. This might be a surprise to some given the difference in the average size of SMEs, but the relationship between size and approval is particularly weak in Canada, unlike the relationship between debt use and size. Second, apart from the age of the business, other firm and owner characteristics do not appear to have an impact on the approval rate in Canada. In contrast, firm size, experience of owner, and aboriginal and black ownership variables are statistically significant in the U.S. regression. To the extent that these observable variables are related to SME riskiness, the results in Table 6 suggest risky U.S. SMEs are less likely to have their loans application accepted.

4.3 Borrowing costs

In this section, differences in the cost of borrowing are examined. For the loans that were approved, loan characteristics, such as the interest rate, whether collateral, personal guarantee, or cosigner was needed, the term of the loan if applicable, and whether the loan was at a fixed or variable rate was collected. Figure 1 shows the distribution of interest rates from the prime rate on these loans.²⁹ The mean and median rates in Canada at 2.2 and 2 per cent, respectively, are higher than in the United States at 1.9 and 1.7 per cent, respectively, but the differences are not statistically significant. What is more striking is that the standard deviation and the range in interest rates is much larger in the United States. The coefficient

²⁹ It is not possible to determine the month the loan began in Canadian survey, so Figure 1 is constructed by subtracting the annual prime rate. In 2004, the prime rate for Canada was 4.00 per cent. In the United States, it was 4.12 per cent in 2003, and 4.35 per cent in 2004.

of variation is 0.57 in Canada compared to 1.60 in the United States, and the range is 9.2 in Canada compared to 30 in the United States. Furthermore, this larger standard deviation and range is not only due to more dispersion at the high end of the distribution, but also more dispersion at the low end. Roughly 30 per cent of the recent loans in the United States are at prime or lower, compared to 2.7 per cent in Canada. Part of this difference in below prime loans could be attributable to larger SMEs in the United States, but Figure 2 and 3 shows that this is not the case. Although large U.S. SMEs (20+ employees) have a higher fraction of loans at prime or lower, the fraction of loans at prime or lower for smaller U.S. SMEs at 28 per cent is still substantial. In contrast, the distribution of interest rates for large and small Canadian SMEs is remarkably similar.

To check if the Canada-U.S. differences observed in Figure 1 are consistent across loan types, the interest rate distributions for other loans, mortgages and new credit lines are given in Figures 4 to 6, respectively. The United States exhibits greater interest rate dispersion than Canada for all three loan types. Interestingly, despite the media exposure given to sub-prime mortgage market in the United States, it is in this loan market where dispersion is the least and closest to Canada. It is in the other loan category where much of the at and below prime loans and the above prime plus six per cent loans are made in the United States. For Canada, the most notable cross loan type difference is the higher median interest rate exhibited for credit lines.

Table 7 presents regression analysis that controls for loan characteristics and other ownership characteristics besides the employment size of firms. Besides the aboriginal majority ownership indicator and the rural indicator, firm and owner characteristics do not affect the interest rate paid on loans in Canada (see column (1)). In contrast, there is a steep relationship between the size of the firm and the interest rate paid in the U.S. regression (see column (3)). SMEs with less than 20 employees pay 1.3 percentage points more on their loans than SMEs with 100 to 500 employees, and SMEs with 20 to 99 employees pay 0.6 percentage points more. However, besides size and the black majority ownership indicators, other firm and owner characteristics in the U.S. regression are also not significant.

To ensure that observable³⁰ firm and owner characteristics do not affect the interest rate paid in Canada, and that the results are not due to some collinearity problem, the observable characteristics are used to predict a credit score to be used in the regression in place of all the firm and owner characteristics. The U.S. data places each U.S. SME's credit score from Dun & Bradstreet (that ranges from 0-100 with 100 being the least risky) into one of six unequally sized categories. To create predicted credit scores for Canada and the United States, an ordered logit model is first estimated using the U.S. data. Using the coefficients estimated using the U.S. data, the predicted probability of being in each of the six credit risk categories are calculated for each Canadian and U.S. firm.³¹ A predicted credit risk score is then computed by multiplying the predicted probabilities with the mid-point of each category. Columns (2) and (3) in Table 7 shows the result of using the predicted credit scores in the regression. For the United States, a one percentage point increase in the predicted credit score, lowers the interest rate paid by 0.05 percentage points. For Canada, the predicted credit score is not statistically significant.

There is one margin that shows the pricing of risk in Canada. Loans that are covered by the Canada Small Business Financing Program exhibit 0.6 percentage points higher interest than other loans.³² This program was set up to encourage financial institutions to make loans to small business that would otherwise not be able to get funding. Under this program, the federal government covers 85 per cent of the lender's losses in the event of a default. The SMEs under this program are undoubtedly more risky, but interestingly they are paying for that increased risk even though the loans are partially insured.

Overall, the evidence supports the notion of uniform pricing in Canada. However, it could still be the case that the firm and owner characteristics used in the above regressions are not

³⁰ Unfortunately, income and balance sheet items cannot be used in these regressions for Canada. The combination of the fact that less than 10 per cent of SMEs apply and are approved for loans with the fact that only 25 per cent of firms responded to the second part of the Canadian survey leaves too few firms in the sample.

³¹ The estimated coefficients from the ordered logit are available upon request. Firm size, industry of firm, age of owner, experience of owner, gender of owner, and visible minority status are statistically significant in this regression.

³² The exclusion of this regressor would not result in other regressors becoming statistically significant.

adequately related to risk. For example, the D&B credit scores are statistically significant when they are added to the U.S. regression. This issue can be better addressed in future versions of the Canadian survey as respondents will be linked to administrative data sources that can be followed over time. Ex-post measure of riskiness could be obtained for each firm (predicted probability of failure) and used as an explanatory variable in the interest rate and loan approval/rejection regressions.

5. Conclusion

Evidence from previous surveys of business owners revealed a perception that access to financing is more problematic in Canada than in the United States. Moreover, it was believed that risk was not being priced in Canada and that riskier firms in Canada were not able to access funds from financial institutions. This paper offered a comparison of the debt financing outcomes of Canadian and U.S. SMEs, highlighted the most striking differences, and discussed whether the findings could lend support to the perception of more stringent credit markets in Canada. It was found that while the incidence of using some form of debt financing is similar between Canada and the United States, Canadian SMEs tend to use more loans from individuals and U.S. SMEs tend to use loans from financial institutions. The greater reliance on loans from individuals—which in the theoretical literature has been modelled as the lowest cost source of funds—by Canadian SMEs might reflect a greater availability of these funds in Canada and hence a lower need for other debt finance. In contrast, to the theoretical literature, some industry professionals say that the use of loans from individuals are a last resort. This suggests that the greater reliance on these loans in Canada indicates lower availability of formal debt financing.

It is also found that application and approval rates for formal financing are similar in Canada and the United States, and that there is no evidence to suggest that Canadian financial institutions are more likely to reject the loan applications of more risky firms, where risk is proxied by a set of observables that do not include items from the income or balance sheet. There is evidence to support the notion that Canadian financial institutions

do not price risk. By itself, it is unclear whether this uniform pricing policies benefit SMEs as a whole. Riskier Canadian SMEs benefit by being able to obtain credit more cheaply, but less-risky SMEs end up paying higher interest rates than they would in the United States.

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Data Appendix

Comparing the Sources of Financing in Canada and the United States

There are two places in the second part of the Canadian survey where information about the type of debt financing used can be obtained. The first is a profile of liabilities at the end of the fiscal period. In this section, respondents are asked to give the credit supplier's name, amount outstanding and the amount originally authorized for each liability. There are also asked to place these responses into categories: 1) Term loans, mortgages, lines of credit or other debts from banks, trust companies, credit unions and *caisse populaires*, 2) Credit card amounts outstanding, 3) Credit obtained from crown corporations, federal, provincial or community lending programs, 4) Lease obligations, 5) Loans from individuals, 6) Trade credit, and 7) Other liabilities. The second source is the subsequent section in the questionnaire where respondents are asked to indicate whether during the fiscal period a particular source of finance was 1) Important/Necessary, 2) Not important/Not necessary and 3) Did not use this form of financing. The second source is the one generally quoted in other publications (for example, see Chant and Godin (2008)) because these numbers are the ones provided in Statistics Canada (2006). However, this paper uses the first source because of concerns with the reliability of the responses in the second section, and because the first source is arguably more comparable to the U.S. data.

For short-term liabilities, such as trade credit, one would expect that the incidence of use would be higher in the second source than the first. This is because the latter asks if a certain type of financing was used at some point in the year, while the former asks if that type of financing was being used at the end of the year. However, even for long-term liabilities, there are major differences in the magnitude of the responses. For example, 19.7 per cent of respondents indicate in the second source that financing from government lending agencies/grants were either important/necessary or not important/not necessary, while only 2.9 per cent report using credit obtained from crown corporations, federal, provincial or community lending programs in the first source. It is not initially obvious which number is more reliable. On one hand, more accurate results may be obtained when respondents are pressed for more details. On the other hand, qualitative responses may be more valid if respondents are pressed for time and do not bother or want to give accurate detailed responses. In the case of loans from government agencies, it is more likely that the lower estimate is closer to the truth. The scope of these programs are such that it is unlikely that one in five non-farm businesses are benefitting from these loan. The sampling frame for the Canadian survey is 1,727,823 businesses in the non-primary non-financial industries. If the higher estimate is correct, then roughly 340,000 businesses have loans from government agencies. To put this number in perspective, in 2004, the Business Development Bank of Canada had 22,000 clients.

Large differences in incidence are also found in other liability categories. It is not clear why the incidences from the second source are so much higher than from the first source. Perhaps there was some confusion between the not important/not necessary and the did not use this form of financing categories. It is interesting to note that in the 2007 Survey on Financing of Small and Medium Enterprises, the question has been changed to "Which of the following sources of finance did you USE to keep your business in operation?" and the possible responses changed to yes or no.

The other reason for choosing the first source is that it is more comparable to the U.S. data. Respondents of the U.S. survey are generally asked if they have certain debt instruments at the time of the interview, not whether the debt instrument was used in the past year. They are also asked to give amounts currently outstanding. The exceptions are for credit cards and trade credit. For credit cards, the amount owed is the average amount outstanding after monthly payments are made. In the case of trade credit, the survey asks whether trade credit was used during the last year and the amount outstanding is not collected.

There are differences in the approach to collecting source of financing between the Canadian and U.S. survey. The rest of this section documents these differences and describes how the comparisons are made. In both the Canadian and U.S. surveys, there are sections to collect information specifically on credit cards, credit lines, and capital leases. With respect to credit lines, both Canadian and U.S. surveys collect information on amounts outstanding at a point in time. For Canada, information on lines of credit are collected for lines from banks, trust companies, credit unions and *caisse populaires*, while for the U.S. credit lines can be from sources other than financial institutions. In making the Canada-U.S. comparisons, U.S. credit lines are limited to those from commercial banks, savings banks, savings and loan associations, credit unions, finance companies, insurance companies, brokerage and mutual fund companies, leasing companies and mortgage companies. Thus the comparison being made is the degree to which Canadian and U.S. firms use credit lines from financial institutions. A comparison of the degree of access to credit lines is not possible because although U.S. firms are asked both whether they have credit lines and whether they have amounts outstanding on those credit lines, the Canadian questionnaire is ambiguous. While some Canadian businesses do report credit lines with the amount outstanding being zero, the Canadian questionnaire asks for a breakdown of total liabilities on the balance sheet. Thus it is not clear whether most businesses report unused credit lines.

For liabilities other than credit cards, credit lines, capital leases and stockholder loans the U.S. survey collects information on loans by what they finance (mortgage, motor vehicle, equipment and other loans), while the Canadian survey concentrates on the supplier. Thus for Canada, it is relatively straight forward to classify loans into ones from financial institutions, individuals, and government agencies. The only complication is that one also has to go through the other liabilities section to pick up liabilities that were not included in above sections because of space constraints, or because the liabilities were from non-standard financial institutions. Other liabilities, such as taxes payable and wages payable are not included as loans from government and individuals, respectively, but entries marked loans from employees are included as loans from individuals. While not as straight forward, it is also possible to identify the source of each of the loans in the U.S. survey. Loans or credit lines from financial institutions can be from the type of institutions given in the above section, loans from individuals are loans from family or other individuals, and loans from government are loans from government agencies including the Small Business Administration.

In the case of stockholder loans, the U.S. survey has a separate section that collects information on these liabilities. In addition to this, any mortgage, motor vehicle loan, equipment and other loan that was sourced from the owner himself or herself were included in stockholder loans. The Canadian survey does not include loans from stockholders as a explicit liability type. To obtain the information on these, one has to look at the other liabilities section in the questionnaire. Only liabilities labeled shareholders loans are considered stockholder loans, dues to shareholders, dividends payable and wages payable to managers are not.

Table 1. Summary Statistics

	<u>Canada</u>		<u>United States</u>	
	<u>Mean</u>	<u>Std. Error</u>	<u>Mean</u>	<u>Std. Error</u>
Distribution of firms:				
0-4	0.722	0.009	0.586	0.010
5-19	0.221	0.009	0.312	0.010
20-99	0.051	0.003	0.091	0.005
>100	0.006	0.001	0.011	0.001
Average employment size:				
0-4	1.3	0.04	1.6	0.04
5-19	8.8	0.15	9.2	0.15
20-99	37.9	1.12	36.3	0.85
>100	142.3	8.2	187.4	8.8
All	5.7	0.23	9.2	0.261
Industry:				
Manufacturing	0.054	0.003	0.071	0.005
Trade	0.177	0.007	0.244	0.009
Other	0.769	0.008	0.685	0.009
Firm age (years)	12.8	0.42	14.3	0.247
Sales (1000s of 2004 USD)	471.6	29.25	1030.9	43.51
Profits after tax (1000s of 2004 USD)			171.3	15.88
Profits before tax (1000s of 2004 USD)	50.9	9.54		
Assets (1000s of 2004 USD)	392.6	460.55	523.4	29.79
Majority ownership:				
Female	0.363	0.016	0.223	0.009
Ethnic minority	0.091	0.009	0.093	0.006
Aboriginal	0.016	0.004	0.013	0.002
Black	----	----	0.037	0.004
Owner age:				
Less than 30 years	0.031	0.006	0.015	0.003
30-39 years	0.162	0.012	0.114	0.007
40-49 years	0.352	0.016	0.254	0.009
50-64 years	0.368	0.015	0.419	0.01
65 and over	0.087	0.010	0.131	0.007
Experience of owner:				
Less than 5 years	0.137	0.011	0.081	0.006
5-10 years	0.197	0.014	0.191	0.008
10 or more years	0.666	0.015	0.729	0.009
Sample size				
Part 1	10726		4114	
Part 2	2795		----	

Table 2. Fraction of SMEs Using Debt Financing, by Firm Size

	<u>Canada</u>			<u>United States</u>		
	<u>All</u>	<u>1-19</u>	<u>20+</u>	<u>All</u>	<u>1-19</u>	<u>20+</u>
All	0.630 (0.0229)	0.620 (0.0240)	0.806 (0.0487)	0.666 (0.0097)	0.645 (0.0105)	0.845 (0.0169)
Formal	0.349 (0.0213)	0.335 (0.0221)	0.615 (0.0546)	0.526 (0.0103)	0.499 (0.0110)	0.763 (0.0205)
Loan from financial institution	0.231 (0.0194)	0.218 (0.0202)	0.492 (0.0520)	0.389 (0.0100)	0.360 (0.0106)	0.638 (0.0236)
Credit line with outstanding balance	0.159 (0.0147)	0.153 (0.0153)	0.262 (0.0423)	0.242 (0.0087)	0.224 (0.0092)	0.400 (0.0261)
Loan from government agency	0.029 (0.0059)	0.027 (0.0062)	0.070 (0.0163)	0.0109 (0.0026)	0.010 (0.0028)	0.023 (0.0057)
Capital lease	0.048 (0.0071)	0.044 (0.0073)	0.117 (0.0247)	0.087 (0.0058)	0.080 (0.0062)	0.159 (0.0160)
Credit card with outstanding balance	0.163 (0.0171)	0.161 (0.0179)	0.206 (0.0372)	0.228 (0.0088)	0.240 (0.0096)	0.124 (0.0187)
Loan from individual	0.382 (0.0224)	0.380 (0.0234)	0.429 (0.0516)	0.216 (0.0081)	0.201 (0.0086)	0.354 (0.0242)
Stockholder loan	0.116 (0.0148)	0.118 (0.0148)	0.084 (0.0239)	0.168 (0.0073)	0.151 (0.0076)	0.321 (0.0236)
Other individual	0.280 (0.0207)	0.275 (0.0216)	0.381 (0.0514)	0.061 (0.0050)	0.060 (0.0051)	0.070 (0.0114)

Note: Standard errors in parentheses.

Table 3. Canada-U.S. Difference in Use of Financing Conditional on Firm and Owner Characteristics, by Firm Size

	<u>All</u>	<u>1-19</u>	<u>20+</u>
All	-0.030 (0.0329)	-0.026 (0.0354)	-0.058 (0.0646)
Formal	-0.160 (0.0319)	-0.155 (0.0332)	-0.139 (0.0757)
Loan from financial institution	-0.151 (0.0289)	-0.140 (0.0300)	-0.157 (0.0738)
Credit line with outstanding balance	-0.054 (0.0226)	-0.048 (0.0236)	-0.109 (0.0672)
Loan from government agency	0.021 (0.0087)	0.019 (0.0089)	0.052 (0.0189)
Capital lease	-0.037 (0.0099)	-0.039 (0.0098)	-0.018 (0.0372)
Credit card with outstanding balance	-0.043 (0.0269)	-0.053 (0.0296)	0.046 (0.0453)
Loan from individual	0.177 (0.0302)	0.183 (0.0320)	0.102 (0.0695)
Stockholder loan	-0.022 (0.0198)	-0.008 (0.0208)	-0.217 (0.0448)
Other individual	0.193 (0.0260)	0.186 (0.0277)	0.323 (0.0621)

Note: Standard errors in parentheses.

Table 4. Amount of Loan as a Fraction of Total Debt, by Firm Size

		<u>Canada</u>			<u>United States</u>	
	<u>All</u>	<u>1-19</u>	<u>20+</u>	<u>All</u>	<u>1-19</u>	<u>20+</u>
Loan from financial institution	0.253 (0.0241)	0.243 (0.0256)	0.383 (0.0397)	0.420 (0.0111)	0.412 (0.0123)	0.470 (0.0232)
Credit line with financial institution	0.135 (0.0137)	0.133 (0.0145)	0.159 (0.0261)	0.204 (0.0086)	0.198 (0.0094)	0.244 (0.0206)
Loan from government agency	0.020 (0.0050)	0.019 (0.0052)	0.039 (0.0102)	0.006 (0.0016)	0.006 (0.0018)	0.009 (0.0027)
Capital lease	0.034 (0.0077)	0.034 (0.0081)	0.036 (0.0114)	0.046 (0.0051)	0.046 (0.0056)	0.052 (0.0112)
Stockholder loan	0.127 (0.0180)	0.131 (0.0191)	0.063 (0.0239)	0.139 (0.0073)	0.134 (0.0080)	0.170 (0.0161)
Other loans from individuals	0.311 (0.0254)	0.313 (0.0269)	0.268 (0.0491)	0.052 (0.0048)	0.055 (0.0054)	0.036 (0.0067)
Credit card	0.122 (0.0181)	0.126 (0.0194)	0.052 (0.0143)	0.133 (0.0079)	0.150 (0.0090)	0.019 (0.0064)

Note: For each firm that has at least one type of loan, the amount outstanding for each loan type as a fraction of the amount outstanding for all loans is calculated, and the average across all firms taken. Standard errors in parentheses.

Table 5. Application and Approval Rates for Debt from Financial Institutions

	<u>Canada</u>			<u>United States</u>		
	<u>All</u>	<u>1-19</u>	<u>20+</u>	<u>All</u>	<u>1-19</u>	<u>20+</u>
Applied	0.125 (0.0078)	0.119 (0.0082)	0.227 (0.0269)	0.124 (0.0066)	0.115 (0.0069)	0.209 (0.0214)
Mortgage	0.022 (0.0035)	0.021 (0.0037)	0.033 (0.0085)	0.018 (0.0027)	0.017 (0.0030)	0.026 (0.0054)
New credit line	0.058 (0.0057)	0.057 (0.0059)	0.082 (0.0202)	0.054 (0.0044)	0.049 (0.0046)	0.093 (0.0147)
Other	0.045 (0.0047)	0.041 (0.0049)	0.112 (0.0191)	0.055 (0.0047)	0.051 (0.0048)	0.094 (0.0169)
Approved	0.773 (0.0270)	0.771 (0.0282)	0.788 (0.0642)	0.779 (0.0233)	0.764 (0.0266)	0.865 (0.0438)
Mortgage	0.777 (0.0767)	0.759 (0.0832)	0.970 (0.0206)	0.863 (0.0434)	0.849 (0.0511)	0.945 (0.0330)
New credit line	0.749 (0.0421)	0.759 (0.0437)	0.634 (0.139)	0.690 (0.0398)	0.674 (0.0451)	0.762 (0.0850)
Other	0.809 (0.0356)	0.793 (0.0410)	0.847 (0.0550)	0.874 (0.0284)	0.856 (0.0336)	0.959 (0.0277)

Note: Standard errors in parentheses.

Table 6. Probit Model of Probability of Loan Approval

	<u>Canada</u>	<u>United States</u>
0-19 Employees	-0.137 (0.4085)	-1.906 (0.5533)
20-99 Employees	-0.091 (0.3932)	-1.563 (0.5731)
Age of business	0.0272 (0.0075)	0.0102 (0.0182)
Female	0.149 (0.1845)	-0.538 (0.4454)
Visible minority	-0.046 (0.2489)	0.249 (0.3435)
Aboriginal	-0.521 (0.4997)	-4.095 (1.2058)
Black	----	-3.648 (0.7348)
Age of owner - < than 30	-0.175 (0.5392)	0.464 (0.5613)
Age of owner - 30 to 39	-0.332 (0.4339)	-0.698 (0.5613)
Age of owner - 40 to 49	-0.323 (0.4076)	-0.365 (0.3834)
Age of owner - 50 to 64	-0.307 (0.4100)	-0.075 (0.3294)
Experience - < than 5	-0.086 (0.2207)	-0.972 (0.556)
Experience - 5 to 10	-0.034 (0.2174)	-0.339 (0.3463)

Note: Standard errors in parentheses.

Table 7. Determinants of the Original Interest Rate on New Loans

	<u>Canada</u>		<u>United States</u>	
	(1)	(2)	(3)	(4)
Loan Characteristics:				
Mortgage	-0.774 (0.1908)	-0.817 (0.2547)	0.485 (0.4603)	0.391 (0.4534)
Credit line	1.588 (0.3245)	1.437 (0.2372)	0.196 (0.6774)	0.132 (0.6320)
Collateral	0.074 (0.1656)	0.043 (0.1679)	-0.635 (0.4639)	-0.918 (0.4808)
Term of loan (months)	0.004 (0.0020)	0.004 (0.0020)	-0.002 (0.0024)	-0.001 (0.0025)
Term not applicable	-1.123 (0.2970)	-0.998 (0.2346)	0.848 (0.8753)	0.563 (0.8727)
Variable rate	-0.735 (0.1908)	-0.747 (0.2000)	-1.096 (0.5915)	-1.227 (0.5606)
Government guarantee	0.635 (0.1644)	0.646 (0.1749)	----	----
Firm and Owner Characteristics:				
Predicted credit score	----	0.008 (0.0093)		-0.047 (0.0223)
0-19 Employees	0.388 (0.2863)	----	1.257 (0.4167)	----
20-99 employees	0.366 (0.3066)	----	0.584 (0.3860)	----
Age of business	0.011 (0.0067)	----	-0.012 (0.0210)	----
Female	-0.043 (0.1540)	----	-0.424 (0.5502)	----
Visible minority	0.021 (0.2372)	----	-0.674 (0.8679)	----
Aboriginal	0.842 (0.3085)	----	-2.665 (1.613)	----
Black	----	----	5.111 (2.265)	----
Age of owner - < than 30	-0.015 (0.3478)	----	-1.453 (1.2748)	----
Age of owner - 30 to 39	-0.354 (0.2177)	----	0.903 (0.8488)	----
Age of owner - 40 to 49	-0.352 (0.2232)	----	0.158 (0.7672)	----
Age of owner - 50 to 64	-0.210 (0.1921)	----	0.162 (0.5457)	----

Note: Other controls include: Industry dummies, rural indicator, experience of owner dummies

Figure 1. Distribution of Interest Rates From Prime (%)

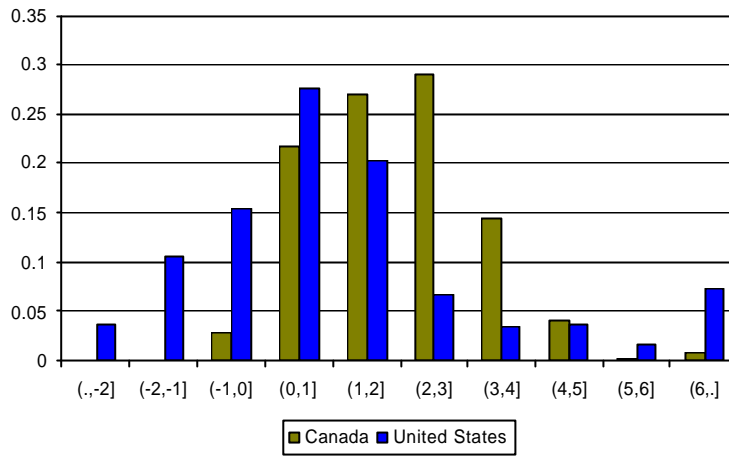


Figure 2. Distribution of Interest Rates From Prime (%) by Employment Size of Firm, United States

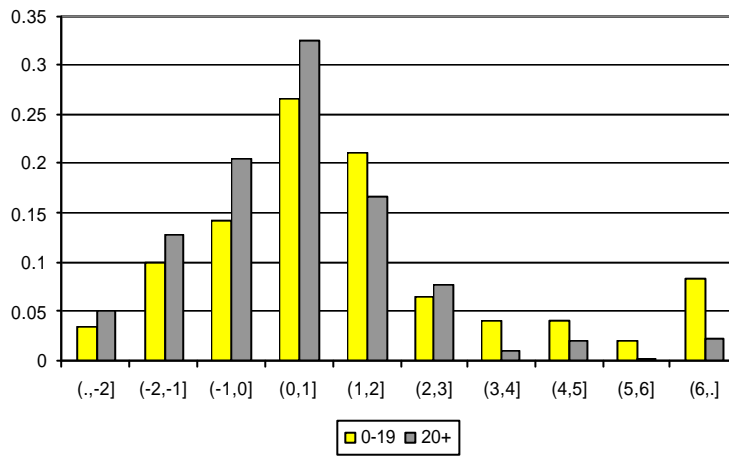


Figure 3. Distribution of Interest Rates From Prime (%) by Employment Size of Firm, Canada

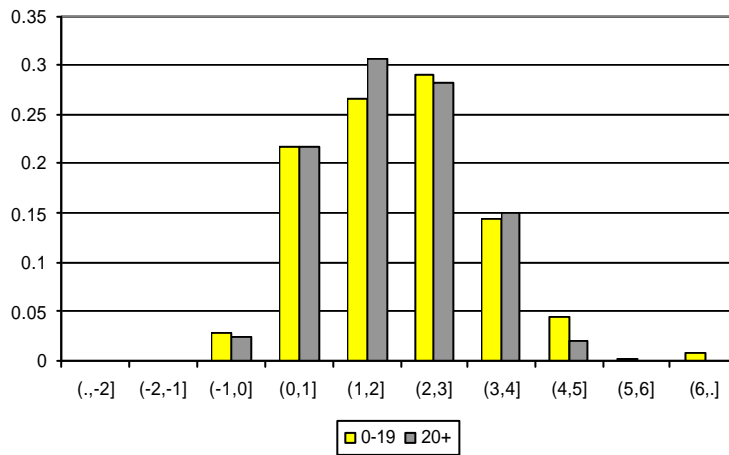


Figure 4. Distribution of Interest Rates From Prime (%), Other loans

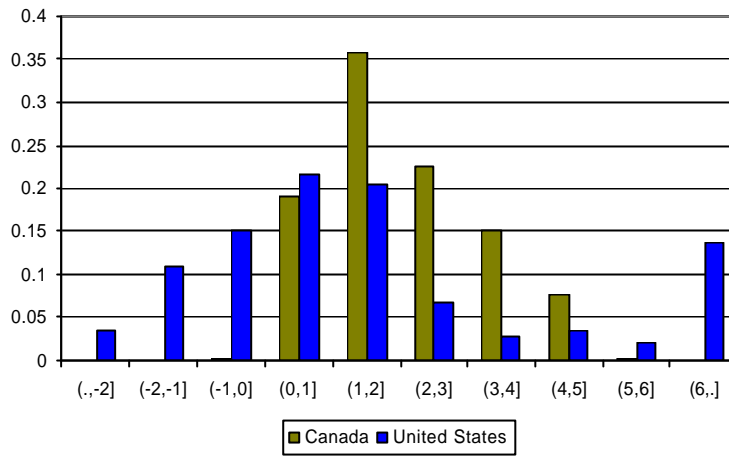


Figure 5. Distribution of Interest Rates From Prime (%), Mortgages

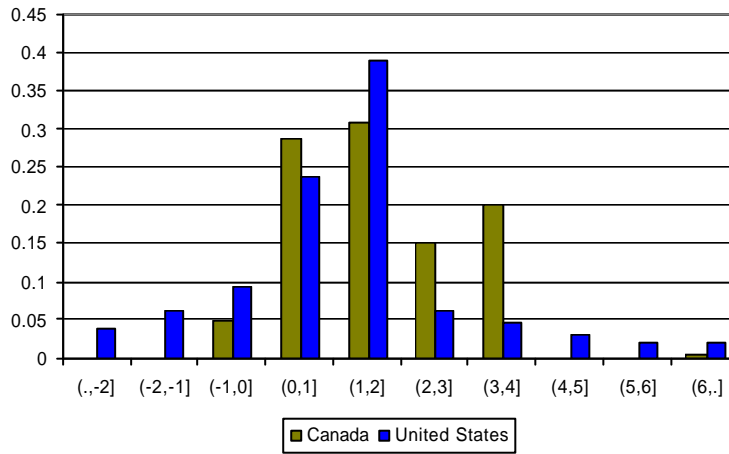


Figure 6. Distribution of Interest Rates From Prime (%), Credit lines

