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The Financing of Immigrant-owned Firms in Canada

by Danny Leung, Yuri Ostrovsky, and Garnett Picot

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.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0^s	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

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The Financing of Immigrant-owned Firms in Canada

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Abstract

Using data from the 2011 and 2014 Survey on Financing and Growth of Small and Medium Enterprises, this paper examines access to financing by immigrant business owners. It documents the main financing sources of immigrant-owned and Canadian-owned small and medium-sized enterprises (SMEs). The results suggest that financing sources tend to be similar for the two groups, although immigrant owners tend to turn to formal financial institutions less often than their Canadian-born counterparts. The paper further explores whether immigrant-owned SMEs have greater difficulty accessing financial capital than SMEs with Canadian-born owners. Immigrant owners are less likely than Canadian-born owners to seek financing from any source, but their applications are just as likely to be approved as those of Canadian-born owners. Both immigrant and Canadian-born owners reported that, among the seven potential obstacles to growth presented in the survey, access to financing was the least important. The study finds weak evidence to suggest that access to financial capital is a more serious issue among immigrant-owned SMEs than among SMEs with Canadian-born owners.

Keywords: Business ownership, immigrant entrepreneurs, business financing

Executive summary

Many studies have found that the overall creation and success of a business is influenced by access to financial capital, independent of the owner's background. In its major 2010 review of immigrant entrepreneurship, the Organisation for Economic Co-operation and Development (OECD/Bobeva) argued that "credit constraints are one of the main reasons why migrant enterprises fail" (OECD/Bobeva 2010, p. 305). Using data from the 2011 and 2014 Survey on Financing and Growth of Small and Medium Enterprises, this paper examines access to financing by immigrant-owned small and medium-sized enterprises (SMEs). It documents the main financing sources of immigrant-owned firms and compares them with the main financing sources of businesses with Canadian-born owners. The study also asks whether immigrant-owned firms have more difficulty accessing financial capital than firms with Canadian-born owners.

Overall, immigrant-owned SMEs sought ongoing financing for expansion, capital acquisition and operating capital less often than Canadian-born entrepreneurs, and looked to formal financial institutions less often when they did so. Adjusting for differences in observed owner and firm characteristics, the survey shows that immigrants who arrived in Canada 20 or more years before the survey year (in contrast with more recent immigrants) are less likely to seek any type of financing than Canadian-born owners. Both immigrant and Canadian-born entrepreneurs are more likely to seek debt financing than any other type of financing: 22% of firms owned by immigrants and 28% of firms with Canadian-born owners. Only a few owners applied for government loans. Canadian-born owners tended to seek somewhat larger amounts of financing than their immigrant counterparts; this is likely because Canadian-owned firms tend to be larger.

To uncover issues surrounding access to financing, this study considers approval rates for financing applications and notes that such rates are similarly high for both immigrant and Canadian-born individuals. Adjusting for differences between the characteristics of immigrant owners and firms, the study finds no statistically significant difference in the probability of SMEs with immigrant owners and SMEs with Canadian-born owners having an application for debt or government financing fully approved.

Further evidence regarding access to financial capital comes from survey responses to the question "Which of the following are obstacles to the growth of your business?" (Statistics Canada n.d.*b*, Question I3). Seven potential obstacles were listed in the two surveys. In both surveys, the most commonly listed obstacles were the rising costs of inputs, increasing competition, and fluctuations in product demand. Access to financing was the least important of the seven listed obstacles for both SMEs owned by immigrants and SMEs with Canadian-born owners. Immigrant SME owners saw this obstacle as only marginally more challenging to growth than did Canadian-born SME owners.

Analysis of start-up financing is complicated by the retrospective nature of the data. Information on start-up financing is available only for businesses that had survived up to the survey year. To the extent that the type of financing used has an effect on firm survival, this may introduce bias with respect to the estimated shares of businesses using each type of financing at start-up. The results should therefore be interpreted as showing firms that are "successful" start-ups, or start-ups that survived up to the survey year. The study finds that immigrant and Canadian-born entrepreneurs in the sample used roughly the same financing sources when their companies were established. Personal financing was the most common source of financing for both immigrant and Canadian-born entrepreneurs. However, there were two key exceptions. Recent immigrants (immigrants in Canada less than 10 years at the time of start-up) were much less likely to turn to a formal financial institution, such as a bank, and were less likely to receive government-based financing. Twenty percent of start-ups by recent immigrants used a formal financial institution, while 37% of start-ups by immigrants in Canada for more than 10 years and 45% of start-ups by Canadian-born entrepreneurs did so.

Finally, the study looks at start-ups in knowledge-based industries (KBIs). Debt financing from formal financial institutions was used less often by KBI start-ups, particularly those owned by immigrants. Personal financing was the most common source of financing in KBI firms. In addition, 6% of KBI start-ups turned to angel investors or venture capital financing (about the same rate for both start-ups with immigrant owners and start-ups with Canadian-born owners), while this rate was 3% among non-KBI start-ups.

1 Introduction

This paper focuses on various aspects of access by small and medium-sized enterprises (SMEs) to growth and start-up financing. The main goal of the analysis is to determine whether there are unique aspects to immigrant financing, differences in the way immigrant and Canadian-born owners finance their businesses, and indications that immigrant-owned firms may have more difficulty accessing financial capital than firms with Canadian-born owners. Part of the analysis considers start-up financing and the differences between the sources of start-up financing used by immigrant and Canadian-born owners.

Many studies identify access to financial capital as one of the main determinants of business creation and growth (Evans and Jovanovic 1989; Blanchflower and Oswald 1998; Fairlie and Krashinsky 2008). An often expressed concern is that, as newcomers, immigrants to Western countries have limited access to financial capital in the host countries, thereby hindering their efforts to succeed as entrepreneurs and limiting their contribution to the economic growth in these countries. Accessing financial capital in a new country is likely a multifaceted problem that may stem from socio-economic conditions in the host country, differences in immigrants' individual human capital and cultural background, limited information to new immigrants about available financial institutions, and more. Recent evidence also strongly suggests that the type of financing used by entrepreneurs and the issues around accessing financial capital may vary significantly between countries (Tseng 1997; Pearce 2005; Bates 1997; Smallbone et al. 2003; Kushnirovich and Heilbrunn 2008). Canadian lending institutions and, notably, the immigrant composition in Canada are quite different from those in the United States and Europe. Whether the conclusions reached using U.S. and European data apply to Canada remains an open question since there appears to be no research on this topic that uses Canadian data.

This study examines several related aspects of access to financial capital among immigrant-owned firms in Canada. First, the study notes whether the tendency to seek any type of financing differs between immigrant and Canadian-born owners of SMEs. Evidence from the 2011 and 2014 Survey on Financing and Growth of Small and Medium Enterprises suggests that 39% of immigrant owners of SMEs and 46% of Canadian-born owners of SMEs applied for financing in 2011 or 2014. When the data are adjusted for differences in the observed firm and owner characteristics, immigrants who arrived in Canada 20 or more years before the survey year (in contrast with more recent immigrants) are less likely to seek any type of financing than Canadian-born owners.

Next, the study looks at whether the type of financing sought by immigrant entrepreneurs differs significantly from that sought by Canadian-born owners. In general, immigrant and Canadian-born entrepreneurs used similar sources of financing for their businesses. Both immigrant and Canadian-born entrepreneurs are more likely to apply for debt financing than any other type of financing. However, immigrant SME owners (22%) were less likely to turn to formal financial institutions for debt financing (e.g., term loans, business lines of credit, and business credit cards) than their Canadian-born counterparts (28%). Very few owners—immigrant or Canadian-born—applied for government loans.

The study then investigates whether there is evidence that immigrant-owned firms are more financially constrained than firms with Canadian-born owners. The study examines approval rates for financing applications made by immigrant and Canadian-born SME owners. On the basis of survey responses, the study finds little evidence that immigrant business owners in Canada experience more difficulty than their Canadian-born counterparts having their applications for financial capital fully approved. Overall, both immigrant and Canadian-born owners have very high approval rates.

Finally, the study addresses start-up financing. However, the retrospective nature of the data presents serious limitations. Among "successful" start-ups (i.e., those that were still in business during the survey years), personal financing is by far the most important source of start-up financing for both immigrant and Canadian-born entrepreneurs. However, as for ongoing financing, immigrant entrepreneurs are less likely to turn to formal financial institutions for start-up financing.

The findings suggest that, although immigrant entrepreneurs are somewhat less likely to seek financing from formal financial institutions than Canadian-born entrepreneurs, there is only weak evidence that access to financial capital is a more serious issue for immigrant SME owners than for their Canadian-born counterparts.

2 Background

There is substantial U.S. and European literature about financing for immigrant-owned firms and access to financial capital by immigrant business owners. Many studies found that access to financial capital is one of the most important determinants of overall business creation and success, independent of the owner's background (e.g., Evans and Jovanovic 1989; Evans and Leighton 1989; Meyer 1990; Blanchflower and Oswald 1998; Fairlie and Krashinsky 2008). In its 2010 major review of immigrant entrepreneurship, the Organisation for Economic Co-operation and Development (OECD) argued that "credit constraints are one of the main reasons why migrant enterprises fail" (OECD/Bobeva 2010, p. 305). However, the report also notes that it is debatable whether this difficulty in accessing credit from financial institutions arises from issues affecting the creditworthiness of immigrant enterprises (e.g., higher failure rates among immigrant firms in many countries or a lack of a credit history in the host country), or other possible reasons (e.g., language issues or low levels of financial literacy, the absence of a personal relationship between the immigrant and the local financial institutions, insufficient knowledge or expertise at financial institutions, preventing them from fully understanding the creditworthiness of particular immigrants, or unwillingness by the banks to use the additional resources and time to properly evaluate an immigrant application). The OECD (OECD/Bobeva 2010, p. 305) suggests that "improving…access to credit would be a key tool to enhance the success of migrant enterprises."

Much of the recent evidence is consistent with OECD findings. Bates and Robb (2013) argued that, in the United States, businesses owned by visible minorities (similar, but not identical, to immigrant businesses) experience higher costs when they borrow, receive smaller loans, and have loan applications rejected more often than firms with white owners. The title of this paper captures the main argument: "Greater Access to Capital is Needed to Unleash the Economic Development Potential of Minority Owned Firms." A German study (Bruder, Newberger and Räthke-Döppner 2011, Abstract) found that "entrepreneurs…with an immigration background are significantly more likely to be denied credit or to be awarded smaller loans than requested than are native entrepreneurs." However, they went on to conclude that "the underlying reasons…may be differences in risk factors and financial relationships, rather than ethnicity."

Some researchers have concluded that, because immigrant entrepreneurs have more difficulty obtaining bank loans, they are more likely than non-immigrant entrepreneurs to finance their businesses with capital borrowed from family or friends (Tseng 1997; Pearce 2005; Bates 1997; Smallbone et al. 2003). However, Kushnirovich and Heilbrunn (2008) found that this was not the case in Israel. Family and friends played a smaller role in financing immigrant business than non-immigrant businesses. Like other researchers (e.g., Fairlie 2012 on the United States), they found that personal savings were far more crucial for both immigrants and non-immigrants alike.

Although there is some recent research using U.S. and European data, much less is known about the financing of immigrant-owned firms in Canada. Fairlie (2012) used the 2007 Survey of

Business Owners to examine financing for business start-ups by both immigrant and U.S.-born entrepreneurs in the United States. In order of importance, he found that the main sources of financing for start-ups by immigrants were the owner's personal/family savings, personal or business credit cards, and bank loans. In general, however, he concluded that the sources of financing for business start-ups were very similar for immigrants and non-immigrants, although immigrants tended to use bank loans somewhat less than non-immigrants. Others papers have argued that ethnic financial resources are critical for setting up immigrant business and that they can be regarded as a source of competitive advantage for immigrant entrepreneurs (Toussaint-Comeau 2005).

Fairlie (2012) concluded that personal wealth, notably home ownership, was an important factor in acquiring start-up loans. He found that home owners were about 10% more likely than others to start a business, when controlling for family income, age, education, unemployment, and various other background variables. While earlier papers (Fairlie and Robb 2008, 2010; Kushnirovich and Heilbrunn 2008) concluded that minorities had low levels of start-up capital relative to non-minorities, Fairlie (2012) showed that immigrant-owned businesses were initiated with higher levels of start-up capital than non-immigrant businesses. This is an unusual finding that may be related to the differences among the populations examined in these studies.

Policy analysts may be particularly interested in the role of governments in direct-financing start-ups and expansions of immigrant businesses. Kushnirovich and Heilbrunn (2008) found that having a government loan was very important for the few immigrant firms that had them. They also found that immigrants often had little knowledge of the government financing sources available to them.

3 Data source and sample summary statistics

The data used in this study combine records from the 2011 and 2014 Survey on Financing and Growth of Small and Medium Enterprises. The samples for both surveys were selected from the list of all active enterprises in the Business Register File. Non-employers, enterprises with 500 or more employees, enterprises with less than $30,000 in gross revenue, and industries for which financing was not considered of interest were excluded.[1] Also excluded were enterprises identified as non-profit organizations, joint ventures and government agencies.[2]

The final sampling frame for each survey was stratified according to business size, geographic region and industry type. Survey units were randomly selected within each strata (with a minimum sample size of 10 units in each strata) and strata sample sizes were boosted to account for completion rates (40% in 2011 and 52% in 2014). Partial non-response in returned questionnaires was corrected using "nearest neighbour" donor imputations. Final weights, calculated at the stratum level, were created to account for non-response and added to the survey records. Most questions employed in this study were worded identically in the two surveys. Small differences are noted in the text where they existed.

Over one-fifth (23%) of the firms in the combined data from the 2011 and 2014 surveys had a majority owner or general manager (main decision maker in the firm) who was born outside of Canada (Appendix Table 1). These companies will be referred to as "immigrant-owned firms" hereafter. Most of these immigrant owners had been in Canada for a significant number of years. Earlier research showed that the likelihood of immigrants owning a company increases with years

1. The excluded industries include utilities, finance and insurance, management of companies and enterprises, educational services, public administration, automotive equipment rental and leasing, machinery and equipment rental and leasing, out-patient care centres, medical and diagnostic laboratories, other ambulatory health care services, general medical and surgical hospitals, psychiatric and substance abuse hospitals, specialty (except psychiatric and substance abuse) hospitals, community food and housing, and emergency and other relief services.
2. In the 2011 survey, enterprises with more than $50 million in gross revenue and co-operatives were also excluded.

spent in Canada (Green et al. 2016). In fact, about 50% of all immigrant owners in the sample had been in Canada for 30 or more years, and 7% for less than 10 years. Immigrant owners (including general managers) also tended to have a high level of education. The share of immigrant owners with a university degree was substantially higher than that of the Canadian-born owners: more than 51% of the immigrant owners (and general managers) had a university degree, while this was the case for approximately 33% of Canadian-born owners. Almost 21% of immigrant owners held a master's degree or higher level of education; among Canadian-born owners, this rate was 12%. There was little difference in the overall age distribution between immigrant and Canadian-born owners: almost two-thirds (64%) of all owners were between 45 and 64 years of age.

Not surprisingly, most of the firms in the surveys were quite small. Almost one-fifth of the surveyed firms had only one employee, and over half (53%) had fewer than five (Appendix Table 2). Only about 4% had more than 50 employees. The average firm size was approximately 11 employees. Firms where the majority owner or the general manager (main decision maker) was an immigrant tended to be smaller than firms with a Canadian-born owner, which is consistent with earlier findings (Green et al. 2016). In 2014, the average firm size was 9.9 employees for immigrant-owned firms and 11.8 employees for firms with Canadian-born owners. About one-third of the employees in all firms worked part time, while two-thirds worked full-time.

In almost three-quarters (72%) of cases, the current owners started the firm from scratch. This tendency varied little between firms with immigrant or Canadian-born owners (Appendix Table 2). Not surprisingly, immigrant-owned firms are somewhat younger: 38% were established in the previous 10 years, while 30% of firms with Canadian-born owners were established within the same time. Still, a large share of the sample firms had been in place for many years: 45% of firms with Canadian-born owners and 33% of firms with immigrant owners were established more than 20 years earlier.

4 Applying for financing

In any given year, SMEs may seek additional financing for many reasons, such as the acquisition of land or buildings, vehicles, computer equipment and other types of machinery. They may also seek financing to use as working capital, to invest in research and development (R&D) or to finance expansion to a new market. According to the pecking order theory of finance proposed by Myers and Majluf (1984), business owners choose to use internal or personal funds first, then debt, and finally external equity financing. Because the lenders and investors have less information about the business than the owner, they demand a higher return, which raises the cost of capital for the business owner. External equity is more costly than debt. The return on equity requires a premium relative to the return on debt because debtors have a priority claim to the business's assets in the case of insolvency. With all things considered, a more disadvantageous situation would be if immigrant business owners had a greater dependence on external equity or government-backed loans and a lesser dependence on credit from financial institutions. This part of the study is concerned with two issues related to financing. The first concerns whether immigrant-owned SMEs look to different types of financing than firms with Canadian-born owners, while the second examines whether immigrant SME owners are less likely to make particular types of applications for financing (e.g., applications for debt financing, applications for equity financing) than Canadian-born SME owners.

About 39% of immigrant-owned SMEs in the sample sought additional financing, while 46% of firms with Canadian-born owners did so. Debt financing from a formal institution in the form of a non-residential mortgage, term loan, business line of credit or business credit card was the type of financing most frequently sought by both immigrant and Canadian-born owners. However, the share of immigrant firms applying for any debt financing was lower: 28% of firms with

Canadian-born owners and about 22% of firms with immigrant owners sought such forms of financing (Table 1). This is consistent with the earlier research suggesting that immigrant owners generally turn to formal financial institutions for debt financing less often than Canadian-born owners. Immigrant-owned firms also turned to financing from government lending institutions less often (3%) than firms with Canadian-born owners (5%) (Table 1).[3] Both firms with Canadian-born and immigrant owners tended seek a trade credit[4] in about one-fifth of the cases. Consistent with earlier research, the surveys suggest that equity financing was rarely sought by SMEs with either immigrant or Canadian-born owners (Table 1).

Some of the differences between firms with immigrant owners and firms with Canadian-born owners may relate to differences in size, industry, the age of the firm, and the owners business experience or level of education. A probit model is used to control for differences in these and other variables:

$$\Pr(Y=1 \mid IMM_m, \mathrm{X}, \mathrm{M}, T) = \Phi(\lambda + \sum_{m=1}^{2} \beta_m IMM_m + \gamma_X \mathrm{X} + \gamma_M \mathrm{M} + \gamma_T \cdot T).$$

This equation describes four estimated probit models. In the first model, the dependent variable is “1” if the firm applied for any form of financing and “0” if the firm did not. In the second model, the dependent variable is “1” if the firm applied for a term loan, business line of credit, business credit card or an increase in the credit limit and “0” if the firm did not. A value of “1” is treated as debt financing from a formal financial institution. The same model specifications are used for two other dependent variables: (a) an indicator of whether the firm sought a lease or trade credit and (b) an indicator of whether the firm sought financing from the government or a government lending institution.[5]

The explanatory variables include a set of owner-related variables (X) that potentially affect the tendency of an owner to seek financing, including the owner’s age, years of business experience and level of education. Also included are firm level variables (M) that potentially affect the tendency of owners to seek financing, including firm size, geographic region, industry and the age of the firm.[6] The survey year (2011 or 2014) is also included and acts as a period dummy variable (T). The principal variable of interest is a three-level variable describing immigration status (IMM_m): Canadian-born, immigrant in Canada for under 20 years and immigrant in Canada for 20 years or more. Canadian-born is the reference category, so the regression results indicate to what extent the likelihood of owners seeking additional financing is different between immigrant-owned firms and firms with Canadian-born owners, after adjusting for differences in other explanatory variables. The analysis focuses on the effect of the immigrant variable. The average marginal effects of each variable are provided in Table 2.

After adjusting for owner and firm characteristics, immigrants in Canada for 20 years or more were about 6 percentage points less likely to seek any type of financing than Canadian-born owners; overall, roughly 44% of SMEs applied for additional financing. The difference between

3. Questions about applications for government financing were worded differently in 2014 and 2011. In the 2011 survey, the prompt clarifying the question specifically mentions direct loans and loan guarantees among other types of government financing. The corresponding question in the 2014 survey does not mention these types of government financing.
4. This involves purchasing goods or services from suppliers on account and paying the supplier at a later date.
5. Multinomial logit or probit models cannot be employed because the outcomes are not mutually exclusive.
6. The explanatory variables include owner age as a continuous variable, owner’s level of education (less than high school, high school, some postsecondary education, a bachelor’s degree, and a graduate degree), owner’s years of business experience as a continuous variable, firm size (fewer than 5, 5 to 9, 10 to 14, 15 to 19, 20 to 49, 50 to 99, and 100 to 500 employees), type of industry (primary industries, construction, manufacturing, food and accommodation, professional services, wholesale, retail, transportation, other services, and other industries), age of the firm (0 to 4 years, 5 to 9 years, 10 to 19 years, 20 to 29 years, and 30 years or more), and regional location of the firm.

firms owned by recent immigrants (in Canada for less than 20 years) and firms with Canadian-born owners was less than 3 percentage points and not statistically significant.

The results in Table 2 suggest that the structure of the financing differed by province. Conditional on the observed firm and owner characteristics, firms in Quebec were more likely than firms in Ontario (and most other provinces) to seek debt financing and less likely to use lease or trade credit financing. Firms in Manitoba, Saskatchewan, Alberta and British Columbia were less likely than firms in other provinces to seek government-based financing. However, firms in Manitoba and Saskatchewan were more likely than firms in Ontario and most other provinces to use debt financing.

The larger the firms, the more likely they were to seek all kinds of financing, particularly debt financing. There was also significant variation by industry with respect to financing generally and the type of financing sought. A larger share of firms in the primary sector sought financing in the survey years and applied for nearly all types of financing more often. Those industries faced an expanding economy during the survey periods. Construction, manufacturing and wholesale trade also had higher rates of financing applications than other industries.

The regression results support the earlier observations about the use of various types of financing. Immigrant owners were less likely to seek financing from any source but, for most types of financing, the differences between firms with immigrant and Canadian-born owners were statistically significant only for firms owned by immigrants who had been in Canada for 20 years or more. The only type of financing where the difference between more recent immigrant and Canadian-born owners was also significant was government financing (-0.0155).

5 Approval rates

An important concern often expressed in literature on immigrant entrepreneurship is that immigrant businesses are disadvantaged when it comes to approval of their applications for financing. As mentioned in the introduction, businesses owned by immigrants may experience greater difficulties accessing credit from financial institutions than businesses with Canadian-born owners because of real or perceived issues of creditworthiness, no credit history, language issues, low levels of financial literacy, no personal relationship between the immigrant and the local financial institutions and unwillingness by the banks to use additional resources and time to properly evaluate an immigrant application. This section examines differences in the approval rates between firms with immigrant owners and firms with Canadian-born owners for various types of financing.

Table 3 shows that immigrant-owned firms received a positive response to the application marginally less often than firms with Canadian-born owners. For debt financing applications, the full approved amount was approved for 82% of firms with Canadian-born owners and 77% of firms with immigrant owners. Lease applications were fully approved in 97% of applications by firms with Canadian-born owners and 92% by firms with immigrant owners, while trade credit applications were fully approved for 97% of firms with immigrant owners and 99% of firms with Canadian-born owners. There were very few applications for government financing, and the approval rate displayed a similar pattern: applications were fully approved for 84% of firms with Canadian-born owners and for 77% of firms with immigrant owners.

The differences in approval rates appear to be relatively small and may be related to differences in firm or owner characteristics. A probit model is used to adjust the results for such differences. It is identical to the equation above except that, in this case, the dependent variable is “1” if the debt financing application was fully approved and “0” otherwise. When controls are applied for a large set of observed owner and firm characteristics, the probability of a debt financing application being fully approved was not significantly different for firms owned by recent immigrants (less than

20 years in Canada), immigrants who have been in Canada for 20 years or more, and Canadian-born individuals (Table 4).[7] Roughly the same pattern was seen for lease and trade credit financing applications. The regression results suggest that, conditional on the firm and owner background characteristics, firms owned by more recent immigrants were less likely to have a lease and trade credit (combined) fully approved than firms with Canadian-born owners. Although the difference was relatively small (-0.04), it was statistically significant. For other immigrants, the effect was not statistically significant.

Similarly, the estimated effects of an immigrant owner in the model for government financing were not statistically significant (Table 4). Given the mandate of government agencies such as the Business Development Bank of Canada to offer complementary services to those available at other financial institutions, particularly filling the gaps in the lending market, differences between immigrants and non-immigrants would not have been expected here. Hence, the only statistically significant, albeit small, difference was observed for lease and trade credit applications. But even for this type of financing, which accounts for only a small share of all applications for financing, the approval rate for immigrant owners was over 90%.

Although the results above suggest that financing applications made by immigrant-owned firms are almost as likely to be fully approved as applications made by firms with Canadian-born owners, the full picture of these results may be incomplete. One possible concern is that the above analysis may be affected by an issue with selection. For instance, firms with poor performance may be wary of the banks and turn to other financing sources first. If immigrant-owned firms generally perform less well than firms with Canadian-born owners, immigrant owners may turn to formal financial institutions for financing less often. However, the survey data on average yearly growth of sales and total revenues in the previous three years suggest that firms with immigrant and Canadian-born owners exhibit very few differences in performance: 13% of firms with Canadian-born owners and 16% of firms with immigrant owners reported a negative average yearly growth; 20% of firms with Canadian-born owners and 21% of firms with immigrant owners reported no growth; 47% of firms with Canadian-born owners and 46% of firms with immigrant owners reported 1% to 10% growth; 11% of firms with Canadian-born owners and 9% of firms with immigrant owners reported 11% to 20% growth; and 9% of firms with Canadian-born owners and 8% of firms with immigrant owners reported annual growth exceeding 20%. Hence, the financial performance of a firm does not appear to be the main explanation for the difference between immigrant owners and Canadian-born owners seeking additional financing.

Finally, the analysis suggests that firms with Canadian-born owners tend to obtain slightly larger amounts of financing than immigrant-owned firms, likely because they are larger in size, on average (Table 3). For example, the average amount of debt financing received was $174,700 for immigrant-owned firms and $182,500 for firms with Canadian-born owners. The same pattern existed for lease financing ($79,900 for immigrant-owned firms and $86,700 for firms with Canadian-born owners), trade credit financing ($87,900 for immigrant-owned firms and $93,200 for firms with Canadian-born owners), and equity financing ($399,400 for immigrant-owned firms and $444,100 for firms with Canadian-born owners). The larger amount of equity financing sought by Canadian-born owners suggests that it was the larger firms that were seeking such financing. The one exception was government financing. Although immigrant-owned firms were less likely than firms with Canadian-born owners to seek government financing, the amount they received when they sought government financing was more than double the amount received by other firms: $162,700 for immigrant-owned firms and $80,500 for firms with Canadian-born owners.

7. The overall average approval rate for debt financing for SMEs is about 80%.

6 Is access to financial capital more restricted among immigrant-owned companies in Canada?

Although the results in Section 5 indicate that immigrant and Canadian-born owners had similarly high shares of their applications for financing fully approved, it is still possible that immigrant owners face more restricted access to financial capital than Canadian-born owners with similar characteristics. For instance, immigrant owners may be more reluctant than their Canadian-born counterparts to apply for financing if they believe that they have lower chances of obtaining financing. Those who do apply may be particularly well-qualified or even better qualified than similar Canadian-born owners. As a result, the overall access to financial capital is lower for the immigrant-owned firms even though the approval rates are similar because a smaller share of these firms apply. The study seeks additional insight into this issue by considering two relevant survey questions.

The 2011 survey (Statistics Canada n.d.*a*, Question C.4) asked business owners why the potential credit provider turned down their applications. The major difference between firms with immigrant and Canadian-born owners was in the share of rejections justified as "Insufficient collateral" and "Project was considered too risky." According to the responses from business owners, these reasons were given more often to applications from immigrant-owned firms: 43% of applications from immigrant-owned firms and 24% of applications from firms with Canadian-born owners were denied for "Insufficient collateral"; and 39% of applications from immigrant-owned firms and 28% of applications from firms with Canadian-born owners were deemed "too risky." Along with "Insufficient sales or cash flow," these were the primary reasons given for turning down an application. Somewhat surprisingly, a "Poor or lack of credit experience or history" was invoked less often with respect to immigrant owners (17%) than Canadian-born owners (22%).

Perhaps the most useful evidence related to the issue comes from the responses to the question, "Which of the following are obstacles to the growth of your business?" (Statistics Canada n.d.*b*, question I3). Nine possible obstacles were listed in the 2014 survey, and seven were listed in the 2011 survey (Statistics Canada, n.d.*a*, questions H.4 and H.5). The seven obstacles common to both surveys were presented identically (Table 5). In both surveys, the owner could mark all that applied. The responses to the two surveys were made as comparable as possible.[8]

In both surveys, the most commonly listed obstacles were "Rising cost of inputs," "Increasing competition," and fluctuations in demand for the product. This was true for firms with either immigrant or Canadian-born owners. Between one- and two-thirds of all firms listed these factors as obstacles. In both surveys, the least important obstacle was "Obtaining financing." This was true for both firms with Canadian-born owners and firms with immigrant owners, although the percentage of firms concerned with financing as an obstacle to growth was slightly higher among immigrant-owned firms. Slightly less than 17% of Canadian-born owners listed this factor as an obstacle in the 2011 and 2014 surveys, whereas 18% of immigrant owners listed it as a factor in the 2011 survey and 20% did so in the 2014 survey.

Two probit models with differently defined dependent variables were estimated to examine the possibility that some of the differences in "obtaining financing" between immigrant and Canadian-born owners may be amplified by differences in owner and firm characteristics. In the first model, the dependent variable was equal to "1" if owners indicated that "obtaining financing" was a serious problem for the growth of the company in the 2011 survey, or was a minor, moderate or

8. In the 2011 survey (Statistics Canada, n.d.*a*, questions H.4 and H.5), the respondent simply indicated whether the factor was an obstacle or not ("yes" or "no"). However, in the 2014 survey (Statistics Canada, n.d.*b*, question I3), respondents were asked whether it was a minor, moderate or major obstacle, or no obstacle at all. To make the surveys more comparable, "moderate or major obstacles" in the 2014 survey were considered "obstacles" in the 2011 survey. If the response was "not an obstacle" or a "minor obstacle," the response was considered "not an obstacle."

major obstacle to growth in the 2014 survey. In the second model, the definition was somewhat more stringent for 2014. The dependent variable was equal to “1” only if the owners indicated that obtaining financing was a moderate or major obstacle. The results from both models show little difference in the way immigrant and Canadian-born owners view obtaining financing as an obstacle to the growth of their firms (Table 6). Only the difference between immigrants in Canada for 20 or more years and Canadian-born owners in the first model is statistically significant: immigrant entrepreneurs were 4 percentage points more likely than Canadian-born owners to indicate “obtaining financing” as an issue. In the second model, neither immigrants in Canada for 20 or more years or more recent immigrants appeared to view access to financing as a greater obstacle to the growth of their companies than did Canadian-born owners.

Overall, these results indicate that access to financing does not appear to be a significant obstacle to the growth of immigrant-owned firms in Canada. Not only is “obtaining financing” the least frequently chosen response to the seven possible growth obstacles, but there is also little difference between immigrant and Canadian-born owners in the probability of identifying access to financing as an obstacle. Many other obstacles to firm growth seem to be considered more important by SME owners, both immigrant and Canadian-born.

7 Financing start-ups

All economies try to promote new business start-ups, and financing start-up companies is believed to be one of the many hurdles that entrepreneurs face. Immigrants, particularly recent immigrants, may face additional obstacles to receiving financing from formal financial institutions (credit history, no relationship with the banks, perceived risk of failure, language, or personal preference on the part of the immigrant for other forms of start-up financing). For these reasons, the pattern of financing start-ups may differ between immigrant—particularly recent immigrant—and Canadian-born entrepreneurs.

The findings reported in this section come with an important caveat: Given the retrospective nature of the data, information on start-up financing is available only for businesses that had survived up to the survey year. To the extent that the type of financing used has an effect on firm survival, this may introduce bias in the estimated shares of businesses using each type of financing at start-up.[9] Given the cross-sectional nature of the data, this issue is difficult to address. The results in Table 7 should therefore be interpreted as describing “successful” start-ups or start-ups that survived up to the survey year. The analysis focuses on the start-up financing of SMEs that existed in 2011 or 2014 and that were started by the current owner.[10] Roughly three-quarters of the firms in the two surveys were started by the present owners. Start-ups that failed prior to the survey date (2011 or 2014) are not included in the sample.

Including personal loans, lines of credit and personal savings, the most commonly used source of financing for small business start-ups in the sample is personal financing, whether the entrepreneur is an immigrant or Canadian-born. This is consistent with earlier research for the

9. Studies have shown that having a bank loan or some type of business credit at start-up is positively correlated with survival (for example, see Astebro and Bernhardt 2003; Crepon and Duguet 2003; Gai and Minniti 2010; and Cole and Sokolyk 2018). Gai and Minniti (2010) also examined whether the impact of using commercial financing differs according to the race of the business owner. They found that commercial financing had a smaller impact on firm survival for businesses with white owners than for businesses with black owners and owners of other races. Evidence comparing immigrants and non-immigrants in this regard cannot be found.
10. Some of the companies were started more than 20 years before the survey date. Start-ups that occurred three or more decades ago may have sought financing in an environment that was very different from that of today, and there may be recall problems when responding to the surveys. To test whether such issues might affect the results, all results—both tabular results and the regressions—were produced first for all start-ups in the sample, then by restricting the sample to start-ups that occurred within 20 years of the survey date, that is, start-ups initiated since the 1991-to-1994 period (depending on the survey date). This restriction reduced the sample of start-ups from around 13,350 firms to roughly 8,600 firms. The results that follow were very similar for the two samples.

United States (Fairlie 2012). Over four-fifths of entrepreneurs in the sample turned to this source of start-up financing (Table 7). The other major financing source was credit from financial institutions. Canadian-born entrepreneurs turned to this source more often (45%) than immigrant entrepreneurs (37%). This, too, is consistent with earlier U.S. research (Fairlie 2012).[11]

Other sources of start-up financial capital were used less frequently, and usage rates vary little between immigrant and Canadian-born entrepreneurs. In order of frequency of use, these other sources are trade credit from suppliers (e.g., paying the supplier for goods at later date), loans or equity from friends or relatives (used slightly more often by immigrants), retained earnings from previous businesses and leasing (Table 7). Both immigrant and Canadian-born entrepreneurs use loans and equity from “angel investors”[12] or venture capital sources infrequently (3%). Similarly, immigrant (4%) and Canadian-born (6%) entrepreneurs infrequently use government sources of funding to finance start-ups.

Most Western countries promote business start-ups in industries related to science and technology,[13] and Canada is no exception. Gaining more science and technology start-ups requires better understanding of the challenges faced by entrepreneurs in the industry, as well as challenges faced specifically by immigrant entrepreneurs. To explore the role of these firms in the Canadian economy, Industry, Science and Economic Development Canada (ISED) developed a definition of the knowledge-based industries (KBIs). The KBI sector consists of a narrow band of very detailed science- and technology-related industries. To determine whether an industry is knowledge-based, Lee and Has (1996) used the industry R&D activity and the education level of the workforce.[14] Their list was later updated by ISED to include engineering- and science-based manufacturers, telecommunications, data processing, computer systems design and consulting services (Appendix Table 3).

In 2010, immigrants in Canada were about 1.2 times more likely to own a private incorporated business in the KBI than Canadian-born individuals. In particular, immigrants are over-represented in computer systems design and related services (Picot and Ostrovsky 2017). The advantage that immigrants hold over Canadian-born individuals is concentrated among economic-class immigrants, who were 1.8 times more likely to own a firm in the KBI than Canadian-born individuals in 2010. This advantage may be related to a higher level of education among economic-class immigrants than Canadian-born individuals and to a greater tendency by the former to have studied engineering and computer science (Picot and Hou 2008). Family-class immigrants and refugees are less likely than Canadian-born individuals to own a small firm in the KBI (Picot and Ostrovsky 2017).

In comparison to businesses in non-KBI sectors, businesses in the KBI sector are almost by definition more reliant on intangible capital—not only R&D, but also the use of intellectual property, the development of competencies in technology and production processes and the marketing of new products (see Baldwin and Gellatly 2003, 2006). The lack of information that causes entrepreneurs to use personal sources before debt and outside equity are compounded for firms in the KBI sector (see Section 4). The OECD (2015) notes that a large portion of R&D expenditures go to salaries and the buildup of knowledge capital in individuals, capital that cannot be collateralized and appropriated in case of failure, and that the investment in innovation is inherently risky and returns are difficult to predict. Baldwin and Gellatly (2003) find that even KBI firms are more likely than non-KBI firms to indicate that consumer demand is more difficult to predict. It is therefore expected that KBI firms will be less likely to use debt financing but more likely to depend on personal sources and investors with more risk tolerance. To the extent that

11. While the frequency of use is known, which of these sources provide the larger start-up investment amount is not.
12. “Angel investors” are individuals unrelated to the entrepreneurs and the company.
13. Recent literature documents the significant role of immigrants in Silicon Valley start-ups (Saxenian 2002).
14. The original classification of the KBI sector was presented in Lee and Has (1996). The approach is described in various knowledge-based sector reports published on the Industry Canada website; e.g., Gera and Masse 1996. The KBI classification was previously used in Morissette, Ostrovsky and Picot (2004).

immigrants face additional hurdles to acquiring start-up financing, these differences may be more pronounced in the KBI sector.

Both immigrant and Canadian-born entrepreneurs used personal financing as the most common source of start-up financing for both KBI and non-KBI firms. About 82% of all start-ups in the sample used personal financing (Table 8). However, 88% of Canadian-born entrepreneurs used personal financing to start a KBI business, whereas 81% used this type of financing to start a non-KBI business. Among immigrant entrepreneurs, the pattern was reversed: 78% used personal financing to start a KBI business, but a higher share (84%) used personal financing to start a non-KBI business. This does not necessarily suggest that immigrants turned to informal sources of financing to start a KBI business less frequently than did their Canadian-born counterparts: only 11% of Canadian-born entrepreneurs used friends and relatives as a financing source to start a KBI business, whereas 16% of immigrant entrepreneurs did so. Whatever small differences may exist between immigrant and Canadian-born entrepreneurs, the vast majority of entrepreneurs turned to informal financing to start businesses in the KBI sector.

Table 8 also shows that KBI start-ups, particularly immigrant start-ups, are much less likely than start-ups from other industries to use debt financing from formal financial institutions. The surveys recorded that 44% of start-ups in non-KBI industries, and only 19% of KBI start-ups that survived to 2011 or 2014, turned to debt financing from a financial institution. Only 12% of immigrant-owned KBI start-ups turned to debt financing from a formal financial institution. Trade credit financing was used much less often by KBI start-ups (6% of the time) than by non-KBI firms (19% of the time), and immigrant KBI start-ups tended to use this source very infrequently (3% of the time) while Canadian-born KBI start-ups employed this source 7% of the time. KBI start-ups turned to government financial sources nearly as often as non-KBI start-ups (5% of immigrant-owned firms and 6% of firms with Canadian-born owners). The only sources that were used more often by KBI firms than by non-KBI firms were angel or venture capital sources. In this regard, 6% of KBI start-ups and 3% of non-KBI start-ups turned to angel investors or venture capital financing (about the same rate for both start-ups with immigrant owners and start-ups with Canadian-born owners).

Finally, the study finds that financing for KBI start-ups was much more concentrated on a particular source than financing for non-KBI start-ups: 62% of KBI start-ups and 39% of non-KBI start-ups used only one financing source. This was also the case for 64% of immigrant KBI start-ups.

8 Conclusion

This study examines several related aspects of access to financial capital among immigrant-owned firms in Canada. First, it explores whether or not immigrant business owners and Canadian-born business owners use different sources of financing. It then considers differences in approval rates and assesses whether immigrant business owners have more limited access to financial capital than Canadian-born business owners. Finally, the study examines financial sources used for start-up financing for firms established by immigrant and Canadian-born entrepreneurs.

Immigrants, particularly those who have been in Canada for 20 years or more, were less likely to apply for financing than Canadian-born owners. When they did seek financing, they were less likely to turn to formal financial institutions. They were also less likely to turn to other formal sources, such as lease or trade credit financing and government-based financing. However, when immigrants applied for financing, their applications were generally fully approved as often as applications for financing made by Canadian-born owners.

Although immigrant and Canadian-born owners had similarly high shares of their applications being fully approved, it is still possible that immigrant owners face more restricted access to financial capital than Canadian-born owners with similar characteristics. Responses to a question on obstacles to growth provide further insights into the issue of access to financial capital. Of seven possible responses, access to financing was reported as the least important by owners of small and medium-sized enterprises (SMEs), both immigrant and Canadian-born. A regression analysis produced only weak evidence of access to financing being a greater obstacle to growth for immigrant than for Canadian-born owners.

Taken together, these results suggest that immigrants and Canadian-born entrepreneurs finance their businesses quite similarly on an on-going basis. The observed differences are usually marginal. The one possible exception is the tendency of immigrant businesses to turn to debt financing (such as term loans or business credit cards) from formal financial institutions less often than Canadian-born owners. Overall, there is only weak evidence to suggest that access to financing may be marginally more of an issue for immigrant SME owners than for Canadian-born SME owners.

The analysis of new-firm financing is constrained by the retrospective nature of the data, which limits the sample to firms that existed in the survey year. With respect to start-ups that survived to 2011 or 2014, the main finding is that all entrepreneurs relied first and foremost on personal financing (or financing from friends and relatives) to start their businesses. In addition, immigrant entrepreneurs were less likely to turn to formal financial institutions to finance a start-up than Canadian-born entrepreneurs.

9 Tables

Table 1
Percentage of small and medium-sized enterprises requesting additional financing from various sources, 2011 and 2014

	Owned by				
	Immigrants				
Type of request	Less than 20 years in Canada	20 years or more in Canada	All immigrants	Canadian-born	Total
	percent				
Non-residential mortgage	3.0	3.9	3.6	4.5	4.3
Term loan	4.7	5.3	5.1	8.8	8.0
Business line of credit	13.2	9.6	10.5	14.8	13.8
Business credit card	12.1	8.4	9.3	11.2	10.8
Any debt financing	25.8	20.6	22.0	28.3	26.9
Lease	8.0	4.9	5.8	7.9	7.4
Trade credit	18.8	18.6	18.7	19.5	19.3
Equity	2.5	1.5	1.8	1.5	1.6
Government financing	2.6	2.7	2.7	4.5	4.1

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 2
Estimated probability of small and medium-sized enterprises requesting various types of growth financing (probit model)

	Any financing		Financial institution		Lease or trade credit		Government financing	
	marginal effect	standard error	marginal effect	standard error	marginal effect	standard error	marginal effect	standard error
Immigrant for less than 20 years	-0.0261	0.0259	-0.0244	0.0203	-0.0063	0.0214	-0.0155 *	0.0068
Immigrant for 20 years or more	-0.0557 **	0.0172	-0.0348 *	0.0159	-0.0387 **	0.0133	-0.0162 **	0.0052
Owner's age	-0.0047 **	0.0007	-0.0043 **	0.0007	-0.0026 **	0.0006	-0.0006 *	0.0002
Owner's education level (omitted: less than high school)								
High school	-0.0204	0.0184	-0.0335	0.0176	-0.0075	0.0150	0.0023	0.0066
Some postsecondary	0.0027	0.0191	-0.0118	0.0173	0.0077	0.0151	0.0087	0.0070
Bachelor's degree	-0.0237	0.0203	-0.0350	0.0179	-0.0046	0.0169	0.0163 *	0.0075
Graduate degree	-0.0555 *	0.0235	-0.0450 *	0.0225	-0.0199	0.0202	0.0037	0.0082
Years of owner's business experience	0.0008	0.0007	-0.0003	0.0006	0.0015 *	0.0006	0.0001	0.0002
Geographic region (omitted: Ontario)								
Atlantic	-0.0504 *	0.0209	-0.0228	0.0150	-0.0650 **	0.0157	0.0126	0.0082
Quebec	-0.0696 **	0.0163	0.0438 **	0.0120	-0.1781 **	0.0107	0.0108	0.0062
Manitoba and Saskatchewan	0.0407	0.0215	0.0520 **	0.0197	0.0190	0.0185	-0.0243 **	0.0055
Alberta	-0.0290	0.0184	0.0020	0.0122	-0.0316	0.0173	-0.0246 **	0.0057
British Columbia	-0.0592 **	0.0172	-0.0131	0.0129	-0.0578 **	0.0143	-0.0268 **	0.0051
Territories	0.1226	0.0645	0.0252	0.0934	0.0168	0.0565	0.1505 *	0.0690
Firm size (omitted: fewer than five employees)								
5 to 9	0.1255 **	0.0128	0.0917 **	0.0111	0.0799 **	0.0111	0.0247 **	0.0060
10 to 14	0.1641 **	0.0186	0.1337 **	0.0161	0.0960 **	0.0167	0.0241 **	0.0070
15 to 19	0.2254 **	0.0260	0.1617 **	0.0273	0.1268 **	0.0186	0.0378 **	0.0112
20 to 49	0.2480 **	0.0164	0.1888 **	0.0152	0.1613 **	0.0156	0.0449 **	0.0067
50 to 99	0.2568 **	0.0288	0.1975 **	0.0254	0.1703 **	0.0253	0.0693 **	0.0122
100 to 500	0.3039 **	0.0259	0.2618 **	0.0244	0.2039 **	0.0230	0.0715 **	0.0128
Industry (omitted: food and accommodation)								
Construction	0.1685 **	0.0285	0.0824 **	0.0201	0.1624 **	0.0188	0.0040	0.0071
Manufacturing	0.1591 **	0.0297	0.0745 **	0.0208	0.1422 **	0.0205	0.0539 **	0.0098
Other industries	0.0302	0.0264	-0.0001	0.0200	0.0430 *	0.0182	0.0115	0.0076
Other sevices	0.1016 **	0.0275	0.0265	0.0214	0.1064 **	0.0195	0.0173	0.0103
Primary	0.2492 **	0.0335	0.2178 **	0.0282	0.0883 **	0.0243	0.1139 **	0.0145
Professional services	0.0411	0.0319	0.0272	0.0214	0.0321	0.0219	0.0262 *	0.0105
Retail trade	0.0879 **	0.0265	0.0175	0.0197	0.1102 **	0.0181	-0.0042	0.0068
Transportation	0.1337 **	0.0282	0.1037 **	0.0213	0.1074 **	0.0216	-0.0021	0.0085
Wholesale trade	0.1623 **	0.0274	0.0785 **	0.0214	0.1577 **	0.0178	0.0075	0.0078
Firm age (omitted: less than 5 years)								
5 to 9	-0.0463 **	0.0179	-0.0324	0.0172	-0.0133	0.0158	-0.0170 *	0.0076
10 to 19	-0.0372 *	0.0171	-0.0416 **	0.0159	0.0040	0.0140	-0.0114	0.0074
20 to 29	-0.0961 **	0.0196	-0.0792 **	0.0172	-0.0323 *	0.0152	-0.0225 **	0.0073
30 or more	-0.0529 **	0.0191	-0.0606 **	0.0174	-0.0102	0.0154	-0.0097	0.0083
Survey year (omitted: 2011)								
2014	0.1446 **	0.0117	0.0203 *	0.0086	0.1967 **	0.0090	0.0058	0.0039

* significantly different from reference category ($p < 0.05$)

** significantly different from reference category ($p < 0.01$)

Note: The numbers of observations are as follows: 19,378 for "Any financing"; 19,376 for "Financial institution," "Lease or trade credit" and "Government financing."

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 3
Average value of application for financing and percent of applications fully approved (approval rate)

Type of application	Immigrant owner		Canadian-born owner	
	Average value	Authorization rate	Average value	Authorization rate
	thousands of dollars	percent	thousands of dollars	percent
Debt financing	174.7	76.9	182.5	81.7
Lease financing	79.9	91.7	86.7	96.6
Trade credit	87.9	97.2	93.2	98.6
Equity financing[1]	399.4	79.0	444.1	65.6
Government financing	162.7	76.5	80.5	84.2

1. Only 1.8% of firms with immigrant owners and 1.6% of firms with Canadian-born owners applied for equity financing. Therefore, the sample size is very small, and the data are less statistically reliable than for other types of financing.

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 4
Estimated probability of applications for financing being fully approved (probit model), average marginal effects

	Debt financing		Lease or trade credit		Government financing	
	marginal effect	standard error	marginal effect	standard error	marginal effect	standard error
Immigrant for less than 20 years	-0.0416	0.0347	-0.0403 *	0.0183	0.0380	0.0531
Immigrant for 20 years or more	-0.0259	0.0291	-0.0145	0.0133	-0.0793	0.0686
Owner's age	0.0005	0.0010	0.0010	0.0005	-0.0016	0.0018
Owner's education level (omitted: less than high school)						
High school	0.0113	0.0276	0.0030	0.0093	0.0202	0.0743
Some postsecondary	-0.0019	0.0280	0.0018	0.0108	0.0448	0.0741
Bachelor's degree	0.0137	0.0297	-0.0118	0.0119	-0.0110	0.0809
Graduate degree	0.0168	0.0365	-0.0057	0.0137	0.0465	0.0864
Years of owner's business experience	0.0013	0.0010	-0.0004	0.0005	0.0011	0.0018
Geographic region (omitted: Ontario)						
Atlantic	0.0041	0.0428	-0.0032	0.0098	0.0267	0.0445
Quebec	0.0520 **	0.0195	-0.0356 **	0.0127	0.0313	0.0376
Manitoba and Saskatchewan	0.1167 **	0.0226	0.0148 *	0.0060	-0.0477	0.0637
Alberta	0.0549 *	0.0253	0.0100	0.0068	0.0342	0.0536
British Columbia	0.0228	0.0252	-0.0116	0.0094	0.0014	0.0634
Territories	-0.0317	0.1201	…	…	…	…
Firm size (omitted: fewer than five employees)						
5 to 9	-0.0106	0.0213	-0.0041	0.0085	-0.0633	0.0474
10 to 14	0.0227	0.0269	0.0166 *	0.0076	0.0296	0.0466
15 to 19	0.0457	0.0356	0.0055	0.0129	0.0871	0.0480
20 to 49	0.0422	0.0247	0.0075	0.0080	-0.0634	0.0491
50 to 99	0.0882 **	0.0242	0.0114	0.0096	0.0350	0.0489
100 to 500	0.1421 **	0.0196	0.0212 **	0.0062	-0.0300	0.0606
Industry (omitted: food and accommodation)						
Construction	0.0774 *	0.0344	0.0030	0.0137	-0.0735	0.0874
Manufacturing	0.0786 *	0.0368	-0.0002	0.0152	-0.0616	0.0755
Other industries	0.0591	0.0400	0.0165	0.0129	0.0279	0.0777
Other sevices	0.0509	0.0377	-0.0006	0.0175	-0.0663	0.1100
Primary	0.1263 **	0.0395	0.0145	0.0141	-0.0157	0.0753
Professional services	0.0544	0.0445	0.0219	0.0126	-0.0565	0.0819
Retail trade	0.0464	0.0392	0.0258 *	0.0122	-0.0130	0.0789
Transportation	0.0885 *	0.0360	-0.0167	0.0169	-0.0126	0.1021
Wholesale trade	0.1029 **	0.0371	-0.0084	0.0201	-0.2252 *	0.0880
Firm age (omitted: less than 5 years)						
5 to 9	0.0335	0.0282	0.0117	0.0106	0.1248 *	0.0612
10 to 19	0.0798 **	0.0250	0.0203	0.0120	0.1336 *	0.0574
20 to 29	0.1070 **	0.0275	0.0247 *	0.0124	0.1380 *	0.0626
30 or more	0.0908 **	0.0300	0.0220	0.0121	0.1235 *	0.0600
Survey year (omitted: 2011)						
2014	-0.0576 **	0.0157	0.0123	0.0073	-0.0328	0.0301

… not applicable

* significantly different from reference category ($p < 0.05$)

** significantly different from reference category ($p < 0.01$)

Note: The numbers of observations are as follows: 6,238 for "Debt financing"; 5,387 for "Lease or trade credit"; and 1,202 for "Government financing."

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 5
Percentage of small and medium-sized enterprises indicating that obstacles are a serious problem for growth

	2011 survey[1]			2014 survey[2]		
Obstacle	Immigrant owner	Canadian-born owner	Total	Immigrant owner	Canadian-born owner	Total
	percent					
Shortage of labour	31.7	33.4	33.1	28.6	27.1	27.4
Recruiting and retaining skilled employees	38.1	39.2	39.0	34.5	34.7	34.6
Fluctuations in consumer demand	55.3	51.3	52.2	40.8	41.3	41.2
Obtaining financing	18.2	16.4	16.8	20.2	16.8	17.6
Government regulations	29.6	34.5	33.5	26.4	28.9	28.3
Rising costs of input	65.4	62.6	63.2	42.4	40.3	40.8
Increasing competition	52.6	46.6	47.9	50.7	40.8	43.1

1. Question H.4 in the 2011 survey was: "Which of the following obstacles external to your business are serious problems for the growth of your company? (Mark all that apply.)"

2. Question I3 in the 2014 survey was: "Which of the following are obstacles to the growth of your business? (Mark all that apply. For each item, Not an obstacle=1, A minor obstacle=2, A moderate obstacle=3, A major obstacle=4)".

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 6
Estimated probability that obtaining financing is an obstacle to growth (probit model), average marginal effects

	Financial obstacles (Model 1)[1]		Financial obstacles (Model 2)[2]	
	marginal effect	standard error	marginal effect	standard error
Immigrant for less than 20 years	0.0296	0.0192	0.0238	0.0175
Immigrant for 20 years or more	0.0391 *	0.0171	0.0229	0.0151
Owner's age	-0.0040 **	0.0007	-0.0025 **	0.0006
Owner's education level (omitted: less than high school)				
High school	-0.0221	0.0182	-0.0232	0.0162
Some postsecondary	-0.0009	0.0178	-0.0138	0.0155
Bachelor's degree	-0.0226	0.0191	-0.0225	0.0166
Graduate degree	-0.0626 **	0.0225	-0.0463 *	0.0205
Years of owner's business experience	-0.0011	0.0006	-0.0012 *	0.0006
Geographic region (omitted: Ontario)				
Atlantic	-0.0137	0.0233	-0.0062	0.0220
Quebec	0.0297 *	0.0130	0.0145	0.0125
Manitoba and Saskatchewan	-0.0495 **	0.0186	-0.0721 **	0.0136
Alberta	-0.0269	0.0166	-0.0342 *	0.0151
British Columbia	-0.0286 *	0.0141	-0.0300 *	0.0126
Territories	-0.0554	0.0779	-0.0285	0.0830
Firm size (omitted: fewer than five employees)				
5 to 9	0.0408 **	0.0121	0.0338 **	0.0118
10 to 14	0.0823 **	0.0202	0.0599 **	0.0193
15 to 19	0.0531 *	0.0224	0.0220	0.0204
20 to 49	0.0523 **	0.0144	0.0282 *	0.0140
50 to 99	0.0242	0.0207	-0.0114	0.0197
100 to 500	0.0281	0.0211	-0.0262	0.0179
Industry (omitted: food and accommodation)				
Construction	-0.0342	0.0188	-0.0468 *	0.0186
Manufacturing	0.0453 *	0.0217	0.0232	0.0216
Other industries	-0.0576 **	0.0223	-0.0526 *	0.0219
Other sevices	-0.0277	0.0215	-0.0218	0.0211
Primary	0.0102	0.0232	-0.0108	0.0211
Professional services	-0.0696 **	0.0229	-0.0740 **	0.0212
Retail trade	-0.0417 *	0.0199	-0.0465 *	0.0199
Transportation	-0.0175	0.0209	-0.0411 *	0.0202
Wholesale trade	-0.0350	0.0200	-0.0345	0.0202
Firm age (omitted: less than five years)				
5 to 9	-0.0288	0.0155	-0.0276 *	0.0140
10 to 19	-0.0422 *	0.0168	-0.0427 **	0.0144
20 to 29	-0.0948 **	0.0167	-0.0941 **	0.0144
30 or more	-0.0803 **	0.0167	-0.0845 **	0.0150
Survey year (omitted: 2011)				
2014	0.1478 **	0.0099	0.0033	0.0093

* significantly different from reference category ($p < 0.05$)

** significantly different from reference category ($p < 0.01$)

1. Obtaining financing was a serious problem for the growth of the company in the 2011 survey, or was a minor, moderate or major obstacle to growth in the 2014 survey.

2. Obtaining financing was a serious problem for the growth of the company in the 2011 survey, or was a moderate to major obstacle to growth in the 2014 survey.

Note: The number of observations is 19,376 for each model.

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 7
Percentage of small and medium-sized enterprises using various sources of financing at start-up

	Owned by					
	Immigrants					
	Less than 10 years in Canada	10 to 19 years in Canada	20 years or more in Canada	Total	Canadian-born	Total
	percent					
Credit from financial institution	20.1	36.1	38.1	36.5	45.0	43.0
Personal financing	84.8	84.4	82.8	83.2	81.7	82.0
Retained earnings[1]	17.2	13.5	15.8	15.5	12.5	13.2
Trade credit from suppliers[2]	11.4	14.2	17.8	16.7	19.5	18.8
Leasing	7.6	13.0	13.5	13.0	12.5	12.6
Government grants or lending	3.6	2.9	4.5	4.1	6.0	5.6
Friends or relatives	20.0	18.0	17.4	17.7	15.5	16.0
Angel investors or venture capital providers[3]	7.4	2.1	2.8	3.0	2.8	2.9

1. From a previous business.

2. Buying from suppliers on credit from suppliers and paying later.

3. A person unrelated to the firm or its owner.

Note: Includes start-ups that survived to 2011 or 2014 and were started by the current owner.

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Table 8
Percentage of small and medium-sized enterprises using various sources of financing at start-up, firms in the knowledge-based industry (KBI) and other firms

	Immigrant owner		Canadian-born owner		Total	
	KBI firms	Other firms	KBI firms	Other firms	KBI firms	Other firms
	percent					
Credit from financial institution	12.3	37.7	22.0	45.9	19.3	44.0
Personal financing	77.6	83.5	88.4	81.4	85.4	81.9
Retained earnings[1]	11.3	15.7	9.3	12.6	9.8	13.3
Trade credit from suppliers[2]	3.1	17.3	6.8	20.0	5.8	19.3
Leasing	4.3	13.4	7.9	12.7	6.9	12.9
Government grant or lending	4.5	4.1	5.9	6.0	5.6	5.6
Friends or relatives	16.1	17.7	10.7	15.6	12.2	16.1
Angel investors or venture capital providers[3]	6.6	2.8	5.8	2.7	6.1	2.7

1. From a previous business.

2. Buying from suppliers on credit and paying later.

3. A person unrelated to the firm or its owner.

Note: Includes start-ups that survived to 2011 or 2014 and were started by the current owner.

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

10 Appendix tables

Appendix Table 1
Owner characteristics of small and medium-sized enterprises, pooled surveys, 2011 and 2014

	Immigrant owner	Canadian-born owner	Total
	percent distribution		
Enterprise owner			
Born in Canada	…	…	77.3
Born outside of Canada	…	…	22.7
Number of years in Canada (immigrants)			
Less than 5	2.9	…	…
5 to 9	4.2	…	…
10 to 19	19.6	…	…
20 to 29	23.3	…	…
30 to 39	20.7	…	…
40 to 49	17.4	…	…
50 or more	11.8	…	…
Level of education			
Less than a high school diploma	6.6	9.4	8.7
High school diploma	16.6	25.2	21.3
College, CEGEP, trades certificate	25.7	33.0	31.3
Bachelor's degree	30.2	21.0	23.1
Master's degree or doctorate	20.9	11.5	13.6
Age distribution (years)			
24 and younger	…	…	…
25 to 34	4.8	6.1	5.8
35 to 44	19.0	18.9	18.9
45 to 54	34.0	34.4	34.3
55 to 64	27.2	29.8	29.2
65 and older	14.9	10.5	11.5

… not applicable

Note: Percentages may not add up to 100.0% because of rounding.

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Appendix Table 2
Enterprise characteristics of small and medium-sized enterprises, pooled surveys, 2011 and 2014

	Immigrant owner	Canadian-born owner	Total
	percent distribution		
Number of employees			
1 to 4	56.3	52.3	53.2
5 to 9	21.8	21.4	21.5
10 to 19	7.9	9.2	8.9
20 to 49	7.3	8.1	7.9
50 or more	3.1	4.6	4.2
Industrial distribution			
Primary and construction	8.6	17.8	15.7
Manufacturing	7.5	6.3	6.6
Retail trade	13.7	13.2	13.3
Wholesale trade	6.2	5.9	6.0
Transportation	4.9	5.2	5.2
Professional services	12.8	11.0	11.4
Other services	6.5	7.7	7.4
Other industries	22.7	17.8	18.9
Current owners who started the business	74.0	71.4	72.0
Years since businesses established			
Less than 5	18.2	12.7	13.9
5 to 10	19.9	17.3	17.9
10 to 20	29.1	25.6	26.4
20 to 30	17.3	20.0	19.4
30 or more	15.4	24.5	22.5

Note: Percentages may not add up to 100.0% because of rounding.

Source: Statistics Canada, 2011 and 2014 Survey of Financing and Growth of Small and Medium Enterprises, pooled data.

Appendix Table 3
Knowledge-based industries, as defined by Industry Canada

NAICS code	Industry
325410	Pharmaceutical and medicine manufacturing
333310	Commercial and service industry machinery manufacturing
334110	Computer and peripheral equipment manufacturing
334210	Telephone apparatus manufacturing
334220	Radio and television broadcasting and wireless communications equipment manufacturing
334290	Other communications equipment manufacturing
334310	Audio and video equipment manufacturing
334410	Semiconductor and other electronic component manufacturing
334511	Navigational and guidance instruments manufacturing
334512	Measuring, medical and controlling devices manufacturing
335920	Communication and energy wire and cable manufacturing
336410	Aerospace product and parts manufacturing
511210	Software publishers
512110	Motion picture and video production
512190	Post-production and other motion picture and video industries
515210	Pay and specialty television
517111	Wired telecommunications carriers (except cable)
517112	Cable and other program distribution
517210	Wireless telecommunication carriers (except satellite)
517410	Satellite communications
517910	Other telecommunications
518210	Data processing, hosting, and related services
541360	Geophysical surveying and mapping services
541370	Surveying and mapping (except geophysical) services
541510	Computer systems design and related services
541620	Environmental consulting services
541690	Other scientific and technical consulting services
541710	Research and development in physical, engineering and life sciences
541990	All other scientific, professional, and technical services

Note: NAICS: North American Industry Classification System.

Source: Statistics Canada, 2014, *2014 Survey on Financing and Growth of Small And Medium Enterprises: Methodology Report,* Table 7.

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