Financing entrepreneurial activity in Chile: Scale and scope of public support programs

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ABSTRACT: This paper overviews the sources currently financing entrepreneurship in Chile, with special emphasis on public instruments, and uses the information gathered by Global Entrepreneurship Monitor (GEM) Chile between 2003 and 2006 to test the hypothesis that, despite public efforts, there is still a finance gap, that may significantly influence domestic economic performance in the long term. After a thorough bibliographic review regarding financial alternatives in Chile and a descriptive analysis of GEM data, results show that while there is sufficient available public funding in Chile, it is not being channeled to a sufficiently wide range of entrepreneurs. Some of the factors that reduce the impact of Chilean public financing policies and that require further research include the lack of competitive high-tech clusters within the country; the lack of attention given to informal investment and to the training of entrepreneurs; and the existence of centrally designed programs that do not take into account the geographical organization of capital markets and the spatial differences and gaps in private financing.

Keywords: entrepreneurship; public policies; developing countries; new venture financing

Introduction

According to the 2006 Global Entrepreneurship Monitor (GEM) survey, 9.2% of the adult Chilean population are either nascent entrepreneurs or owner-managers of firms², ranging Chile 16th among the 42 countries participating in the GEM project. Amorós and Echecopar (2007) remark that this result is worrying not only because there is now less entrepreneurial activity than in 2005 (11.15%), but also because this decline is mainly due to a greater decrease in opportunity entrepreneurship (-1.4%) than in necessity entrepreneurship (-0.4%). Furthermore, this reduction in entrepreneurial activity has occurred in a context where the promotion of entrepreneurship and small and medium enterprises (SMEs), as means of increasing national economic growth, has become a major priority for the Chilean government. In this respect, the provision of financing has become one of the main goals of public policies to support entrepreneurship. During the last two decades, several reforms have been implemented with a view to dismantling institutional barriers constraining equity funding, and growing resources have been oriented towards public financing programs. The aim of this paper is to review the role of finance and the supply of financing sources currently available for entrepreneurs in Chile, with special

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² The proportion of the adult (18-64 years of age) population engaged in entrepreneurial activity is also known as the Total Entrepreneurial Activity (TEA) index.
emphasis in public policies. GEM data are presented to provide a picture of entrepreneurial finance and also to show that there is still a finance gap.

This paper consists of three sections: the first analyses the role played by public financing policies in the creation of an appropriate entrepreneurial framework; the second describes the evolution and supply of financial alternatives oriented towards the first stages of the life cycle of firms in Chile, and places particular emphasis on institutional reforms aimed at creating incentives for equity funding and on government programs designed to support start-ups; and the third analyses the results of the 2006 GEM surveys distributed to experts and the adult population in Chile, and focuses on the role played by informal investment and the regional private equity gap disparities. Conclusions discuss implications for policy and future research.

**Financing of entrepreneurship and public policy in Latin America.**

**Summary of the contents**

Public policies supporting entrepreneurship are diverse and have different objectives depending on the country. Some governments aim to foster entrepreneurship mainly as a way to improve national performance and competitiveness through innovation while the chief objective of other governments is to create further employment or reduce social problems such as poverty. In all these cases, however, public policies and programs consider financing to be one of the principal means of achieving higher rates of entrepreneurial activity (Reynolds et al, 2005; Stevenson and Lundström, 2005). In this respect, finance availability is one of the main conditions of the entrepreneurial framework (Acs, 2006; Reynolds et al. 2001).

Public policies geared towards support financing are defined by Storey (2005: 483) as the means by which a government can intervene to fill the ‘funding gap’. ‘The practical significance of the funding gap is that if viable (small) businesses are unable to obtain access to funds because of imperfect information, this leads to welfare losses to society. It, therefore, provides, in principle, a justification for government intervention’. There are, however, sound arguments against public intervention in financing, one of which is the inefficient use of public funds supporting non-viable ventures (Storey, 2005; De Meza, 2002; Bester, 1985). Despite these criticisms, most governments pursue public policies to finance entrepreneurship and small and medium firms by means of equity, loans and other support instruments. In this respect, Mason and Harrison (2000) distinguish the following types of public programs: funds directly oriented towards venture capital, fiscal incentives for investors, and subsidies designed to match angel investors with entrepreneurs. Alongside these types of financing instruments, governments have also tried to create appropriate institutional frameworks to promote equity funding, such as regulating the creation of emerging stock markets for small and medium enterprises, and to promote and entrepreneurial culture by means of the public recognition of successful entrepreneurs.

Studies on entrepreneurship stress the importance of equity funding (venture capital funds and angel investors). This is because, by providing finance to companies seeking to exploit significant growth opportunities, equity funding has a significant impact on economic development (Gompers and Lerner, 2005; Harrison and Mason, 2000; Martí et al. 2007; NVCA, 2007; CVR, 2007). In accordance with the emphasis placed by scholars on venture capital and angel investment, public policies have generally privileged the promotion of this type of financing and taken the success of entrepreneurship in the United States as a
yardstick. Another remarkable example is the case of the European Union, where the development of venture capital and risk capital markets is considered essential in stimulating the emergence of innovative and high-tech business capable of contributing to economic growth and employment creation (Martin, Sunley and Turner, 2002). Other regions like Latin America, where equity funding is a much more recent phenomenon, have also tried to dismantle institutional barriers within their financial systems in order to create incentives for equity funding and suitable stock market exit routes.

The predominance of venture capital and angel investment as the twin goals of public financing policies and programs has left the promotion of informal investment outside the political agenda. This type of financing, however, is fundamental to entrepreneurship, both in terms of the size of this type of financing (on average, 1.5% of the combined GDP of the 42 GEM nations), and in terms of the huge number of new firms opting for informal finance rather than classic venture capital and angel investment, representing more than fifteen times the venture capital investment in GEM countries (Bygrave and Quill, 2007). Furthermore, as the experience of United States shows, a solid tradition of informal investment enabled an environment in which equity funding, first angels and afterwards venture capital, could grow. Informal investment could also play a major role in the promotion of entrepreneurship in peripheral regions where access to the traditional financial system and to equity funding is severely restricted.

Together with the economic and institutional factors affecting public financing policies in Latin America, there are factors related to the evolution of the mindset of investors and entrepreneurs. In this respect, it is necessary to remember that the consolidation of venture capital industry in United States is the result of the previous expansion of informal investment followed by the emergence of angel investment. Decades of experience were necessary for the creation of a vibrant venture capital culture, characterized by the willingness of entrepreneurs and investors to take high risks with the expectation of returns well over market average. By contrast, Latin America is still in the first stages of this process. Economic instability, the modest liquidity of local financial markets and the lack of clear laws have made it difficult for regional investors to develop long-term vision and inclined them more towards low risk investments promising small returns. Moreover, in Latin America, entrepreneurs are still resistant to the participation of external agents in business management, preferring bank loans to equity financing (Romani and Atienza, 2006). In this respect, public educational programs oriented towards the development of an entrepreneurial society may play a significant role in the definitive take-off of equity funding in Latin America.

Another important problem facing public policies aimed at fostering equity funds in Latin America, as is the case in Europe (Martin, Sunley and Turner, 2002), is the lack of competitive high-tech clusters within the region. Consequently, venture capital fund investments in Latin America have been generally directed to more advanced stages of the life cycle of firms and are very cautious about potential innovations in their initial stages, where risk is substantially higher. Investments made by these funds are focused in transport, infrastructure, and services sectors, rather than in information and communication technology sectors, as is the case in the USA. This is partly because the latter sectors have only just started to develop in many Latin American economies, and partly because the regulation of equity funding and intellectual property is still complex and fragmented.
Finally, another significant trait of public policies supporting entrepreneurship financing is a lack of attention to the important dimension of geography. This concern has only recently been recognized in the United States and Europe (Martin, Sunley and Turner, 2002; Klagge and Martin, 2005; Acs and Armington, 2006), and is practically non-existent in less developed areas like Latin America. The latter presents the highest primacy rates in the world. On average, 36.4% of the urban population in Latin American countries lives in the main cities of each country (United Nations, 2006). As a consequence of this core-periphery spatial pattern, both traditional financial systems and equity funding are extremely centralized, and available funds do not flow to profitable peripheral ventures. The impact of the geographical organization of capital markets on entrepreneurship and economic growth is still a matter of controversy. Some authors stress the need for local capital markets as a means to reduce regional funding gaps both in terms of equity and efficiency (Klagge and Martin, 2005; Acs and Armington, 2006), whereas others consider syndication and the formation of angel networks as a substitute for spatial proximity (Fritsch, 2006). In both cases, however, the state plays a significant role in terms of the design of appropriate institutional and regulatory conditions.

Entrepreneurship financing and public policies in Chile.

During the past two decades, Chile has stand out as the most stable economy of Latin America. Once macroeconomic stability was achieved, the public attention to market actors grew and the promotion of entrepreneurship has been increasingly considered one of the bases of future development. Accordingly, this section describes the current supply of public financial alternatives oriented towards the promotion of entrepreneurship in Chile. Emphasis is placed first on the public efforts made to create appropriate framework conditions for entrepreneurship. In view of the fact that equity funding has been one of the main areas of government intervention in Chile, this section will focus on the evolution of equity funding and finally on government programs designed to support start-ups.

Institutional reforms

During the last two decades, the Chilean government has tried to create an institutional framework favorable for the development of classic venture capital. In 1989, Law 18.815 created and classified investment funds in three types: Real Estate, Securities and Investment Funds for the Development of Firms (FIDEs). FIDEs represent what in USA is known as classic venture capital. The FIDEs regulation was intended to foster investment in projects with great potential for innovation and, therefore, highly risky. After three years, however, only three FIDEs existed, and during the 1990s venture capital activity was not able to consolidate, despite several reforms of Law 18.815. The small number of funds created was due, among other factors, to the complexity of the regulations, the lack of know-how, and to the existence of low management fees (Jiménez, 2007). In practice, Pension Funds, the main FIDEs fund providers, influenced the orientation of these funds, channeling most of their investments towards mature enterprises.

3 Fondos de Inversión para el Desarrollo de Empresas.
In December 2000, Law 19.705, known as the ‘IPOs Law’, eliminated the previous classification of investment funds and established a new one, differentiating public and private funds according to the legal structure and the type of investor. Public investment funds must have fifty or more investors, which may comprise institutional investors (banks, insurance companies, pension funds), and are allowed to do IPOs of their quotes; private investment funds, on the other hand, must have less than fifty non-institutional investors and are not allowed to do IPOs.

In November 2001, Law 19.769, known as the Law of Reform of the Capital Market I (MK1), created an Emergent Stock Exchange Market and established a tax exemption on capital gains for enterprises making transactions in the Emergent Stock Exchange Market in order to increase high growth potential small firms financing. Finally, in June 2007, after three years of discussion in the Congress, law 20.190, known as the Law of Reform of the Capital Market II (MK2), was approved. One of the main objectives of this law was to promote the development of the venture capital industry and the access of small firms to financing. Some of the more notable aspects of MK2 in respect of venture capital activity include the following: Tax exemption on capital gains for investors financing venture capital funds; eight more years of tax exemption in Emergent Stock Exchange operations; the Chilean Economic Development (CORFO)\(^4\) can invest up to 40% of venture capital fund quotes; and Banks are allowed to invest up to 1% of their assets in investment funds.

**Equity Funding in Chile: Classic Venture Capital and Angel Investors.**

*Classic Venture Capital*\(^5\)

Information on assets managed by investment funds in Chile is currently scarce and mainly available to public investment funds only. The main source of information is the Chilean Association of Investment Funds (ACAFI), which divides both public and private investment funds into five categories according to the type of investment: private equity, securities free of risk, securities, real estate and others. The first of these represents the Classic American Venture Capital, since these funds invest in the different stages of a firm’s life cycle: seed, start-up, development and buy-out.

In December 2006, the public investment funds industry managed USD 4 billion, three times the amount managed in 2003. Investment in securities was almost USD 3 billion, whereas the classic venture capital funds are still an emergent industry. Currently, only nine out of 52 existing public funds are classic venture capital funds and manage USD 146 million, which represents 0.17% of national GDP (see Figure 1). Among these funds, two finance post start-up, four invest in development stage of SMEs, and the rest invest in buy-out stages (ACAFI, 2007).

[Insert figure 1 about here]

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\(^4\) The Chilean Economic Development Agency is the public organization responsible for promoting national productive development in Chile since 1939.

\(^5\) In Chile, the US Classic Venture Capital is known either as Private Equity or as Investment Funds.
Regarding private investment funds, detailed information about managed assets is unavailable since these are run by special corporations. Currently, there are 12 private funds, all of them co-financed by CORFO through its program ‘Financing investment funds for the promotion of venture capital’. The proportion of money provided by CORFO to these funds by means of loans has been increasing in recent years depending on the degree of innovation and the size of the small and medium firms financed. Since 2005, CORFO’s funding is permitted to be up to three times the amount of the private investment funds if the fund invests in small and medium firms with high growth potential ventures in the stages of seed capital, start-up and early growth. At this moment, these funds manage USD 52.3 million and have invested in 29 enterprises, according to the internal regulation of these funds (ACAFI, 2007).

Despite the previously mentioned reforms, Chile is far from having a consolidated venture capital industry. Classic venture capital currently manages approximately USD 200 million (only 0.23% of the national GDP) through 21 investment funds (12 private and 9 public) that have financed 82 firms. It is expected that the recently approved MK2 reform will give a big push to this industry, but certain doubts remain. One of these relates to the high degree of spatial concentration of venture capital financing. Over the past three years, 89% of the funds invested in the Metropolitan Region and of these funds 55.6% invest solely in this region. By contrast, only one of these funds invested exclusively in non-metropolitan regions. Moreover, regional investment is concentrated in regions VIII and II of the country (Romani, 2007). This situation, which is mainly due to the fact that the investment funds headquarters are located in the Metropolitan Region because of the spatial concentration of the industry in Santiago and, specially, because of the high degree of administrative centralization in Chile, seriously hampers non-metropolitan entrepreneurial activity. In this respect, policies promoting venture capitalism in Chile require an explicit geographical dimension, especially now that the Chilean government is proposing regional development strategies based on the consolidation of clusters of innovative SMEs.

Angel Investors in Chile.

Curiously, in Chile, angels have not preceded the formalization of venture capital activity. On the contrary, public initiatives have been mainly oriented towards the promotion of post-start up funding. Consequently, angel investment is incipient and precarious in Chile and predominantly dependent on private initiative, with a special role played by universities. Only since the beginning of 2006, has it been possible to find the first public interventions to promote this activity. More specifically, in that year CORFO started a new program for the creation of angel networks.

Currently, there are four angel investor networks working in Chile. The first one, ‘Southern Angels’, was created in Santiago in 2003 around the business incubator Octantis situated within a private university. Since 2006, as a result of the support given by CORFO, this network became independent of the incubator and Southern Angels now has more than one hundred members whose investments vary between USD 25,000 and USD 250,000. In August 2007, this network, which is still in its early stages, had invested a total of USD 2.9

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6 http://www.southernangels.cl
million in nine projects. The ‘Angel Investors Club’ was created in 2004 in order to invest in projects arising from the incubator ‘Genera UC’, also belonging to a university in Santiago. No detailed information is available on this network as it is currently redefining its business model. Finally, two more angel investor networks were created in 2007, both located in Santiago: Patagonia Angels is still in the process of screening investment opportunities, and Incured has yet to finish the design of its business model.

Public Support Programs to Entrepreneurship Directed to Financing Entrepreneurship in Chile.

In Chile, there are currently 22 government-backed institutions and more than one hundred programs promoting new businesses either directly or indirectly through different financial instruments whose objectives range between the reduction of poverty to the creation of innovative firms. These programs are divided into areas such as technical assistance, export promotion, innovative entrepreneurship, training, and access to funding, and are predominantly directed towards micro, small and medium firms. Many of these public programs are sector-specific and aim to develop productive clusters in activities such as agriculture, fishing and mining.

CORFO stands out as the public organization that offers the widest range of financing programs, especially by means of its ‘Innova Chile’ committee, created in 2005 with the aim of enhancing the national innovation system, competitiveness and entrepreneurial activity. The ‘Innova Chile’ budget has gradually increased from USD 35 million in 2005 to USD 65 million in 2007, and is channeled into four areas, which cover all the stages of the financial chain: public interest innovation and pre-competitive innovation; technology transfer and diffusion; firm innovation; and innovative entrepreneurship. CORFO specifically supports the creation of new innovative firms with high growth potential and in 2006 managed 18.3% of ‘Innova Chile’ budget (USD 9.4 million). The main financing instruments of the innovative entrepreneurship area of ‘Innova Chile’ are business incubators, seed capital, technological support and angel investor networks. Almost 50% of the funds and more than 90% of the projects were seed capital, and more than 25% of the funds were channeled into incubators. Public intervention in the creation of a business angel network is, however, still incipient (table 1).

[Insert table 1 about here]

Another relevant CORFO program in support of entrepreneurship is ‘Financing investment funds for the promotion of venture capital’. This program was created in 1997 with the aim of promoting the venture capital industry in Chile and reducing the existing equity gap.

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7 http://www.generauc.cl  
8 http://www.patagonia-angels.com  
9 http://www.incured.cl  
After a decade, this program has co-financed the creation of 15 investment funds that have invested in 48 enterprises, predominantly in their post start-up stages.

**Financing entrepreneurship in Chile: Evidence from GEM.**

GEM methodology considers an Adult Population Survey (APS) and a National Experts Survey (NES) to obtain perspectives and standardized measures about the national context of entrepreneurship including financial aspects (Reynolds et al, 2005). Using both surveys as the main source of information, this section analyzes and compares entrepreneurs’ financing expectations and experts’ views regarding public sources of financing. Furthermore, attention is directed towards two aspect of entrepreneurship financing that have been ignored by the public initiatives, namely informal investment and regional private equity gaps.

**Entrepreneurs’ expectations.**

In 2006, according to the APS, 8.5% of the adult population of Chile (800,000 persons according to CENSUS data) is trying to develop a new business. Of these, almost two thirds are entrepreneurs by opportunity while one quarter is by necessity. The financing of these projects depends fundamentally on the entrepreneurs themselves. Almost 50% of entrepreneurs by opportunity and 60% of entrepreneurs by necessity finance their projects entirely. Even entrepreneurs who consider acquiring external sources of financing are willing to provide 47% of the investment with their own resources and only 16% consider the possibility of more than one source to initiate their projects. On average, the amount of money that entrepreneurs by opportunity consider necessary to start their businesses is more than three times the investment that entrepreneurs by necessity consider necessary. In both cases, however, this investment is relatively low. Half of the entrepreneurs by necessity require less than USD 2,000, while half of the entrepreneurs by opportunity require less than USD 7,500 (table 2).

[Insert table 2 about here]

Some significant differences are observed in the sources of external financing that entrepreneurs by opportunity and by necessity expect to obtain. A greater confidence is observed among both groups about obtaining funds from banks, family, friends and co-workers, while they do not expect to receive any financing from strangers, which shows how little the culture of angel investors is installed in Chile. Nevertheless, entrepreneurs by necessity depend more on the family and trust more in obtaining help from the government. In this respect, it is notable that only around 5% of entrepreneurs consider public programs as a potential source of financing. This percentage is significantly lower than the total average in GEM countries, close to 20% (table 3) and could reflect the Chilean government bias in favor of projects with great potential for innovation. What is more, only 2.7% of the owners of existing businesses declare having received public support during the formative stage of their businesses, which implies that even the low expectations of nascent
entrepreneurs in relation to public programs, are overvalued. In this respect, professionals, entrepreneurs and government authorities who were consulted, were unanimous in declaring the discredit to which public financing instruments have fallen among potential entrepreneurs owing to the following reasons:

- An excess of bureaucracy and rigidity in the presentation of forms;
- Delays in response that often exceed six months
- High cost both in terms of time and money to comply with all of the requirements;
- Offer of instruments designed centrally without taking into account the problems of scale and other obstacles that confront entrepreneurs from peripheral regions; and
- Decisions about the distribution of public funds are also made centrally.

The experts’ perspective
Experts’ views regarding public sources of financing partly differ from those of Chilean nascent entrepreneurs. According to the NES results, access to funds for financing of new and growing firms in Chile has diminished from -0.3 to -0.7 between 2005 and 2006\textsuperscript{11}, which is the largest decline after that suffered by the education and training sectors, and the majority of experts believe that there are not enough sources to finance entrepreneurship (see table 4). It is remarkable, however, that in 2002 only a third of experts considered that there were enough public subsidies, whereas in 2006 this figure rose to more than 50% of experts (Amorós and Echecopar, 2007; Amorós et al., 2006). This statistically significant increase stands in sharp contrast to entrepreneurs low expectations and could reflect the aforementioned concern of the Chilean government with respect to entrepreneurship.

In contrast to subsidies, most experts consider that there is not enough access to financing through equity funding and IPOs, where more public efforts have been made during the last decades. On the one hand, venture capital funds and angels investment are increasing in Chile but affect a very reduced number of firms; on the other hand, up to now, the emergent stock exchange, created in 2001, is only working for large firms. Furthermore, the access of small and medium firms to loans is also restricted according to 70% of experts. In Chile, this source of financing is only available for a minority of small firms except in the case of some banks, public organizations and NGOs that have developed microcredit programs. These programs offer, however, significantly smaller funds than nascent entrepreneurs declared needs. On average, the size of their credits is less than USD 600 in the case of

\textsuperscript{11} This index has been normalized to range between -2 and 2.
commercial banks and less than USD 200 in the case of NGOs and public programs whose main objective is to reduce poverty rates by means of entrepreneurship. After the previous results, it is surprising that nearly half of the experts believe that there are enough funding available to finance new and growing businesses in Chile. It is difficult to know whether the experts are referring either to savings managed by the pension fund system or to private informal funding. In this respect, it would be possible to state that currently, available funding could be enough in Chile but it is not well channeled to reach a wide range of entrepreneurs specially in the case of equity funding where the public efforts to create an appropriate framework for the promotion of equity funding and IPOs have had a very low impact (Amorós and Echecopar, 2007).

**Informal investment in Chile.**

Public policies in Chile have ignored informal financing as a means of promoting entrepreneurial activity in the country. However, data from the 2006 GEM survey in Chile shows that, as in other countries, informal financing is essential to consolidate an entrepreneurial society. In fact, informal investment made in the last three years in Chile is equivalent to 1.56% of Chilean GDP in 2006, and is more than 15 times the ‘Innova Chile’ budget dedicated to innovative entrepreneurship since 2005. On this question, Chile occupies the tenth position among the GEM countries, which indicates the relative importance of informal investment for the country.

In the last three years, 5.8% of the adult population of Chile (550,000 persons according to CENSUS data) invested money in a new business started by another person. On average, each one of these informal investors has provided close to USD 4,200, while half of them invest less than USD 1,310 (table 5). This finding is consistent with other studies (e.g. Szerb, Raphia, Makra and Terjesen, 2007; Bygrave, Hay, Ng and Reynolds, 2003), which show that informal investments are generally of small amounts and that there are few informal investors who invest large sums of money. In the Chilean case, only 0.0025% of informal investors provide amounts greater than USD 25,000, an amount similar to that invested by members of the Southern Angel network.

[Insert table 5 about here]

According to the information provided by the 2006 APS in Chile, the majority of Chilean informal investors are persons who work autonomously or by their own means (57.3%); are male (62.4%); with a complete level of university education or with complete technical studies (53.4%); who invest less than UDS 5,000 (72.6%) in activities oriented to services for the final consumer whose innovative potential, in principle, is low (70.8%); who expect to recover their capital in six months (34.2%) or one year (20.2%); with a nil benefit or with losses (52.7%). This investor profile is far from the classic risk capitalist or angel investors. This could lead one to think that the relative importance of informal investment for the development of the country is limited. Nevertheless, as was mentioned above,
informal investment in Chile in the last three years reached 1.56% of the GDP of 2006. As well, these businesses it is supposed, from their beginning, provide an impulse to the national economy insofar as they create employment and spend the resources received in the purchase of goods and services and the payment of salaries to their workers (Bygrave and Quill, 2007, Bygrave and Hunt, 2005). In this respect, it is sufficient to say that Chilean investment funds have financed around one hundred companies since 1989, not all of which have been innovative, while around 500,000 new businesses have been started in the last three years due to informal financing, some of which have been able to become successful enterprises as a result of a small initial support.

**Geographic dimension of the private equity gap**

Public policies of support to the financing of entrepreneurship in Chile have lacked a geographic dimension to the present. To study the current situation of financing in Chile from a geographic perspective, the country has been divided into four parts, given that representative information is not available for all of the regions. In consequence, the classifications used are the northern zone (Regions One to Four); the central zone (Regions Five to Eight); the southern zone (Regions Nine to Twelve) and the Metropolitan Region, located in the center of the country. For each of these zones, a calculation has been made of the so-called private equity gap, which can be understood as the need of entrepreneurs for financing after taking into consideration the support of the entrepreneur him/herself and external informal financing. This calculation is based on the supposition that informal investors mainly support others people ventures within their own geographic area. This supposition, while not always the case, is considered reasonable given that informal investment is predominantly provided by the immediate family, friends and neighbors and co-workers.

Based on the information gathered in the APS of the 2006 GEM, it can be estimated that in Chile almost 92.4% of nascent businesses could be financed with funds that the founders of these businesses are prepared to make available and funds from informal investors (figure 2). This situation is not homogenous in all the zones of the country. On the one hand there are the southern regions where entrepreneurs could be financed completely, owing more than anything to the high participation of informal investors, and the Metropolitan Region, where the private equity gap is 4.1% of the estimated necessary investment. On the other hand, in the central and northern regions this gap is 8.6% and 14.8% respectively. As far as the average financial needs are higher in peripheral areas (table 6), these gaps become more significant when expressed in monetary terms. In fact, central and northern regions gaps in USD are three and six times the size of the gap in the Metropolitan Region respectively. These results suggest the need for specific public policies of support to financing, be they subsidy programs or the promotion of the equity funding.

This proposal makes even more sense if one takes into account the entrepreneurial activity that is being developed in each of the areas analyzed. Focusing on the northern zone, which has shown the highest rates of growth within the country over the last decade and which presents the highest percentage of entrepreneurship by opportunity (Amorós and Echecopar, 2007). In this promising context, entrepreneurs’ average financial needs are higher than in the rest of Chile (table 6) and founder and informal investments are not sufficient, giving rise to the greatest private equity gap and restraining firm creation. However, public financial alternatives oriented towards the promotion of entrepreneurship
are still centrally designed and do not consider the favorable climate for business in northern regions. Indeed, a more detailed analysis of the spatial organization of capital markets in Chile is required, but recent results make it obvious that there is a need for financing policies with an explicit geographic dimension aiming at promoting entrepreneurship in peripheral zones and taking into account their specific contexts.

[Insert figure 2 about here]

[Insert table 6 about here]

Conclusion

According to the data of the GEM surveys given to experts in Chile, while there is sufficient funding available to finance new and growing businesses, access to financing has not improved over the past four years, except in the area of public subsidies. This result is worrying in light of the fact that financing has been one of the key concerns of public policies aimed at supporting entrepreneurship in this country. Furthermore, equity funding—both venture capital and angel investment—are growing at a very low rate and public support programs are rarely considered by entrepreneurs to be a potential financing source because of their complexity and cost. Indeed, available funding sources for nascent ventures appear to be predominantly of a private informal nature.

Venture capital policy, where most public effort has been directed, has focused on expanding the supply of venture capital by means of the creation of a favorable institutional framework, while other measures designed to increase the demand for venture capital has been overlooked. In this respect, government policies should be more active in the promotion of entrepreneurship training, still scarce in Chile, and in the reinforcement of the role that universities, incubators and entrepreneurship centers can play not only in the identification and elaboration of attractive business plans for investors but also in the formation of a new generation of entrepreneurs and investors. Another obstacle for venture capital in Chile is the evident lack of high-tech clusters within the country, which is not only limiting the size of the venture capital industry, but also hindering the creation of networks between entrepreneurs and venture capitalists.

Public policies facilitating 4Fs investment are almost non-existent in Chile. The existence of fiscal incentives for venture capital funds but not for angel and informal investors is indicative of this situation. The Chilean government needs to take an active role in the promotion of informal investment, taking into account both that this type of investment has been the basis for the development of equity funding in countries like United States, and its significant impact on entrepreneurial activity. Public intervention in this field, however, is difficult on account of its informal nature. Fiscal incentives could be a first step to increase the number of informal investors and the average amount of investment, but more
important, perhaps, is the creation of a favorable environment for entrepreneurship in the country through education and public recognition of entrepreneurs.

Another limiting factor in the assigning of public funds to finance entrepreneurship in Chile is the fact that most government initiatives are still spatially concentrated and do not take into account the regional, private financial gaps that exist in some areas of the country. Accordingly, the contribution of the Chilean financial markets to domestic growth by means of entrepreneurial activity requires more decentralized public funds and programs adapted to regional circumstances. In this respect, the current tendency of promoting regional clusters across the country needs to be coordinated with the creation of regional financial communities. The existence of local critical masses of financial institutions and agents such as regional angel investor networks could play a major role in regional development and, at the same time, increase the efficiency of the allocation of available funds. For this to occur, further research needs to be done on the geographical patterns of investment and entrepreneurship in Chile.

REFERENCES


Figure 1: Assets managed by Public Investment Funds, 2002-2006

Source: ACAFI (2007)

Table 1. Innova Chile funds dedicated to innovative entrepreneurship

<table>
<thead>
<tr>
<th>Strategic Products of Innova Entrepreneurship Area</th>
<th>Number</th>
<th>Funding in USD (Million)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubators creation</td>
<td>3</td>
<td>0.7</td>
<td>7.4</td>
</tr>
<tr>
<td>Incubators consolidation</td>
<td>4</td>
<td>1.7</td>
<td>18.1</td>
</tr>
<tr>
<td>Incubators operation</td>
<td>1</td>
<td>0.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Seed capital profile</td>
<td>208</td>
<td>2.3</td>
<td>24.5</td>
</tr>
<tr>
<td>Seed capital to start up projects</td>
<td>34</td>
<td>2.4</td>
<td>25.5</td>
</tr>
<tr>
<td>Seed capital to build start up projects</td>
<td>5</td>
<td>0.6</td>
<td>6.4</td>
</tr>
<tr>
<td>Support to technological business</td>
<td>15</td>
<td>1.2</td>
<td>12.8</td>
</tr>
<tr>
<td>Business Angels Network</td>
<td>1</td>
<td>0.3</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>271</strong></td>
<td><strong>9.4</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>


Table 2. Money necessary to start a business (USD).

<table>
<thead>
<tr>
<th>Opportunity Entrepreneurs</th>
<th>Necessity Entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>18,382</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>27,479</td>
</tr>
<tr>
<td>Quartile 1</td>
<td>2,761</td>
</tr>
<tr>
<td>Quartile 2 (Median)</td>
<td>7,362</td>
</tr>
<tr>
<td>Quartile 3</td>
<td>18,865</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors based on GEM Chile 2006
Table 3. Entrepreneur’s Expected Sources of Financing (%)

<table>
<thead>
<tr>
<th>Sources of funding</th>
<th>Opportunity</th>
<th>Necessity</th>
<th>All GEM Nations(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close Family</td>
<td>14.6</td>
<td>38.5</td>
<td>32.9</td>
</tr>
<tr>
<td>Other Relative</td>
<td>2.4</td>
<td>7.7</td>
<td>14.5</td>
</tr>
<tr>
<td>Work Colleague</td>
<td>12.2</td>
<td>15.4</td>
<td>14.7</td>
</tr>
<tr>
<td>Stranger</td>
<td>2.4</td>
<td>0.0</td>
<td>7.3</td>
</tr>
<tr>
<td>Friend or Neighbor</td>
<td>17.1</td>
<td>15.4</td>
<td>15.3</td>
</tr>
<tr>
<td>Bank or Other Financial Institutions</td>
<td>34.2</td>
<td>38.5</td>
<td>42.2</td>
</tr>
<tr>
<td>Government Programs</td>
<td>2.4</td>
<td>7.7</td>
<td>19.7</td>
</tr>
<tr>
<td>Others</td>
<td>24.4</td>
<td>0.0</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors based on GEM Chile 2006 and GEM Executive Summary
\(^a\) Includes both, opportunity and necessity entrepreneurs

Table 4. Experts Evaluation on the sources to finance the entrepreneurship in Chile.

<table>
<thead>
<tr>
<th>In my country there are enough…</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPO to finance new and growing businesses</td>
<td>96%</td>
<td>4%</td>
</tr>
<tr>
<td>Venture capital funds to finance new and growing businesses</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>Angel investments to finance new and growing businesses</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>Loans available to finance new and growing businesses</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Funding available to finance new and growing businesses</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Subsidies available to finance new and growing businesses</td>
<td>48%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Source: GEM Chile, 2007.

Table 5. Money provided informal investors (in USD).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Quartile 1</th>
<th>Quartile 2 (Median)</th>
<th>Quartile 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,187</td>
<td>8,795</td>
<td>374</td>
<td>1,310</td>
<td>3,742</td>
</tr>
</tbody>
</table>

Source: Based on GEM Chile 2006.

Figure 2. Regional private equity gap
Table 6. Regional average financial needs (USD) and informal financing rates

<table>
<thead>
<tr>
<th>Region</th>
<th>Financial Needs (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>19,161</td>
</tr>
<tr>
<td>Centre</td>
<td>16,641</td>
</tr>
<tr>
<td>Metropolitan Region</td>
<td>11,567</td>
</tr>
<tr>
<td>South</td>
<td>13,223</td>
</tr>
<tr>
<td>Chile</td>
<td>14,318</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors based on GEM Chile 2006