



**Entrepreneurial Policies, Investors, and Start-ups.  
A Comparative Case Study of the Argentinian and Chilean Start-  
Up Ecosystems.**

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This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the institute.

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## List of Acronyms

AGTECH	Agriculture Technology
AI	Angel Investors
B2B	Business to Business
CEO	Chief Executive Officer
CESSI	Cámara de Empresas de Software y Servicios Informáticos
CFO	Chief Financial Officer
CORFO	Production Development Corporation
GEM	Global Entrepreneurial Monitor
GDP	Gross Domestic Product
GGP	Gross Geographic Product
HDI	HDI – Human
IDB	Interamerican Development Bank
ILO	International Labour Organization
IMF	International Monetary Fund
IPO	Initial Public Offering
LATAM	Latin America
LAVCA	Latin American Venture Capital & Private Equity Association
MELI	MercadoLibre
MIINTECH	Mining Technology
NYSE	New York Stock exchange
OECD	Organisation for Economic Co-Operation and Development
SDGs	Sustainable Development Goals
R&D	Research and Development
SMEs	Small and Medium Enterprises
VCs	Venture Capitals
WB	The World Bank
WEF	World Economic Forum

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Life, sometimes, is the consequences of unsearched contingencies. When I had my first contact with policies to promote investment and entrepreneurship I did not think the topic was going to accompany me for such a while. The interlude between I stopped working at the Ministry of Foreign Affairs of Argentina and I wrote this paper worked for me as an experience to reflect about it from a different angle. Like Goddard, the French filmmaker had once said: “The time for the action has passed, the time for the reflection has come.” So, this is the product of many years, first working and then thinking about it from an academic perspective. That is what I modestly tried to do.

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## Abstract

Drawing on primary qualitative data and descriptive statistics coming from secondary sources, this paper analyses in a comparative perspective the state of the start-up ecosystems of Santiago (Chile) and Buenos Aires (Argentina). The research examines the dynamics of venture capital, start-up, and policy relations. The paper claims that Chile experiences a top-down development fueled by policy-interventions while Argentina faces a bottom-up development explained by premature endeavors arising from the private sector. Both countries have undergone a gradual transition from birth to growth stage, although they still face an enormous challenge to consolidate their start-up ecosystems. Buenos Aires' ecosystem shows a slight advantage in terms of maturity, considering investments' exits, highly dynamic start-ups, and investors. The findings indicate that there is the availability of capital for seed stage. However, the possibilities of getting funding for larger rounds are limited. Consequently, companies that rapidly scale up must go abroad to get capital. It is explained, in part, because of the financial gap identified in both ecosystems. The paper discusses the scope and limitations of the policies implemented in the two countries and proposes an alternative way to explore alternatives for development.

## Relevance to Development Studies

Entrepreneurship and development have been increasingly gaining momentum during the last ten years. The topic of start-ups ecosystems was predominantly addressed by business schools and relegated by the development studies. This paper claims that it is necessary to explore new development paths through which developing countries can catch up the developed ones. Start-ups are fundamental actors of developmental trajectories because of their contribution to industrial upgrading and innovation (Gibbon et al. 2008; Szirmai 2012; Gereffi 2014; Milberg et al. 2014). They push the economy towards knowledge-intensive sectors, developing export-oriented goods and services to compete in the global economy. Although representing a small proportion of the economic activity of most countries, they contribute to produce a shift in the labor market towards highly skilled jobs which are those that pay higher wages (Van Bergeijk et al. 1997). Furthermore, they mainly work with intangible assets which means that do not require importing expensive capital goods. Moreover, most of the new jobs incorporated into an economy come from new businesses (Pyra & Derengowski Fonseca 2011; Stucchi et al. 2014). Thus, differently to many industrialization processes, boosting technology-based start-ups does not reinforce cycles of stop and go, as it had happened several times throughout both Latin-American and African history. Finally, venture capital investment is a way to finance projects from the real economy, what is fundamental to counteract cycles of financialization while stimulating a business culture of pursuing R&D in developing countries' companies.

The international organizations have pointed out the importance of entrepreneurship for development based on the following aspects i) they contribute to achieving the sustainable development goals (SDG) by creating jobs, driving economic growth and innovation. ii) innovation policies stimulate the creation of new companies. iii) Entrepreneurship stimulates the youth to



create their own companies. iv) SMEs, in general, and start-ups, in particular, are the largest driver of new jobs (Schoof 2006; Guaipatin 2013; OECD 2013; ILO 2014; Rae & Westlake 2014; United Nations 2014; OECD 2015; Navarro et al. 2016).

Start-up ecosystems are located at the core of the ninth Sustainable Development Goal (SDG): “Build resilient infrastructure, promote sustainable industrialization and foster innovation (..) “Without technology and innovation, industrialization will not happen, and without industrialization, development will not happen” (UN 2000: 1).

Regarding the specificity of governance and development policies, this research shed light on how to better articulate the linkage among the different actors of start-up ecosystem. It contributes to identifying how to contain capital that leaves developing countries because of the lack of accurate financing. Furthermore, it also generates knowledge to thinking of better ideas to improve the allocation of public resources.

## **Keywords**

Start-Up Ecosystems, Start-ups, Entrepreneurial Policies, Argentina, Chile, Investors, Venture Capital.

# Chapter 1 | Introduction

## 1.1. The Problem

Start-ups are technology-based early stage companies. Start-ups' performance is not only determined by their yield but also by the ecosystem in which they operate. It means that the network of actors that interact with start-ups are fundamental for the consolidation of infant technology-based companies. Therefore, the dynamics of these interactions are vital to comprehending the trajectory of ecosystems.

Succinctly, the actors of start-up ecosystems are investors (accelerators, angel investors, venture capital, and private equity), supporting institutions (incubators, universities, consultants, and mentors) and governments (regulatory frameworks, policies, and the bureaucratic structure that implement the policies).

The impact of the different actors in the performance of startups has been extensively researched (Cai et al.2007; Lerner 2010; Ács et al. 2014; Silveira 2016). In parallel, scholars have tried to understand the dynamics of entrepreneurial ecosystems from a holistic point of view (Parrili 2008; Isenberg 2011; Manimala et al. 2015). From this perspective, it has been researched the interactions among the actors and how the interrelations influence the dynamics of entrepreneurial ecosystems. Historical examples coming from different studies confirm that while some ecosystems emerge organically based on initiatives from the private sector others have been policy-driven by governmental initiatives (Mahroum 2016).

Most of the empirical research come from the most successful ecosystems, such as the Silicon Valley in the United States (US) or the so-called 'Silicon Wadi' (Israel). However, these are outliers rather than representative cases of the universe of start-up ecosystems. To construct new knowledge, this research accomplishes a comparative case study of two cases: Santiago (Chile) and Buenos Aires (Argentina). The research focuses on the dynamics of the interactions between investors, policies, and start-ups. Both are typical cases of middle-income countries with an incipient development of start-up ecosystems. Interestingly, the Argentinean ecosystem was predominantly organically developed as a product of a bottom-up development. The Chilean case is fundamentally policy-driven, what enables this research to consider it as a top-down experience. (Capelleras, et al.2010; ACAFI 2012; Drucaroff et al.2013; OECD 2013; Manimala & Wasdani 2015; Gonzalez-Uribe 2015; Kantis et al.2017). Therefore, the comparison is attractive to understand the implications for development process.

The mission of the study is to expand the knowledge on entrepreneurial ecosystems in developing countries, shedding light on the Argentinean and Chilean cases.

## 1.2. Research Question

Why is the Argentinean start-up ecosystem more mature than the Chilean considering the strong Chilean public policies aimed at strengthening start-ups and venture capital investment whereas the Argentinean government is not strongly financing start-ups?

## 1.3. Sub-Research Questions

i) Why there are few dynamic enterprises and gazelles in Chile and Argentina?

- ii) What are the factors that constrain the development of the Argentinean and Chilean ecosystems?
- iii) Why is the availability of capital decreasing as start-ups grow in Argentina and Chile?
- iv) To what extent policies can boost the development of start-up ecosystems?

## 1.4. Objectives

### *1.4.1. General objectives:*

- i) To contribute to the debates on start-up ecosystems by identifying specificities of developing countries and the differences compared with the mature ones.
- ii) To assess the role of policy in the development of start-up ecosystems.

### *1.4.2. Specific Objectives:*

- i) To explore, describe, compare, and explain the characteristics of the main Argentinean and Chilean start-up ecosystems understanding their similarities and differences.
- ii) To produce new knowledge about start-ups, policies and venture capital relations.

## 1.5. Data Collection and Methodology

### *1.5.1. Research Technique*

This paper undertakes a mixed-method strategy. It is in nature an exploratory, deductive, synchronic and comparative case study to contrast similar cases with different outcomes (George & Bennett 2005; Gerring 2007; Yin & Robert 2013). The case study technique is complemented, on the one hand, with qualitative primary data coming from semi-structured interviews with key informants (Merriam 2009; Langford 2012). On the other hand, it uses surveys and secondary data coming from other's interviews, databases, policy documents, laws and newspaper articles to analyze descriptive statistics. Furthermore, the paper includes insights coming from my five years of working experience promoting investment in technology-based companies at the Ministry of Foreign Affairs of Argentina where I firsthand experienced the dynamics of start-ups/venture capital relations in Argentina and overseas.

This research privileges a small number of cases with a large number of actors (accelerators, start-ups, policies, incubators and venture capitals). Due to its exploratory nature, the scope of the findings are not sufficiently robust to generalize. However, it provides valuable knowledge to keep exploring empirical cases to find out whether there is a general trend in developing countries. The small number of cases strengthens the internal validity of the research because it describes and explains start-up ecosystems' dynamics more in-depth rather than working with multiple cases.

Santiago's and Buenos Aires' start-up ecosystems constitute the population of the research. There are multiple units of analysis because the observations encompass start-ups, investors, and policies. Hence, it is plausible to consider it as an embedded research (Yin 2013). The researched sample was selected focusing on actors that occupy different roles in the ecosystems in order to understand the dynamics of their interactions. Several aspects such as timing, the will of the actors to collaborate with the research and the personal

network of the researcher constrained the scope of the sample. However, it is a reasonable representation that provides valuable inputs for constructing internal validity.

The construction of validity was addressed by triangulating: i) key informants: policy-makers, investors, and entrepreneurs; ii) sources of data: surveys, interviews, documents, and databases; iii) instruments to collect primary data: semi-structured interviews and surveys. The internal validity is conducted by a pattern matching logic guided by theoretical propositions (Gerring 2007; Yin 2013). The available theories are more complementary than competitive. Also, considering this research works with different theoretical approaches, it contrasts rival explanations to understand the divergence of the cases and the lessons for developing countries.

### ***1.5.2. Case Selection Strategy***

The cases where there are more data available come from the most developed ecosystems: The Silicon Valley and Tel Aviv. However, these cases are the most researched one (Saxenian 1994; Avnimelech & Morris 2004; Wang 2004; Kenny et al. 2004; Saxenian 2006; Wonglimpiyarat 2016). Therefore, there is very little to add to those cases. Besides, both are extreme cases (Gerring 2007) because they are the most sophisticated expression of start-up ecosystems and therefore not representative of the general trend. Considering this research seeks to understand systemic dynamics, it is accurate to select an incipient case. There are fewer actors in infant ecosystems. Hence, the interrelations are more apprehensible. Also, these are the most common expressions of start-up ecosystems. Consequently, the cases are representative of the general trend in developing countries. It strengthens the external validity of the outcomes and becomes more relevant for development studies.

The literature considers there are two ways of developing a start-up ecosystem: top-down or bottom-up: by business initiatives or policy interventions (Mahroum 2016). Thus, a comparative case study was selected based on the most similar case logic (Gerring 2007) but also on two cases that might fit in these two categories. Following this criterion, Argentina and Chile constitute two alternative ways to develop a start-up ecosystem. Likewise, both cases experience similar constraints despite the different policy-interventions and path-dependence trajectories.

**Table 1: Argentina and Chile in Comparative Perspective**

	Argentina	Chile
<b>Specific Policy for Start-ups</b>	There is no specific policy	<b>Start-up Chile:</b> equity-free cash transfer up to US\$ 80,000 per company. // US\$ 10 million per year since 2010  <b>The X Factor:</b> Pre-accelerator program for start-ups led by female founders up to US\$ 15,000
<b>Horizontal policies</b>	R&D grants & tax benefits	n/a
<b>Sectorial policies</b>	Tax benefits (biotech, software)	n/a
<b>GDP per capita</b>	13, 431 (2015)	13,383 (2015)
<b>High-tech exports</b>	5.319.856,52 (2015)	1.442.450.760,00 (2015)

<b>R&amp;D as % of GDP (2014)</b>	0,61	0,37
<b>Patents</b>	546 (2015)	443 (2015)
<b>Start-ups (based on CrunchBase)</b>	619	793
<b>Unicorns</b>	4	0
<b>Investors (based on CrunchBase)</b>	67	39
<b>Human capital index</b>	64.34 (2015)	64.22 (2015)
<b>Global Innovation Index (score and ranking)</b>	30.34 / 81	38.41 / 44
<b>Entrepreneurial intention rate</b>	28%	44.7%
<b>% of start ups' headquarters in the capital city</b>	77%	80%
<b>Investors (CrunchBase)</b>	75	40
<b>Start-ups (CrunchBase)</b>	685	523

Source: own elaboration based on World Bank (2017), Global Entrepreneurship Monitor (2017) and CrunchBase (2017).

Table 1 indicates that there are similarities regarding macroeconomic variables but certain differences in the outcomes: Argentina produces more investors and start-ups than Chile. It is a case in which there are similarities among most of the variables but differences in the public policies (X) and the performance of the start-up ecosystem (Y). Consequently, it is pertinent to select a most similar case study to find out why Argentina has a more mature start-up ecosystem than Chile.

### ***1.5.3. Variables and Indicators***

The dependent variable is the degree of maturity of the start-up ecosystems, considering three stages: Birth, growth, and sustainment. The following independent variables determine the degree of maturity: Firms entries and exits, policies, finance structure, culture, supporting organization, human capital, markets and policy implications (Mack & Mayer 2016). In addition, the research takes into considerations the indicators subsequently presented: 1) start-ups per ecosystem; 2) quantity and type of investors (Venture Capital, Angel investors, private investors, and accelerators) as well as amount of their investments; 3) public policies aimed at developing the start-up ecosystem; 4) companies listed on stock markets; 5) quantity of highly dynamic start-ups (unicorns, centaurs, and ponies and 6) Public and private expenditure on research and development.

### ***1.5.4. Primary Sources***

The design of the research contemplated a survey in parallel to the interviews. It aimed at gathering data on the relationships among the actors to conduct a social network analysis. It was also expected to collect quantitative data to measure the impact of entrepreneurial ecosystems on employment and exports. After having sent more than 80 surveys to different entrepreneurs, only 8 incompletely replied it. Although the survey was aborted due to the poor feedback, the data collected was used with the foresight of knowing that it is not

representative of the population. Consequently, the research focuses on the qualitative aspects.

I directly interviewed 15 key informants that occupy different roles in both ecosystems (See Appendix 6). All the interviews were carried out in the Spanish language between 15<sup>th</sup> August and 2<sup>nd</sup> September 2017.

### ***1.5.5. Secondary Sources***

This research appraised secondary descriptive statistics extracted from i) CrunchBase (to take information about venture capital investment) ii) The Latin-American Venture Capital Association (LAVCA), to get descriptive statistics on venture capital investment in Latin-America; The World Bank (macroeconomic data) iii) the Global Entrepreneurship Monitor, Global Start-Up Ecosystem Ranking and Global Entrepreneurship Index (to analyze aggregated data on the systemic conditions for the dynamic entrepreneurship).

CEOs of big accelerators, venture capital, and large corporations are rarely reachable. Thus, their testimony was analyzed based on secondary sources coming from online interviews available on the internet (YouTube, Ernst & Young and Deloitte Reports and newspapers). The research also considered policy-reports and laws that regulate entrepreneurial ecosystems to contrast data coming from different sources.

## **1.6. Structure of the Paper**

This paper is organized in four chapters. The second chapter defines the main concepts used in this article narrowing down the definition of the objects of study. Subsequently, it introduces the academic contribution to this field of study. Chapter three introduce the main characteristics of the Argentinean and Chilean start-up ecosystems. It first presents the systemic conditions for the dynamic entrepreneurship. Secondly, it describes the main characteristics of both ecosystems based on the data collected throughout the research process. The fourth chapter contains the analysis of the findings, incorporating the contributions of the paper to the theoretical discussion, the lessons for developing countries, policy recommendations and propositions for further research. The paper finishes proposing the conclusions.

After the references, the paper offers to the readers five appendices including i) the questionnaire of semi-structured questions utilized to interview policy-makers, investors and supporting organizations of start-up ecosystems; ii) the survey sent out to start-ups; iii) the historical evolution of Buenos Aires' ecosystem; iv) the qualitative data analysis based on transcriptions of the interviews; iv) a table with the policies implemented by the two countries and v) a list of the interviews conducted during the fieldwork and interviews carried out by third parties.

## Chapter 2 | Breaking Down Start-Up Ecosystems

This objective of this chapter is to introduce the analytical categories this paper utilized, to undertake the empirical analysis. To do so, it breaks entrepreneurial ecosystems down by actors and processes. This chapter defines the main concepts based on two classic sociologic research techniques. On the one hand, the Weberian ideal types<sup>1</sup> which contribute to providing an abstract constellation of categories to address the object of study. Following this idea, Figure 1 and Figure 2 presents ideal types of cycles of capitalization and policies based on ideal types grounded on the state of the art of the topic. On the other hand, the analysis follows the method of the political economy, going from the concrete to the abstract and from the abstract to the concrete (Marx 1993). Thus, the analysis starts with the most concrete actors that shape start-up ecosystems (entrepreneurs), ending up addressing the notion of start-ups ecosystem.

### 2.1. Entrepreneurs

Entrepreneurs are the engine of start-ups. They assume the risk of driving a project into a company. Schumpeter (2008) was the first economist who pointed out the idea that innovation and entrepreneurship trigger economic growth, contributing to achieving the development of nations. After Schumpeter's studies, several scholars investigated: i) the role that the State plays in stimulating innovation; ii) what development strategies developing countries should implement; iii) the relevance of 'the rule of the games', and iv) the importance of technology in catching up developed countries (Baumol 1990; Amsden 2001; Chang 2002; Reinert 2007; Mazzucato 2011; Mazzucato 2013).

### 2.2. Innovation

This research takes the definition of innovation from the Oslo Manual:

"A firm can make many types of changes in its methods of work, its use of factors of production and the types of output that improve its productivity or commercial performance. The Manual defines four types of innovations that encompass a wide range of changes in firms' activities product innovations, process innovations, organizational innovations and marketing innovations" (OECD 2005: 16-17).

Scholars argue that there is an important correlation between R&D investments and the sustainability of start-ups (Reinert 1994; Dosi 1988; Reinert 1996; Perez 2009; Kattel 2014). R&D investments constitute one of the main pillars of innovation. It is fundamental in order to differentiate goods and services to leverage the competence.

### 2.3. Start-ups

Scholars have different interpretations of what is a start-up. This section summarizes the two most accepted definitions. One perspective highlights the businesses' performance of technology-based early-stage companies. It delimits start-ups as high-growth companies with

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<sup>1</sup> "An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified analytical construct" (Weber 1949: 90).

at least a 20% annualized increase in their valuation over the past three years (Cannone & Ughetto 2014). From this perspective, start-ups are distinctive companies compared to other types of small and medium enterprises (SMEs), because of their high scalability. However, only a few group of privileged companies fulfill this criterion. Even though most of the technology early stage companies do not grow at that rate, it does not mean that they are not start-ups.

Alternatively, other definitions focus on the how innovative a company is regarding products, process, business model, branding or marketing strategy (OECD 2005; OECD 2013). From this perspective, whether a company carries out research and development (R&D) becomes an exclusive variable. Although innovating is a desirable attribute, reducing the universe of start-ups to these group might imply an extremely exigent standard for developing economies.

On top of the previous aspects, what constitutes the main singularity of start-ups is the fact that they are funded differently compared to regular SMEs. Start-ups habitually have an open structure of capital which enable them to incorporate investors according to the different requirements of funding throughout their scaling up the process. Consequently, this paper defines start-ups as scalable and dynamic knowledge-based companies with an open-capital structure. It implies that all the companies producing goods and services at the cutting-edge technologies might be considered start-ups.

According to the OECD (2011), high-technology industries are aircraft and spacecraft, pharmaceuticals, office, accounting and computing machinery, radio, TV and communications, medical equipment and precision and optical instruments. This paper also considers high-technology sectors those that develop goods and services based on digital resources such as 3D printing, artificial intelligence, internet of things or software, digital marketing among others in a laxer definition.

## 2.4. Supporting Organizations

The main supporting organizations are incubators, consultants, and mentors. They provide different services and transfer important knowledge for inexperienced entrepreneurs. Incubators were originally designed as a tool to strengthen the networking and managerial skills of entrepreneurs. Habitually, incubators are embedded in university science parks and local governments. Incubators are a tool to promote an entrepreneurial culture to students (mainly from engineering, business, and finance schools). They fill the gap of the lack of resources of start-ups, reducing costs (because they offer co-working spaces) and offering mentorship, networking, and consultancy. Beyond their valuable contribution, some researchers pointed out that the graduation rate of incubated companies is very low. Previous findings corroborate that the more the companies extend the incubation process, the more dependent they are on the mentorship services they receive (Tamásy 2007; McAdam & McAdam 2008; Cohen & Hochberg 2014; Yasuyuki & Watkins 2014).

## 2.5. Investors

The constellation of actors that surrounds start-ups includes different type of investors, depending on the maturity of the company. Schematically, the first flow of capital comes from family and friends, grants or the founders' savings<sup>2</sup>. In the second maturity stage, angel investors come up with seed capital. Later, venture capital takes place to invest more

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<sup>2</sup> This first group of investors is habitually known by the triple F: family, fools and friends.



important amounts of capital. Habitually VCs invest after the first round. If companies manage to keep growing, the following stage includes private equity investment and, in the final stage, initial public offers (IPO) or mergers and acquisitions. Obviously, this is a stylized description. The growth process of start-ups varies a lot. Consequently, the capitalization process also varies without following a standardized structure. Moreover, the amount of the investments also differs depending on the maturity of the ecosystem, the actors that invest money into it and the internal rate of return of each investment project. The more sophisticated startup ecosystems are (regarding the development of the financial sector and the diversity of investors), the higher will be the capital investors inject into the system.

Accelerators are a particular type of investors. They basically provide the same services as incubators but are privately driven. Most accelerators are funded by former entrepreneurs that successfully sold their companies and want to advise and invest in new generations of entrepreneurs. Some multinational corporations built accelerators because they contribute to identifying new suppliers, partner, or affordable, innovative solution for their core business. For instance, Telefónica, Google, and Microsoft have their own accelerators.

Accelerators pump capital purchasing equity of the start-ups. They acquire a small percentage that can oscillate between 3% up to 25% of the equity depending on the deal. The general rule is that they plan an exit strategy coordinated with the founders. Typically, start-ups are selected in batches for an agreed period<sup>3</sup>. The model was born in the mid 2000<sup>4</sup>, in the US, with Y Combinator as a benchmark<sup>4</sup> (Śledzik 2013; Cohen & Hochberg 2014; Lerner et al. 2016).

Investors usually classify their investment by the performance of the start-ups in three categories. First, walking dead. These are companies that sooner or later become bankrupt. Second, moderate growth or 'lame ducks'. Even though they grow, the performance of this group of companies is not considered outstanding. It implies that it will be difficult for investors to sell their equity. Third, high-growth companies are those considered 'gazelles'<sup>5</sup>. These are companies that expand operations at regional or global level growing at more than 20% annually in sales or valuation.

Investors do not invest to remain in the company in the long run. Rather, they pursue an exit in a period that can vary between three and ten years. The revenues of the start-up are subordinated to the appreciation of their equity. Thus, investors' business are not aimed at withdrawing the dividends but at selling their portion of the company.

Approximately, 80% of the VCs in the world are based in the United States among which almost 60% operate in the Silicon Valley (Avnimelech & Teubal 2002, Avnimelech & Teubal 2006; Bertoni et al.2011; Chaya 2005). It is a key figure because due to the agglomeration of VCs in the United States, talent entrepreneurs from across the world immigrates seeking investment. Thus, the asymmetry between investment hunters and investors weakens those ecosystems where investors are scarce. Therefore, the growth cycle introduced in Figure 1 is mainly a representation of the habitual process of successful start-ups in developed economies, where getting funding is more accessible and more possibilities of going public are available.

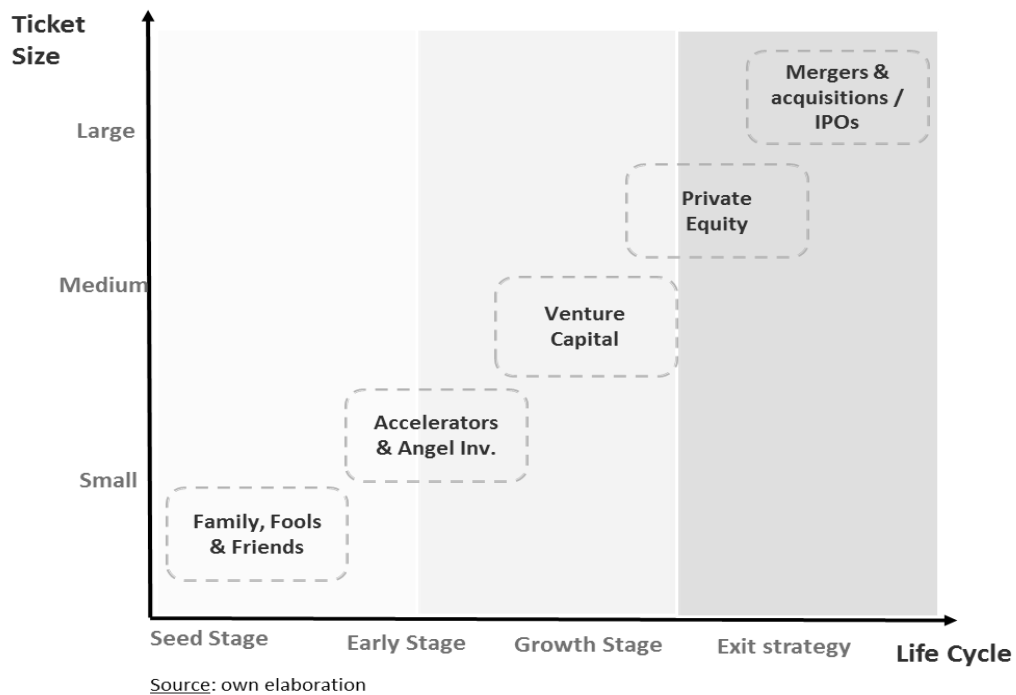
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<sup>3</sup> The standard period is six months.

<sup>4</sup> Worldwide known for having accelerated Unicorns such as Dropbox or Airbnb).

<sup>5</sup> Gazelles are fast growing start-ups that manage to maintain their expansion both in terms of employees and turnover throughout an extended period. Although there is not a precise definition of what constitute an exceptional growth rate, the common knowledge establishes a minimum of 20% measured by revenues. The business literature classifies these companies in three categories: Ponies (market valuation over US\$ 10 million), centaurs (market valuation over US\$ 100 million) and unicorns (market valuation over US\$ 1 billion).

**Figure 1: Stylized growth of start-ups and cycles of capitalization**

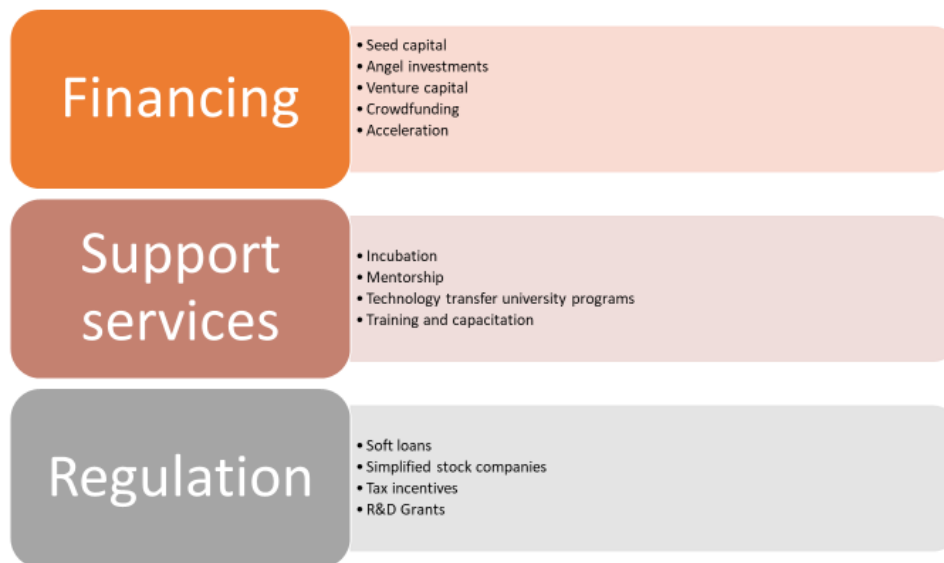


The degree of comprehension of the actual role that investors take in start-up ecosystems is debatable. Mazzucato (2011) claims that the role of the State has been neglected by the mainstream approaches to entrepreneurial ecosystems while the role of VCs as drivers of economic growth is overrated. Incorporating evidence from the U.S., Mazzucato (2011) shows that public transfers are more significant in stimulating early-stage companies than VCs. Different governmental agencies provide 25% of the total funding start-ups receive on average, representing two times the money invested by VCs. If this statement applies to other ecosystems, it may imply that investors refuse to pump capital in activities that require long-term R&D processes with high commercial uncertainty. Therefore, their investment would be less risky than what is assumed. Contrarily, other scholars claim that VC backed firms perform better than the self-funded ones. This not only happens regarding exports and employment but also in productivity and market penetration (Avnimelech & Teubal 2006, 2017; Rivas 2014; Rosiello et al.2011; Rosiello et al.2013).

## 2.6. Start-Up Policies

There are three types of policies governments can implement to boost start-ups: 1) Channelizing resources to companies. 2) empowering entrepreneurs by providing access to mentors and courses to improve their skills. 3) fostering an entrepreneurial culture by offering 'attractive' regulation (Rivas, 2014). Figure 2 introduces ideal type start-up policies.

**Figure 2: Policy Toolbox**



Source: own elaboration.

Source: own elaboration

Innovation can be straightforwardly replicated without incurring the cost of the R&D process (especially in digital companies which products are rarely copyrighted). Therefore, companies innovate in a risky environment. It is uncertain whether they will get the return on investment or another company will appropriate it. Also, start-ups usually do not have the capital to finance their developments. As a result, the policy response to counteract the underinvestment of the private sector consists of offering seed and scaling up grants (equity-free cash transfers), tax relieves, or promoting partnership deals. Under this scenario, the company that develops the innovation is also its financier through governmental funding. However, this strategy is prone to moral hazard because of the lack of monitoring on start-ups. It might also be affected by asymmetries of information due to a bad diffusion strategy of governments (Bartzokas & Mani 2004).

Summarizing, it is possible to classify the policies as follow: i) the ones that aim at leveraging the supply of capital, stimulating investors in different stages to cover the salability of start-ups by co-financing venture investment; ii) those that are offer grants for seed stages projects; iii) those that offer mentorship and advising services to improve the skills of the entrepreneurs. The habitual policies of groups i) and ii) takes the form of equity-free cash transfers.

## 2.7. Start-Up Ecosystems

This paper builds on previous work that define collaborative networks as start-up ecosystems (Isenberg 2011; World Economic Forum 2013; Cohen & Hochberg 2014; Yasuyuki & Watkins 2014; Spigel 2015; Compass, 2015; IDB, 2016; Mack & Mayer 2016; Motoyama & Knowlton 2017; Aaltonen 2017). This approach stresses that the performance of start-ups should not be addressed by only looking at their operations but also the network of actors they interact with. Although the idea of market failure is well diffused in the economic theory, this framework considers it inadequate to understand the performance of start-up ecosystems holistically (Bartzokas & Mani 2004; Hall 2004; Mayer 2004; Avnimelech & Teubal 2004).

Independently of how developed an ecosystem is, many start-ups go bankrupt during the first five years of existence (Oviatt & McDougall 1995; Chaya 2005; Yasuyuki & Watkins 2014; Compass 2015). There are several reasons to explain why there are barriers that inhibit new business to flourish. One of them is raising capital. Because many start-ups do not possess tangible assets, they cannot offer collaterals to get bank loans. Moreover, there are two factors of uncertainty for potential investors: on the one hand, R&D processes have uncertain life-cycles, making it difficult to estimate the working capital required to finance investment projects and the commercial viability of the outputs. On the other hand, cash flows are derived from forecast towards the future instead of past trends, reinforcing the risk of these investment projects. Thus, it is not easily distinguishable which are potential gazelles (Grimm et al. 2012; Mason & Brown 2013). Consequently, investors demand outstanding rates of return to invest capital into start-ups (habitually, more than 5X<sup>6</sup>).

Most of the start-ups are developed by young entrepreneurs who do not have enough of a track-record on the market. To convert an idea into a feasible business plan is a big challenge, mainly because of two reasons. First, the characteristics of the entrepreneurial team. Just because a start-up came up with a viable idea does not mean it is the best company to carry out that project. Second, a good industrial product may not be a profitable business.

Beyond the financial issues, there are managerial, technologic and commercial aspects that influence the performance of the start-ups. Although this process takes an important role to explain trajectories of start-ups, it is insufficient to understand the systemic performance of ecosystems; its principal weakness is that it only focuses on the internal aspects of the company without considering the relationship with the actors that surround it (Isenberg 2011).

The systemic conditions are fundamental for the emergence and consolidation of start-ups. Companies are highly dependents of the ecosystem in which they are embedded (Granovetter, 1985). It indicates that there are exogenous factors that boost or constraint the development of new companies (Kantis et al. 2017). These conditions are not only restricted to the macroeconomic performance of a country and dynamically change over time. Summarizing the analytical framework, Table 2 introduces an ideal type of degrees of maturity, based on the theoretical contribution of Mack & Mayer (2016)<sup>7</sup>.

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<sup>6</sup> It indicates the multiplier on the original investment at the moment of the exit.

<sup>7</sup> The original tabulation presented an additional evolutionary change (decline) which was not considered for the present analysis. There is not a critical mass of cases that experience the designing process, and it is an ideal type of cases far from the experiences of the objects of study.

**Table 2: Phases of Start-up Ecosystems**

	Birth	Growth	Sustainment
<b>Firms Entries and Exits</b>	Low firm birth rates. Firm birth > firm death	Growing firm birth rates, but also growing the number of firms' exits. Firm birth equalizes firm death	Incremental amount of both birth and death
<b>Policy</b>	Policy-oriented towards traditional economic development efforts: clusters, firm attraction & retention. Not yet oriented towards entrepreneurship	Growing perception among regional policymaker about the need to build start-up ecosystem. First activities to tailor policy towards entrepreneurship. Policy-oriented towards the offer of capital	Policy-oriented towards leveraging venture capital investment, increase R&D investment and sectorial benefits
<b>Finance</b>	Financial Capital is scarce but on an upward path	Financial capital is getting easier to access as investors have started to trust in start-up ecosystems. However, the demand for capital is larger than its offer.	The demand for capital is large but not always attractive for investors
<b>Culture</b>	Few success stories, tolerance of risk and failures not yet developed. Few personalities that stand out as entrepreneurs	Networks among entrepreneurs in the ecosystem become important as entrepreneurs are better known. Societal norms may change in favor of start-up ecosystems	Success stories become critical as firms' deaths are starting to increase
<b>Support</b>	Emergence of pioneering support, organizations such as incubators, accelerators, non-profits groups and entrepreneurship-oriented infrastructure	Non-governmental institutions in support of entrepreneurship start to become more specialized and targeted towards firms' creation	Incubators become less relevant as accelerators do better at selecting competitive companies
<b>Human Capital</b>	Educational institutions mostly oriented towards general degrees. No serial entrepreneurs	Start-up ecosystems start to see first serial entrepreneurs. Educational institutions start offering specific entrepreneurship training programs	When the start-up ecosystem takes off, habitually, the demand for highly educated persons is higher than the offer (engineers, designers, coders, etc.)
<b>Markets</b>	Market for entrepreneurs is in its infant stage	Market opportunities for entrepreneurs in the region developed at the regional level. Emergence of regional and global companies	As successful companies go global, there is an international competition for their stocks. More liquid markets drain companies from infant ecosystems
<b>Policy Implications</b>	Lowering the hurdles for entrepreneurship, networking existing and nascent entrepreneurs, building an entrepreneurship-friendly support infrastructure. Incremental offer of equity free cash transfer for seed stage	Expansion of firms' birth through support regarding financial capital, but also networking	Policies need to shift towards more focalized targets. One size fits all policies are no longer useful

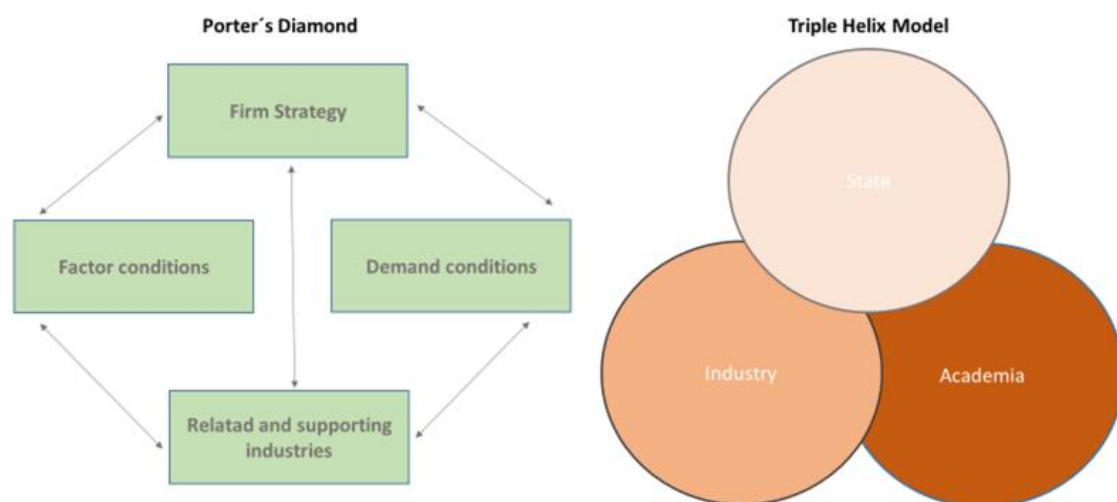
Source: own elaboration based on Mack & Mayer (2016).

There are two useful theoretical approaches to conducting a systemic analysis of start-up ecosystems. One of them is the triple helix model (Leydesdorff & Etzkowitz, 1998; Dzisah & Etzkowitz, 2008; Melese & Helmsing 2010; Wonglimpiyarat, 2016). This perspective points out the importance of identifying the dynamics of the interactions among universities, the public, and the private sectors. Universities are important actor due to their spin-off policies. Governments are responsible for designing and implementing the policies that fuel the ecosystem. Finally, start-ups and investors come from the private sector to generate jobs and pushing the economy towards the technologic frontier.

Porter's diamond (Porter 1990; Porter 2000) is an interesting tool to comprehend the interactions among the actors involved in start-up ecosystems. This framework stresses that the competitiveness and the capability to innovate are explained by a combination of interrelated factors. First, the available infrastructure. Second, networks within clusters increase the productivity because of the flows of information, capital, and knowledge as well as the competition among actors that push them to innovate.

According to Porter (1990), there are four attributes of clusters: 1) Factor condition; 2) demand conditions; 3) context for firm strategy; 4) related and supporting industries. Factor conditions are related to the available inputs (human resources, capital, physical infrastructure, information and natural resources. Demand conditions refer to the characteristics of the customers. The context for the firm strategy might boost or constrain investment and industrial upgrading within a region, impacting on its degree of competition. Finally, related and supporting industries consider the agglomeration of suppliers and complementary actors.

**Figure 3: Porter's Diamond and Triple Helix Model**



Source: own elaboration based on Porter (1990) and Etzkowitz and Dzisah (2008)

Notwithstanding, these approaches are flexibly considered in this research. Clusters should not be homogenized to ecosystems. Clusters agglomerate companies (not necessarily with the characteristics of start-ups) by sector because they can cooperate to serve large clients or to reduce cost by gathering to buy inputs from the same suppliers. Clustered companies also reduce costs by allocating different actors of a value chain reducing transaction costs. Differently, start-ups might share knowledge of new trends in coding, who might be a potential investor or the international fair where to pitch. Therefore, whereas ecosystems benefit from the circulation of knowledge and information among the actors,

clusters benefit from the cartelization to leverage the position of its members in the value chain.

Summarizing, start-up ecosystems work as collaborative, interdependent networks of actors. Each actor assumes a different role in the structure of ecosystems. The entrepreneurial team is fundamental to convert an idea into an operative company. Start-ups are the vehicle through which entrepreneurs commercialize their goods or services. The main particularity of start-ups is that they have an open-capital structure due to their successive requirements of capital. Depending on the scalability, they capitalize in different rounds, incrementing the amount of capital compromised in each round. Habitually, investment starts with seed rounds and can scale up to series D<sup>8</sup>. Governments fundamentally intervene in the seed stage because it is considered the riskiest phase for infant companies, when they still do not have enough income to cover the needs of their cash flow. Investors are of diverse types and invest different amount of capital. Accelerators and angel investors back infant companies. Venture capital and private equity frequently invest afterward, when start-ups already have some track record on the market. Finally supporting organizations offer different varieties of services to start-ups throughout their life cycle. These services are commonly co-working spaces, legal or accountant consultancy or mentorship

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<sup>8</sup> The investment rounds are recorded in letters.

## Chapter 3 | The Argentinean and Chilean Start-Up Ecosystems in Comparative Perspective.

This chapter introduces the main characteristics of the entrepreneurial ecosystem in Chile and Argentina focusing on similarities and differences. To do so, it presents evidence taken from descriptive statistics elaborated on the basis of secondary sources. It also works with primary data coming from the interviews. The chapter aims at providing an in-depth description of the type of policies, investors, and start-ups that shape the entrepreneurial ecosystem in the two cases.

### 3.1. Brief Introduction to the Cases.

Argentina is the second largest economy in South America measured by GDP (World Bank 2017). It has a population that barely surpass forty million. Argentina occupies the second position in the human development index in Latin-American (45th in the world). Buenos Aires is the administrative and financial center of the country. It represents the second largest gross geographic product (GGP). It is also the richest jurisdiction in the country measured by per capita GGP. The city is specialized in services. Argentinean agroindustry is a determinant component of the economy which highly relies on the exports of soy products (INDEC 2017).

Chile is the richest country in South America measured by GDP per capita (World Bank 2017). Since the global financial crisis of 2008-2009, the Chilean economy has seen a strong growth. As in the case of Argentina, its capital city constitutes the main financial and administrative hub and is specialized in services. Chile is worldwide known for its vigorous mining sector, copper being the principal export product (*Banco Central de Chile* 2017).

In both cases, the start-up and venture capital activity are concentrated in the capital cities. Based on evidence coming from CrunchBase, there are 685 active start-ups in Argentina and 523 in Chile, while there are 75 investors in Argentina and 40 on the other side of the Andes. Data coming from the Inter-American Development Bank (IDB 2017) reconfirms this trend, not only in Chile and Argentina, but as a common pattern of all Latin-American start-up ecosystems. Most of the ‘*tecnolatinas*’<sup>9</sup> come from Sao Paulo and Buenos Aires. This trend is also observable in the case of Chile, where most start-ups set up their headquarters in Santiago. This basically happens because the availability of venture capital beyond the main Latin-Americans financial districts is almost zero. The primary data collected in the fieldwork confirm the statement. As the interviewee 22 stressed:

“We are a company from Jujuy, one of the poorest provinces in Argentina. There are no investors there. They do not support companies in Jujuy because, beyond the inexistence of VCs, it is difficult to convince investors that you can develop a start-up based there. So, we had to move to Buenos Aires” (LAVCA 2015).

### 3.2. Systemic Conditions for the Sustainability of Start-Ups in Argentina and Chile

According to a consensus in both the academic and business literature, the US and Israel possess the more mature ecosystems in the world (Avnimelech & Teubal 2002; ACAFI 2016;

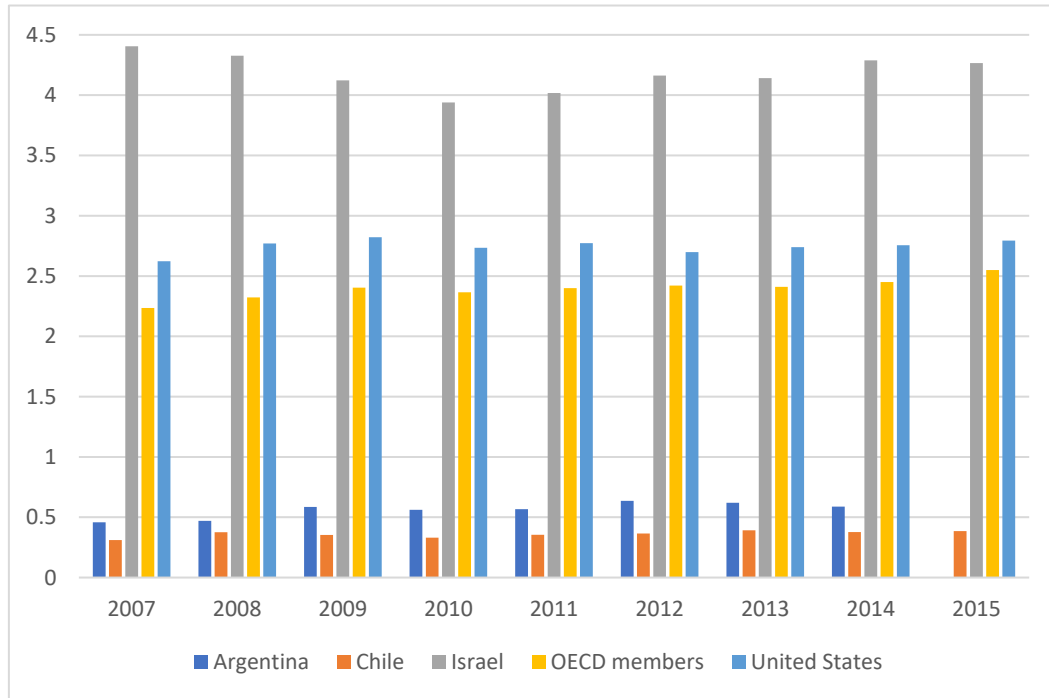
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<sup>9</sup> Neologism utilized to define highly dynamic Latin-American Companies.



LAVCA 2016). Therefore, this section compares R&D investment in Chile and Argentina vis-à-vis the US, Israel, and OECD members because it helps to grasp ecosystems in perspective. Information coming from Figure 4 confirms that both, the US and Israel invest above the average of the most developed economies; Argentina and Chile are far back. Although the difference is not significant, higher degrees of R&D investment is observed in Argentina compared to Chile.

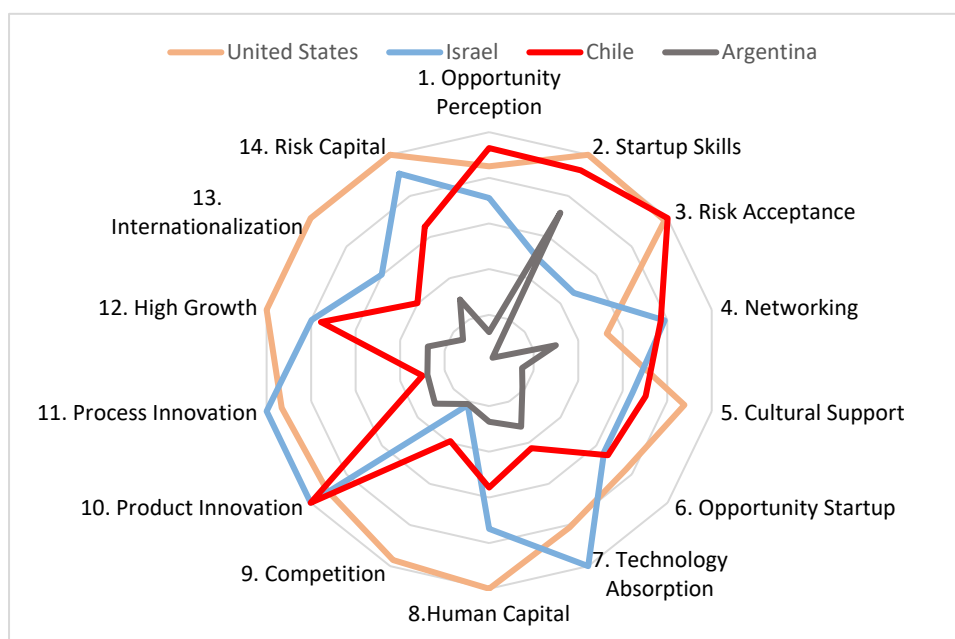
**Figure 4: Research and Development Expenditure as % of the GDP**



Source: The World Bank (2017).

Following the thread of the inquiry, this paper reviewed two sources to address from a holistic perspective the systemic conditions for the sustainability of start-ups in Argentina and Chile. Also, it includes data on the US and Israeli cases to incorporate a broader perspective regarding degrees of maturity. Subsequently, the indicators are analyzed from the perspective of the theoretical categories introduced in Table 3.

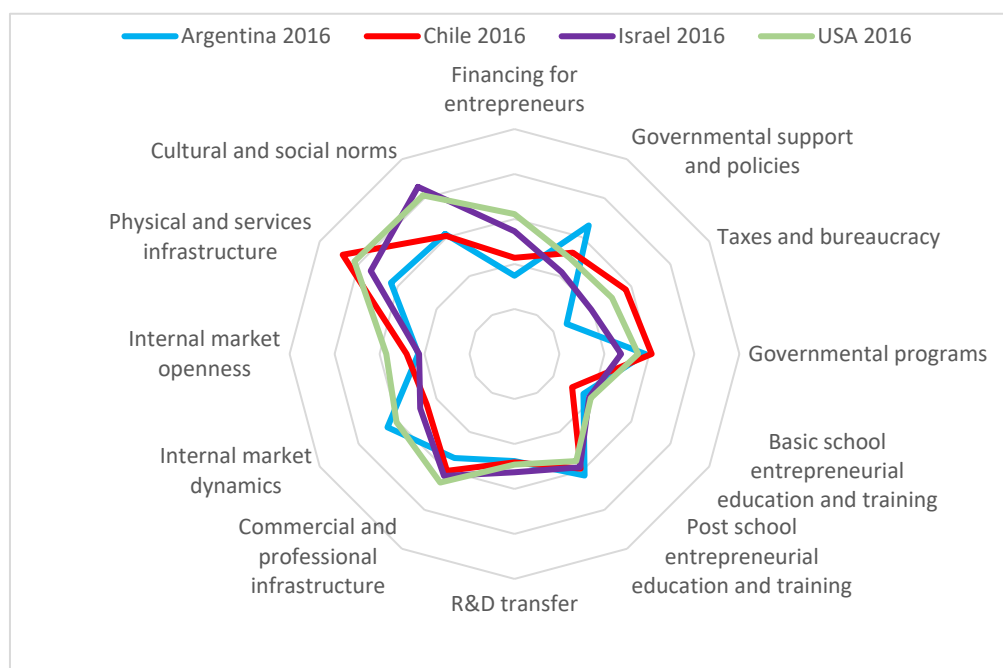
**Figure 5: Global Entrepreneurship Qualification per Country I**



Source: own elaboration based on the Global Entrepreneurship Index (GEI 2017)

The systemic conditions analyzed in Figure 5 is only in part consistent with the trend observed regarding R+D investments. The data is consistent with the fact that Chile and Argentina are both behind Israel and the US. However, based on these figures, the systemic conditions are better for the emergence of start-ups in Chile compared to Argentina. Argentina is only highlighted for the skills of its start-ups. If the systemic conditions are a determinant aspect of the sustainability of start-ups, it means that the Chilean entrepreneurial ecosystem should be more mature, producing more start-ups and investors.

**Figure 6: Global Entrepreneurship Qualification per Country II**



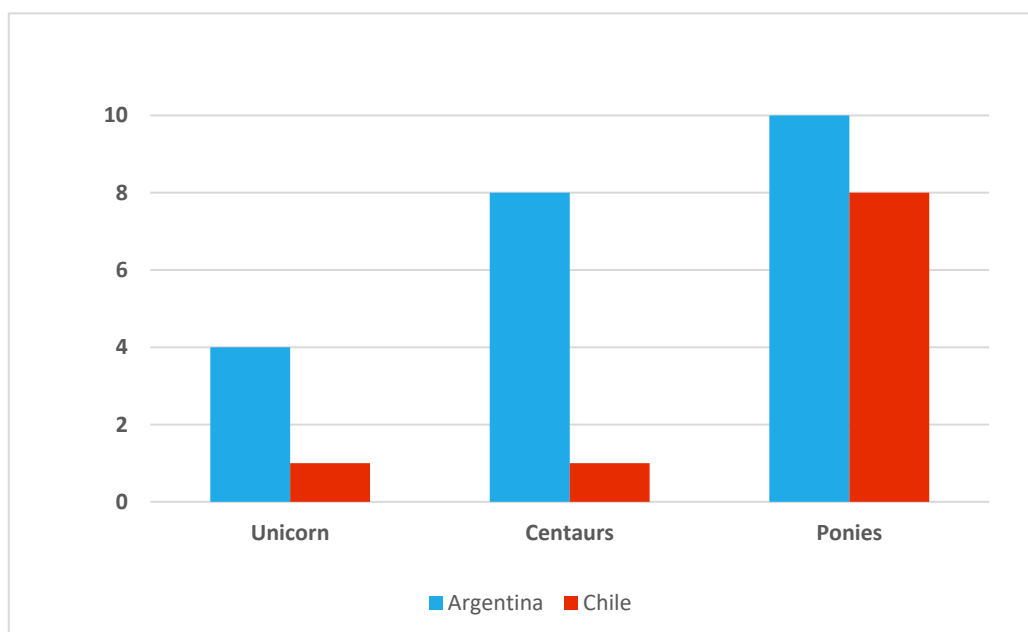
Source: own elaboration based on the Global Entrepreneurship Monitor (GEM 2017)

After crossing the data coming from the Global Entrepreneurship Index (GEI 2017) with the Global Entrepreneurship Monitor (GEM 2017), one can affirm that there is consistency. In the second source, Argentinean metrics indicate that its systemic conditions are more favorable for the sustainability of start-ups than the GEI. Chile is still more robust and both, the US and Israel offer better conditions for the emergence of start-ups.

### 3.3. Highly Dynamic Start-Ups and Venture Capital Investment in Argentina and Chile

Subsequently, it was reviewed the market valuation of the most successful start-ups in the region based on an Inter-American Development Bank Report (IDB 2017). However, the data is not consistent with the systemic conditions previously introduced. Although one would have expected, ex-ante, a more intense presence of highly dynamic Chilean companies, the data revealed the opposite trend. The three groups of the most dynamic companies in Argentina and Chile are led by Argentinean start-ups. Particularly, the categories of unicorns and centaurs show a limited presence of Chilean companies. It is plausible to argue that these companies have an exceptional performance<sup>10</sup> and are not representative of the general trend. However, this paper claims that the production of these companies is fundamental for the sustainability of ecosystems. Gazelles produce spill-over effects on start-ups and venture capital relations, as this paper shows in Chapter 4.

**Figure 7: High-Value Tech-Companies (Argentina and Chile)**

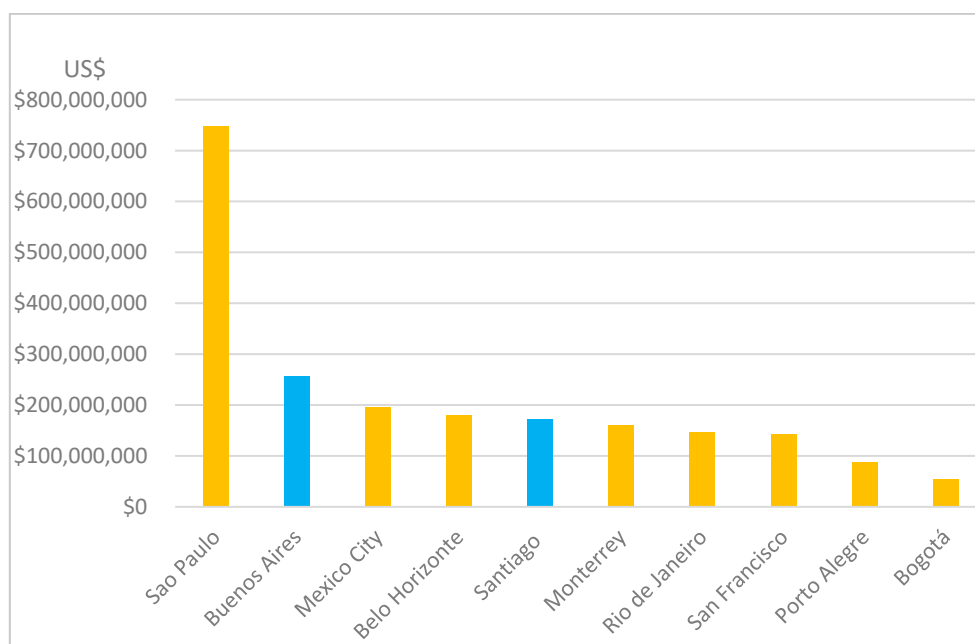


Source: own elaboration based on IDB (2017).

Netting all Latin American ecosystems, Argentina and Brazil explain 82% of the regional valuation (IDB 2017). Regarding sectors, most of the companies in the region focus on digital activities. Chilean highly dynamic companies operating in global or regional markets are moderately represented. Most of the regional leaders come from Brazil (59), Argentina (22) and Mexico (17). Argentina counts for 37% of the regional ecosystem valuation (IDB 2017).

<sup>10</sup> In the literature these companies are known as black swans (Mahroum 2016).

**Figure 8: Capital Raised per Ecosystem (2011-2015)**



Source: own elaboration based on LAVCA (2016).

The Latin American Venture Capital & Private Equity Association (LAVCA) provides interesting data to deepen the analysis. Reconfirming the trend found out regarding high-value start-ups as well as investors actively operating in both markets, LAVCA corroborates that during a five years period Buenos Aires had more capital raised by start-ups than Santiago. Interestingly, the red bar only contemplates Latin-American dedicated funds headquartered in San Francisco. Although that data was not disclosed, the evidence coming from two different sources (the interviews and CrunchBase) enables this research to offer an explanation introduced to this issue. It is discussed in Chapter 4.

**Table 3: Operations per Investor<sup>11</sup>**

Argentina		Chile	
Investor	# Operations	Investor	# Operations
NXTP Labs	221	Start-Up Chile	745
Kaszek Ventures	57	Mountain Nazca	58
Nicolas Szekasy	16	CORFO	16
CAP Ventures	13	InverSur Capital	6
Eduardo Amadeo	11	Fondo de Inversión Privado	5
Marcos Galperín	10	Copec-UC	
MercadoLibre	8		
Enzyme Venture Capital	8		
The Exxel Group	7		
AxVentures-Pymar Fund	7		
Alec Oxenford	6		
Primary Ventures	6		
Quasar Builders	5		
Hernán Kazah	5		

Source: own elaboration based on CrunchBase (2017).

<sup>11</sup> Only investors with five or more investments were considered.

Again, the evidence indicates more capital is raised in Buenos Aires compared to Santiago. However, the table deserves some clarifications. It does not mean that all the documented investments are located in Buenos Aires and Santiago. Rather, based on the secondary data and the interviews, it was verified that investments overpass national borders. It specifically happens in the case of Argentina, where the most influential investors (MercadoLibre, NXTP Labs, and Kazsek Ventures) have made investments in Chile, México, Brazil, and Uruguay.

“Brazilian start-ups explain approximately 65% of our portfolio”<sup>12</sup>.

As the Table 3 shows, NXTP Labs is undoubtedly the most active accelerator of start-ups in South America. It habitually invests US\$ 25.000 if start-ups raise less than US\$ 500.000 and US\$ 125.000 if start-ups raise more than US\$ 500.000. NXTP sometimes follow-on<sup>13</sup> its investments, taking up to 20% of the equity in future rounds. The last fund that the company built raised US\$ 38.5 million. NXTP projects to invest it in 220 companies, assigning 70% to follow-on investments at the regional level (Lerner et al. 2016).

According to the public information and the CEO’s testimony, NXTP has already exited from 13 start-ups, is the most emblematic the sale of Tutum (a platform for distributed applications), acquired by Docker (Silicon Valley ‘unicorn’). Tutum is a company with headquarters in New York which development started with a seed investment of both Start-up Chile and NXTP (CrunchBase 2017). This exit generated \$1.5 million and a 60x return for NXTP Labs. They did 14 write-offs<sup>14</sup>. There are 114 companies they consider walking dead (firms that although do not go bankrupt do not generate profits. Finally, they have 85 investments on moderate and high growth firms, aiming at generating between 10 and 15X.

On top of that, the main aspect to highlight is that all Chilean investors that have invested in five or more start-ups are governmentally backed. Start-Up Chile<sup>15</sup> is the main policy to boost the sector. Furthermore, all the venture capital investors listed on table 3 are either directly funded by CORFO, the Chilean Development Bank, or through CORFO by public-private venture capitals. Consequently, the evidence shows that the Chilean ecosystem is fundamentally driven by governmental policies. In the case of Argentina, there is not an observable incidence of public investment on the entrepreneurial ecosystem.

**Table 4: Exits per Ecosystem as a % of Start-Up Invested (Santiago & Buenos Aires)**

Country	Investments	Exits	Equity still held by investors	% of total
<b>Buenos Aires</b>	455	36	419	8%
<b>Santiago</b>	870	18	852	2%

Source: own elaboration based on CrunchBase (2017)

Table 4 provides clues to understand important characteristics of both ecosystems. First, considering a number of exits as an indicator of maturity (OECD, 2011; Aggarwal & Hsu, 2014; Cohen and Hochberg, 2014; Roberts et al. 2017), one can affirm that Buenos Aires is

<sup>12</sup> Interview with Tomás Musich (18th August 2017).

<sup>13</sup> further rounds after the seed stage.

<sup>14</sup> A reduction in the balance sheets of the value of the equity they possess.

<sup>15</sup> Further assessment on Start-up Chile and the Chilean VC policy is introduced in Section 3.

slightly more dynamic than Santiago, with 8% and 2% of exits respectively. Second, it is observable that both markets generate limited options for exits. It may be related to a combination of the following aspects: i) most of the projects are not scalable enough to find an investor; ii) there is not a critical mass of venture capitals that can afford high-value investments; iii) the financial markets do not offer possibilities to go public. The next chapter addresses this issue.

**Table 5: Investments by Type and Country of Origin of the Start-Up in US\$ (2009-2017)<sup>1617</sup>**

Investment Type	Average		Sum	
	Argentina	Chile	Argentina	Chile
Convertible Note	173.656,67	272.500,00	520.970,00	545.000,00
Grant	n/a	271.545,85	n/a	188.181.276,00
Seed	317.721,88	88.532,45	58.778.548,00	62.503.906,72
Angel	735.714,29	239.222,22	5.150.000,00	2.153.000,00
Non-equity Assistance	n/a	1.158.555,56	n/a	10.427.000,00
Series A	4.567.916,67	1.638.592,75	109.630.000,00	11.470.149,25
Series B	11.347.196,44	11.800.000,00	215.596.732,40	47.200.000,00
Series C	34.941.176,47	n/a	139.764.705,88	n/a
Crowdfunding	2.000.000,00	n/a	2.000.000,00	n/a
Series Unknown	26.582.779,79	1.149.020,86	372.158.917,00	16.086.292,00
<b>Total</b>	<b>78.666.162,20</b>	<b>16.617.969,68</b>	<b>901.599.873,28</b>	<b>338.566.623,97</b>

Source: Own elaboration based on CrunchBase.

Table 5 introduce different types of investments following cycles of capitalization of start-ups. Companies invested through the modality of convertible notes are commonly in an infant stage. Therefore, the risk of the investment is high. On the contrary, companies invested in Series C are mature and, habitually, already big players, having at least a regional but commonly a global market penetration. Table 5 indicates that there is no evidence of governmentally backed companies in Argentina while most of the capitalization of start-ups in Chile comes from public grants. Rounds are, vis-à-vis, larger in Argentina compared to Chile. Three explanations may be derived from that data: 1) investors rely more on the scalability of the projects settled in Argentina; 2) more venture capitals are actively investing in Argentina. 3) Only a few companies successfully scale up to sizes that require large capitalizations. The limited number of Series A, B and C can be interpreted as a proxy for the size of the companies. Therefore, the findings coming from Table 5 enables the research to claim that most of the Chilean and Argentinean start-up remain SMEs.

<sup>16</sup> The database registers every investment a start-up received. So, if the same investor invests in different rounds of the same company, it will appear more than once. There are 102 missing over 1175 observations; 63 over 320 in Argentina and 39 over 854 in Chile. It may be related to the signature of Non-disclosure agreement.

<sup>17</sup> The amount of venture capital investment in Argentina and Chile shown in Table 5 and Figure 8 differ because of two reasons. First, LAVCA only record data of their affiliated companies. Second, CrunchBase register data base on country of origin of the start-up which does not necessary mean the capitalization was made in the same country. This paper offers an explanation about it in Chapter 4.

### 3.4. Bottom-Up Development in Argentina. The Software Industry and the Four Unicorns as Catalyzers of the Ecosystem.

A report published by the World Economic Forum (2013) situates the emergence of Buenos Aires' start-up ecosystem in the mid-nineties<sup>18</sup>. The first generation of pioneers harnessed the arrival of the Internet to South America, realizing the commercial potential of the technological shifts produced by the age of information (Dosi 1982; Perez 2009).

Argentina has had an early development of benchmark companies that acted as leading cases for several entrepreneurs who decided to launch their companies based on successful references operating on the market. Although there are only a few cases of unicorns, they are well known by all the actors in the ecosystem and have highly contributed to generating an entrepreneurial culture. Thus, it is fundamental to review the cases of the 'big four' start-ups to understand the ecosystem in Buenos Aires.

First, MercadoLibre (MELI). It is a marketplace that started operating in 1999. Its CEO is a Stanford graduate with strong connections in the Silicon Valley, which helped him to raise more than by US\$ 50 million after the second year of operations (CrunchBase 2017). It is now operating in 13 countries. The company is listed on Nasdaq. MELI's valuation surpassed 12 billion in 2017, becoming the third largest company in Argentina. It directly generates more than 8.000 employment and 150.000 indirectly.

MELI has multiple spillovers. As an example, this paper presents two among various start-ups developed by former MELI employees. Nubeliu is a start-up specialized in the development of cloud applications, constituted in 2014. It now has 20 employees and expanded operations to Brazil. The start-up was sold in 2017 to the British holding Datatec for US\$ 5 million per 51% of the equity (Ensinck 2017). The second example comes from the primary data collected through the survey. Real Trends offers business analytics metrics for e-commerce and marketplace users. The firm was created in 2014. It raised capital from NXTTP labs in a first round and is annually increasing its sales by more than 50% currently hiring more than ten employees and exporting to México and Brazil.

Since 2013, MEL Commerce Fund has acted as a corporate venture capital. MELI Ventures's was capitalized for US\$ 10 million and invests US\$ 100.000 per start-up. This seed fund mostly invests in Latin-American companies that directly or indirectly contribute to the growth of their business either for providing goods and services to MercadoLibre's users or by scaling up their competitiveness with new technologies. Thus, their strategy is to invest in companies that create value for their core business. Currently, more than 20 companies operate as a satellite of Mercadolibre, producing services for the platform. Some of them were invested either by MELI's CEO or by MELI Commerce Fund. This spillover effect was conceptualized as multiplier effect by Endeavour (2006). In other words, actors that increase the number of players and, therefore, the size of the ecosystem.

A fundamental indirect spillover for the Argentinean ecosystem is Kaszek Ventures. It is a VC created by former MELI executives. It is the largest VC in the region with investments not only in Argentina but also in Mexico, Uruguay, Chile, and Brazil. In fact, most of its portfolio belongs to Brazilian start-ups (60%). The company has invested 1,4 billion in 43 companies. It started operations in 2011 in different sectors like financial technology, e-commerce, and artificial intelligence. Kaszek launched its first fund in 2011 having raised US\$ 100 million which was invested in 24 start-ups. The second fund was constructed in

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<sup>18</sup> See Appendix 3.

2014 with a capitalization of US\$ 135 million. The third fund was constituted in 2017 managing US\$ 200 million, still pending to be invested.

Globant is another Argentinean unicorn that started its operations in 2003. It is a software developer. The company went public on NYSE in 2014. Its market valuation is US\$ 1.2 billion. The company was the first tech Latin-American start-up in acquiring a Silicon Valley company. Globant expands its operations by strategic acquisitions, mostly in Latin America having purchased ten start-ups. Globant was invested in various rounds the Silicon Valley, London, and New York.

Despegar.com, like MELI, was created in 1999. It is now the biggest business to consumer (B2C) travel agency in Latin-American. This company was invested in 2012 by Sequoia Capital, the largest VC fund in the Silicon Valley plus Tiger Ventures, the largest Brazilian VC. Despegar is listed on Nasdaq. It has 3,000 employees in the region. As the perceived general trend, its revenue mostly comes from Brazil (40%), and the rest is distributed among different Latin-American countries.

Finally, OLX is an online classifieds platform, currently operating in more than 80 countries. It was funded in 2006 by a ‘serial entrepreneur’ who had previously founded Deremate.com, a company acquired by its main competitor, MELI. OLX raised more than US\$30 in different rounds in the Silicon Valley and Wall Street (CrunchBase 2017). Later, it was sold to Naspers, a South African holding, in 2010. The company has now 1,200 employees. OLX’s founder has invested in eight companies in Brazil, the U.S., and Argentina in seed and Series A rounds.

Beyond the four local unicorns, another driver of the local ecosystem is the software industry<sup>19</sup>. According to the CESSI (2017)<sup>20</sup>, 4,200 companies actively operate, exporting more than US\$ 1 billion. It generates more than 87,000 jobs. Its salaries are 45% above the average of other industries.

Several companies were created after these foundational milestones. However, it is difficult to measure the impact of the start-up ecosystem due to the poor available statistics. First, companies die, merge, rename, are sold or move their headquarters with a speed that make a quantitative analysis not reliable. According to CrunchBase (2017), there is roughly 650 actives start-up in Buenos Aires.

### **3.5. The Chilean Policies as an Efforts to Create a Start-Up Ecosystem from the Top.**

Differently from the Argentinean trajectory, the Chilean government decided to promote the creation of the start-up ecosystem to push the economy towards knowledge-intensive activities. The initial diagnostic was that there was very little technology-based entrepreneurial activity. Policy-makers thought that it could be reversed through the implementation of policies to incentive both the creation of start-ups and venture capital. Chile channelized resources to finance the policies through its development bank, CORFO. It plays a fundamental role in the promotion of the start-up ecosystem. Primary data coming from the interviews and the official documents reveal that CORFO has three different

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<sup>19</sup> Argentina has a software promotion law that offers 60% of reduction to taxes on profits to companies that possess certification, exports and invest in R+D. However, it aims at promoting consolidated software developers which scope is narrowed than the broader definition of start-ups that this paper uses.

<sup>20</sup> Business Association of software and Informatic Services. CESSI, for its acronym in Spanish.



targets: fostering innovation in consolidated companies, boosting dynamic start-ups and supplying more and better financing.

Based on the testimony of the interviewees 9 and 13, official documents and secondary sources (Capelleras *et al.*, 2010; Pearce *et al.*, 2016), this research identified 35 active VCs in Chile investing (mainly but not only) in Santiago. Two of them are listed on the stock-markets. CORFO has backed all the Chilean VCs. The private VCs invested US\$ 387,6 million while the public ones disbursed US\$29.3 million. Their portfolios consist of 191 companies (ACAFI 2016). Only two VCs predominantly invest in start-ups<sup>21</sup>. CORFO's disbursement policy consist of offering 2-1 or 3-1 transfers. It means that for every US Dollar invested by private actors, CORFO co-finances double or even triple the amount if the project is considered innovative. CORFO also has the flexibility to invest in start-ups directly.

CORFO is also the financier of Start-Up Chile. This policy is being implemented since 2011. Policy-makers wanted to convert Santiago into an important tech-hub in South America. Designers considered that promoting the arrival of entrepreneurs from abroad they could change the entrepreneurial culture in the country. "Expectations are that the policy will help domestic entrepreneurs access the resources of foreign entrepreneurial hubs (...), increase deal flow for early stage domestic investors, and legitimize the occupation of high-growth entrepreneurship" (Gonzalez-Uribe & Leatherbee 2016: 8). In the first three editions, this policy forbade the participation of Chileans. After receiving strong objections, it was readjusted. Currently, Chileans entrepreneurs comprise, on average, almost 25% of the beneficiaries.

"Differently, to Argentina, we have not had an installed entrepreneurial mentality with a structure of global projects. In Chile, entrepreneurs historically centered in local markets, geographically limited. We prioritized generating a shift in the mentality of the business community. Thus, co-working spaces were important for us (...) in 2015 we considered that step achieved and started focusing on retention of talent. We wanted inspiring people for the ecosystem. Now, we want to attract people who come to Chile because they see the attractiveness of the country, which implies changing the scouting strategy."<sup>22</sup>

Start-Up Chile grants beneficiaries with non-refundable US\$ 40,000 as well as co-working spaces and mentorship services. It also offers immediate working visa and an easy process to register the company in Chile. In return, it demands from beneficiaries at least six months of permanency and commercial operations in the country. A limited number of participants can apply to the schooling program to receive mentorship. Only 20% of applicants participate in the mentorship program. 45% of the participants in the schooling receive additional funding. Moreover, these companies increase their revenue by 23% and labor in 34%. The survival rate is 58.6%. There is an important impact of the mentorship in the network of participants. Access to the immersion program enables start-ups to improve their businesses by addressing in a better way their market research, business model, cash-flow analysis, the requirement of capital and marketing strategy (Gonzalez-Uribe 2015; Gonzalez-Uribe & Leatherbee 2016).

One hundred start-ups participate in each cohort. So far more than 1700 entrepreneurs from 58 countries and 825 companies have participated in the program. CORFO has been continuously providing US\$ 15 million per year for financing the program. Start-up Chile occupies the fifth position at the global level regarding companies backed per Accelerator.

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<sup>21</sup> While Tech and *Fondo Etapa Temprana*.

<sup>22</sup> Interview with Rocío Fonseca (22<sup>nd</sup> August 2017).

Gonzalez-Uribe & Leatherbee (2016) introduce evidence that shows that more than cash transfer, what has a strong influence on the success of start-ups is the mentoring process. This part of the immersion program is fundamental for acquiring managerial capital which is more relevant for building successful companies than fundraising, because of its impact on productivity and profitability (Bloom & Reenen 2010). CORFO estimates that each start-up generates 2.5 job positions on average.

Beyond the active governmental support, the Chilean ecosystem still has difficulties to take-off. Although the arrival of new start-ups increased a lot after the implementation of Start-Up Chile, the performance of the beneficiaries is still erratic (Romaní et al. 2013). Moreover, very little entrepreneurial activity happens independently of the governmental initiatives. All the Chilean actors interviewed during the fieldwork agreed that the system is not sustainable without the intervention of CORFO.

“80% of the accelerators have funding that depends on CORFO’s transfers. CORFO is the main promoter of the shift in the local ecosystem. Once we perceive the change is ongoing, CORFO will slowly withdraw from the market. Still, we do not see maturity.”<sup>23</sup>

Contrasting the Chilean policies with the Argentinean ones’ reveals important differences. First, none of the Argentinean interviewees foreground the policies. After reviewing the entrepreneurial activity introduced in previous sections, there is no evidence of venture capital and start-ups governmentally backed through equity-free cash transfers. As it is introduced in Annex 5, Argentinean start-up policies are dispersed in different ministries. Furthermore, they are not directly designed to solve the specific needs of the start-up ecosystem but to promote innovation in specific sectors such as biotechnology, software or nanotechnology. Furthermore, the entrepreneurial policies target a wide variety of potential beneficiaries and not specifically start-ups in the sense this work defines it.

“The economic matrix of the city is diverse, and we cannot focus only on tech entrepreneurs. We must attend all the needs. Tourism, gastronomy or the fashion industry are very important too”<sup>24</sup>.

In October of 2017 a new entrepreneurial law entered into force in Argentina. It creates a new legal structure for start-ups to speed up the process of creating and capitalizing new entrepreneurial businesses. It also aims at boosting the venture capital industry. The new entrepreneurial law will create a ‘fund of funds’ with public-private financing offering licenses to create 13 VCs. The goal is to increase the supply of capital for the segment between US\$ 500,000 and US\$ 2 million to boost Series A rounds. Each fund will finance between 6 and 8 projects per year.

“We aim at capturing equity currently that leave the country. The idea is to enter as government but quitting soon to subsidize the risk of the private sector with a 1-1 scheme (50% financing). If the VCs are profitable, they can purchase our participation with 0 interest rate, and if it is not successful, it works as a grant.”<sup>25</sup>

When the Argentinean policy-makers were asked what their consideration about Start-Up Chile is, they agreed that Argentina has a different start-up ecosystem structure. It currently has a deal flow of projects<sup>26</sup>. According to them, Argentina does not need to bring entrepreneurs from abroad to strengthen the local ecosystem. They also agreed on the fact that there is not a specific preference for digital companies because they have to provide

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<sup>23</sup> Interview with Maricarmen Torres Fuentealba (17<sup>th</sup> August 2017).

<sup>24</sup> Interview with Santiago Sena (23<sup>rd</sup> August 2017).

<sup>25</sup> Interview with Esteban Campero (15<sup>th</sup> August 2017).

<sup>26</sup> It means the rate at which investors receive business offers.

policies to all the sectors. Regarding the stimulus to venture capital investment, the characteristics of the new law are similar to the policies that CORFO offers. However, whereas CORFO is a fixed capital provider for the Chilean system, the funds the Argentinean government seek to create still do not have a clear financier

### 3.6. Characteristics of the Venture Capital Industry in Argentina and Chile

Differently to mature ecosystems like the ‘Silicon Wady’ and the Silicon Valley which expanded based on financial VC, Argentina and Chile are slowly increasing the availability of funding based on the arrival of corporate VCs to the ecosystem. Their particularity is that they are not former entrepreneurs that sold companies. Rather, new actors come from the corporate world. Most of them offer the same scheme: they purchase equity (7% up to 10%) if there are successive rounds, the accelerators can either follow on or exit their equity. Habitually, investments oscillate around US\$ 50.000. They also offer co-working spaces, access to their network and mentorship services.

**Table 6: Corporate Investors in Early Stage companies (Argentina & Chile)**

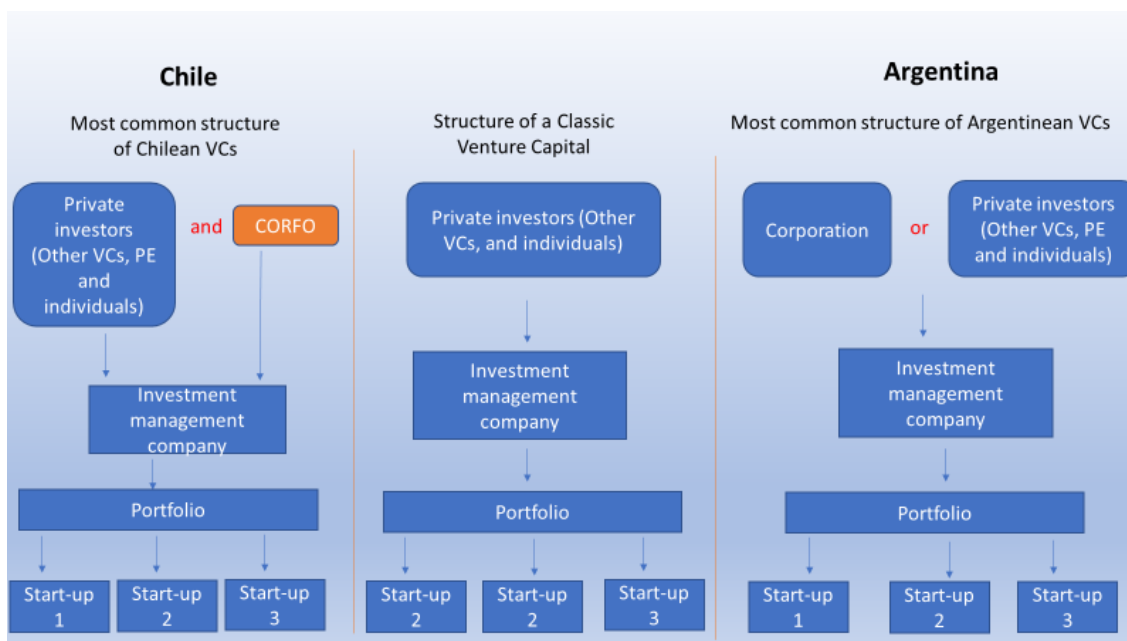
Accelerator	Type	Holder	Investments
Wayra	Corporate	Telefónica (Spanish Telco that leads the sector in Europe and Latin-America)	B2B gaming, digital marketing or companies which can add value to Telefónica
Eklos	Corporate	Quilmes (AmBev Group) largest beer producer in Argentina by market-share	Business accelerator aimed at developing a network of start-ups that help to innovate in retail processes.
MELI Funds	Corporate	MercadoLibre	e-commerce or service providers for e-commerce and marketplace users
Xpand Ventures	Corporate	Grupo Clarín (Mass media holding)	Agtech, insurtech, e-commerce and media.
Imagine Labs	Financial	Microsoft	Software, apps, gaming
Inspirar	Financial	Corporate Accelerator that select companies based on the needs of corporate clients	Dynamic projects
Magical Startups	Financial	Financial accelerator CORFO backed	Dynamic projects
NXTP Labs	Financial	Financial accelerator IDB backed	Unrestricted. Dynamic projects
Dano	Financial	Financial accelerator CORFO backed	Dynamic projects
Fen Ventures	Financial	Financial accelerator CORFO backed	Biotech, Fintech, Software
Link	Financial	Private Investors	Female entrepreneurship
SocialLab	Financial	Private Investors	Social impact entrepreneurs
Vrainz	Financial	Private Investors	Mobile
Cygnus Capital	Financial	Private Investors	Fintech, AgTech, Cleantech, and Biotech.

Source: own elaboration based on internet and LAVCA (2016) and ACAFI (2016)

Based on the data collected during the fieldwork and a review of the portfolios, one can say that these companies do not restrict their investments to the territory where the headquarters are located. They invest at the regional level. Another conclusion coming from the fieldwork (in line with the literature), is that CORFO is a fundamental booster of the venture capital industry in Chile

Figure 9 represents the most common structure of venture capital in Argentina and Chile. The most common type of venture capitals are the financial ones. It is the most frequent structure of VCs at international level. The main difference of Chile compared to Argentina relies on the influence of CORFO as a driver of venture capital investment.

**Figure 9: Structure of Venture Capital (Argentina and Chile)**



Source: own elaboration based on the author's fieldwork, Rivas (2014), LAVCA (2016) and CORFO (2017)

The findings reveal that investors are more diversified in Argentina due to a higher presence of both financial and corporate VCs. Due to the existence of different waves of start-ups<sup>27</sup>, it is possible to identify the presence of VCs that after selling their start-ups became investors. That is the case of NXTP, MLEI Funds or Cygnus Capital, among others. This shift is important to expand the actors of the system.

In parallel, big corporations started investing in start-ups which is a trend that was also identified in Chile, although to a different degree. The main aspects of convergence are the bottleneck regarding the availability of capital for scaling up companies (Series B, C, and IPOs). In the two cases, most of the capital is allocated in seed rounds especially through the modality of acceleration. This aspect is deepened in the following chapter.

Recapitulating, this chapter identified an incipient development of the venture capital industry, both in Argentina and Chile. There is an observable incremental presence of investors in the two countries. CORFO is a fundamental driver of the availability of capital in Chile. Chilean investors are predominantly financial. In the case of Argentina, the availability of capital is entirely explained by private sector initiatives<sup>28</sup>.

<sup>27</sup> See Annex 3.

<sup>28</sup> NXTP Labs received funding from the IDB, but it is an international institution.

## Chapter 4 | Analysis and Discussion

This chapter introduces the main findings of the thesis. It provides an analysis of the data, explaining why both start-up ecosystems face similar constraints in Chile and Argentina despite different trajectories from the private sector and the policies. This section also includes an explanation of why it identified a more mature ecosystem in Argentina although the differences are not significant.

### 4.1. Main Findings

#### *4.1.1. Types of Start-Ups*

Based on the data collected in the fieldwork<sup>29</sup> and secondary sources (OECD, 2013; Gonzalez-Uribe, 2015; Ministerio de Economía 2016; Kantis et al. 2017; IDB 2017) this paper identifies four types of companies both in Chile and Argentina. First, the so-called walking dead. These are companies that both investors and entrepreneurs know that sooner or later will die. Therefore, these companies will not be graduated beyond the first five critical years of existence. Second, an important conjunct of companies from both countries is lame ducks. These are SMEs that hire between 5 and 20 persons. These companies habitually graduate, and the founders manage to live out of the profits. However, the start-ups comprised of this group are not considered attractive enough as a destination of investment, and their scalability is limited. The lame ducks and walking dead might be receivers of seed capital from family fools and friends, government programs or even angel investors or accelerators but only rarely manage to get venture capital investment. Their future fall is easily recognizable for experienced investors.

The third group is the ‘dynamic enterprises’. These are fast-growing companies in terms of employees, capitalization, and revenues. Also, this group habitually surpass the critical line and receive more than one round of investment. Depending on the size of the round, it might involve the presence of national, regional, international VCs or different combinations of all of them. Commonly, these companies aim at selling them to big foreign corporations that match with their core business or because there are complementarities. Finally, a few gazelles are competing regionally or globally. These companies that perform outstandingly are those invested by international venture capital. However, to get the important amount of investment, they have to go to key hubs where the large capital is concentrated.

The primary data collected is consistent with most of the testimonies. The foremost opinion is that lame ducks and walking dead companies are the most habitual start-ups one can find in ecosystems like Santiago and Buenos Aires. The second has more presence of dynamic enterprises and gazelles than Santiago, although the existence of these type of start-ups is still not abundant in both countries. Thus, the empirical analysis corroborates the theoretical categories constructed by Lerner et al. (2016).

#### *4.1.2 Analysis of Start-Ups and Venture Capital Relations in Chile and Argentina*

The interviews corroborated that start-ups need financing to support their expansion. There is a narrative told by the protagonist of start-up ecosystems that claim the idea that both VCs and tech-entrepreneurs are visionaries that make innovation happens. Although this is partly

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<sup>29</sup> For a detailed review of the interviews, see Annex 4.

true, we should not lose sight on the fact that they are actors who act in terms of X (what is the multiple by which the value of their equity is multiplied). Therefore, innovation can only emerge from a start-up when it can increase its valuation rapidly. The common practice of investors (in whatever phase a start-up is) consists in holding their equity for a period that can oscillate between four and seven years before the exit with the expectation of getting a yield of 6X up to 10X. Alternatively, there might be a policy that supports the growing process of start-ups.

The fieldwork revealed that most of the start-ups (and also their investors) aim at selling the company after successfully crossing the scaling up phase. As the CEO of NXTP pointed out:

“The South American entrepreneur take advantage of the first opportunity and sell the company. They do not pretend to manage the growth of the companies once they are already successful” (LAVCA 2015).

Migoya, Globant’s CEO, reconfirms the assertion:

“In the Silicon Valley, 80% of entrepreneurs found a company to increase its stocks and make it grow. In Argentina, 80% founds a company to get a good standard of living based on the dividends. It is installed the idea of selling to be personally wealthy. We had the opportunity to sell or doing another round and keep growing, and that is the option we chose. We went to the US because there is where the liquidity is for a company of our size” (LAVCA 2015).

It is a different entrepreneurial behavior than what is dominant in other ecosystems. For instance, in the Silicon Valley, most companies’ goals are commonly becoming a unicorn holding their equity in the long-run.

Thus, post-investment trajectories can be grouped into two categories. First, ‘fast sale’ are those in which a foreign company purchase the start-up and the founder leaves the management. Second, the ‘tecnolatinas.’ These are companies that grow by organic means and instead of selling they either acquire other start-ups or make deals with big corporations, to become big players (Gonzalo et al. 2013; IDB 2017).

Another finding is that the market penetration of Chilean and Argentinean start-ups is predominantly regional rather than global. The same occurs related to VCs which mostly invest in the region.

Significative flows of venture capital were not identified. The few companies that are large enough to do an IPO choose a financial hub from abroad because they cannot get the desired amount of capital on the local stock-market. It reinforces the vulnerability of the system since the very little chance of going public erodes opportunities to sell the equity as an investor. There are two alternatives: mergers and acquisitions or exiting in further rounds, being absorbed by another VC.

On top of that, many respondent investors highlighted the fact that the legal structure for investments discourages the deals. Investing in start-ups is risky, considering only a small proportion of the new endeavors succeed. Moreover, if a start-up goes bankrupt (because of a poor performance and assuming that there is not a fraud) the investor, as partners, must afford the start-up’s debt with his or her personal savings.

Differently, to mature ecosystems like the ‘Silicon Wady’ and the Silicon Valley, Argentina has seen an expansion of its main ecosystem, Buenos Aires, due to new investors that started funding start-ups. These newcomers are angel investors that invest the average seed capital in the region (US\$ 50,000 per 7% of the shares). Their particularity is that they are not former entrepreneurs that successfully exited from their start-ups and have become investors. Rather, new actors come from the corporate world. Thus, as it was shown in Chapter 3,

corporate VC is gaining momentum, especially in Argentina. It is a new business model for innovation. Big corporations outsource R+D processes by investing in promising start-ups. Investing in an early-stage phase enable them to know new business ideas and technologies circulating in the ecosystem. Thus, they have an open panorama to expand by exploring new sectors, improving their products, marketing strategy, processes or upgrade technologically. It is cheaper and faster to innovate that way.

Primary data coming from different investors in both countries indicate that, although there is a critical mass of entrepreneurs developing projects, most of them are not considered mature enough to go over a due diligence in the seed stage. Therefore, there is a bottleneck regarding the quality of the start-ups. As the interviewee eight commented:

“Entrepreneurs are more interested in raising capital than gaining customers.” If their cash flow shows good numbers, investment will come sooner or later, but nobody invests in Power Points”<sup>30</sup>.

In the same line, the interviewee seven commented:

“The type of projects that go to accelerators and incubators are generally speaking mediocre. For truly scalable projects, the US\$ 20.00-50.000 US\$ that they give is not enough, and nobody will scarify 10% of the company for that money. Whoever is eager to be accelerated is because is ‘flood’. Accelerators give you little money and add little value. It is adverse selection. The odds are bad in the region”<sup>31</sup>.

Another finding regarding Latin-American start-up ecosystems is that they seem to work in an integrated manner as if it were a regional ecosystem. Several beneficiaries of Start-up Chile are Argentineans and Brazilians. As a logical consequence of the limited number of scalable projects, all the actors are open to expanding operations to markets they can address due to the cultural, commercial and geographic proximity.

A good representation of this phenomenon comes from Trocafone, an online marketplace for used cell-phones, which was founded by an Argentinean entrepreneur with the collaboration of an Argentinean company builder: Quasar Ventures. The company received a seed investment by Wayra, a corporate venture capital, and NXTP Labs, a financial seed investor. Later, the start-up did another round where raised capital from Silicon Valley and Switzerland’s VCs. Although its CEO is Argentinean, the headquarters are based in Sao Paulo. Following the general trend, this start-up has a legal base in Delaware, US.

Finally, the empirical findings corroborate the most accepted theoretical proposition that ecosystems are predominantly collaboratives. Many co-investments were identified. For instance, Wayra and MELI have a partnership deal. It is also common to find co-investments between Wayra and NXTP. NXTP’s CEO mentioned that the company organizes regular meetings for the entrepreneurs to strengthen their networks and discuss among themselves how they managed to tackle different obstacles common to them. Another example of the collaborative networks was mentioned by Trocafone’s CEO:

“Our most important contract was signed with Samsung. The deal was made because Quasar shares an investor with the largest distributor of Samsung’s cellophane in Brazil and they did the matchmaking” (LAVCA 2015).

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<sup>30</sup> Interview with Carlos Baradello (2<sup>nd</sup> October 2017).

<sup>31</sup> Interview with Santiago Bilinkis (1<sup>st</sup> September 2017).

### **4.1.3 Financial Gap**

An increasing critical mass of investors is coming up, reasonable for the size of the market and the scalable projects an investor can find in Chile and Argentina. The primary sources converge behind the idea that both Chile and Argentina have a supply of seed capital coming from the accelerators, angel investors and governmental programs that leverage the demand for capital during the initiation phase.

Notwithstanding, most of those interviewees highlighted the lack of capital for start-ups in their expansion phase, after having obtained a seed and the first round of investment. There are only a few cases of Series A rounds in Argentina and Chile. Start-ups that scale up (dynamic enterprises and Gazelles) face complications to get funding in their countries because of the limited number of actors that take place in rounds of Series A, B or C. Therefore, one of the main barriers for the expansion of both ecosystems is the financial gap. Consequently, companies that scale up, or are willing to go to larger rounds (Series A, B, and C) need to go to more mature and liquid ecosystems such as London, New York or the Silicon Valley. This is a blocker that harms the two analyzed ecosystems. As the interviewee nine highlighted:

“If the cash flows show good numbers, A Chilean mining technology or an Argentinean agriculture technology start-up is potentially very attractive for an international VC because they know these are sectors in which these countries have been historically competitive. However, they are more conservatives when a company approaches them in sectors not identified with our countries”<sup>32</sup>.

It does not mean that they will not invest in Argentinean or Chilean start-ups. Rather, it means that start-ups will have to move to the investor's center of operations because investments and locations are not only based on costs, profits and cash flows but also on the location of the actors that can make the difference in the management of the start-up.

Most of those interviewees emphasized the fact that the lack of IPOs compromises the whole financing chain because it restricts investments due to the lack of exit opportunities. The economic behavior of these type of investors is driven by the goal of retaining the equity until the company grows, selling it in further rounds. However, the lack of VCs that invest in segments that more demanding in relation to the required capital (US\$ 500.000- US\$ 2 million) hinders the entire chain. As the interviewee seven pointed out:

“The Silicon Valley works as a horserace. A start-up begins the race with a disruption. Promptly, three, four or five copies come up to compete. VCs bet on the different companies because nobody wants to be out of the race. In the end, only one team is the winner. Nonetheless, the race makes all the players more innovative and strategic upgrading the ecosystem as a whole. In Latin-America, owing to the tiny size of the market, being the first to get funding makes a big difference. When we created Restorando<sup>33</sup>, there were two competitors: CenaPlus and Buscatumesa. All possessed good teams. We managed to be the first fundraiser with a seed round of US\$ 500,000 and a Series A of US\$ 3,5 million. End of the game. We had a Formula 1 competing against ordinary cars”<sup>34</sup>.

The conclusion we must derive is that due to the scarcity of venture capital, raising money in Argentina and Chile is a differentiating factor from more mature start-up ecosystems,

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<sup>32</sup>Interview with Rocío Fonseca (22<sup>nd</sup> August 2017).

<sup>33</sup> An app to book tables in restaurants.

<sup>34</sup> Interview with Santiago Bilinkis (1<sup>st</sup> September 2017).



which exposes the constraints derived from the lack of both highly dynamic companies and scaling up capital (Navarro et al. 2016).

A proper example of this weakness of the Argentinean main start-up ecosystem comes from Satellogic, one of the most promising start-ups created in 2010 by an Argentinean entrepreneur. Satellogic's CEO created a successful software company – Core Security Technologies – in the first decade of the 2000's. Core Security went through two rounds, raising more than US\$ 11 million from Wall Street private equity funds. It develops products in Buenos Aires that are commercialized by its headquarters in Boston, U.S. After being trained at Singularity University (the NASA School of innovation) the founder managed to get a non-refundable US\$ 6 million transfers by the Ministry of Science and Technology of Argentina to develop a spin-off. The new company was afterward created in Buenos Aires. Therefore, the government subsidized the riskiest part of the innovation process, where the satellites shifted from an idea to a commercial prototype. After that first funding, Sattellogic got a seed round in which NXTP and Ariel Arrieta (NXTP's CEO), among others, invested in the company (CrunchBase 2017).

Sattellogic already put six satellites in orbit and is growing its operations at a gazelle speed. However, when the company required to open its stocks again to finance the growing cycle, there were no options in the country to afford the required amount of capital. Thus, the series B round was led by Silicon Valley, Chinese and Brazilian VCs. To do so, Satellogic moved its headquarters to Palo Alto, Silicon Valley. Although it still develops technology in Argentina, the innovation lab is based in Tel Aviv, and the core of its operation is in the U.S.

A common practice derived from the standard related to raising capital in international markets is the relocation of the legal base of the start-ups to tax heavens. As an example, Globant has jurisdiction in Luxemburg while Despegar and MELI in Delaware. Based on the interviews and CrunchBase, one can infer that most of the start-ups that are born in Argentina and Chile aiming at conquering global markets constitute their local branches as subsidiaries of international controllers from tax heavens. The most common location in Delaware. It is seen as a signal of know-how to potential investors. Also, companies that pretend to be gazelles know that sooner or later they will have to knock on the door on U.S. investors because there is where VCs for large rounds are situated.

International VCs want to invest in jurisdictions where they know the law. Therefore, as part of the growing process of a scalable start-up, setting their companies in Delaware and locating the headquarters close to the international investors are perceived in the market as a signal of 'good practice'. Delaware is fiscally flexible and allows companies to be legally based there even though they do not have operations in that State:

“it is home to 1.1 million registered companies for a population of only 935,000 people. Companies register in Delaware because of its business-friendly legal system, but also because it does not impose a state corporate income tax on income relating to intangible assets held by companies registered in the state and, like some other US states, allows anonymous shell companies” (Oxfam 2016: 16).

The legal and accountant architecture on how to make this complex structure, where the operations are based in the hometown of the start-up, the legal structure in Delaware and investments are done in the Silicon Valley is at the core of the services that mentors and advisors provide during the acceleration process. In this regard, Riverwood Capital's CEO said:

“Every company we incorporate in Latin America we incorporate in Delaware. We cannot trust the local rules. We want transparency and predictability” (LAVCA 2015).

### 4.3. Lessons for Developing Countries

As it was extensively analyzed, the availability of capital satisfies the demand for the segment of seed investment in the two analyzed cases. Nonetheless, a start-up that scales up to the expansion phase must go abroad to bridge the financial gap. Paradoxically, the faster a start-up grows the less risky the investment is. Consequently, mature markets capture part of the externalities ecosystems from developing countries produce but cannot retain. That is why there is a drain of start-ups that move their capital and center of operations abroad, only maintaining their back-office in cities like Santiago or Buenos Aires (where they can hire an engineer expending one-third of the salary they have to pay in the Silicon Valley). Consolidated start-up ecosystems grow, in part, by leaking projects from developing countries. The reverse side of the coin is that it erodes the expansion of immature ecosystem.

From the perspective of the public policies, how to tackle the financial gap depends on the economic interpretation of where the bottleneck is allocated. If policy-makers interpret the main blocker is the lack of good start-ups, they may intervene on the side of the supply of projects. On the contrary, if policy-makers understand that the problem is centered on the lack of capital, they probably intervene injecting money through venture capital, equity-free cash transfers or another similar modality. A lesson coming from Argentina and Chile is that the demand for capital is higher than what is supplied, both in Argentina and Chile.

As Mazzucato (2011, 2013) pointed out, the government comes in when private investors perceive that the investment is too risky and are not willing to purchase equity. Fast growth start-ups move away from Argentina and Chile because of the lack of venture capital for high-value investments. The interaction with foreign VCs boosts the internationalization of South American start-ups by sharing their know-how, networks, and reputation. However, at the same time, it harms the development of local ecosystems in aspects such as loss of top managers, offshorization and reverses technological transfer (Gonzalo et al. 2013).

The Chilean government interpreted that it should work in different stages. First, it focusses on the promotion of an entrepreneurial culture tempting foreign entrepreneurs with equity-free cash transfers. In the second stage, they switched to promote companies that select Chile based on a positive assessment of the Chilean economy. The government also subsidized investments of VCs.

Argentinean policymakers interpreted that start-ups produce good projects and the bottleneck is situated in the lack of venture capital. The new policy which will take place in a near future replicates the Chilean scheme, subsidizing half of the investments.

The scheme the government constructed to address the imbalances of both start-up ecosystem is guided by the underlying logic that subsidizing the risk of entrepreneurs and investors drives the ecosystem towards better start-ups and more investment. However, several start-ups from overseas leave Chile after the execution of the funds that Start-up Chile provides. Moreover, some investors invest because it is cheap due to the subsidy that the government provides. The benefits governments can get from these policies consist of tax revenue, exports, and employment. However, if start-ups leave the country, the benefits are only partial. Moreover, the system is prone to benefit people attracted by free or cheap capital who do not commit to the development of the ecosystem. This research interviewed different actors of both ecosystems. Most of them are aware of that trend.

The systems theory (Von Bertalanffy 1968; Luhmann 1995) constitutes an important tool to understand the performance of the actors at a systemic level. According to this perspective, there are two ways to desegregate systems: by the function, each component takes in the structure of or by the sub-systems encompassed by the major system. From this perspective, there are two ways to produce a shift in the development of start-up ecosystems.

First, improving the performance of the functions and therefore the structure. Second, improving the subsystems and, consequently, the system at the aggregated level. Likewise, one of the lessons of this process relies on the fact that the system expands as a corollary of the expansion of key actors besides the availability of resources. This is the so-called multiplier effect (Endeavor, 2006). MELI is an excellent illustrative example. 27 companies currently deliver services for MELI's users<sup>35</sup>. Also, MELI is financing some of these companies with its own corporate VC. Besides, MELI's CEO has capitalized start-ups. For this process to happen, it is required a critical mass of cases of success. The system is still tiny, among various reasons, because there are insufficient unicorns, centaurs, and ponies.

Thus, it would be interesting for developing countries to discretionally select beneficiaries focusing on actors that can trigger the multiplier effect, increasing the number of actors in the system. Another interesting alternative would be to move from equity-free cash transfers to start-ups and subsidizing VCs' investments to a new frame which inhibits the moral hazard. Alternatively, the state can retain equity of both VCs and start-ups as a condition to provide capital. It would also increase the fiscal revenue because the State would not only get benefits from taxation but also by selling equity in different rounds and profiting from the dividends. Thus, it would give the State more control over the actors by influencing the financial chain setting up VCs of different sizes for seed, scaling up and growing stages.

## 4.5. Propositions

As an outcome of the paper, this research proposes the following propositions as a departing point for further exploration which still require more evidence to be generalized.

- i) The premature leading cases of a few but very successful start-ups in Argentina contributed to generating a premature network that boosts the ecosystem by the multiplier effect.
- ii) In both cases, there is an observable expansion of both ecosystems according to developing countries' parameters.
- iii) Chile is experiencing a top-down development driven by policy-interventions while the Argentinean ecosystem is predominantly bottom-up based on private sector initiatives.
- iv) Equity-free cash transfers and one size fit all policies are prone to moral hazard.

## 4.6. Further Research

This research opens the field to multiple areas to keep exploring particularities of start-up ecosystems. First, it would be interesting to analyze more cases to keep exploring policy-start-ups and venture capital relations. It may contribute to finding out whether they have similar degrees of maturity and the effects of the policies on the performance of start-ups and VCs. Second, future inquiries might focus on the implications of tax heavens to start-up ecosystems to better comprehend why start-ups and VCs chose them as a legal base, what are the tools that developing countries have to counteract that modality of doing business and measuring the economic consequences it might have. Third, it would be interesting to conduct a quantitative research to find out the developmental impact of start-up ecosystems regarding the creation of technologic capabilities, exports, and employment.

This research addressed the topic from a synchronic perspective. Conducting a diachronic study might bring a deeper historical perspective plausible to be framed in the theoretical

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<sup>35</sup> The number of actor was taken from MELI's list of partners which offer services for their users. They are listed on MELI's website.

proposal of evolutionary economics. Finally, it can be better understood the way ecosystems relate. This research provided clues to think that consolidated ecosystems inhibit the development of the infant one, absorbing the best start-ups of developing countries. However, there is still much more to learn about it.

## Chapter 5 | Conclusions

Developing countries have the challenge to implement new policies to produce a shift in their status. Exploring alternatives to boost the start-up ecosystem is an interesting way to catch up developed countries in export-oriented sectors that hire highly skilled professionals and invest in research and development.

Governments implement policies in different socioeconomic, political and historical contexts. For that reason, generalizing the outcomes of two cases without considering other factors might lead to wrong conclusions. Yet, some facts are evident, at least, for the two cases analyzed in the present study.

Chile mainly opted for equity-free cash transfer and subsidizing venture capital investments as a vehicle through which boost their start-up ecosystem. Considering that the main Chilean goal was to convert Chile into an international hub for entrepreneurship, and generating a culture of technology business in the country the goals were moderately achieved. The evidence shows that most foreign companies that are beneficiaries of Chilean policies do not remain in the country after the expiration of the contract. However, the entrepreneurial culture is changing after the implementation of Start-Up Chile and the venture capital policies. Seed investment is increasing, and the entrepreneurial initiatives are growing.

Whereas Buenos Aires has a bottom-up and organic development of its start-up ecosystem, in part, based on the premature development of successful stories, Chile has a top-down development fueled by its policies. In this regard, the intervention of the Chilean development bank, CORFO, is fundamental due to its permanent stimulus to the ecosystem. The outcomes of its main policy, Start-Up Chile, indicates that attracting foreign companies not necessarily increases the ecosystem because it is difficult to retain them. Thereby, equity-free cash transfers may be prone to moral hazard. Moreover, since the Chilean ecosystem is highly dependent on Corfo's investment, its sustainability towards the future is still uncertain.

The research identified four types of companies operating in the two ecosystems: 1) the walking dead: companies that possibly bankrupt in the short-run 2) those that grow graduate but do not surpass the size of an SME; 3) the highly dynamic and gazelles. The first two groups are the most common expression of start-ups and not interesting for the investors. The more dynamic companies habitually receive follow-on rounds of investment. However, in order to go global, it is a necessary step to get investment in more mature ecosystems. The larger the round is, the fewer VCs can afford the investment.

Related to the previous point, the supply of capital is limited basically because of the lack of exit opportunities. It jeopardizes the entire financing chain, producing, specifically, a gap in the scaling up the sector. As a result, the most successful start-ups outsource part of the managerial team, exports, and capital. Consequently, the financial gap arises as one of the most important barriers to the development of start-up ecosystems.

The development of the start-up ecosystem is gradually rising in the two cases. According to the taxonomy of Mack & Mayer (2016), both cases are in the birth stage: The financial capital is scarce, especially from series A rounds onwards. The demand for capital is still larger than the supply. The importance of strengthening the start-up ecosystem is in the policy-agenda in both cases. Still, the two cases show few success stories. National markets are not big enough for the scalability of start-ups, restraining venture capital investments. None of the ecosystems produce a significative number of exits. In the case of Argentina, the ecosystem starts to see first serial entrepreneurs. The number of start-ups, exits, aggregated investments and gazelles operating in the two markets confirmed that Argentina present more maturity than Chile.

For those reasons, Argentina is considered moderately more mature, and gradually transiting to the growth stage. Although more research is required to strengthen the argument, the evidence indicates it is because Argentina experienced an earlier development of the first generation of companies. The Argentinean ecosystem started to take shape in the early 2000', ten years before Chile started intensifying its policies. It is also the time an investor habitually needs to exit from their equity. Still, Chile has not had a second generation of actors investing or undertaking new projects after successful exits.

Ecosystems expand trigger by the growth of start-ups and exits of investors. After selling their equity, investors and entrepreneurs reintegrate in the ecosystems incrementing the amount of capital that will decant in more start-ups in the ecosystem. This process is conceptualized as the multiplier effect. Policies that target actors that stimulate the growth of the ecosystem might be more effective than the 'one size fit all' equity-free cash transfers. The evidence indicates that those grants are prone to benefit start-ups attracted by the easy-money instead of a genuine interest in the ecosystem.

Lessons from these two cases indicate that it is still necessary to improve the quality of the start-ups in order to have more scalable players. It is also fundamental to improve the possibilities for exiting the investments. On the one hand, it will increase the number of the actors in the ecosystem. On the other hand, it is necessary to improve the exit-conditions to boost the supply of capital.

On top of that, it is fundamental to innovate at the level of the public policies to improve the outcomes of the interventions based on a deep comprehension of the particularities of each ecosystem.

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# Appendices

## Appendix 1. Questionnaire Utilized to Gather Qualitative Data

This section introduced the semi-structured questions that were asked of the interviewee. The questions were adapted to the profile of each interviewee, according to their role in the start-up ecosystem and the flow of the interviews.

- What type of start-ups is your priority?
- What is your analysis of the ecosystem base on your own experience as investor / policymaker/company builder/entrepreneur / co-working space provider
- (only for investors) Have you achieved any exit?
- What is your analysis of the opportunities the financial system provides for a company to get funding?
- Do you consider an obstacle the fact that, as an investor, you must respond with your patrimony in case the company you invest in goes bankrupt?
- According to your experience, how important are the inputs incubators might provide to start-ups? Can you mention cases to illustrate your opinion?
- What is your perception of the availability of venture capital investment?
- What are the main obstacles start-ups faces to develop their products/services
- What is the proportion of the beneficiaries of your policy/ accelerated start-ups / invested start-ups that are 'walking dead' and what is the rate of growth-oriented?
- Although Chile has a good position in the global entrepreneurship rankings, only a few companies are globally competitive. Why do you think it happens?
- Why do you think Argentina does not occupy an important position in these rankings?
- The international rate of successful start-ups is close to 15%. Do you perceive a similar trend based on your involvement in the ecosystem?
- In your opinion, are the actors of start-up ecosystem collaborative? Can you please exemplify?
- What is your analysis regarding in what phase the start-up ecosystem is?
- What is your opinion about Start-up Chile?
- What explains the difference between Santiago / Buenos Aires regarding the most successful ecosystems?
- Does the most outstanding start-up end up being absorbed by Silicon Valley's VC?
- It is a common assumption that there is venture capital available for early-stage companies but not for scaling up high grow 'gazelles' that want to do large rounds such as Series A, B or C. Can you please confirm or reject this statement?
- I noticed there is a different regional trend in Argentina and Chile compared to other ecosystems, where one can see the arrival of corporate actors to the venture capital arena instead of the financial ones. Do you think it explains a different trajectory?
- In Chile/Argentina, there is a lack of good projects or venture capital?
- What should be done to boost high-risk investments?
- (only for Argentinean actors) How do you evaluate the new law of entrepreneurship promotion?
- (only for policy makers) What are the policies you are developing and how do you evaluate their performance?

## Appendix 2. Survey utilized to Gather Development Impact Data

### *Social Network Analysis block of questions*

- a) *What is the Name of your company?*
- b) *Have you been incubated?*  
*Yes/no*
- c) *By whom?\**
- d) *What did the incubation experience bring to your company?*
  - I) It helped to raise capital
  - II) It helped to strengthen the business model
  - III) It helped to improve our network
  - IV) It helped to gain customers
  - V) It was not helpful
- e) *Have you been invested in a third party?*  
*Yes/no*
- f) *By Whom?\**
- g) *Can you identify the type of investor/s among the following options* (You can select more than one options?)
  - I) Local Private Investor
  - II) Family & Friends
  - III) Local Accelerator
  - IV) Local Venture capital
  - V) Local Angel Investor
  - VI) International investor
- h) If it is not confidential information, *can you tell us the name/company or companies of your investor/s?*
- i) *Have you received any benefit from the government?*  
*Yes/no*
- j) *Please, select among the following options\** (You can select more than one options)
  - I) Travels
  - II) Subsidy
  - III) Equity-free cash transfer
  - IV) Venture capital
  - V) Mentorship
- k) *Can you tell us what the name of the policy from which you got the benefit is?*
- l) *Who are the most important persons/companies that help to grow your business? (Max 5).*
- m) *Who will you ask for investment if you need to raise capital for your project? (Max 5)*
- n) *Do you have any connection with other start-ups?*
- o) *Do you collaborate with other start-ups?*  
*Yes/no*
- p) *Which among the following options better describe the type of connection you have?* (You can select more than one option).
  - I) Sharing commercial contacts
  - II) Sharing knowledge about investment opportunities
  - III) Doing business together

- IV) Sharing a spot in a co-working space
- V) Developing product or services together

**VI) Have you received any support from a University?**

*Yes/no*

**VII) Which one?**

***Developmental impact block of questions.***

**1) What is your country of origin?**

- a) Argentina / Chile \*\*
- b) Other

**2) Do you export?**

- a) Yes
- b) No

**3) How much?**

- a) 0- US\$ 10.000
- b) US\$ 10.001 – US\$ 100.000
- c) US\$100.001- US\$ 500.000
- d) US\$ 500.001 - US\$ 1 million
- e) + 1 million

**4) How is your revenue annually increasing?**

1-10 %

11-20 %

21-50 %

+50 %

**5) How many employees do you have?**

1-10

11-20

21-50

+50

**6) What is your sector?**

- A) *E-commerce*
- B) *3D printing*
- C) *Artificial Intelligence*
- D) *Social Media*
- E) *Online Marketing and Advertising*
- F) *Gaming and entertainment*
- G) *Other*

**6) When did your company start operating? (year)**

**7) What make/s your start-up innovative**

- A) *A new product or services*
- B) *A new marketing strategy*
- C) *A new market niche*
- D) *It uses an existing technology for a new purpose*
- E) *It is not innovative*
- F) *Other:*



**8) Is your company internationalized?**

*Yes/no*

**9) Please, select the category that better explain the way your company is internationalized (You can select more than one option).**

*A) It has commercial representatives in Latin America*

*B) It has Offices in Latin America*

*C) It has commercial partners or offices elsewhere*

**10) Is your company self-sustaining?**

a) Yes

b) No

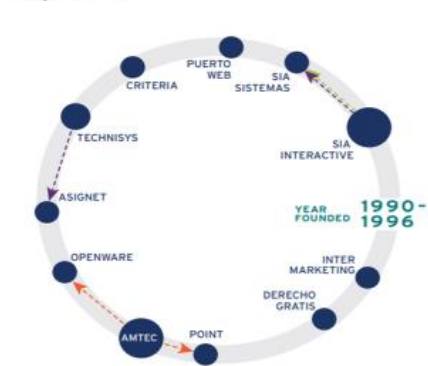
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\* Questions only asked in case the previous answer was yes

\*\* The options change for start-ups located in Chile and Argentina

Appendix 3. The evolutionary dynamic of the Buenos Aires Start-Up Ecosystem

Figure 1: Buenos Aires Technology Entrepreneurial Ecosystem – 1996



Type of Relationship:  
Inspiration  
Founder  
Former employee  
Investment  
Mentorship

Figure 2: Buenos Aires Technology Entrepreneurial Ecosystem – 1999

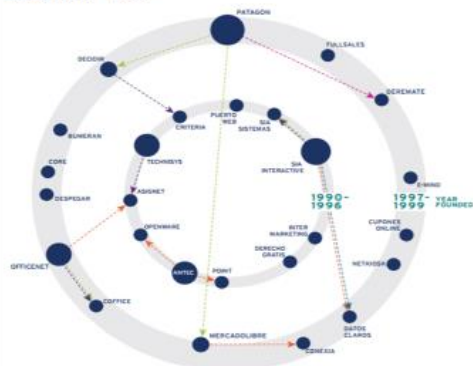


Figure 3: Buenos Aires Technology Entrepreneurial Ecosystem – 2006



Figure 4: Buenos Aires Technology Entrepreneurial Ecosystem – 2011

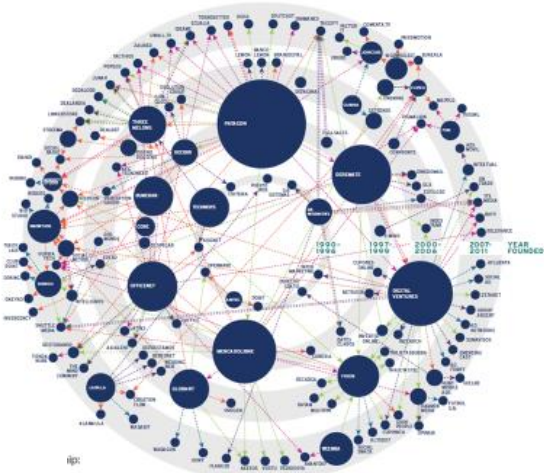
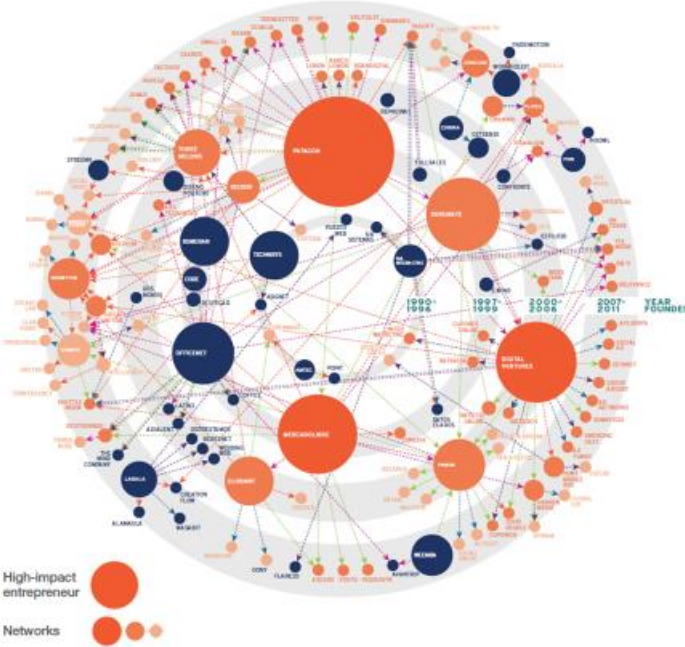


Figure 5: Buenos Aires Technology Entrepreneurial Ecosystem – The Influence of High-Impact Entrepreneurs



Source: World Economic Forum (2013)

Appendix 4. Data Analysis	Interviewee 6	Interviewee 8	Interviewee 12
Perception of Maturity	<ul style="list-style-type: none"> <li>• We see a strong interest in the sector from the corporate venture capital</li> </ul>	<ul style="list-style-type: none"> <li>• To make a difference, it is necessary to break paradigms. Israel and the Silicon Valley were nourished by cultural shifts that enabled exploring new things.</li> <li>• It is difficult for countries like Chile and Argentina to develop their financial markets. London and New York stock-markets are larger and more dynamic. They are famous for being transparent and possess the trust of investors. If an Argentinean or Chilean company do an IPO, I do not know how many investors will purchase stocks. You first need to create an environment of compliance and reliability.</li> </ul>	<ul style="list-style-type: none"> <li>• In Latin America, I see too much voluntarism and very little achievements.</li> <li>• It is commonly said that Chile has the policies, Argentina de Entrepreneurs, and Brazil the Market.</li> </ul>
Investment activity		<ul style="list-style-type: none"> <li>• I have equity of a VC, and I daily analyze investment project. What I see from Argentina and Chile is that these are markets mostly focused on national markets. Perhaps regional markets but they do not go further. Most VCs do not look at those companies. They invest in companies with large target markets aiming at conquering global markets.</li> </ul>	<ul style="list-style-type: none"> <li>• The VC capital is growing little by little in the region. Currently, there is availability for those who seek between US\$ 50.000 and 80.000 but only four or five options.</li> <li>• NXTP's scheme is an interesting way to explore. They gather ten savers and offer a pool of companies to invest. So, you can become an investor with US\$ 50.000</li> </ul>
Financial constraints		<ul style="list-style-type: none"> <li>• Investment markets need a whole chain of in and out of companies. If that is not developed the structure is flimsy. If you look at Israel and the US, they make the difference with the number of exits.</li> </ul>	
Collaborative ecosystem			

<b>Policy ponderation</b>	<ul style="list-style-type: none"> <li>• We do not make a distinction between dynamic and survival entrepreneurs. We focus on anyone who has a business opportunity</li> <li>• We promote exports by working together with Endeavour offering the program entrepreneurship passport to help entrepreneurs to attend international forums.</li> <li>• Chile is on the radar because it has had long-term policies</li> </ul>		<ul style="list-style-type: none"> <li>• Chilean policies are well recognized at international level.</li> </ul>
<b>Culture</b>		<ul style="list-style-type: none"> <li>• The diversity of cultural multiplicity and multidisciplinary backgrounds is fundamental and a common factor of successful start-up ecosystems. Ecosystem flourish where there is migration.</li> <li>• Argentina and Chile need to create a cultural shift to generate attractiveness of the markets. How many people speak English in the region to do global business?</li> </ul>	
<b>Human Capital</b>	<ul style="list-style-type: none"> <li>• Everybody recognizes the educative level and the human capital of Argentinean entrepreneurs.</li> </ul>		<ul style="list-style-type: none"> <li>• There are well-trained entrepreneurs, and the education offer technical quality.</li> <li>• We still have to work on training and mentorship.</li> </ul>
<b>Markets</b>	<ul style="list-style-type: none"> <li>• Still, it is not part of the entrepreneurial culture opening the equity to investors.</li> </ul>	<ul style="list-style-type: none"> <li>• There is a lot of reference to successful entrepreneurial ecosystems, but the problems and</li> </ul>	

	<ul style="list-style-type: none"> <li>• We see potential in the sectors of fintech and agtech</li> </ul>	learning process they have to phase are particular and not replicable.	
<b>Policy goals</b>	<ul style="list-style-type: none"> <li>• The national state offers a seed capital program US\$ 15.000 and a program to start-up a business of US\$ 2.000</li> <li>• The government will invest US\$35 million in those VCs.</li> </ul>	<ul style="list-style-type: none"> <li>• The Legal framework and the structure of incentives must be improved. We still need a bankruptcy law because the system punishes non-fraudulent failures.</li> </ul>	
<b>Policy targets</b>	<ul style="list-style-type: none"> <li>• The new entrepreneurship law will create a fund of funds with public-private capitals offering licenses to create 13 VCs. There will also be 1 VC to fund accelerators.</li> <li>• The goal is to increase the offer of capital for the segment between US\$ 500.000 and 2 MM. Each fund will finance between 6 and eight projects per year. We aim at capturing equity that leave the country. The idea is to enter but quitting soon as the government just to subsidize the risk of the private sector with a 1-1 scheme (50% financing). If the VC is profitable, then they can purchase our participation with 0 interest rate, and if it is not successful, it works as a grant.</li> </ul>		

	<ul style="list-style-type: none"> <li>•The Government will not select the project. The Accelerators and VCs will do so.</li> <li>•We know that unicorns only rarely appear, but they are a benchmark. We aimed at generating technology-based companies of 30 employees which can export.</li> <li>•To solve the problems of Employment, the country has to face we need 20.000 new SMEs.</li> </ul>		
Start-ups		<ul style="list-style-type: none"> <li>•The value proposition of LATAM projects is usually fuzzy.</li> <li>•Several entrepreneurs lose the focus of rising the network of customer and only pay attention to raising capital.</li> </ul>	<ul style="list-style-type: none"> <li>•Many entrepreneurs go from one programme to another one taking advantage of governmental funds. In that sense, equity-free cash policies are negatives. I think it will be better to provide funding after the companies' take-off. Right now, governments give little funding and do not know how to select the correct projects.</li> </ul>

	Interviewee 11	Interviewee 15	Interviewee 4	Interviewee 13
Perception of Maturity		<ul style="list-style-type: none"> <li>•To succeed, you need everything, a regulatory framework, a good team, availability of capital and so on. We see more maturity and number of entrepreneurs.</li> <li>•We also need a change in the economy because the traditional companies have to have the willingness to digitalize themselves and paying for those products. In Latin America that is moving slowly.</li> </ul>	<ul style="list-style-type: none"> <li>•If we see in perspective, the VC industry is new not only in South America but worldwide. It started in the 50's in the US. The top 5 companies in the world are VCs backed and generated 3 million jobs.</li> <li>•We are still far backward. When MELI started, there was nothing here. You were obligated to go abroad to get funding. The banking</li> </ul>	<ul style="list-style-type: none"> <li>•Due to asymmetries of information, still, some entrepreneurs do not know how to negotiate, add value and open their capital to partners.</li> </ul>

			<p>industry prematurely realized the potential of all the companies behind the business of internet and wanted a piece of the pie. Like Goldman Sachs.</p> <ul style="list-style-type: none"> <li>•The four unicorns are a great reference and validate the system at international level.</li> <li>•Still, there are a few VC in the region, and most of them are in Mexico and Brazil.</li> <li>•In Brazil we easier find Projects compared to Argentina and Chile.</li> <li>•This is starting up, but I see that the supply of capital, regulation, and entrepreneurship are increasing</li> </ul>	
Investment activity		<ul style="list-style-type: none"> <li>•70% of our companies receive additional investment</li> <li>•We have very good metrics of our investments</li> <li>•We have already had three exits.</li> <li>•We are all learning. We first invested in more immature companies. We all see that we can add value to companies with more track record.</li> <li>•We look for the complementarity with Telefónica, focusing on reselling channels, clients, and optimization.</li> </ul>	<ul style="list-style-type: none"> <li>•The founders come from MEL, having had the experience of conducting the IPO at NYSE. It is a know how nobody has in LATAM. Also, it provided a great network.</li> <li>•We first started making Angel investments at a personal level. After testing the market, several personal and corporate investors approached us wanting to join. So, we decided to institutionalize the VC.</li> <li>•With the first fund, we raised 35 MM and invested in 24 companies. Brazilian companies compounded</li> </ul>	<ul style="list-style-type: none"> <li>•Investors need to see some growth. They do not invest in pre-seed, and that is where the state has to be.</li> <li>•Investment is around 200 MM and goes from 50 K to 1MM. They observe duplication in sales of VC backed companies.</li> <li>•Private investors join the sector after they see the results of the public policies. If you do not push with policy, there will not be a growth in the deal flow and therefore attract more investors. We decided to fund supporting entities, betting on seed capital</li> </ul>

			<p>60% of the portfolio. One of the companies is already public at NYSE. Netshoes.</p> <ul style="list-style-type: none"> <li>• We have invested in the most important players at international levels such as Sequoia Form Silicon Valley and Tiger from Sao Paulo which only rarely invest in the region</li> <li>• The main target is fintech, e-commerce and marketplace companies.</li> <li>• The focus is Latin-American. Not necessarily Argentina.</li> <li>• The second fund raised 135MM having invested in 21 companies. Firstly in Brazil, then Argentina.</li> <li>• The third fund raised 200 MM.</li> <li>• We are the largest VC in LATAM. We mainly invest in Series A, giving a check from 1 MM up to 5 MM aiming at exiting in series B or C. We are not only financing provider, but we put directors in all our companies and make decisions at the operational level.</li> <li>• For the first fund, we got investment connecting investors at a personal level based on the previous experience of the founders. They did not have a track record as VCs. The second fund already managed to get institutional investors. The third was made</li> </ul>	
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			<p>completely with institutional investors that gave us checks from 20 up to 30 MM. Most of them come from the US and China. Our trajectory backs us at MELI.</p> <ul style="list-style-type: none"> <li>• We only invest in companies that we can add value.</li> <li>• We look at companies that do not require a large amount of capital and concentrate supply and demand.</li> <li>• We have to account for our investors. They demand 3X.</li> <li>• The lifecycle of the funds is ten years. We invest in the first 3 expecting a maturation process of 5 up to 7 years.</li> </ul>	
<b>Financial constraints</b>		<ul style="list-style-type: none"> <li>• If there are no new rounds, there won't be an investment.</li> </ul>	<ul style="list-style-type: none"> <li>• The ecosystems in LATAM still require better policies and more availability of capital.</li> </ul>	
<b>Collaborative ecosystem</b>	<ul style="list-style-type: none"> <li>• I daily see a collaborative environment. Usually, co-working spaces work as platforms to connect and do business together.</li> </ul>		<ul style="list-style-type: none"> <li>• NXTP and Wayra are key players but for early stage. We do not enter at beta stage. We are Series A players.</li> </ul>	
<b>Policy ponderation</b>			<ul style="list-style-type: none"> <li>• I do not remember any relevant Project at regional level graduated</li> </ul>	<ul style="list-style-type: none"> <li>• The first strategy was to promote university-based business</li> </ul>

			<p>from Start-up Chile. No doubts that many entrepreneurs go there take the risk and go away of the country after the required period.</p>	<p>incubators due to a cooperation agreement with the EU. It was implemented between 2002-2005 and discontinued because of lack of results.</p> <ul style="list-style-type: none"> <li>• CORFO estimates that each start-up generates 2.5 job positions on average.</li> <li>• Start-up Chile occupies the five position at the global level regarding companies backed per Accelerator.</li> <li>• In the beginning, investors invested in traditional sectors such as real estate or mining and the flow did not circulate to the sectors CORFO pretended. We don't consider that risk investment. We backed 100-150 projects per year.</li> <li>• After long-term of policies aimed at promoting entrepreneurship, we decided to interrupt incubation policies due to the lack of spin-off companies coming from universities.</li> <li>• CORFO created the VC industry in Chile. CORFO has backed all the funds actively operating on the market.</li> </ul>
Culture	<ul style="list-style-type: none"> <li>• Still, there are not many people familiarized with the concept of co-working spaces Co-working is an increasing scheme for companies in</li> </ul>			<ul style="list-style-type: none"> <li>• CORFO highlights the importance of the cultural aspects of entrepreneurship and therefore wants to generate consciousness</li> </ul>

	initiation phase. Usually from 3-5 employees.			<ul style="list-style-type: none"> <li>• We have to generate the trust so private actors can start investing.</li> </ul>
<b>Human Capital</b>				
<b>Markets</b>			<ul style="list-style-type: none"> <li>• We are interested in Brazil because it is big itself. Only for having operations in Brazil you can have a big size with a small proportion of the market. The Chilean and Argentinean market is not attractive them. If the start-ups do not have a regional deployment are not attractive for big VCs.</li> </ul>	<ul style="list-style-type: none"> <li>• With the emergence of start-up Chile, the government started financing 1.000 entrepreneurs per year. It was a response to the lack of entrepreneurship activity but also the lack of investment. They wanted to push the market from the offer of projects and capital at the same time.</li> </ul>
<b>Policy goals</b>				<ul style="list-style-type: none"> <li>• Start-up Chile does not prioritize the generation of technological capabilities. The focus is on digital B2B companies to foster the ecosystem in Chile and demonstrate entrepreneurs that it is possible to start a new business.</li> <li>• We incorporated a new fund for scaling up to retain foreign companies.</li> <li>• In recent years, the government started promoting AI networks. Chile currently has 6 AI investing 125.000 on average</li> <li>• It happens the same as in Argentina. Universities cannot get</li> </ul>

				<p>profits. So, the position of incubators is blurred. Corfo used to provide 1 MM to incubators, enable them to have stock options because they cannot get equity. They can resell per 7%, charging royalties on sales or fee per services.</p> <ul style="list-style-type: none"> <li>• We offer subsidies for everything, covering all the steps in the financing chain.</li> <li>• We think entrepreneurship is the tool to dynamize the economy, especially in the countryside.</li> </ul>
Policy targets				<ul style="list-style-type: none"> <li>• CORFO require warranties capitalize incubators which securitize the funds before transferring to start-ups</li> <li>• Chile currently has five funds actively operating to finance early-stage companies. The scheme they offer is 2-1 or 3-1 depending on the stage of the start-up. The modality to investors is like debt: they charge an interest and capitalization can reach 16 million.</li> <li>• We started providing seed funds in 2000. CORFO was interested in promoting university backed incubators to federalize the</li> </ul>

				<p>generation of companies, stimulating university-company feedback loops.</p> <ul style="list-style-type: none"> <li>• Recently, we incorporated a new accelerator to promote female entrepreneurship, “The S factor”, providing 15.000 US\$ to start-up new business.</li> <li>• Corfo has US\$ 44 MM of Budget per year.</li> <li>• Question is how to generate value and how to ensure capturing the value within the ecosystem.</li> </ul>
Start-ups			<ul style="list-style-type: none"> <li>• Raising capital per-se is not an indicator of potential.</li> </ul>	

	Interviewee 7	Interviewee 5	Interviewee 9	
Perception of Maturity	<ul style="list-style-type: none"> <li>• Countries like Argentina and Chile are conditioned to what happens in Brazil. Today, the VC market is frozen in the region because of the recession in Brazil. Brazil pulls the market, but the rest of the countries do not, and therefore, they are limited to the local availability. The only country that has the</li> </ul>	<ul style="list-style-type: none"> <li>• Today, the development of the angel ecosystem is almost null. We see few players.</li> </ul>	<ul style="list-style-type: none"> <li>• Stock-markets are still in their infant stage in our region. There is only a little activity in Brazil. Thus, we tried to boost it by providing VC funding 3-1; 2-1 or 1-1 depending on the case. We provide the incentive to invest.</li> <li>• Scarcity makes you seek a different model than the Silicon</li> </ul>	

	<p>availability of capital required to satisfy the needs of the market in the region is Brazil.</p> <ul style="list-style-type: none"> <li>• We do not have enough VC in our countries. If you see Kaszek's investments, will realize that most of their flow go to Brazil.</li> <li>• In Argentina and Chile, there is some capital to cover needs of seed capital. Perhaps, there are 5,6 players for that target, and that is it. You clearly do not make an industry out of 5 players. We do not have Series A funds in Argentina. You have a little chance that Kaszek looks at it. Galperin (MELI's CEO) will not put 1 million in your company. Nowadays, Brazilians VC will not look at Argentinean or Chilean projects.</li> <li>• We cannot generate a Silicon Valley in the region. That is a misunderstanding of the market. We have to find niches which could be agtech in Argentina or mintech in Chile.</li> </ul>		<p>Valley. The private sector is finding the way to work with entrepreneurs. Banks and big corporation are eager to find new technologies for their companies.</p> <ul style="list-style-type: none"> <li>• In Argentina, you have MELI, OLX, and Globant. We are still looking for a company like that. We do not have benchmarks. It generates a historical base which is the critical mass we are looking for. We are looking for big players that act as a reference.</li> <li>• Nowadays, there are more probabilities to raise capital regarding five years ago, but the situation is still far from the ideal.</li> </ul>	
<b>Investment Activity</b>	<ul style="list-style-type: none"> <li>• After Dilma's destitution international VCs decided not to back LATAM companies anymore. Moreover, most of them sold their Latin American portfolio.</li> </ul>	<ul style="list-style-type: none"> <li>• Accelerators are reframing their strategy. They enter before, with less capital and obviously buying cheaper.</li> <li>• The problem is that here we do not have a critical mass of projects. So, there is no deal</li> </ul>	<ul style="list-style-type: none"> <li>• We started seeing corporate VC. Big forestry, mining, banking or agricultural companies investing in a start-up. In Latin America, we all see in the Silicon Valley and have that reference to attract VC that invest some</li> </ul>	

	<ul style="list-style-type: none"> <li>• Silicon Valley VCs only marginally invest in overseas companies. Most of the cases in China and Israel.</li> <li>• Corporate VC only work out when they do VC. Usually, they kill the upside. If the project is scalable, they want to take it over. There is adverse selection. The one who takes the deal hypothecates everything. They propose a game that when your performance is good your outcome is bad and when your performance is bad your outcome is bad.</li> </ul>	<p>flow to present to investors. Angel clubs charge a fee, and nobody wants to pay that fee if the deal flow is not attractive.</p> <ul style="list-style-type: none"> <li>• Currently, most of the projects are financed mainly by the 3F and a bit angel and seed capital that is out there on the market.</li> <li>• Accelerators in the region invest in very immature projects which require long cycle to exit the investments.</li> <li>• Good ideas always find their investor.</li> </ul>	<p>money. But we should generate new mechanisms to adapt ecosystems to our local realities. Corporate VC might be away due to the scarcity of financial V.C.</p> <ul style="list-style-type: none"> <li>• P.E and Family office trend to move away from a traditional investment like real estate and slowly destine some capital to start-up. It is moving slowly, but something is in the making.</li> <li>• I see a big movement from the banking industry. They are closely following our portfolio.</li> </ul>	
<b>Financial Constraints</b>	<ul style="list-style-type: none"> <li>• We are still far away from a robust stock-market. There are neither IPOs no M&amp;A in the region. The Middle class does not invest in stocks.</li> <li>• If there is no exit, all the chain become stagnant. Nobody invests in an early stage if there will not be Series A, B or C.</li> <li>• Still, it is required to work on intermediate capital. As a consequence of the lack of intermediate capital, there is a lack of seed and large VC.</li> </ul>		<p>Raising large capital implies moving abroad. You have to have a headquarter overseas. Whoever seek capital outside Chile has a 99% of probabilities to failure. A start-up that raises foreign capital build the Delaware corporation and go to the US or the country of origin of the financier.</p>	
<b>Collaborative Ecosystems</b>		<ul style="list-style-type: none"> <li>• We Will Foster co-working space for the spillovers of the</li> </ul>	<ul style="list-style-type: none"> <li>• We see a very good level of collaboration among actors.</li> </ul>	

		collaborative networks inherent in the working scheme		
Policy Ponderation	<ul style="list-style-type: none"> <li>• This Will not be changed with the SAS (new entrepreneurship law). The problem is not how to speed up the process to open a company but, rather, to ameliorate the process to close companies. If you go bankrupt as an investor, not because of a fraudulent behavior but because the business went wrong, you have to respond to your patrimony. It implies ten years inhibited by business operations. You cannot leave the country. You cannot have credit cards. That, in a conservative investing environment. So, who Will assume that risk? And later might end up with personal liabilities. Of course, nobody will do so because it has 'bad press'.</li> <li>• I still do not know five successful Chilean projects. At least, in Argentina, I can mention more than 30. Still, nobody knows a famous graduated from Start-Up Chile.</li> <li>• All the countries want to show themselves as innovation hubs. However, the results are not</li> </ul>	<ul style="list-style-type: none"> <li>• We consider that the best policy is financing seed and accelerator enter afterward with more capital. We want to position as a government in the seed segment which is the riskiest.</li> <li>• We are very confident in the new entrepreneurship law. If everything goes smoothly, we will finance 1-1 (50% of the investment). Investors can buy the governmental part at interest rate 0% if it goes wrong, they do not have to give the money back.</li> <li>• Chile has very good structural conditions. It is easier to start a business there. Chie had had nothing and became referent. There is long-term credit at a low-interest rate. But we consider Start-up Chile is not a good policy. However, I still do not know any successful Chilean entrepreneur or an international one graduated from Start-Up Chile.</li> <li>• We do not need to bring people from India or the US. There are good entrepreneurs and projects here. Most of the foreigners go for the easy money and leave the</li> </ul>	<ul style="list-style-type: none"> <li>• 80% of the accelerators have funding that depends on CORFO's transfers. CORFO is the main promoter of the shift in the local ecosystem. Once we perceive the change is ongoing, CORFO will slowly withdraw from the market. We do not see maturity.</li> <li>• Our stats indicate a 51% of survival. 32% of them are Chileans, generating revenue, exports and creating jobs in our country. Our data is updated up to April 2016. CORFO has invested 40MM, and there was a billing for the same amount according to our tax authority. We consider the program is already in breakeven not even in 10 years. We are pushing the GDP and managed to position Chile at International Level, shifting the mentality for a traditional and local to an innovative and global.</li> <li>• We consider that we are still in a learning stage a recalculate constantly.</li> </ul>	



	<p>verified analyzing the facts beyond the marketing.</p> <ul style="list-style-type: none"> <li>• Start-up Chile attracts mediocre people that commonly go there for the '50-grands' jumping from acceleration program to another accelerator program. That is toxic to the ecosystem. The general trend is a tiny digital marketing company that generates 5-6 employment. That is not scalability.</li> <li>• If you have a strong subsidy to your risk, of course, you will find people who want to 'surf the wave'.</li> </ul>	country. Very little remain in the country.		
<b>Culture</b>		<ul style="list-style-type: none"> <li>• Good start-ups are always global, and it is inevitable to lose part of the equity. But those are the rule of the games. All have the Delaware corporation. We can do things to leverage but cannot go against the rules of the market.</li> </ul>	<ul style="list-style-type: none"> <li>• We changed the strategy throughout the time regarding who to attract. Firstly, we focused on mentality change. We wanted inspiring people for the ecosystem.</li> </ul>	
<b>Human Capital</b>				
<b>Markets</b>	<ul style="list-style-type: none"> <li>• The odds are bad in the region.</li> </ul>	<ul style="list-style-type: none"> <li>• The challenge is to generate an attractive deal flow</li> </ul>		
<b>Policy Goals</b>		<ul style="list-style-type: none"> <li>• We have one ongoing process for tech-entrepreneurs. BAITECH for tech entrepreneurial projects.</li> <li>• The national government wants to focus the effort on Series A</li> </ul>	<ul style="list-style-type: none"> <li>• Start-up Chile aims at fostering the consolidation of the ecosystem. Differently, to Argentina, we have not had an installed entrepreneurial mentality with a structure of</li> </ul>	

		<p>based on local market values. Of course, we are not the Silicon Valley.</p>	<p>global projects. In Chile, entrepreneurs historically centered in local markets, geographically limited. We prioritized generating a shift in the mentality of the business community. Thus, co-working spaces are important for us.</p> <ul style="list-style-type: none"> <li>• Our credit lines are thought to promote entrepreneurship practices to think in big terms and generate the tools for early-stage financing. So, we guarantee the access to seed capital.</li> <li>• In 2015 we considered that step achieved and started focusing on retention of talent. Now, we want to attract people who come to Chile because they see the attractiveness of the country, which implies changing the scouting strategy.</li> </ul>	
Policy Targets		<ul style="list-style-type: none"> <li>• We offer the program Incuba, focused on design projects.</li> <li>• The economic matrix of the city is diverse, and we cannot focus only on tech entrepreneurs. We have to attend all the needs. Tourism, gastronomy or the fashion industry are very important too.</li> </ul>	<ul style="list-style-type: none"> <li>• We promote dynamic projects, not necessarily technologic ones. Our focus is on digital B2B fast-growing companies.</li> <li>• In recent years, we started thinking about VC lines. The challenge is to move from an initial funding of 40.000 up to 100.000 us dollars to more exigent capital requirements.</li> <li>• Only the pilot was exclusive for foreigners. From 2011 ahead, it</li> </ul>	

			<p>was open for Chileans. 30% Chileans and 70% foreigners.</p> <ul style="list-style-type: none"> <li>• We switched from B2C to B2B. Today the niche is start-ups that digitalize traditional firms.</li> </ul>	
Start-ups	<ul style="list-style-type: none"> <li>• If you analyze the type of Projects that go to accelerators and incubators are generally speaking mediocre. For truly scalable projects, the 20.00-50.000 US\$ that they give you is not enough, and nobody will scarify 10% of the company for that money. The one who is open to going to an accelerator is because is ‘flood’. Accelerators give you little money and add little value. It is adverse selection.</li> <li>• Local entrepreneurs still need to learn the process of how to add value.</li> </ul>	<ul style="list-style-type: none"> <li>• We have our incubator. We perceive a good supply of projects. In any call, we analyze 150 projects and incubate the 10% of them. We offer co-working spaces, mentorship, and grants (US\$ 20.000). We aim at pre-seed.</li> <li>• Still, we suffer the asymmetries of information. Entrepreneurs do not know very well the financing opportunities they can get access.</li> </ul>	<ul style="list-style-type: none"> <li>• We evaluate that the entrepreneurs are changing the mentality because the projects we evaluate are gaining quality. Before, the trend was to replicate developments from the US, but we now see indigenous knowledge.</li> <li>• When companies capitalize abroad usually leave the back office (programmers, engineers, designers) and move headquarters. Especially the sales manager because the market is outside. Usually, we see mix-models. The corporation is opened at markets where start-ups raise capital.</li> <li>• We kill zombies ASAP. When we detect that a company has the vicious of moving from program to program living out of the state, we make a blacklist. We are very exigent at tracking.</li> </ul>	

Socio-Cultural Dimension	Business performance	Public Policies Dimension	Economic Dimension

## Appendix 5. Start-Up Policies (Argentina & Chile)

	Policy	Goals	Benefits	Organism	Type of policy
Argentina	FONSOFT	To promote the entrepreneurial 'esprit' in the software and IT industries, collaborating to create new companies and consolidating the existing ones.	Co-financing investment projects (50%-50%) up to 50.000 USD	Ministry of Science and Technology	General (it is only applicable to Software developers).
	FONARSEC	To foster the development of new technology-based start-ups This instrument is part of the ANPCyT's IMPULSAR EBT programme, which aims to generate technology-based start-ups	Public-private consortiums that develop science-based innovative investment projects Maximum financing: USD 532 000. Grants may not exceed 75% of the project's total cost; the beneficiary has to co-finance 25%	Ministry of Science and Technology	Specific: health, Energy Its, Nanotechnology, biotechnology, environmentalist
	PACC-Entrepreneurs	Stimulate start-ups that contribute to creating value-added, increasing the scale of production, creating jobs, industrializing regional economies and using technological	Entrepreneurs who have a business plan and start-ups that made their first invoiced sale less than two years ago whose. Reimbursement of 85% of business start-up costs, up to a maximum of approximately USD 23 000	Ministry of Production	General. Not necessarily tech entrepreneurs can apply. It is unrestricted to all kind of start-ups.
Chile	Seed capital (InnovaChile- CORFO)	Entrepreneurs wishing to create and implement a business idea	Sponsors must submit a shared idea with the entrepreneurs // Grant of up to 75% 25% in monetary support	CORFO	Specific. For technology-based or digital companies
	Start-Up Chile	Attracting high-level start-ups to promote an entrepreneurial culture in Chile. Maintaining Chile at an internationally recognized technology-based innovation hub, achieving an economic impact of the start-ups.	Equity Free Cash transfers USD 40.000	CORFO	Specific. For technology-based or digital companies (B2B companies)
	Venture Capital for Innovative Firms (CORFO)	Support start-up or expansion of businesses that have innovative projects with high growth potential	Long-term loans plus subsidy for VC investment	CORFO	Specific. Up to USD 4. 3 million per fund.
	Direct Investment in Investment Funds	Develop the venture capital industry Foster private investment in investment funds geared at firms with high growth potential in their expansion stage	Direct Contribution to Investment Funds	CORFO	Specific. For technology-based or digital companies (B2B companies)
	Angel Capitalist Networks (RCA) (InnovaChile-	Promoting angel investments	Grant of up to 70%. 25% of monetary support. Up to USD 154 000 in the first year and USD 192 000 in subsequent	CORFO	Specific. For technology-based or digital companies (B2B companies)
	The S Factor	Promoting female entrepreneurship	Acceleration and equity-free cash transfer USD 15.000	CORFO	General. Female entrepreneurs

## Appendix 6. Interviewee and role in the ecosystem

#	Interviewee	Role in the Start-Up Ecosystem
1	Ignacio López	CEO of Plored (Argentinean start-up)
2	Hernán Rattinoff	CFO of Kidscorp (Argentinean start-up)
3	Javier Goilemberg	CEO of Real-Trends (Argentinean start-up)
4	Tomás Musich	Investment Analyst at Kaszek Venture (VC with investments in Argentina and Chile)
5	Santiago Sena	Director of Entrepreneurship, Local Government of Buenos Aires
6	Esteban Campero	Undersecretary of Entrepreneurship. Ministry of Production of Argentina
7	Santiago Bilinkis	CEO Quasar ventures (Argentinean company builder).
8	Carlos Baradello	CEO of Sausalito Ventures (Silicon Valley venture, specialized in investments in Latin America)
9	Rocío Fonseca	CEO of Start-Up Chile
10	Hugo Kantis	Scholar specialized in Latin American start-up ecosystems.
11	Matías Huerta	CEO La Huerta (Argentinean co-working space)
12	Juan Manuel Menazzi	Director of the Centre for Entrepreneurship, Technologic Institute of Buenos Aires.
13	Maricarmen Torres Fuentealba	Deputy Manager of Innovation, CORFO, Chile.
14	Martín Migoya	CEO of Globant, Argentinean software company
15	Karen Mirkin	Business Manager, Wayra, accelerator of Companies in Chile and Argentina
16	Ariel Arrieta	CEO of NXTP Labs Accelerator and VC
17	Marcos Galperín	CEO of MercadoLibre Argentinean e-commerce
18	Fernando Fischmann	CEO of Crystal Lagoons (Chilean start-up)
19	Diego González Bravo	CEO of Cygnus Capital, Argentinean VC with investments in Argentina and Chile
19	Guillermo Freire	CEO of Trocafone, Brazilian online marketplace for used cell phones founded by an Argentinean entrepreneur
20	Francisco Álvarez Demalde	Riverwood Capital CEO, Silicon Valley's VC with investments in Latin America.
21	Cristóbal Silva	Fen Ventures, Chilean VC
22	Andrés Jara	CEO of Nubimetrics, Argentinean start-ups