New Direction

THE INFLUENCE OF PUBLIC FUNDING ON VENTURE CAPITAL IN EUROPE

New Direction

Founded by Margaret Thatcher in 2009 as the intellectual hub of European Conservativism, New Direction has established academic networks across Europe and research partnerships throughout the world.

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INTRODUCTION

There is a significant difference in the development and role of venture capital (VC) in the United States and Europe. The role of the US federal government was actually launched with the US Small Business Administration Investment Company Act of 1958, but in some European countries and the UK, the state had been stimulating investment in the form of venture capital earlier. Over the years, many US public measures have been added to further enhance the venture capital landscape.

In 1980, an impressive 16 states owned funds, often with different forms of support, creating a robust and diverse VC ecosystem. This elaborate scheme brought about the "crease" of the Total United States in 1979 to a crescendo, because it was not so easy for private parties to participate in the quasi-fiscal public venture. However, even though the venture capital boom had already come to an end by the time the United States Congress debated the definition of an investment company that year, its impact continued to resonate. In 1980, despite the challenges and decreased investments, the United States took a momentous step forward.

On November 21, 1980, the United States enacted bipartisan legislation on the small business investment company (SBIC) and gave a significant stimulus package in order to enlarge the SBIC capital formation. This forward-thinking move aimed to revitalize the venture capital scene and reignite the entrepreneurial spirit that had fueled innovation for so long. While the overall result may have been a relative underperformance of the United States compared to especially Israel and other nations' R&D programs, it is essential to acknowledge the outstanding achievements of individual heroes.

In particular, some exceptional Electric and Information Technology firms played a pivotal role in driving progress and pushing boundaries. Among these exemplary companies stands Apple, an iconic and transformative force that forever changed the technology industry. Through their unwavering commitment to innovation and ingenuity, these remarkable ventures continue to redefine what is possible and inspire future generations of entrepreneurs. As the venture capital landscape evolves and faces new challenges, it is their pioneering spirit that will guide us towards a future filled with extraordinary advancements and limitless possibilities.

Venture capital plays a crucial role in financing younger, growth-oriented companies. Such companies cannot, by definition, access financing via public markets, given the limited size of their business and their limited financial information. They also require a flexible shareholder structure in order to attract and retain skilled workers and even to survive. However, financial markets traditionally, and much more so in other countries in our economic environment, have the strength of banks which, because of their huge supply of resources, can withstand greater exposure to risk, and capital markets, because of their size and depth, are considered dispensable for intervention.

This situation may be altered by evidence of poor access of small and medium- sized enterprises (SMEs) to stock exchanges in the process of external financing in the absence of significant primary market activity, so that the public sector can and should develop infrastructural policies that support its actions in creating an enabling business environment that shapes sustainable economic development. European countries with a preference for strategies modelled on MITI (Japan's Ministry of Industry, Trade and Industry) or laissez-faire policy, follow closely the different practices of other countries and, as a result, have followed variants of both. This can be seen by looking at the behaviour of European public funds in international venture capital operations and comparing it with those undertaken by public bodies such as the European Investment Bank (EIB).

Background and Rationale

Although the portfolio of firms financed by publicly backed venture capital (VC) programs is generally considered to be less likely to have access to subsequent rounds of finance and is less impressive in terms of job creation, this characterization does not apply equally to all country programs. Our paper aims to fill this gap by delving into a comprehensive analysis. First and foremost, we provide an extensive and thorough review of the relatively small empirical literature on the benefits of public financing for the VC industry. In doing so, we analyze the intricate role of VC heterogeneity in determining the effectiveness of public programs. As we delve further into our research, we embark on an in-depth econometric analysis of the situation in Europe. This analysis serves as a critical examination of the landscape, shedding light on the intricate workings of publicly backed VC programs.

Our comprehensive approach considers a multitude of factors, including the specific context of different European regions, the characteristics of the firms involved, and the various financial environments they operate in. The results of our study are immensely enlightening and utterly consequential. They confirm that even in mature financial environments like Western Europe, public funds undoubtedly address the market failure prevalent in the venture capital industry. Moreover, these public funds play a pivotal role in guiding privately managed funds toward more financially independent investment choices. The impact of such guidance extends far and wide, bolstering the overall financial independence and resilience of the VC landscape. In essence, our research adds substantial value to the existing literature on publicly backed VC programs. By offering a comprehensive review, analyzing VC heterogeneity, and providing an econometric analysis focused on the European context, we uncover crucial insights. These insights underscore the essential role of public funds in fostering a robust and sustainable venture capital ecosystem, not only in Europe but also on a global scale. Through our findings, policymakers, investors, and stakeholders can make informed decisions to ensure the continued success and prosperity of the venture capital industry.

In this comprehensive and insightful paper, our primary focus revolves around extensively investigating and exploring the pivotal role that public funding plays within the thriving venture capital (VC) industry in the expansive and diverse landscape of Europe. Drawing upon a vast foundation of theoretical frameworks and empirical research, we meticulously analyze the multifaceted functioning of the venture industry, while also delving deep into the intrinsic significance of its exogenous determinants, including but not limited to the legal framework, taxation policies, and regulatory measures. Throughout the scholarly literature, numerous compelling findings and analyses have shed light on the remarkable interplay between public and private institutions, which ultimately shape and mold the evolutionary trajectory of the venture industry. It is crucial to emphasize that this intricate relationship is profoundly influenced by a country's legal heritage and its prevailing disposition towards public intervention in highly risky yet immensely promising entrepreneurial endeavors.

Scope and Objectives

The main objective of this paper can be stated as answering the following research questions: How do financially distressed start-ups value government funding and to what extent are these benefits reflected in the contractual relationships between venture capital investors and start-ups? Additionally, the aim of our research is to validate two basic models in relation to this topic. Firstly, it is reasonable to anticipate that government funding reduces the cash-flow risk faced by the portfolio companies of venture capital financiers. The concept of risk management institution superiority holds significant importance in the financial literature.

Nonetheless, there exists a scholarly debate surrounding whether risk reduction strategies based on government funding truly generate financial value. Secondly, we address the challenge posed by the fact that government funding is not a stable source of financial support. It is defined ex ante, and consequently, start-up valuation becomes a financing problem. In order to tackle this issue, we propose a promising model incorporating tax effects. This model not only provides a solution to the problem but also allows for the formulation of testable hypotheses, thus facilitating empirical analysis and further understanding of the subject matter at hand.

On the other hand, the double influence of public funding in Europe is analysed:

- Public funds invested in Venture Capital Investment funds, which affects the fundraising strategies of these funds. In this case it is the Venture Capital manager who decides how these funds, which are part of its investment vehicle, are invested. One of the main consequences is the release of public managers from the analysis and monitoring of where to invest or allocate public funds.
- Public funds invested directly in start-up companies. These funds can be invested in exchange for equity or, on the contrary, allocated to start-ups in the form of grants or convertible loans that have to be matched in proportion with other private funds, mainly from Venture Capital funds.

This paper aims to comprehensively analyze and evaluate the profound impact that government funding has on contractual terms, and the behaviors of commercial investors across Europe. By delving into this crucial area, we seek to shed light on the intricate dynamics of the relationship between government-funded research and its consequences. In our investigation, we will first focus on discerning whether government-funded research effectively diminishes cash-flow risk.

Moreover, we will delve into the realm of venture capitalists and explore how they should judiciously adjust their contractual terms to effectively manage the credit risk associated with entrepreneurs. By understanding these intricate processes, we aim to provide valuable insights into optimizing contractual arrangements in such contexts. Furthermore, our analysis will extend to examine the influence of government funding on the fundamental components of the governance framework.

In particular, we will closely examine how government funding affects various aspects of venture capitalists' compensation structures, with a specific focus on the pivotal role played by liquidation rights. Through this exploration, our goal is to reveal and elucidate the critical interplay between government funding and the complex governance structure of venture capitalists, ultimately providing a thorough understanding of their intricate relationship. Guided by a comprehensive review of previous research surrounding the economic determinants of venture capital investing in Europe, we will employ a robust and rigorous approach.

2

VENTURE CAPITAL FUNDRAISING

Fundamentals of Venture Capital Funds

Venture capital funds, or venture capital funds as they are known in some countries, are institutions that make available to unlisted companies a series of resources that are difficult to access, such as capital and financial resources (intangibles), in exchange for a series of services. Unlisted companies often have problems when it comes to financing themselves. Although this statement is very general, it is generally objectively true that, in general, small and medium-sized enterprises can face two fundamental financial problems. On one hand, a lack of resources at the initial start-up phase of the business activity due to the fact that, precisely at this stage, companies do not yet have the capacity to generate their own resources (retained earnings), which is why potential lenders tend to demand guarantees from this type of company.

The other main financing problem for companies is the limited credit development they can achieve. This results in lower growth in both sales and earnings, which companies must try to overcome. In general, venture capital is structured around investment funds in management companies up to the limit set by the regulations and approved rules (the general rules for collective investment institutions (R.G.I.C.) establish a maximum of 25% of the assets and, if this is exceeded or any investment is intended to exceed 5% of the total assets, the approval of the assembly will be necessary), or the participants or investors in the fund. Investors often include the management entities themselves, which invest in order to give the market confidence in the fund, or the Instituto de Crédito Oficial (ICO) itself, which invests by forming investment "windows" to support certain sectors or difficult economic times.

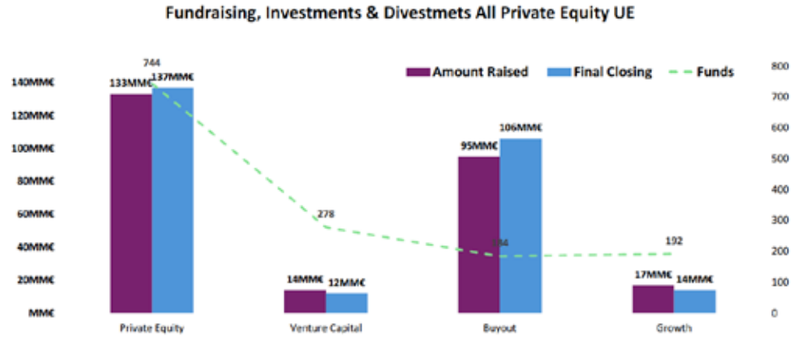
One of the current definitions that best reflects the nature and activities of venture capital funds is that which describes venture capital as a form of financing consisting of providing resources to start-up business projects, to companies already created but recently incorporated or to recent activities created within existing companies, always supported by their promoters and with a high technology content, with great potential for development and high levels of profitability, with the aim of divesting this participation once the project is established in the market and obtains certain returns. The important role of venture capital funds throughout the business cycle is to be temporary partners in the company and then to value, support and sell shares. Given this fact, the investment they make has the consequence that they are usually one-off shareholders and do not participate or represent the company on the board of directors or the executive committee, as do seed capital investors. The economic development of a country depends largely on the creation of new companies or new activities that lead to an exponential increase in job creation.

In different studies carried out in European Union countries, such as the study carried out by David Glas, collaborator of MIT (Massachusetts Institute of Technology), under the title "A country by country study of the european private equity and venture capital markets", 2009; or, by the Spanish Association of Venture Capital Entities "Guía de Inversión en Capital Riesgo", it is highlighted that the trajectory and results obtained by venture capital in the European Union in general, and in the most developed countries in particular (United Kingdom, France, Germany) promote its effectiveness in the generation of leading competitive companies in the different industry sectors, and provide suitable vehicles for companies to obtain funds, being an efficient and relatively cheap source of financing.

The large differences in average capital raised per country are quite obvious and deserve attention. It is worth noting that venture capitalists in smaller member states tend to raise relatively low amounts of capital, which might be a cause for concern. This approach to capital rising, although widely adopted, can be substantially ineffective and possibly even detrimental to the industry as a whole.

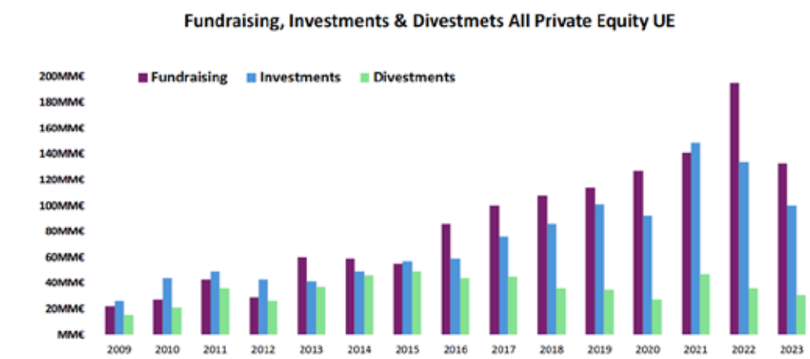
Moreover, it only serves to widen the divide between the well-funded venture capital and the remaining key players in European support markets. In fact, this approach has a significant impact on recipient countries, as it prompts them to primarily focus on venture projects in order to secure better support and access to capital. However, it is important to recognize that, given recent technological market developments, the budget available in the mature countries falls short of meeting the demands. This raises serious questions about the degree of effectiveness of European venture capitalists in publicly funded venture support.

Private Equity is composed of different types of investment funds or vehicles: Private Equity, Venture Capital, Buyout and Growth. According to the study Investing Europe: Private Equity Activity 2023, INVEST EUROPE, the figures in 2023 were:



The operational cycle of investment funds is mainly composed of 3 operations:

- Fundraising
- Investments
- Divestments

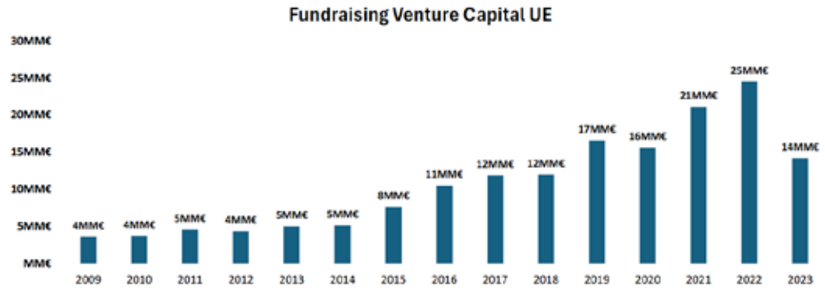


The amount of capital raised by European venture capitalists varies drastically over time. Only two funds exceed 200 million European Currency Units (ECU), neither accounting for a quarter of the total number; approximately 40 funds come to market each year, providing diverse opportunities for investment. However, it should be noted that these funds do not provide an equal amount of capital available to European funding.

In Europe, a limited number of countries raises a substantial amount of capital, reflecting their strong economies and robust financial markets, whereas a large number of funding markets receive only a relatively small amount of institutional capital. The capital raised by venture capitalists in Europe can exhibit significant fluctuations, sometimes experiencing dramatic increases for two or three consecutive years, only to face a decline in the following year.

Alternatively, the capital raised can remain relatively stable at the same level for several years, indicating a more cautious investment approach. The main differences lie in the annual distributions of capital raised by venture capitalists per country, which can vary greatly depending on market conditions, investor sentiment, and economic factors. On a per annum basis, it is evident that there are substantial disparities among European countries in terms of their approach to capital raising and investment opportunities. This European behavior, in terms of capital raising, does not necessarily suggest a consistently rational approach. Rather, it reflects the complex nature of the European venture capital landscape, influenced by a multitude of factors such as market volatility, regulatory frameworks, economic stability, and investor confidence. As such, it requires a careful analysis and understanding of the various regional dynamics and market trends to navigate and succeed in the European venture capital ecosystem.

In 2023, according to the Private Equity Activity 2023 study, INVEST EUROPE, private equity funds will raise a total of EUR 14 billion in Europe in almost 280 funds.



Fundraising peaked in 2022, at which point the trend began to decline.

Overview of Venture Capital in Europe

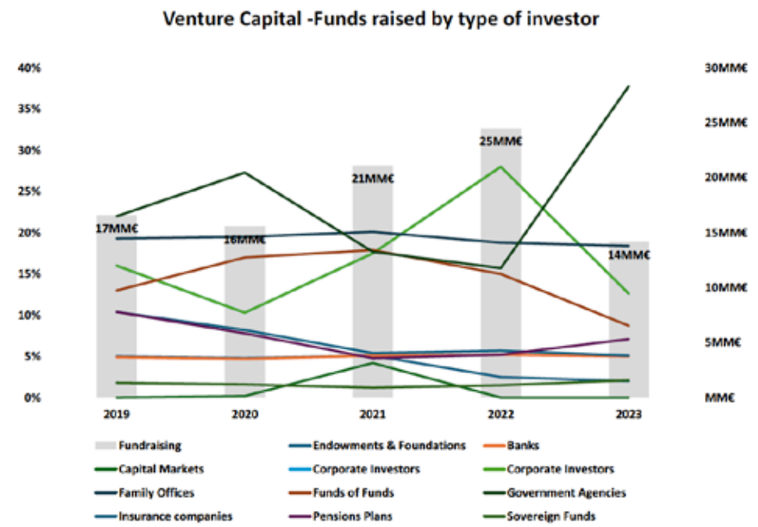
Venture capital financing was initially considered to be exclusively reserved for the most promising and innovative opportunities. In the early stages, venture capital played a pivotal role in providing financial support for the creation and early growth of highly promising start-ups, especially within industries known for their immense potential, including biotechnologies and information technologies. The associated costs linked to financial participation instruments, such as fixed interest rates and restricted availability of critical company shares, alongside the collection of specific types of dividends, have rendered them less competitive compared to stock options in today's landscape. However, these instruments also enable project leaders to leverage their financial power for rapidly capitalizing on expansion prospects. Consequently, the website might opt to prioritize equity or other investment tools, in exchange for the potential for significant company growth and long-term appreciation of the firm's shares when reaching a prominent position in the market. In order to truly flourish, they will courageously embrace risk as a strategic choice.

Venture capital is an institutional form of private equity, developed in the United States over half a century ago. It concerns the financing of high-potential and groundbreaking projects, and as such, it plays a vital role in the early-stage entrepreneurial process that drives industry dynamics. It is crucial to emphasize that venture capital funds go beyond financing solely high-technology start-ups. Rather, they exclusively support start-ups capable of creating entirely new industries and establishing sustainable competitive advantages at a global scale.

These start-ups must have the ability to utilize the provided financial resources to swiftly and ambitiously dominate a critical part of a newly emerging global market, despite the inherent risks involved. Such endeavors epitomize the essence of "high-potential projects," which serves as the very foundation of the venture capital concept. Collectively, the venture capitalist meticulously evaluates an economic ecosystem comprised of three intimately intertwined compartments: visionary entrepreneurs, innovative start-ups, and astute venture capitalists.

The main investors or Limited Partners in equity ventures are:

- Public Institutions and Foundations.
- Banks.
- Capital Markets.
- Corporate Investors.
- Family Offices.
- Funds of funds.
- Business Angels.
- Government Agencies.
- Insurance Companies.
- Pension Funds.
- Sovereign Wealth Funds.



Public Funding Impact on Venture Capital Fundraising

The decision of the venture capitalist is not only driven by the combination of funds but is also greatly influenced by the expected dilution of her own interests. The type of relationship the venture capital establishes with innovators could be significantly different from the ones established with the entrepreneurs in the early stage of the firm's life. The relationship between venture capitalists and funded firms also encompasses adverse information selection, screening risks, and various other moral hazard issues.

These problems significantly impact the information available on each of the projects to finance, and therefore, directly affect the projects' likelihood of receiving funds. The ability of the venture capitalist, her acquired skill, and the level of competition she faces are key determinants in this highly meticulous and selective selection process. A venture capitalist who has financed successful blow-ups and has proven exceptional skills in evaluating quantities of patent values, should attract entrepreneurs effortlessly and have more access to projects with determination and evaluation issues.

Public input at this level could be highly beneficial and play a pivotal role in effectively mitigating the information asymmetry that often exists in the financing applications. It is imperative to recognize that the decision of a venture capitalist to specialize in specific financing applications can be significantly influenced by the level of public involvement in the market of venture capital. This ensures a more transparent and fair process, addressing any potential biases or information gaps.

Furthermore, it is important to acknowledge that public aid evaluations may have certain limitations when it comes to considering all application characteristics or preferring to restrict the amount of admissible information signaled. However, by focusing on a select few specific characteristics that can be more easily decentralized, these evaluations can still provide valuable insights. This is where public intervention becomes crucial as it allows for the provision of signals on the evaluated types of financing projects, going beyond the formal membership in the venture capital association and financings.

Therefore, to truly maximize the benefits, venture capital entities should establish a robust and collaborative working relationship with public funds. This symbiotic partnership ensures that venture capital can fully leverage and capitalize on the advantages that arise from such public involvement. By fostering this partnership, venture capital can gain essential resources, insights, and expertise that enhance their decision-making processes and ultimately contribute to the overall growth and success of their financing projects.

Objetivos y Estrategias de Financiamiento Público

Promote the formation of private venture capital funds, which serve as a vehicle for financing, advice and support for companies with a high degree of technological and/or business risk, especially SMEs.

To achieve these objectives, the conditions for public funds to provide financing must be adjusted in such a way as to allow them to attract a large part of the complex and scarce resources required to fulfil the stated objective. Therefore,

such programmes, often referred to as “venture capital stimulation” or “seed” programmes, must be clearly defined, highly competitive, flexible in defining the characteristics of the projects to be financed and potentially attractive, in terms of economic and financial return, to private investors and managers in charge of attracting, analysing and monitoring projects. This premise leads to the conclusion that efficiency will be observed both from the perspective of the funders (those who promote and support the programme and the programme’s executing units) and from the perspective of the promoters of a venture capital fund creation or management project.

Sectoral support programmes, and in particular those aimed at stimulating entrepreneurial venture capital, can have a variety of approaches. In general, such programmes are not limited to financial support (funding) to the venture capital fund, but a significant segment of the activity (in terms of project generation and attracting and advising potential investors) is in turn carried out by the intermediary entity of the fund. In other words, they have a dual purpose, the generation and/or development of entrepreneurship and a collateral purpose, the development of the capital market - discovering in this sense important similarities with government venture capital (GVC) programmes.

3

STARTUP INVESTMENT ROUNDS

Startups raise different amounts of money in the various investment rounds at different stages of their life cycle. There are various stages of rounds. Pre-seed or pre-startup investments allow owners to hold a part of the equity before the current business plan was created. The seed round is often the first official equity investment by external investors in a startup and is generally made in a company that has yet to launch its products. For most startups, the pre-seed and seed rounds are generally financed by informal investors. In some sectors, it can be venture capital funds, and for instance, in the life sciences, it is also often subsidization from public research facilities, universities, or hospitals. The business angels or informal investors generally do not have a long investment experience at the start of the lifecycle of the startup either. Assist investors and market maker investors or accelerators are titles that are given, for example, to a group of business angels who have an affiliated venture capital fund. They work as part of the mentoring program of the business accelerator or are working in corporate venture activities.

Investment rounds by business angels and venture capitalists are usually not made in a single financial transaction. A typical startup will complete a series of such rounds over the years, where in each round a different set of investors will buy shares in the company. On average, it takes ten years in the U.S. for a startup to move from the first funding round to an initial public offering. Each of these investment rounds is generally tied to the amount of funds that the startup desires to raise and the pre-investment valuation of the company. The startups are valued at the amount of equity raised in the current round, the so-called post-money valuation.

Startups will initially receive a pre-money valuation by dividing the amount of equity that the startup seeks by the percentage ownership of the investor at the time of investment. The pre-money valuation shows the total value of the startup when the investor invested nothing in the startup yet. In the world of startups, the journey towards financial success is often paved with multiple rounds of investment. These rounds come at different stages of the startup’s life cycle, each serving a unique purpose. At the very beginning, before the current business plan even takes shape, there exists the pre-seed stage. During this phase, visionary owners have the opportunity to secure a portion of the equity before the official launch of their product or service. It’s a crucial step that can lay the groundwork for future funding. Once the pre-seed stage is complete, startups may proceed to the seed round.

This round marks the first official equity investment by external investors. It is typically targeted towards startups that have not yet introduced their products to the market. In many cases, this round is spearheaded by informal investors who see the potential in these budding ventures. However, it’s not uncommon for venture capital funds to step in, especially in sectors like life sciences. Additionally, public research facilities, universities, or hospitals may offer subsidization to support startups in their journey. During the early stages of a startup’s lifecycle, it’s important to note that the investors themselves may not possess extensive investment experience. These individuals, known as business angels or informal investors, are often starting their investment journey alongside the startup.

However, there are also seasoned investors who play a larger role in the startup ecosystem. Some examples include assist investors and market maker investors, who may be part of a business accelerator’s mentoring program or engaged in corporate venture activities. It’s worth mentioning that investment rounds led by business angels and venture capitalists are rarely executed through a single financial transaction. Instead, startups often go through a series of rounds over the course of several years. In each round, a fresh set of investors step forward to purchase shares in the company, injecting the necessary funds for growth. In the United States, for instance, it typically takes around ten years for a startup to progress from its first funding round to an initial public offering (IPO), where it becomes a publicly traded entity.

The amount of funds a startup aims to raise, as well as the pre-investment valuation, play key roles in determining the course of these investment rounds. The post-money valuation, which reflects the value of the startup after the current round of funding, is a crucial metric for assessing its financial standing. However, before this can be determined, a pre-money valuation is assigned, indicating the total value of the startup before the investor contributes any funds. In conclusion, the world of startup financing is a complex and dynamic environment. As startups navigate through various investment rounds, they rely on the support and confidence of different investors to fuel their growth.

Each funding round serves as a stepping stone, bringing the startup closer to its goals and aspirations. It’s an exciting and challenging journey that requires careful planning, strategic decision-making, and unwavering determination.

Startup Financing Landscape in Europe

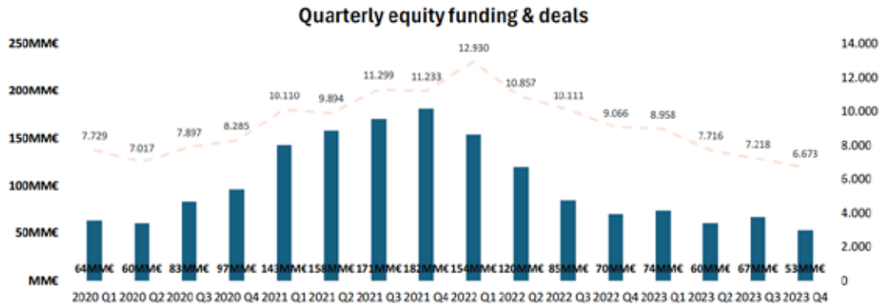
The diminution in the regional stock market public financing capability is more acutely felt in smaller economies with less-developed and globally-inaccessible private sector financing options. According to the European Digital Report of 2016, 53 percent of the total funds invested in scale-ups setting up of seed-stage and venture capital funding rounds, and these funds come from both private investors and public initiatives of equity financing. These initiatives range from simple national public funds to global multibillion-dollar investment vehicles.

The global dimension of equity financing instruments has increased in importance in the last decades as a result of the business and macroeconomic international financial-economic influences. The European dimension has also been present in off-market private equity consultations. The escalating acceleration of digitalization in the economy and society has stimulated a higher number of startups across various sectors like online selling, food and package delivery, SaaS (Software as a Service) applications, or utility tokens. With the improvement of the quality of startup ventures and the evolution of the ecosystem (internationalization), the need for financing growth-stage companies has surged.

As the general starting acceleration of new companies has significantly risen, most business angels or early venture-capitalist investors have changed investment focus, targeting more profitable investments in later startup or smaller corporation financing campaigns or even in public market issues.

At the same time, in some European countries, fewer public offerings are initiated, reducing the foreign and local equity-income generation capabilities of their stock markets. Due to this decrease in public offerings, the detrimental impact is more pronounced on the economies that rely heavily on public financing and have limited access to private sector financing alternatives.

Globally, both funding for start-ups and the number of deals peaked at the end of 2021 and the beginning of 2022, at which point both figures began to fall. According to data from the CB Insights Study, in the fourth quarter of 2021, investment rounds worth 181 billion euros were closed in a total of 11,233 deals:



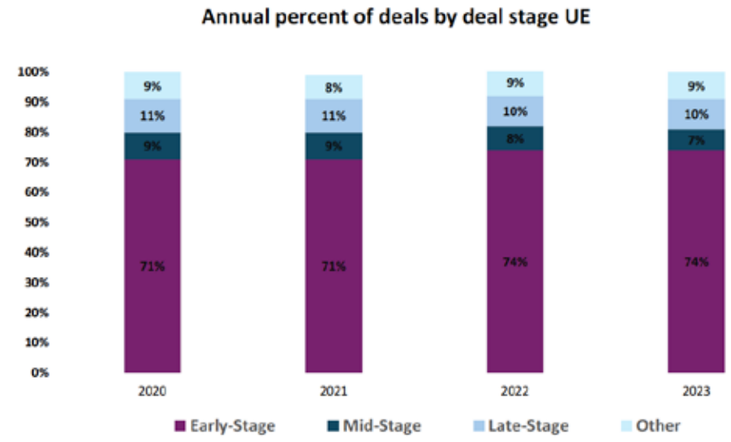
Analysing annually, the year 2021 closed with more than 653 billion euros invested in 42,536 deals, 2022 fell to 429 billion euros while maintaining the number of deals at 42,964 and finally 2023 closed with almost 255 billion euros and 30,565 deals.

As for the current situation in Europe, the peak was reached in the first quarter of 2022, coinciding at that time with the maximum in both capital raised and number of deals done.

The decline of Venture Capital in Europe can be said to be almost 12 months ahead of the global decline, mainly influenced by the US and ASIA.

Analysing annually, 2021 closed with over €109 billion invested in 8,696 deals, 2022 dropped slightly to €90 billion raising however the number of deals to 9,267 and finally 2023 closed with less than €50 billion and 7,207 deals.

In terms of the size of the rounds or the stage at which start-ups received investment in Europe, according to CB Insights data, in the last 4 years more than 70% of the investment was made in Early-stage investment rounds.



These initiatives encompass a broad range, varying from domestic public funds to global multimillion-dollar investment entities. Over the past few decades, the significance of equity financing instruments on a global scale has grown, owing to the influence of international financial and economic factors on businesses and macroeconomics.

Additionally, the European dimension has been evident in confidential private equity consultations. Furthermore, the rapid advancement of digitalization in various sectors such as online retail, food and parcel delivery, SaaS (Software as a Service) applications, and utility tokens has spurred the establishment of a larger number of startups. As the startup ecosystem continues to evolve and mature on an international level, there has been an increased demand for funding growth-stage companies.

With the substantial rise in the number of new startups, many business angels and early venture capitalists have shifted their investment focus towards more lucrative opportunities in later-stage startups, smaller firms seeking financing, and potentially even public market offerings. Simultaneously, a decline in the initiation of public offerings has been observed in certain European nations. This downward trend in public offerings has significantly diminished the capacity of their stock markets to generate foreign and domestic equity income.

Role of Public Funding in Startup Investment Rounds

Due to the regular delays experienced in the exit sequence and the incapacity of many funds to perform in periods of ample decrease due to long investment processes, lengthy commercialization turnarounds, and pressure to hold on to participation for longer periods; startup financing requires a long-term assignment of risk capital. This allows many companies to have a good opportunity to continue their operations, build relevant state-of-the-art competitive skills, and not abandon the market before the research effort seizes its fiduciary benefits so that they can continue functioning. Public funding became a predominant source of venture capital for the early stages of development of portfolio companies from 2006 onwards. Public funding plays an important role in the investment rounds of startups. Given the exemplification of the different public actors of the 27 EU countries in the subsequent tables, we can assert that public financial interventions are a valuable source for the financing of young companies.

Several European countries have developed mechanisms that can be adapted to the idiosyncratic nature of products promoted by startups. The Portfolio Company of the European Investment Bank (EIB), the Italian Policy Financial Funds, and the EIB-FEI JEREMIE Fund are the three most prestigious investors with the capacity to contribute the most financing rounds that benefit startups. Based on the high degree of public participation in the venture capital market in the early rounds of financing, we explore in the analysis whether these interventions have an influence on the sums committed during the subsequent stages of the investment cascade. These interventions have been proven to provide substantial support to startups, enabling them to attract additional funding and secure their position in the market.

The continued involvement of public funding in the investment cascade ensures the sustainability and growth of these young companies, fostering innovation, job creation, and economic development. It is evident that public financial interventions are not only beneficial for startups but also for the overall economy, as they contribute to the formation of a thriving entrepreneurial ecosystem. Through strategic partnerships and collaboration between public and private entities, the investment landscape for startups can be further enhanced, creating a conducive environment for their success. The expansion of public funding programs and initiatives can empower startups to overcome the inherent challenges of accessing capital, allowing them to focus on their core competencies and drive innovation. By leveraging public funding and leveraging the expertise and resources of investors, startups can accelerate their growth trajectory and maximize their potential.

The positive impact of public funding on startups is undeniable, with countless success stories showcasing the transformative power of these interventions. As the startup ecosystem continues to evolve and expand, it is imperative for governments and policymakers to recognize the importance of sustained public support for early-stage ventures. By nurturing the growth of startups, we can foster a culture of innovation and entrepreneurship, driving economic growth and creating a brighter future for all.

4

PUBLIC FUNDING MECHANISMS

In Europe, direct interventions are quite numerous. However, in the majority of cases, these funds operate through other specialized investors. These investors need the assistance and selection of projects and companies.

The government acts as a market enabler, giving the venture capital investors the incentive to operate. They create the conditions for venture equity to emerge, guiding private investors to overcome coordination failures, or providing capital and securities for participating forces for their own critical action to make the entire system work.

One of the options for public administration to foster the venture capital industry is to establish a public fund to directly or indirectly invest in venture capitalists. This is done to create or add to the scarce capital of the venture capitalists that perform the activity of investing equity in start-up and young innovative companies (seed stage, early stage, and late stage). The aim of these public funds is to provide resources that will trigger the continuous collaborative effect of the venture capital phenomenon. This is achieved by focusing the actions of a number of investors on a small portion of the venture capital market.

Public schemes can be differentiated according to their stage of intervention. That is, some schemes aim to foster the creation of new venture capital (VC) or seed funds. Others complement the European Investment Fund (EIF) to enhance the capacity of existing VC to realize their investment capacity in specific regions. While others still are aimed at the entrepreneurial process and fund investment by venture capitalists.

The European Union offers a variety of grants and public funds to support start- ups seeking venture capital investment. Some of the available programmes and mechanisms are detailed below:

Horizon Europe

Horizon Europe is the EU's research and innovation framework programme for the period 2021-2027, with a budget of EUR 95.5 billion. It includes the European Innovation Council (EIC), which has a strong focus on innovative start-ups and SMEs. The EIC offers two main types of funding:

- EIC Pathfinder*: Supports early-stage research into future and emerging technologies.
- EIC Accelerator: Provides grants and venture capital to startups and SMEs for the development and commercialisation of disruptive innovations.

European Investment Fund (EIF)*

The EIF provides risk finance to SMEs through various programmes:

- COSME (Competitiveness of Enterprises and Small and Medium-sized Enterprises)*: Facilitates access to finance for SMEs through guarantees and venture capital.
- InnovFin: Part of Horizon 2020, it supports risk finance for research and innovation.
- EFSI (European Fund for Strategic Investments)*: Provides guarantees and risk finance for innovative projects.

Startup Europe

Startup Europe is a European Commission initiative that connects startups, investors, accelerators, corporations and universities. It offers support in:

- Networking and access to events.
- Support in internationalisation and access to markets.
- Connection with venture capital investors.

European Structural and Investment Funds (ESIFs)

ESIF include various funds that support the creation and growth of enterprises, such as the European Regional Development Fund (ERDF) and the European Social Fund (ESF). These funds can be used to finance innovation and start-up development projects.

InvestEU Programme

InvestEU brings together various EU financial instruments to mobilise private investment in projects that contribute to EU policy priorities, including support for start-ups and SMEs.

Regional and National Initiatives

In addition to programmes at EU level, many countries and regions within the EU have their own programmes to support

start-ups, often co-financed by EU structural funds. These programmes can include grants, loans, guarantees and venture capital.

How to access these funds:

- The steps to be able to access these funds could be summarised as follows:
- Identify the right programme: Check the websites of the above mentioned programmes to determine which one best suits your company and needs.
- Prepare a solid proposal: Make sure you have a detailed business plan and a clear value proposition.
- Consult with national or regional bodies: Often, there are local agencies that can help with the preparation of applications and accessing these funds.
- Participate in networks and events: Connect with other startups and actors in the innovation ecosystem to share experiences and opportunities.

In summary, the EU offers multiple financial support mechanisms for startups, including grants, loans and venture capital, through programmes such as Horizon Europe, EIF, Startup Europe, ESIF and InvestEU.

Debt

The comprehensive analysis thoroughly lays out the various parameters and factors that intricately govern the terms of the settlements reached with venture capitalists (VC) and potential creditors. A detailed description is provided to set the stage for contemplating the multitude of VC and company attributes that significantly influence the magnitude of debt and the prevailing interest rates. Subsequently, the model's parameters are meticulously outlined to offer a clear framework for comprehension. Within the central portion of this chapter, we strategically develop a robust and insightful model that effectively illustrates how venture capitalists assume a vital contracting role.

This innovative model not only provides a solid foundation for strategic deliberation, but it also offers a unique framework for meticulously evaluating the distinguishing characteristics possessed by companies that successfully secure VC.

Furthermore, it efficiently estimates how these crucial parameters powerfully impact the choice of a venture capitalist, as well as fathom the precise amount of debt and contractual interest rate involved. In essence, this painstakingly detailed chapter meticulously outlines the various determinants that have consistently contributed to the successful raising of venture capital in previous instances. It is important to emphasize that, despite the immense support provided, the influence of venture capital on debt remains somewhat limited. Consequently, extensive examination in the region reveals that venture capitalists have turned their attention towards the abundant untapped potential within the unlisted security realm.

However, it is important to recognize that this new approach has not garnered as much success or provided as many apparent opportunities as in the past. While it may be argued that the funds to be invested in this context might not necessarily fit into the traditional definition of private equity (PE), the nature of the activities carried out within this domain closely aligns with those typically associated with PE objectives.

Therefore, the underlying purpose of this particular chapter revolves around the construction and implementation of a highly accurate and all-encompassing credit market model. This sophisticated model is designed to precisely estimate the magnitudes at which venture capitalists supply debt, complemented by an in-depth analysis of the terms under which such transactions occur.

Participatory Loans

The contracting problems that this financial instrument is trying to solve are intimately connected to the inherent information asymmetries between the lender and the borrower. Firstly, the lender must possess the ability to comprehensively evaluate the potential risks and opportunities associated with the companies in which they choose to invest, thereby enabling them to lend in an informed and astute manner. Moreover, the emergence of participation loans as a compelling business opportunity stem from the pressing need for professionals who possess the requisite expertise, which serves as an invaluable component of equity capital.

These professionals proficiently provide a comprehensive array of services that extend far beyond the solely financial realm, encompassing indispensable financial intermediation activities that are intrinsically associated with equity capital. These services chiefly encompass the task of diligently understanding and examining the risks and opportunities that correlate with the venture or firm at hand.

Participatory loans, being an integral facet of the equity within the burgeoning productive industry that invariably generates employment opportunities and catalyzes economic growth, are particularly suited to address the problem that often arises in the context of innovative companies or those harboring lofty growth expectations. Specifically, these types of firm necessitate returns garnered from capital rather than long-term financial leverage.

The salient characteristics attributed to participatory loans are two-fold; namely, the lender receives a variable remuneration that is intricately linked to the results and performance of the company, and in the event of a liquidation, a loan is extended to the participating lender, amounting to the nominal value of their stake in the outcomes and success of the enterprise.

Grants

In most cases, a grant is a passive investment in projects that require a small amount of funding, have known technology, a short life cycle, and a high level of risk. Nowadays, these grants are usually given to young companies - start-ups or companies in nearby phases - whose main activity is the development of an innovation and becoming its owner or tenant. The main condition for obtaining a grant is the need to perform R&D according to the established State Procedure, and upon achieving certain results, to introduce some results of scientific research into production.

Grant financing enhances the effect of private investment. Grants can strengthen the effect of SIT in the form of Initial Coin Offering (ICO), which can raise funds without any restrictions and highlight desirable recipients. Because grants can suppress the assessment, they can be used both for public projects and for projects that, according to investors, are not economically justified. Another way of public funding of start-ups is through grants. These grants are non-refundable amounts of cash that are transferred directly to the project.

Grant financing is often given to certain types of companies, including Nonprofit Organizations (NPOs). Receiving a grant is a positive signal about the company and increases the competition for investment, which in turn increases the supply of capital. This competition among SIT managers creates an upward trend in the assessment of ideas and business prospects. The expansion of supply from the SIT side also increases its availability.

Moreover, grants can provide additional resources and support to start-ups that can strengthen their overall capabilities. These additional resources can include access to specialized facilities, equipment, or mentorship programs to guide the development and growth of the innovative project. By leveraging these resources, start-ups can further enhance their competitive advantage and increase their chances of success in the market.

Furthermore, grants can also foster collaboration and knowledge sharing among start-ups and other stakeholders in the innovation ecosystem. Through grant- funded projects, start-ups can actively engage with academic institutions, research organizations, and industry experts, fostering a dynamic exchange of ideas and expertise.

This collaborative approach not only promotes the advancement of scientific and technological knowledge but also provides start-ups with valuable networks and connections that can further accelerate their growth and market reach. In addition to financial support, grants can also have a catalytic effect on the entrepreneurial ecosystem by stimulating the creation of new start-ups and encouraging the pursuit of innovative ideas. By offering funding opportunities to aspiring entrepreneurs, grants can inspire and motivate individuals to turn their groundbreaking concepts into tangible and marketable products or services. This spurs innovation, creates job opportunities, and contributes to overall economic growth and development.

Moreover, grants can play a crucial role in addressing societal challenges and promoting social entrepreneurship. By targeting specific areas such as healthcare, renewable energy, or sustainable agriculture, grants can incentivize start-ups to develop solutions that have a positive impact on society and the environment. This aligns with the growing demand for businesses to prioritize social responsibility and sustainable practices, fostering a more inclusive and sustainable future. Furthermore, grants can act as a springboard for start-ups to attract further investment and scale their operations.

By demonstrating their ability to secure grant funding, start-ups can strengthen their credibility and attractiveness to venture capitalists, angel investors, and other sources of capital. This increased investor interest can result in additional funding rounds, allowing start-ups to expand their teams, refine their products, and enter new markets rapidly. Overall, grants are a powerful tool in the entrepreneurial landscape, providing vital support and opportunities for start-ups to thrive. Through financial assistance, resources, collaborative networks, and catalytic effects, grants can propel the growth of innovative ventures, drive economic progress, and contribute to a more sustainable and inclusive future.

Legal and Regulatory Framework

Considering the scarce empirical evidence on the regulatory and legal aspects of pan-European funds. In addition, it is essential to consider in particular, the most powerful, sophisticated and generally the largest (circle of competence) funds in Europe, the regulatory aspects of funds based in this region. This pan-European portfolio of investments, currently comprising twelve funds, is of particular interest in view of our ultimate objective to study the dynamics and efficiency in private equity between the EU-27 and AIFM (Alternative Investment Fund Managers) countries.

In parallel, the objective of looking at certain private equity operations entails, in addition to the aforementioned profitability, observing the evolution of the SME investment cycle in order to understand sectoral trends and to reinforce the strategy for focusing asset allocation and the incorporation of risk management positions (fund allocation versus security selection). By extension, it will be observed whether the EU-27 induces the emergence of opportunities in operations by making it more expensive to maintain domiciled funds or investment vehicles or "solidarity engine of agreement to encourage operations that could hardly arise in isolation economic space. Given the type of portfolio of this European project, it boils down to this.

The sizes of the funds composing it range from 130 million to 370; only two require public equity investment of public and non-private pension funds are obtained depending on the source of the initial public wealth from sixty to one hundred per cent, pension funds provided from private wealth. Only two firms offer some tax benefits to pension funds and institutional investors. The period from equity funds at the expense of other funds) also range from 10 to 90 per cent, while the institutional funds. The legal possibility to distribute wealth is only recognized for two organizations – how they are qualified for doing it. Only three events lead to indicators launches – if there have been capital calls.

5

STAGES AND TICKETS INVESTED IN STARTUPS

Within venture capital investment funds, there are mainly 2 categories:

- Venture Capital.
- Private Equity

The main difference between the two lies in the stage at which they invest or become part of the company. While venture capital funds invest in companies that are at an early stage of development (seed stage), private equity funds invest in companies that are in growth, expansion or already consolidated (growth stage).

The objective of venture capital is to make as many investments as possible in start-up companies in order to reduce risk. Private equity, on the other hand, carries out a smaller number of operations, but for a higher amount than venture capital.

In terms of the percentage acquired in the companies invested in, venture capital usually invests between 20% and 30% of the company's capital, while private equity usually acquires a majority percentage of the company, even acquiring 100% of the company.

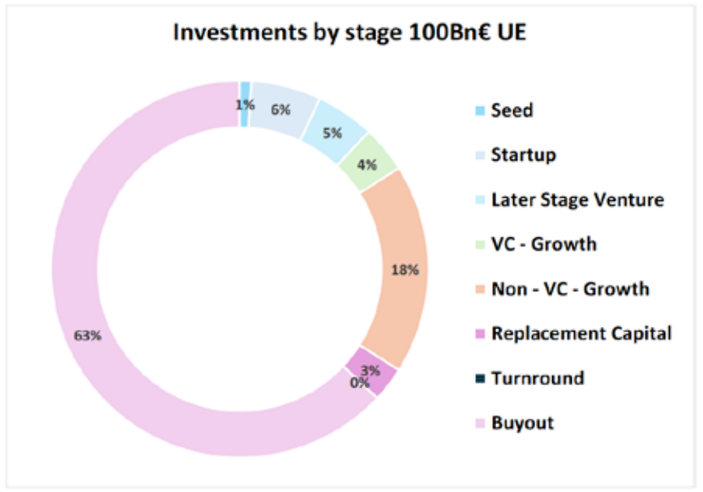
Venture capital entities in Spain can be classified as follows:

- Public entities: both at state and regional level.
- Private entities: in this case, a distinction can be made between corporate venture and venture capital.

One of the main differences between these two types of funds is the size of the ticket invested. On the one hand, venture capital invests in the early stages of companies, with investment tickets ranging from €100k to €50M.

On the other hand, private equity funds invest in companies at more mature stages of the company, with investments ranging from €10m to more than €500m.

Based on the stage of the company, below is a statistic of the percentage of investments in Europe according to the stage of the company in €100 billion invested:



Size of Venture Capital and Investment Thesis

According to Gompers (1995), there is significantly more to venture capital than simply making investments in young and emerging companies. Instead, he asserts that successful venture capitalists leverage a distinct and well-defined investment approach. They possess an extensive investment thesis that encompasses proven and prosperous business models from both a technical and market perspective.

These accomplished venture capitalists establish and cultivate a comprehensive and interconnected business network that includes esteemed customers, reliable technology suppliers, and esteemed development partners. They astutely identify and exploit untapped niche markets that offer the potential for rapid growth and prove challenging to penetrate. Moreover, they are adept at contributing to the smooth operation of the businesses they invest in by installing capable and visionary management. An in-depth understanding of exit strategies and possibilities is an absolute prerequisite for their willingness to accept significant opportunity costs.

Ultimately, they possess the capability to adeptly navigate labor and financial markets, which enables them to achieve and realize profitability levels that surpass the average.

Venture capital investors, both business angels and venture capital funds, establish a series of parameters or variables to analyse in order to make their investments, these variables form what is known as the investment thesis.

This thesis is based on two fundamental aspects:

- Quantitative aspects.
- Qualitative aspects.

The relationship between the two is inversely proportional to the stage or maturity of the company; the earlier the start-up, the more weight the qualitative aspects will have in the investment decision and the less the quantitative aspects, and conversely, the more scale-up or growth the company, the more weight the quantitative aspects will have and the less the qualitative aspects.

In the early stages of a company, Early Stage (Pre-Seed, Seed...) professional investors mainly analyse the following aspects:

- Market size: it is essential that the market is sufficiently large.
- Experience of the entrepreneurs: this point is fundamental at this stage of investment. Investors value both the professional experience of the founders and the fact that they have previous experience founding other companies. This last point is perhaps the most important, even if the experience is not accompanied by a large exit.
- Sector: the purchasing levers or entry barriers such as legal requirements, regulations, etc. are analysed.
- Competitors: one of the important points is to analyse whether there are already other companies doing the same or similar things in the country where the project is being carried out or in other countries. Contrary to what it may seem, the fact that there are competitors is part of the validator of the idea.

Startup Investment Ticket Sizes

The overall observation that fund sizes seem to be growing and that some VC firms may have been able to maximize fees at the expense of fund performance is not entirely new. In a survey among U.S.-based Limited Partners conducted by Kaufmann and associates, 50% of those LPs who had actually reduced allocations to VC funds blamed over-capitalization as an important factor. Similarly, in most vintage years during the Dot.Com bubble, many U.S. funds of above average size showed below average performance. Furthermore, in the more recent past, several 'flagship' funds of well-regarded European firms that were very large by European standards have also come under scrutiny.

It is also possible that a convergence of ticket sizes happens – in terms of funds growing or perhaps on the side of some VC firms that do not obtain or revert to their aspiration of making a quantum leap towards top tier. Finally, as we will discuss in more detail below, sub-optimal levels of fees and ticket sizes are likely to have particularly negative consequences in venture capital due to the structure of the fixed costs in these partnerships.

In addition to the data on annual investment levels, recent data appears to indicate that particularly the funds of the top-tier VC firms are currently growing to extraordinary sizes. Whereas in 2003, the largest European VC firms usually managed funds of between EUR 500m and 1bn, the funds currently raised by top- tier firms or allocated for Europe by very large, global funds (e.g. Sequoia Capital, Accel Partners, Insight Ventures, General Atlantic or Tiger Global) frequently appear to be in the range of several billion Euro.

While such amounts are not much if compared to the funds of large buyout firms, they are higher than what many LPs would expect in a niche asset class like venture capital, particularly so in relation to the size of the European VC ecosystem with its focus on startups and early stage companies. To summarize, according to Revolut and other media reports, it seems to be the case that ticket sizes of European VC funds (and specifically the ticket sizes of the top-tier) are increasing rapidly.

Impact and Results of Public Finance Approaches

In the EU, public funding has been of decisive importance for the inclusion of a whole range of pre-competitive scale investments in the market sphere. Collaborations funded by public support programmes have become the most impactful activities in the new landscape. Increasingly, companies are seeking partnerships with public and private research centres to increase the share of technology they apply. Many of them, especially among SMEs, act as application specialists.

The need to undertake pre-competitive technological work in consortia increases inexorably as the share of basic R&D received from the public sphere declines. At the individual level, such technical activities tend to remain what the American Drucker calls "well done": which simply refers to the relationship between the purpose and the means of the work. At the level of the consortium, however, new learning processes are required, which cannot be done without decisive and competitive leadership. The history of the digital enterprise and of the reciprocal- exclusive cooperation between private venture capital and public technology centres allows us to reflect on the need for policies to simultaneously promote, on the basis of a proactive background environment, innovative strategic formulas at company and private-specialist centre-centre level, with a view to the unstoppable and impacting process of technological merger that we are experiencing. Nothing is or can ever be the same again. Research centres are actors in a quadruple sphere of patenting relations in biology and business. Only by paying attention to their specificity and establishing quality assessment indicators, which do not exclude the necessary impact, will it be possible to improve the coordination of shuttle research.

Financial Situation of Invested Startups

In terms of the size of the tickets invested by business angels and venture capital funds in companies, there is a direct correlation with the amount of public funding that the same company can attract.

One of the main problems for startups in their early stages is usually the seed investment round, with ticket sizes of between €250k and €500k. Compared to the first pre-seed rounds, the number of deals drops drastically at this ticket size, as can be seen in the table below:

Operations Europe						
	2017	**2018**	**2019**	**2020**	**2021**	**2022**
0-250k€	52%	49%	48%	47%	42%	45%
250k€-500k€	12%	16%	10%	13%	13%	14%
500k€-1M€	14%	13%	14%	13%	13%	12%
1M€-2.5M€	14%	13%	15%	15%	17%	16%
2.5M€-5M€	4%	5%	7%	5%	8%	7%
5M€-10M€	4%	3%	5%	6%	6%	6%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

One of the factors that have helped in recent years to solve the financing needs of companies is the accompaniment of public funds or public financing, which accompanies companies at this stage. In this way, it is normal for companies in the Seed stage to be able to raise 0.50X the amount of public funding compared to that raised privately by business angels or venture capital. In some cases, it has been observed that in strategic projects or those related to health and medicine, this ratio can reach 1.0X.

Companies that are at this stage of development or maturity are usually companies that have raised a small pre-seed round to start up and are usually in a pre-revenue situation or with very small revenues, which is usually the reason why it is difficult for them to attract the next seed round with tickets of €250k-500k€. Hence the fundamental importance of public funds in these stages of the companies, supporting and co-investing with private venture capitalists.

Challenges and Future Opportunities

In the current unfavourable scenario, there is no room for complacency and it is necessary for Europe and its Member States to devote maximum effort to consolidate the more positive trends pointed out by the latest Barometer. Both investment in crypto and in the largest funds with a clearly defined scope of action and public measures are driving this growth. Indeed, the “crypto” (innovation leadership), Indra’s innovative and successful fund, Caixa Capital Risc’s Life Sciences and Endeavor-Caja Navarra are at the base of the market’s expansion. In the review by geographical area, only Aragon shows negative performance. Of the most active Communities (Catalonia and the Basque Country), it tends to outperform Catalonia, which continues to strongly increase its market share.

An example of evolution was Spain, in terms of evolutionary trends. Firstly, the strengthening of the public sector. With regard to the General State Administration, Soraya Sáenz de Santamaría, Vice-President of the Government, presented the new Agency for Innovation and Business Financing from INNCORPORA and the takeover of ENISA. The Fund of Funds belonging to the Ministry should articulate the connection between Business Corporations and small and medium-sized enterprises to avoid an excess of political clusters and overlapping of public money, be conceived as an ad hoc tool for each company, the best lever to activate existing public money and avoid unnecessary investments.

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CURRENT CHALLENGES AND POTENTIAL BARRIERS

The challenges for possible crowding-in depend on the timing of industry research (e.g., 1998, 2004, 2007...). While some studies found threats of crowding-out, or at least crowding-in of other financial institutions, leading to lower levels of profitability, other studies found no evidence of such effects. As noted above, the European venture capital industry gained significant size from public capital injections, with this approach concentrating mainly on the level of basis risk, in parallel to what the EIB did.

Despite this and the fact that comparably other countries, such as those in the Nordic region of Europe (Sweden, Finland, Denmark and Norway), have not followed such an approach either in terms of the location of the public funds or in terms of the amount injected, as is the case in the UK, to other development, emerging or financial institutions, significant levels of de-development seem to have been achieved (high volume national firms with transactions also at sub- national level, such as Almend Capital and its second fund,...) without developing a micro-economic effect (e.g., the EIB and the EIB).) without developing a micro- economic effect (crowding-out) on the investment of investment firms. It would be a clear signal that there is an average increase in private investment by conventional funds.

Therefore, if the results of this work, and the opinion of the different members, are to be supported, the crowding-in of investments in the development of public capital funds (companies-innovation) by other institutions would be crowding-in of investments by conventional funds in larger companies, and would therefore be more associated with the size of the financed company than with its business plan and its degree of innovation; something to be taken into account for a possible change in the focus of certain state objectives of current investment in search of larger companies -and funds-.

7

CONCLUSION

By notifying that starting with the end of the first decade of the 2000s, US pension funds and all institutional investors of that country that invest in venture capital funds invest in these vehicles to increase amounts that are a minima equal to the contributions of pension obligees so that it is the US taxpayer who benefits from the financial results of these investments is likely to lead one to commit against the risk that the same thing happens in Europe and in the other countries – to continue to do the minimum of venture capital investments even at the expense of the direct investments that institutional investors are able to manage independently.

If anything, the scarcity of venture capital funds in Europe against the US is due more to the absence of risk capital in the institutional investors' soutenu than to the fact that they are on an inferior trend of funds than those of the American venture capitalists compared to other asset management companies. Hence, to believe that the disappearance of these funds in venture capital would entail the disappearance of the sector of bad results in terms of creating and destroying companies.

The perspective according to which, in economies where labour costs associated with the supply of labour of high quality are still high (albeit diminished in the case of labour income earned), the formation of the venture capital sector is first of all a consequence of structural problems of these countries must be taken into account.

A major force for pushing European venture capital towards the US model is the involvement in the sector of institutional investors that came to the market to exploit the investment opportunities created by the dot-com bubble. Taking merit out of the advocacy for a stronger public involvement in this sector, these institutional investors and the value placed on venture capital companies and fiscal considerations has led along to this type of investments have to a structuring of the sector according to its expectations and the fiscal considerations that facilitate the impact of compensation structures adopted on income adequacy of the managers.

Therefore, it is essential to recognize that there are several factors at play when it comes to the investment strategies of pension funds and institutional investors in venture capital funds. One key aspect is the commitment to match the contributions of pension obligees, ensuring that the US taxpayer benefits from the financial outcomes of these investments. This practice, which has been prevalent since the early 2000s, raises concerns about whether a similar approach will be adopted in Europe and other countries. The discrepancy in the availability of venture capital funds between Europe and the US can be attributed to various factors. It is not solely a result of inferior trends in European funds compared to their American counterparts or a lack of risk capital among institutional investors.

Rather, it is important to consider the structural problems faced by European countries, including high labor costs and the impact on income adequacy. These factors contribute to the formation of the venture capital sector and its performance in terms of creating and destroying companies. One significant driver of the European venture capital market's alignment with the US model is the participation of institutional investors seeking to capitalize on investment opportunities arising from the dot-com bubble. These investors, recognizing the value of venture capital companies and considering fiscal factors, have influenced the sector's structure and compensation arrangements.

Consequently, it is imperative to acknowledge the impact of these dynamics on income adequacy and the expectations of venture capital managers. In conclusion, understanding the intricacies of venture capital investments requires considering the motivations and strategies of pension funds and institutional investors. While the US has witnessed substantial investment in this sector, Europe faces challenges arising from structural issues and the involvement of institutional investors. Balancing these factors is crucial for the sustained growth and success of the venture capital industry.

Recommendations for Policy and Practice

In the recent European policy trend towards increased focus on generated impacts, the results presented make a compelling case for implementing robust incentives that are directly tied to the success of start-ups, such as job creation. It has been observed that these specific types of incentives are more likely to attract and retain venture capital compared to those that solely reward investment input. This amplifies the importance of focusing on the right aspects when it comes to technology transfer incentives, as emphasized by recent advice.

Furthermore, building upon prior evidence from the United States, it has been discovered that increasing the reward from venture investment professional activities leads to significant improvements in venture performance. These findings add valuable insight to the ongoing discussion of how to facilitate and streamline the process for venture investors, ultimately making their lives easier.

Moreover, this article delves into the hard evidence that indicates why tax incentives have been largely ineffective in stimulating increased venture capital activity in Europe when compared to the United States. It has been found that the primary determinant of success lies not in the size or numerous features of the programs, but rather in their design. Recognizing this critical factor is paramount in developing effective tax incentive strategies moving forward. Based on the empirical findings, a number of best practices for tax incentives can be identified. One such practice is offering enticing tax incentives that encourage the creation and growth of companies, thereby fostering job formation.

Additionally, these incentives should aim to provide attractive financial returns for investors, thus offering the necessary motivation for venture capital activity. Furthermore, approaches can also be taken to adjust for market failures and increase risk-adjusted investor returns. In summary, this study sheds light on the intricate relationship between tax incentives, venture capital activity, and start-up success. By implementing well-designed and targeted incentive programs, policymakers can pave the way for increased venture capital investments in Europe, leading to vital economic growth and prosperity.

In general, the two instruments (equity investment and investment in venture capital funds) available to local and national governments could lead to efficiency debates. The conclusions may depend on the nature of the different designs that governments may use to implement their New Enterprise policies.

On the one hand, the Capital and ICT axis (i.e. close collaboration between capital and ICT) is the approach that is likely to offer the highest return in terms of growth of the funded enterprises and speed in achieving the exit targets of the financial backers. Moreover, it is compatible with a wide range of funding sources, as it is not limited to capital provided by an equity fund.

For its part, the regional hub concept on sources of competitiveness and the model seeks to leverage the region's entrepreneurial activity as a way of capitalising investments and institutionalising successes is probably the financing figure that offers the highest return for Regional Marketing. The collectivisation of investment is based on the fact that it is impossible, in practice, for a patent(s) to create a new company.

On the other hand, they involve maximum investments that start from an important economy in terms of: a) reduction of the costs derived from the work of transfer marketing, university/A and department b) taking advantage in Spain of the economies of scale derived from investment in related start-ups for companies operating in niche markets and c) institutionalisation of the failure in the entrepreneurial process and/or (and where appropriate) in desisting from it.

In areas such as the creation of a system of reindustrialisation entrepreneurship initiatives the 1980 model governs the entrepreneurial process was successful in Spain. In areas such as the creation of a system of reindustrialisation entrepreneurship, the 1980s model of the entrepreneurial process was successful in Spain. Recommendations for policy actions that can be drawn from the experience accumulated over the last decade in the light of the policy framework and the analysis in the previous chapters, and taking into account the trends and problems mentioned in this section and in the recent literature, could be based on at least the following three groups of recommendations.

References

- Alakent, E., Goktan, M. S., & Khoury, T. A. (2020). Is venture capital socially responsible? Exploring the imprinting effect of VC funding on CSR practices. Journal of Business Venturing. researchgate.net
- Alperovych, Y., Groh, A., & Quas, A. (2020). Bridging the equity gap for young innovative companies: The design of effective government venture capital fund programs. Research policy. sciencedirect.com
- Aminova, M., & Marchi, E. (2021). The role of innovation on start-up failure vs. its success. International Journal of Business Ethics and Governance, 41-72. ijbeg.com
- Battisti, E., Nirino, N., Leonidou, E., & Thrassou, A. (2022). Corporate venture capital and CSR performance: An extended resource based view's perspective. Journal of Business Research. uclan.ac.uk
- Berezinets, I. & Ilina, Y. (2022). Investor activism strategies of private equity firms: evidence from continental Europe. Studies in Economics and Finance. spbu.ru
- Caselli, S. & Negri, G. (2021). Private equity and venture capital in Europe: markets, techniques, and deals.
- Demertzis, M., Pinkus, D., & Ruer, N. (). Accelerating strategic investment in the European Union beyond 2026. Bruegel Report. bruegel.org
- Di Vaio, A., Hassan, R., Chhabra, M., Arrigo, E., & Palladino, R. (2022). Sustainable entrepreneurship impact and entrepreneurial venture life cycle: A systematic literature review. Journal of Cleaner Production, 378, 134469.
- European Commission (2002): Financing Risk-Taking in Innovation. A Comparison of the Venture Capital Markets of Europe, the United States and Canada. DG Enterprise, Enterprise Papers, September
- European Commission (2007): Risk Capital Access and Availability in the EU. Report from the Expert Group. Brussels, 1 de febrero.
- European Commission (2009): European Recovery Plan. Overview of the Measures taken at European and National Levels.
- Gagos, C.; Miller, D. and Ross, M. (2010): Smart Choices and Foolish Trades: The Efficiency of Distressed Equity Buyouts in International Perspective. In H.-P. Birkinshaw (ed.): Into the unknown: Adaptation and Internationalisation (Vol. 36). London: Emerald Group Publishing.
- Gompers, P. A. and Lerner, J. (2004): The Venture Capital Cycle. Cambridge, MA: MIT Press.
- Gornall, W.; Strebulaev, I. and De Ville, A. (2015): Worker Flows, Venture Capital and Innovation: Evidence from Venture Capital Impact. Working Paper.
- Holtslag, M., Chevrollier, N., & Nijhof, A. (2021). Impact investing and sustainable market transformations: The role of venture capital funds. Business Ethics, the Environment & Responsibility, 30(4), 522-537. wiley.com
- Gimenez-Fernandez, E. M., Sandulli, F. D., & Bogers, M. (2020). Unpacking liabilities of newness and smallness in innovative start-ups: Investigating the differences in innovation performance between new and older small firms.
- Research policy. ucm.es
- Hunady, J., Pisár, P., Vugec, D. S., & Bach, M. P. (2022). Digital Transformation in European Union: North is leading, and South is lagging behind. International Journal of Information Systems and Project Management, 10(4), 58-81. uminho.pt
- Kou, M., Yang, Y., & Chen, K. (2020). The impact of external R&D financing on innovation process from a supply-demand perspective. Economic Modelling.
- Lin, L. (2022). Venture capital in the rise of sustainable investment. European Business Organization Law Review. springer.com
- Lu, X., Sheng, Y., & Wang, J. (2020). The influence of executive compensation incentives on R&D investment: the moderating effect of executive overconfidence. Technology Analysis & Strategic Management, 32(10), 1169- 1181. researchgate.net
- Lütz, S., Leeg, T., Otto, D., & Dreher, V. W. (2021). European Union as a Global Actor.
- Maas, C., Steinhagen, P., Proksch, D., & Pinkwart, A. (2020). The role of innovation in venture capital and private equity investments in different investment phases. Venture Capital.
- Murray, G. (2022). The second 'equity gap': exit problems for seed and early stage venture capitalists and their investee companies. Venture Capital.
- Murray, G. C. (2022). Evolution and change: an analysis of the first decade of the UK venture capital industry. Venture Capital. researchgate.net
- Nieto, M., Alonso-Martinez, D., & Gonzalez-Alvarez, N. (2022). Industry and country effects on innovation effort. European Journal of Innovation Management, 25(1), 271-298. unileon.es
- Pina, Á & Sicari, P. (2021). Enhancing regional convergence in the European Union.
- Rodríguez-Rebés, L., Navio-Marco, J., & Ibar-Alonso, R. (2021). Influence of organisational innovation and innovation in general on eco-innovation in European companies. Journal of Intellectual Capital, 22(5), 840-867. uned.es
- Rossi, M., Festa, G., Devalle, A., & Mueller, J. (2020). When corporations get disruptive, the disruptive get corporate: Financing disruptive technologies through corporate venture capital. Journal of Business Research.
- Sardo, F., Serrasqueiro, Z., & Félix, E. G. (2020). Does Venture Capital affect capital structure rebalancing? The case of small knowledge-intensive service firms. Structural Change and Economic Dynamics, 53, 170-179.
- Shahzad, M. F., Khan, K. I., Saleem, S., & Rashid, T. (2021). What factors affect the entrepreneurial intention to start-ups? The role of entrepreneurial skills, propensity to take risks, and innovativeness in open business models. Journal of Open Innovation: Technology, Market, and Complexity, 7(3), 173. sciencedirect.com
- Xu, X. L., Shen, T., Zhang, X., & Chen, H. H. (2020). The role of innovation investment and executive incentive on financial sustainability in tech-capital-labor intensive energy company: Moderate effect. Energy Reports. sciencedirect.com

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