VENTURE CAPITAL AND PUBLIC POLICY

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Abstract
Venture capital is a specific type of investment dedicated to start-ups and innovative enterprises. The goal of the risky investment is to support entrepreneurs who develop new technologies or new products and who do not have the necessary funds and often the necessary business development experience. In many countries, governments have decided to support venture capital in an attempt to stimulate technological creativity and boost the local economy. The European Union, considering the huge deficit in venture capital compared to the US, has in particular decided to establish or support venture capital funds to invest in those areas in which the EU could achieve global success. In this article, we present the weaknesses of the European Union intervention to support venture capital. In a few words, the Commission's interventions were not based on an adequate assessment of market needs and no sufficient evidence of the impact of the intervention carried out during the analyzed period can be identified. Also, the cost of these interventions is not fully transparent or designed to meet policy objectives and there is a problem in the justification process of start-ups fees.

Keywords
Venture capital; public policy; public finance; innovative enterprises; European Investment Fund; European Union.

Introduction

Venture capital represents an important segment of the financial markets, attracting and providing funds to startups and innovative enterprises. The origins of the venture capital industry can be found in the post World War II American economy, where business pioneers made high-risk investments in developing companies. In the 1960s and 1970s, venture capital became a distinct form of equity investment in Silicon Valley technology companies.

The paper is organized as follows. The next section reviews the importance of venture capital and the relation between technological development and this form of business finance. The following section presents the case for policy interventions in support of venture capital. Then we provide a critical perspective on the government support of venture capital using the European Union as a general case study. The design and impact, proposed implementation, and comprehensive investment strategy will be the key elements of the analysis. To achieve the main goal of a pan-European venture capital market, the European Court of Auditors recommended several changes. The last section concludes the paper.

Venture capital: theory and history

Venture capital represents funds that buy private equity or venture capital offer medium- and long-term capital to accelerate the growth of companies. Generally, these investments reach maturity in 3-7 years.

Venture capital is a specific type of investment dedicated to start-ups. The goal of the risky investment is to support entrepreneurs who develop new technologies or new products and who do not have the necessary funds and often the necessary business development experience. According to Zider, “venture capital fills the void between sources of funds for innovation (chiefly corporations, government bodies, and the entrepreneur’s friends and family) and traditional, lower-cost sources of capital available to ongoing concerns” (Zider, 1998, p.132).

As Gompes and Lerner explained: “Venture capital has developed as an important intermediary in financial markets, providing capital to firms that might otherwise have difficulty attracting financing. These firms are typically small and young, plagued by high levels of uncertainty and large differences between what entrepreneurs and investors know. Moreover, these firms typically possess few tangible assets and operate in markets that change very rapidly. Venture capital organizations finance these high-risk, potentially high-reward projects, purchasing equity or equity-linked stakes while the firms are still privately held. The venture capital industry has developed a variety of mechanisms to overcome the problems that emerge at each stage of the investment process” (Gompers & Lerner, 2001, p.145).

Private equity or venture capital financing is different from bank financing. When granting a loan, the bank asks for guarantees, imposes a repayment schedule of the principal and the payment of interest. Instead, equity participation and venture capital mean taking on business risk; investors become co-owners of the company, contribute to its administration and development, anticipating that the process will end with a profit; once the company reaches maturity, they sell their stake in the capital, often through the stock exchange, thus obtaining the desired return for the investment made. Venture capital funds not only provide an alternative financing solution to bank financing but also support the company by providing know-how, contributing to its management and development. The average size of European venture capital funds in 2018, according to the European Commission, was 56 million euros.

Venture funds are a key source of financing for start-ups, which identify the most promising business ideas and turn them into engines of economic growth. The studies carried out allowed the observation of some essential tendencies for the optimal formulation of the public policies:

- The innovations of start-ups financed by risk investment funds are qualitatively superior to the general innovations in the economy. Firms supported by risky investments tend to register more patents, collect more citations, and innovate in

the fields of basic research. This means that venture capital-backed firms play an important role in creating jobs and increasing productivity.
- Innovation supported by venture capital is pro-cyclical, to a greater extent than the economy as a whole.
- Investments in the late stages of start-up development are relatively uniform throughout the business cycle, while investments in the early stages are sensitive to crises.

Mutual funds (FOFs) are funds that invest in multiple venture capital funds. In other words, the portfolio of a FOF contains the portfolios of the various smaller funds on which it is based. On the one hand, the mutual fund offers investors a lower return, but also the advantage of diversification; on the other hand, FOF helps private venture capital funds gain access to a larger pool of resources, provides liquidity, and helps disperse risk.

Funds can be private or public structures. Almost all Central and Eastern European states have set up FOFs to effectively support entrepreneurship. Examples: Baltic Innovation Fund (2012; 130 million euros), Central European Fund (2017; 97 million euros), Croatian Venture Capital Initiative (2018; 32 million euros). One of the best examples is the Polish National Capital Fund, set up by the Polish government in 2005 and set up the first two venture capital funds in 2007, with a total investment of 100 million zlotys. To date, the National Capital Fund has invested in 18 venture funds.

Venture capital and government intervention

The theory of public finance argues that the government should subsidize those activities that generate positive externalities. Innovation is considered an activity with strong external benefits and these externalities can lead to insufficient provision of private sector finance to new companies and risky investments.

Governments can use two methods of stimulating venture capital: (1) via a friendly regulatory regime and (2) via injections of public funds. The first method attempts to improve the conditions for the accumulation of venture capital by advancing appropriate fiscal codes, securities laws, and competitive labor market regulations. The second method implies the establishment of a public agency that will allocate funds through a venture capital like scheme.

An extensive literature has documented the positive effects of market-friendly regulations on venture capital markets. For example, Wang and Wang (2012) demonstrated the relationship between trade liberalization and cross border capital flows, Bozkaya and Kerr showed that less burdensome labor regulations are correlated with more developed capital markets (Bozkaya & Kerr, 2014), Armour and Cumming discussed how effective bankruptcy laws stimulate the new business formation and risk capital (Armour & Cumming, 2006).

The public subsidization of venture capital is a more controversial issue. On the one hand, many economists have argued that the financial market does not provide a proper level of investment in start-ups, given that the market is reluctant to finance the "longer-term and riskier" investments in the development of new products. As a consequence, the state should support investment through funding development banks and venture funds, and provide public guarantees for long-term investment projects that cannot fulfill the requirements of private investors. On the other hand, government support of venture capital would present the risks associated with all public expenditures in general: crowding out private investment, rent-seeking, lack of knowledge concerning the optimal level or pattern of investment, etc.

The European Union has decided to offer financial support to the venture capital industry, taking into account the underdevelopment of this market compared especially to the US. According to some estimations (Matveeva, 2019), Europe invested around €23bn in venture capital in 2018, whereas the US invested $130bn and China $92bn. As the European Investment Fund put it in a report, “In the past 20 years, the European Investment Fund has been the leading public provider of risk capital, and in particular of venture capital, to young and innovative European start-ups” (EIF, 2016, p.6).

Problems with the EU interventions for venture capital as detected by the European Court of Auditors

The innovation, entrepreneurship, venture capital, and economic growth offer benefits for economic and social development. Starting from this point, this part aims to highlight the main ideas from a Special Report of the European Court of Auditors. The document appraised how the European Commission coordinated venture capital contributions. The evaluation goal was to obtain a picture of reality, by analyzing how European Commission implemented venture capital interventions. The design and impact, proposed implementation, and comprehensive investment strategy were key elements of this analysis.

Funding is a challenge for emerging firms and start-ups and a facile solution is represented by venture capital. This option is more open to the risks than banks for different reasons like return opportunities and strategy. Generally, venture capital investments are based on a fund made up of multiple investors and administrated by a fund manager. The diversification principle helps to manage the risks.

Regarding venture capital investments in Europe, we can notice some defining characteristics: the average investment is between €2 and €3 million, longstanding financial perspective, illiquidity, growing through active ownership, highly return expectation, a fee payable to investment manager (20% of investment) and specific skills. In the EU, the sources of venture capital funds are, on one hand, financed by different budgetary areas, and, on the other hand, by the European Structural and Investment Funds (ESIF). In other words, there are *centrally managed interventions* and *shared management interventions*.

Over the last few years, the European state agencies increased the groundwork for venture capital funds and investments in companies. To deploy the interventions in venture capital, the European Commission mandated the European Investment Fund (EIF)/European Investment Bank (EIB). Averagely, the venture capital funds created 48 jobs per company and invested 3 million euros. Some authors affirm the European venture capital funds have a limited effect on their ability to raise equity capital, grow, and create jobs (Bottazzi & Da Rin, 2002).

Since 1998, several instruments provided venture capital funds for start-ups: Growth and Employment Initiative (G&E), Multiannual Programme for Enterprise and Entrepreneurship (MAP), Competitiveness and Innovation Framework Programme (CIP), Programme for the Competitiveness of Small Enterprises and Small and Medium-sized Enterprises (COSME), Horizon 2020 – the Framework Programme for Research and Innovation, European Fund for Strategic Investments (EFSI), but the largest program is EFSI.

Nowadays, the European Investment Fund (EIF) is one of the most important players in the European venture capital market and administrates funds from the European Commission, the European Investment Bank, and national sources. To highlight an objective point of view of the EIF, there were analyzed three major directions in the EU's behavior:

- *Has the European Commission conducted good evaluations in each investment stage?*
- *Has the European Commission implemented an exhaustive investment strategy?*
- *Did the EIF use the proper instruments for implementing the proposed action by the European Commission?*

According to the audit, there can be identified the following major ideas in the EU behavior regarding the venture capital:

Weaknesses in ex-ante and ex-post evaluations

From the very beginning, the actions were expected to be evaluated in each stage, but the European Commission extended the venture capital support out of the evaluation of the market. The issues that should be investigated can be divided into two main categories: on one hand, we find the general market assessment, which includes, for example, ex-ante assessment, impact evaluation, market needs study, and, on the other hand, business-related issues, as the structure, sources, and needs of funding.

Related to the analyzed subject, the audit detected the following difficulties: the Commission's interventions were not based on an adequate assessment of market needs and no sufficient evidence of the impact of the intervention carried out during the analyzed period can be identified. These problems were triggered mainly by the lack of available data. Gampfer et al. noticed *"Member States are predominantly a supply or a demand-side problem, i.e. whether there is insufficient venture capital supply or whether there are insufficient companies to invest in"* (Gampfer, Mitchell, Stamenov, Zifciakova, & Jonkers, 2016, 12).

Over time, there have been many situations demonstrating that the Commission has not given sufficient attention to the evaluation process. For example, in 2013, for the InnovFin Equity Facility (IFE) instrument, the evaluation was carried out after an estimated budget had already been discussed, together with the Commission, the Parliament, and the Council and after the legislative proposal was initiated. Also, there were situations when the Commission was not able to quantify the funding gap and, finally, this can determine a non-absorption of the venture capital funds. Although some regular assessments have been carried out, these have not analyzed the impact of EU intervention in venture capital or the effects on the economy. If the assessment is not proper, cannot provide substantial information for the design of the used instruments.

The evaluation reports do not offer an image of the impact and do not provide performance indicators (excepting EFG, IFE, and EFSI), for example, in the area of job creation as a result of venture capital funding for the beneficiary companies. *“The targets for IFE do not only relate to venture capital but combine venture capital and debt financing support, making it difficult to evaluate the performance of each instrument”* (European Union, European Court of Auditors, 2019, p. 22).

The Commission lacked a comprehensive investment strategy

By analyzing the investment strategy, the auditors discovered a set of four stringent issues that must be corrected:

(1) *Demand-driven approach does not favor the development of less developed venture capital markets or sectors*. Some capital markets and sectors have fewer benefits, starting with centrally managed interventions. In fact, the strategy was not exhaustive. A weak strategy is not able to support a suitable investment and this context affected the underdeveloped markets. Since the beginning, there was no oriented investment strategy, the allocation funding process was not differentiated and, finally, the underdeveloped markets received less financial support. In June 2018, France (20% of total EU-backed venture capital funds) and Italy (14% of total EU-backed venture capital funds) registered the highest EU-backed venture capital funds. On the opposite side, there were registered 12 member states with no EU-backed venture capital funds. According to the auditor’s report, the Member States that were attractive to venture capital benefited the most from the EU interventions and *“as at 30 June 2018, 42 % of the EU-backed venture capital funds had a multi-country focus”* (European Union, European Court of Auditors, 2019, p. 25). The concentration on countries such as France, Germany, and the United Kingdom (representing 50% of venture capital investments) affected the crystallization of a European venture capital market. Finally, the report concluded that the assistance allocating process based on demand favors the most developed venture capital markets.

(2) *Funding needs were not quantified by the development stage or sector of activity.* The EU-backed venture capital funds promoted the investment in SMEs at different development stages, but there was no evidence or strategy in this direction. *”The assessment makes no mention of targeting or analysis by Member State”* (European Union, European Court of Auditors, 2019, p. 29). Based on EIF data, the auditors highlighted that 45% of venture capital funds (EU-backed) were intended for start-ups, 32% for growth, 12% for a buy-out, and 11% for seed. Regarding the distribution of EU-backed venture capital funds per sector, there can be observed a trend: almost 50% of the total investment is oriented toward firms operating in computer & consumer electronics and the life sciences sectors.

(3) *The EU venture capital market is not attractive enough to private investors.* To develop a venture capital market, the EU's objective was to bring private capital. The low rate of return investments determined a low contribution of private investors in venture capital. The Commission established minimum targets for private participation in the venture capital funds. *”Some of the Commission’s final and interim evaluations of the centrally managed programs declared the pari passu principle a failure or a barrier to stimulating private investment”* (European Union, European Court of Auditors, 2019, p. 30).

(4) *Complexity resulting from using more than one intervention to deploy EU support to the venture capital market*

Since 2014, the European Commission used three instruments to develop a venture capital market: EFG, IFE, and the EFSI. Due to the overlaps, for the next years (2021-2027), the Commission proposed just a single instrument, not three, and a single budgetary guarantee.

The EIF is a cornerstone investor but its management of EU interventions can be streamlined

After analyzing the results, the Commission must ensure that EIF can implement EU interventions. To achieve the main objective, there are several points to highlight. First of all, the EIF is an important player in the venture capital market and one of the EIF difficulties is represented by the exiting EU-backed funds.

Another point is related to the EU-backed instruments that overlap with others managed by the EIF rather than supplementing them. Taking into consideration *"the mandates' preferences (for specific sectors or a certain performance, for example) and their geographical focus, there is overlap between the centrally managed EU interventions and other"* (European Union, European Court of Auditors, 2019, p. 35).

On behalf of the Commission, EIF is mandated to implement the venture capital interventions backed-EU. Apart from the predetermined fee (between 5.7 % and 8.5 % of the EU intervention), the Commission refunds to EIF some eligible costs for implementing the EU funds and some management fees. Over the years, the fees paid by the start-ups to EIF increased, reaching up to 14% for the instruments used in recent years. According to the auditor's report, the Commission provided no information about the costs of previous schemas. Finally, they conclude that EIF's fees are not fully transparent or designed to meet policy objectives and there is a problem in the justification process of start-ups fees. Because of this behavior, there is no motivating force in the area of venture capital market development. Even if the EIF was not able to achieve the target, the Commission paid a part of the incentive fees.

The audit report's conclusions suggest an improvement in the area of the allocation policy and, additionally, a resolution to the issues determined by the expired mandates. Furthermore, we can also observe that higher fees are eventually being paid by the start-up to the EIF. To improve the quality of the intervention in the venture capital market, the auditors purpose to the European Commission three major improvements areas:

(1) *carry out the necessary analyses for the improvement of the evaluation process for EU interventions*. For optimal results, the EU should properly analyze the allocation venture capital funds process. A counterfactual analysis can facilitate this purpose.

(2) *develop an exhaustive investment strategy*. The interventions in the venture capital markets failed to take into account the case of the less developed countries. For this reason, we cannot discuss a European venture capital market. The demand-driven perspective offered benefits to the most developed countries and the underdeveloped ones were not so competitive and engaged in achieving the European purpose. Also, the low level of the returns was not attractive for the private sectors.

(3) *engage with the EIF to streamline its management of the EU interventions*. In order to become more efficient, the EIF should: *"(a) streamline the project approval process by shortening the current timeline; (b) ensure that it applies a deal allocation policy ensuring complementarity between the EU interventions and the other mandates*

managed by the EIF; (c) ensure that it identifies sufficient exit options when approving investment in a fund"(European Union, European Court of Auditors, 2019, p. 44).

Conclusions

In this paper, we have discussed the lessons of public involvement in the venture capital sector. First of all, we have seen the significance of the venture capital industry in fueling technological innovations. The venture capital represents an important type of investment not only for a start-up but for other companies that need funds to develop new technologies or/and new products. Building a picture of the venture capital market helped in achieving the initial purpose of the paper.

In the second section of the article, we have considered the arguments for government intervention and how the European Union acted to support venture capital. According to the literature, the government can use two methods to stimulate venture capital markets: on one hand, a friendly regulatory regime, that can improve the conditions for the accumulation of venture capital by advancing appropriate fiscal codes and, on the other hand, via injections of public funds, through a public agency that allocates venture capital funds, using a scheme.

Based on the lengthy European experience we have presented several issues that have to be addressed in the future to build a more transparent and efficient institutional setup. The evaluation goal was to obtain a picture of reality, by analyzing how European Commission implemented venture capital interventions. The design and impact, proposed implementation, and comprehensive investment strategy were key elements of this analysis. According to the auditor's report, there can be observed several issues on the European Commission behavior regarding the venture capital: there were identified weaknesses in ex-ante and ex-post evaluations, the investment strategy was not comprehensive (demand-driven approach was not oriented to the development of less developed venture capital markets or sectors, the funding needs were not quantified by development stage or sector of activity, the EU venture capital market was not attractive enough to private investors, etc.). The European Court of Auditors recommended some changes in the European Commission behavior to achieve the main goal of a pan-European venture capital market. In a few words, the Commission's interventions were not based on an adequate assessment of market needs and, furthermore, no sufficient evidence of the impact of the intervention carried out during the analyzed period can be identified. Also, the cost of these interventions is not fully transparent or designed to meet policy objectives and there is a problem in the justification process of start-ups fees.

References

Armour, J., & Cumming, D.J. (2006). The Legislative Road to Silicon Valley. *Oxford Economic Papers* 58, 596-635.

Bottazzi, L., & Da Rin, M. (2002). Venture Capital in Europe and the Financing of Innovative Companies. *Economic Policy 17(34)*, 229-270. https://doi.org/10.1111/1468-0327.00088

Bozkaya, A., Kerr, W.R. (2014). Labor Regulations and European Venture Capital. Jou*rnal of Economics and Management Strategy*, 776-810. https://doi.org/10.1111/jems.12077

EIF (2016). The European Venture Capital Landscape: an EIF Perspective. EIF Research & Market Analysis. *Working Paper* 2016/34.

European Union, European Court of Auditors. (2019). Special Report: Centrally managed EU interventions for venture capital: in need of more direction. Luxembourg: European Court of Auditors.

Gampfer, R., Mitchell, J., Stamenov, B., Zifciakova, J., & Jonkers, K. (2016). Improving Access to Finance: Which Schemes Best Support the Emergence of High-Growth Innovative Enterprises?. A Mapping, Analysis and Assessment of Finance Instruments in Selected EU Member States. European Union: JRC Science for Policy Report. https://doi.org/10.2791/635757

Gompers, P., & Lerner, J. (2001). The Venture Capital Revolution. *Journal of Economic Perspectives* 15(2), 145–168, https://doi.org/10.1257/jep.15.2.145

Matveeva, S. (2019, May 31). Raising Venture Funding in Europe vs. the U.S. Retrieved from Forbes: https://www.forbes.com/sites/sophiamatveeva/2019/05/31/raising-venture-funding-in-europe-vs-the-us/#1faea63578a8

Wang, L., & Wang, S. (2012). Economic Freedom and Cross-Border Venture Capital Performance. *Journal of Empirical Finance* 19(1), 26-50. https://doi.org/10.1016/j.jempfin.2011.10.002

Zider, B. (1998). How Venture Capital Works. *Harvard Business Review*, 131-139.