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Does Euronext reward Venture Capital activity?

Inês Maria Ciríaco Marquês de Sousa

Master in Finance

Supervisor:
Professor Rui Manuel Meireles dos Anjos Alpalhão, Invited Associate Professor,
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Resumo

O presente estudo pretende testar empiricamente se existem diferenças significativas nos retornos das ações das empresas apoiadas por capital de risco e não apoiadas por capital de risco que se tornaram públicas no mercado Euronext entre 2012 e 2016. Os retornos considerados são os retornos do primeiro dia e de três anos. A amostra de dados utilizada é composta por 105 empresas, sendo 61 apoiadas por capital de risco e 44 não financiadas por capital de risco. O resultado estatístico não revela diferenças significativas entre os retornos do primeiro dia entre empresas apoiadas por capital de risco e as não financiadas por capital de risco. Por outro lado, o retorno de três anos para as empresas sem apoio de capital de risco é significativamente maior do que o mesmo retorno para as empresas apoiadas por capital de risco.

Abstract

The present study aims to empirically test if there is significant differences in the returns of venture capital backed and non venture capital backed firms that became public at Euronext between 2012 and 2016. The returns considered are the first-day and three-years returns. The data sample used is composed by 105 firms, being 61 venture capital backed and 44 non venture capital backed. The statistical outcome reveal no significant differences between venture capital and non venture capital backed companies' first-day returns. On the other hand, the three-years return for non venture capital firms is significantly higher than the same return for venture capital backed ones.

Keywords: Initial Public Offering, Euronext, Underpricing, Venture Capital

JEL classification: G12, G24, O16

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Introduction

Venture Capital (VC) is nowadays seen as a source of funding to the most innovative firms at their early stages of development and its contribution goes beyond financial support, giving insights in terms of governance, consulting, monitoring and market connections (Nguyen, 2018). Eventually, venture capitalists want to exit, and floating the company in the public market is a good option with good return. According to Lerner (1994), firms benefit from the contribution of venture capitalists in the Initial Public Offering (IPO) process, using some important insights about the right time to go public, the reputation of the underwriter and the collection of investors in the pre-IPO investor roadshow.

According to the analysis of Wang et al. (2003), the results presented in literature about this topic are divergent about the first-day and long-run returns of VC-backed firms compared to non VC-backed companies in public markets and can be summarized in two models that give different empirical predictions in both IPO first-day and post-IPO performance.

The certification and monitoring thesis predicts lower underpricing (difference between the initial and closing market price on the first-day of trading) and better long-term performance for VC-backed firms, due to the confidence that the monitoring process by VC represents to investors that trusts in their company evaluation. In terms of long-run performance, the management, operating and financial practises formed and developed by the venture capitalists support are likely to remain active for a significant length of time and provide the capacity for a better long-run performance (Jain and Kini, 2000). The grandstanding model predicts higher level of underpricing and consequent negative long-run performance for venture capital supported companies. The higher level of underpricing is originated by the venture capitalists deliberated acceptance of underpricing in order to guarantee future returns and reputation and the long-run performance tend to be worse since potential risks turn out to be real.

This divergence is very representative of the results obtained by the previous studies analysed that are explored in detail in Chapter 1. These results often depend on the sample used in terms of market listing, age or VC age and reputation. In the Literature Review, will be presented results from different markets, however the majority of the studies in this field are developed for the United States (US) market. The findings for the US market may not be applied in other markets, as the case of the European, due to differences in the characteristics of stock market, financing system and venture capital market maturity.

The examination of the European market by Bessler and Seim (2011) and by Nilsson and Wahlabert (2006) conclude that VC-backed firms perform better than non VC-backed IPOs. However, Bottazzzi and Da Rin (2002) found no significant difference in the long-run performance of VC and non VC-backed IPOs.

The research about the performance of VC-backed versus non VC-backed IPOs in Europe is still limited (Nguyen, 2018). The VC industry in Europe is still in a low maturity stage and is also reduced, being about a quarter of the size of VC market in United States (Grili and Murtinu, 2014). Due to its dimension and maturity stage, the research developed for Europe originate different and temporary results and conclusions.

Having in account these limitations in the studies that compare the performance of VC-backed and non VC-backed firms in Europe, I propose myself to develop a study that aims to evaluate if the Euronext market rewards venture capital backed firms. The main objective is to understand if the venture-backed firms have better performance in terms of stock return after floating than non venture-backed ones. The analysis will rely on first-day returns and on three-years return to evaluate the long-run performance.

To answer to the question of this Master Thesis, will be analysed more than 100 firms (precisely 105 firms) that went public in Euronext between 2012 and 2016. The period of study was chosen in order to analyse the stock return after the financial crisis, selecting the year of the speech of the European Central Bank (ECB) President, Mario Draghi, that was a turning point in investors confidence in the European market. The last year of floating in the study is 2016., in order to be able to analyse the three-year returns (2019).

Every firm was classified by hand as a venture backed or non-venture backed in the moment of IPO (using as a criteria the presence of a Venture Capitalist Fund into equity participation present in the Floating Prospectus) and their stock returns will be evaluated for specific moments: i) the first-day return and ii) three-year return after floating, that will allow to take conclusions about firm's long-run performance.

The study is focused in the Europe, and not only in a specific country, because in economic terms and from a global point of view, Europe and specially European Union is evolving to be seen as a single economic block entity and we must analyse its performance in an aggregate way to compare it to other important economies such as United States, China or Japan. For this, the study lean over the Euronext market since it is currently the Europe's centre of raising capital and it is an existing and limited market, composed by the most important western European countries.

This work aims to add value to the research about the performance of VC-backed and non VC-backed IPOs in Europe, reducing the evident lack of studies in this area, and providing results in a cross-country perspective, with a sample based in a multiple county market, Euronext.

In order to achieve the ambitions presented, this work will be organised as follows. In chapter 1, will be developed a literature review about the main topics of the study. Chapter 2 is going to dedicated to the hypothesis that will be tested in the work. Chapter 3 describes the data collection procedures and the main details about the final data sample, as well as the methodology used. Chapter 4 presents and discuss the results and the main conclusions.

CHAPTER 1

Literature Review

1.1. First-day returns

The underpricing of Initial Public Offerings (IPOs) is a well known phenomenon, analysed in various papers and studies. This concept of (initial) underpricing can be defined as the difference between the closing market price on the first-day of trading and the initial offer price. The literature about this is extended and very diversified, composed by several studies and statistics showing the high levels of first-day returns when companies go public and by thesis and hypothesis trying to explain it. The majority of literature justifies underpricing through information asymmetry signaling and other behavioural theories.

Information asymmetry is pointed as one of the primary reasons for the observed degree of underpricing. This explanation can be applied at two different interfaces. The first is on the relationship between the issuer and the underwriter and the second is between the underwriter and the investors (market). Observing from the first perspective, several authors hypothesize that underwriters are better informed than the issuer about the market circumstances as well as about the issuing process itself, and take advantage of this superior information by inducing a certain degree of underpricing to minimize their distribution efforts, while the issuer, at an information disadvantage position, is forced to accept the lower price (Katti and Phani, 2016). On the second case, between the underwriter and the investors (market), the underpricing event occurs mainly due to the "winner's curse" phenomenon. According to Rock (1986) the total group of investors (the market) have different levels of information about the fair value of the floated company shares. While uninformed investors subscribe to every IPO, informed investors only buy new shares if the issue price is less than the fair value. Therefore, the shares must be offered at a discount price to hold uninformed investors in the market, in order to the initial offering to be succeed. However, the underpricing is typically a concern for entrepreneurs, since it reduces the value per share they receive from undertaking the IPO.

Signaling is also a very important explanation indicated by the authors, that perceive the issuer intention to "leave a good taste" in investors mouth, to ensure the success of future equity offerings. In accordance with Allen and Faulhaber (1989), underpricing the firm's initial offer is a good way to convince investors that the firm is good for them, since only good firms are able to deliver consistent returns. Firms found it worthwhile since doing this they are able to condition investors to interpret subsequent dividend results favorably. This is seen as an equilibrium signal of the firm quality.

This underpricing phenomenon is also applicable and studied in the field of venture capital-backed IPOs and their comparison with non-venture-backed IPOs, having in account their first-day returns. Since, the goal of this thesis is to evaluate if the Euronext market valuates VC-backed firms is also important to analyse what evidences were found by the academic literature about VC and non VC-backed firms IPO underpricing.

The literature shows divergent findings about this topic and there are different conclusions about the first-day returns of an IPO when it comes to distinguish VC-backed and non VC-backed IPOs.

Loughran and Ritter (1995), using a sample of 4,753 companies that went public in the United States during 1970 to 1990, showed evidence of higher VC-backed first-day returns comparing with others IPOs. The authors explained years later that venture capitalists collaborate with underwriters and accept the underpricing of the firm they are issuing, deliberately, in exchange of larger shares allocation in other underpriced IPOs. Although the excessive dilution that results from underpricing their own IPO lowers their wealth, they gain on personal account when other hot IPOs are allocated to them (Loughran and Ritter, 2004).

Francis and Hasan (2000) with a sample of 854 IPOs between 1990 and 1993 in the NYSE found that initial day returns were higher for VC-backed IPOs than for non VFC-backed IPOs and their findings suggest that this underpricing is determined not only by factors such as third party certification and public information about the new offerings, but is also influenced by factors that lead to pre-market deliberate underpricing as presented above. In addition, the results indicate that for both, VC and non VC-backed IPOs, deliberate underpricing in the pre-market leads to a higher probability of price stabilization in the after-market.

As stated before, the underpricing phenomenon can be a deliberate choice taken by the underwriter or by the issuer. Therefore, higher first-day returns represent an incremental cost to venture capitalists because of the wealth transfer to new shareholders, so why would they be willing to support this cost? Besides the reasons presented before, there is also a more likely explanation, specific for the venture capital business that lies in the grandstanding hypothesis proposed by Gompers (1996). The author states that venture capital firms have as final goal return for their investors, so they must liquidate their investments and return money to the original providers through an exit process, and taking companies public is a very usual way to do it. Because of this, is crucial to establish a reputation as a VC firm that succeeds in floating their portfolio companies. Many times, VC firms are willing to bear the cost of underpricing just to guarantee the success of the IPO.

Lee and Wahal (2004) also conclude in their study that United States venture capital backed IPOs experience larger first-day returns than non venture-backed IPOs between 1980 and 2000. In this paper, they test the grandstanding hypothesis proposed by Gompers (1996) refered above, and for that estimated capital flow regressions with measures of reputation, underpricing and interaction effects as explanatory variables. The results showed a positive relation between reputation proxies and future fundraising and between first-day and future returns.

In Asian markets the same conclusions are found. Hamao et al. (2000), with a sample of 456 IPOs that took place on Japan's OTC market between 1989 and 1995, concluded that underpricing of venture capital-backed IPOs tend to be greater than other IPOs in Japan. On the other hand, when usual determinants of underpricing are controlled, venture capital-backed IPOs are actually less underpriced than non VC-backed ones, proving a consistency with the venture capital role playing in underpricing deliberately.

Despite the literature that concludes about higher initial day returns for VC-backed IPOs, there are also authors that achieved opposite results and that stated that VC-backed firms are less underpriced than non VC-backed firms.

These conclusions were primarily presented by Barry et al. (1990) and for Megginson and Weiss (1991). Both studies state that VC-backed companies enjoy lower initial returns and, consequently, a lower level of underpricing than non VC-backed ones. They attribute this phenomenon to the monitoring and reduction of information asymmetry that are associated with venture capitalists investment.

According to them, venture capitalists represent a group of investors with strong experience in organizing funds, evaluating the prospect of new projects and monitoring projects. Besides, they also have ties with top-tier underwriters and commercial banks due to their activity. These characteristics enable venture capitalists to provide pre-market certification to firms being taken public and contribute to a lower level of underpricing.

The model of venture capitalist certification in IPOs developed above lay in two testable hypotheses.

The first is the strong relationships possessed by VCs with the agents envolved that contributes to the success of the offering process. They should be able to achieve higher quality underwriters and auditors as well as a larger number of institutional investors comparable to non VC-backed firms.

The second is the ability of venture capitalists to reduce the information asymmetry. Wang et al. (2003) suggest that VC firms certify the IPO issuing. The IPO process is characterized by information asymmetry, i.e., investors near the issuing firm have more information than outside investors. This market failure tend to be reduced or avoided by a third-party certification, where underwriters and auditors play an important role. Besides these two participants, venture capitalists, shareholders of the issuing firm can also play this certification role, even more successfully than the others because of two reasons. First, venture capitalists have more knowledge about the issuing firm due to their equity holdings and usually board seats as well as from their longer and closer relationship with the firm. The second reason is related with the monitoring process conducted by venture capitalists in order to evaluate financial rounds and to control the investments made. Outside investors see these usual evaluations to the firm as certification. Finally, the process of searching for underwriters and auditors is costly and time-consuming for firms. For the VC-backed firms, this is likely to be easier and cheaper, since venture capitalists have certainly been involved in previous IPOs and their experience, knowledge and stablished relationships accelerate and facilitates the process.

Besides the conclusions about higher underpricing for VC-backed firms and about lower underpricing for the same companies, when they are compared to non VC-backed companies, there are also studies that did not find any difference between these two types of backed firms in terms of first-day returns.

Chachine et al. (2007), after studying IPOs in United Kingdom and France, found no significant difference in underpricing between VC and non VC-backed IPOs in either of the countries. For the authors, initial underpricing is positively associated with both market volatility and market return variables.

The type of ownership does not appear to affect IPO underpricing significantly also in Germany. Elston and Yang (2010) reach this conclusion, showing some surprise about the results given the previous proved impact of the role of venture capitalists in other countries, especially the United States. However, this outcome is consistent with a strong power of universal banking system in Germany and the relatively late emergence of the venture capital market, that results in an economic environment venture capital is still a weak source of financing and control for German firms, and because of that their impact and influence in IPOs is still soft.

In the other side of the world, in Australia, Silva Rosa et al. (2003) did not find any statistically significant difference in the underpricing of VC-backed and non VC-backed IPOs. While the differences are not significant in terms of underpricing, the average wealth loss suffered by the VC-backed firms is less than the suffered by non VC-backed firms. These results show the importance of calculating wealth loss rather than simply headline underpricing. Habib and Ljungqvist (1999) suggested that the traditional underpricing calculation may not represent the true wealth losses suffered by the issuing company. Although the sample present the same level of underpricing, the results illustrate the potential of great differences of underpricing that could emerge, depending on how headline underpricing is calculated or how other measures could influence the result if they took into account the wealth loss suffered by the issuer.

1.2. Long-run performance

In addiction to the comparison of first-day returns between VC and non VC-backed IPOs, this study also intends to evaluate the differences in the long-run performance for the same type of firms. As in the case of underpricing, the literature about this topic also show divergent conclusions.

Jain and Kini (1995) analysed the post-issue performance of venture capitalist-backed IPOs with a matched sample of non-venture capitalist-backed IPOs and found that VC-backed companies perform better in the post-IPO period. However, the difference declines gradually with firm aging. As reported by them, the market seems to recognize the value of monitoring by venture capitalists. To prove it, the authors evaluated proxies for the quality of venture capitalist monitoring and presented them as positively related to post-IPO performance.

Brav and Gompers (1997) evaluated a sample of 934 venture-backed IPOs in United States during the period of 1972-1992 and found that these IPOs outperform non VC-backed ones, at least in terms of equal weighted returns. The authors attribute this superior performance to better management teams and corporate governance structures, constructed and influenced by venture capitalists before and after the IPO that conduct the companies to perform better in the long-run.

Gosh (2003), supported the conclusion reached by Brav and Gompers. With the analysis of a sample of 4,566 IPOs between 1990 and 2000, they concluded that venture-backed IPOs performe much better than non-venture backed IPOs. With exception for the second day, the returns for all other periods were higher for the venture-backed firms as compared to the non-venture backed.

As stated before, the literature results about this topic are not coherent and there are authors that conclude about no evidence about a higher long-run performance of VC-backed firms.

Using a sample of 355 IPOs from 1989 to 1994 in Japan, Hamao, Packer and Ritter found no general evidence of superior long-run performance of VC-backed IPOs. However, they reported exceptions for firms backed by foreign-owned or independent venture capitalists (Hamao, Packer, and Ritter, 2000).

Coakley (2004), through the analysis of 571 venture and non-venture backed IPOs in the United Kingdom during the period between 1985 and 2000, also achieved a similar result, showing no evidence of significant differences in long-run performance between the two groups during the entire period.

As presented by Wang et al. (2003), VC-backed IPOs do not perform better than their non-VC counterparts. In fact, he found better performance of VC-backed IPOs in short-term periods, such as three months or one year. However, the VC-backed firms performance is worse than their counterparts in the long term analysis (two and three-years after IPO). According to the author, the positive effect of venture capital of certification and monitoring, referred before in the first-day return analysis, that have impact in the IPO day, is offset in the long-term by adverse selection and grandstanding effects.

The overall findings of Rinderman (2003) suggest that venture-backed firms do not generally outperform the ones without venture capital-backing, after the analysis of 303 IPOs between 1996 and 1999 in France, Germany, and United Kingdom. The outcome is interpreted by the author as evidence for the heterogeneity of venture capitalists in the European market that is still in a consolidation process. For him, it indicates that the findings of previous studies on the role of venture capitalists in the United States and their influence in the long-run market performance of IPO firms can not be easily transferred and applied to European countries.

1.3.   European venture capital market

This master thesis aims, as stated before, analysing the performance of VC-backed firms in comparison to non VC-backed firms in the Euronext market, therefore, it is important to get a wide understanding about the characterization and evolution of this type of funding market in Europe.

Europe is the world's second most important region in terms of innovation and R&D investment, ranking behind the United States (Hege, 2000). European governments have, in general, been advocating the virtues of venture capital and have designated its development as a key policy priority since the beginning of the 21st century, with the creation of a EU-wide VC market for early-stage high-potential companies, as stated by the European Commission in 1998 or the Lisbon Agenda in 2000 (Bertoni et al, 2015).

In the last twenty years, the sector has grown, but at lower rates than the most important competitor, United States (US). In 2016, venture capitalists invested about 6.5 billion euros in the European Union, representing less than 20% of the 39.4 billion euros invested in the United States.

Moreover, VC funds in the EU have small dimension, representing 56 million euros on average, in comparison with the 156 million euros USA (European Comission, 2018). Around 90% of the European Union (EU) venture capital investment is concentrated in only eight member states, led by Malta, United Kingdom, Switzerland, France and Latvia (Prencipe, 2017).

Besides the volume of investment, the returns achieved by venture capitalists in Europe are also not so interesting. Hege et al (2003) concluded that European venture capital firms show a significantly lower performance on average when comparing to their US counterparts, in terms of rate of return.

Years later, in 2009, the same authors stated that returns of venture investments in Europe have historically been below their required returns and according to them this can be one of the main obstacle to the development of a venture capital industry. On the other hand, they also attribute the relative lack of venture funding to the absence of attractive and liquid markets for exits, in particular in terms of IPOs. Botazzi and Rin (2002) state that the problems in the European VC industry may be caused by weaknesses in capital markets. Since venture capitalists benefit from the possibility of exiting their investments through a listing on a public stock market, the inexistence of liquid markets for this purpose inhibits the interest in this area. The less the venture capital investments, the less the dynamic of the markets, and all of this triggers a negative vicious circle.

The reasons presented for the lower return of VC investments in Europe are mostly related with the low screening and monitoring capacity of European VC funds. According to Hege et al. (2003), US VCs seem to have a sharper screening ability than their European counterparts, due to their greater experience. Therefore, these are better at sorting out good projects from bad ones. When good projects are identified, VCs are willing to finance them intensively in their initial stages and relatively less financing is necessary in later stages. This is translated into a larger fraction of the total investment invested in the initial round and into an higher ratio between the initial investment over the total discounted investment. In 2009, the same authors found a positive relation between the amount invested in the first round and future returns, placing, in this case, Europe behind USA.

Besides their ability to choose the better projects, what puts Europe in disadvantage, the authors indicate that American VCs use more systematically financial instruments that convey residual control in case of poor performance and activate contingent control more frequently. This initial control is replicate along the life cycle of VC participation in the firm and result in a high frequency of monitoring (Hege et al.,2003).

Having into account the advantages presented above of the US over the European VC market, the same authors concluded in 2009, that US VCs are more specialized and behave in a more sophisticated way, being more close to the theoretical, what explains the difference in performance.

European VCs are seen as less active investors, showing a lack of ability or at least less preference for hands-on approach and higher risk. This lack of involvement results in lower performance, less success for VC investment and less dynamic in capital markets, since IPOs are reserved for the most promising ventures, being acquisitions the most important way of exit in the last years, as shown in Figure 1.1

Figure 1.1

Types of Venture Capital divestments in Europe (2013-2017)
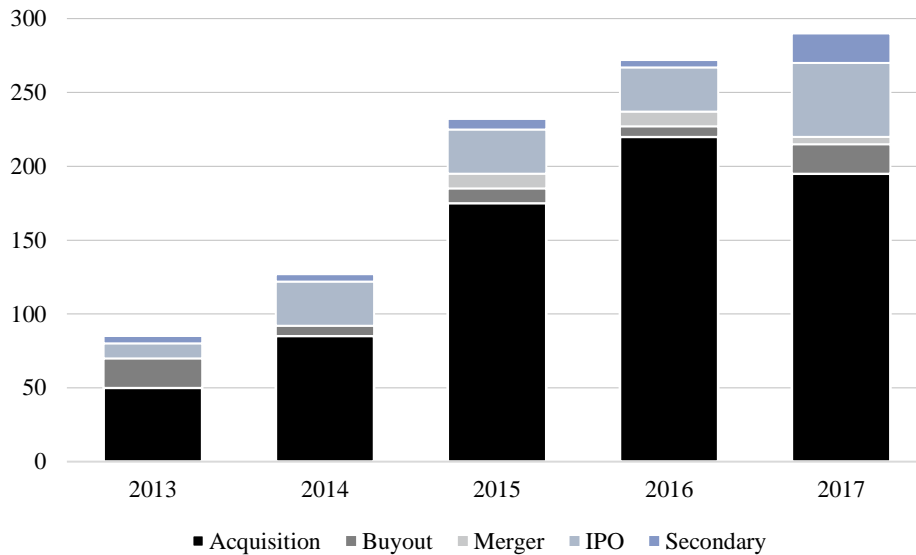

Source: Statista (2018)

As shown in Figure 1.1, the most prominent form of venture capital divestments, in Europe between 2013 and 2017, were through acquisitions, while Initial Public Offerings (IPOs) were the second most important, increasing from 10 IPOs in 2013 to 45 in 2017 (Statista, 2018).

The European Investment Fund, developed a venture capital landscape in 2017, where are presented some conclusions about geographic and industrial distribution of the VC exits between 1967 and 2015 in Europe. The study stated that VC exits in the Nordic region tend to be through the write-off of their positions, while in the United Kingdom and in Ireland VC investors are associated to profitable trade sales and to Initial Public Offerings. In terms of industry-related exits, the chance of divestment through an IPO is significantly high in the case of Information and Comunication Techonology and Life Sciences companies. On the other hand, the services industry seem better suited to trade sales.

The figures 1.2 and 1.3 provide some descriptive evidence about the geographic and industrial distribution of IPOs in Europe between 1967 and 2015. The most significant country in terms of venture capital backed firms IPOs has been France, with a total of 49 operations in the studied period, followed by United Kingdom. More than 50% of European VC-backed IPOs have been originated by companies in the Life Sciences sector.

Figure 1.2

Country distribution of VC-backed tech IPOs (1967-2015)
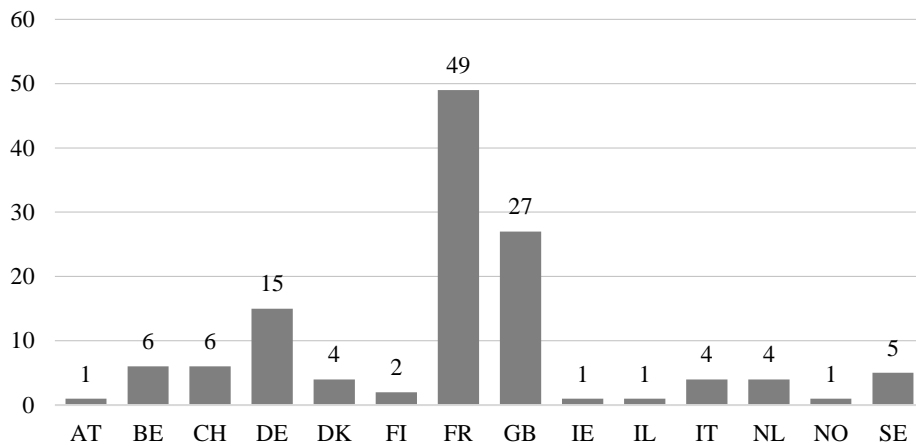
Source: Prencipe (2017).

Figure 1.3

Sector distribution of VC-backed tech IPOs (1967-2015)
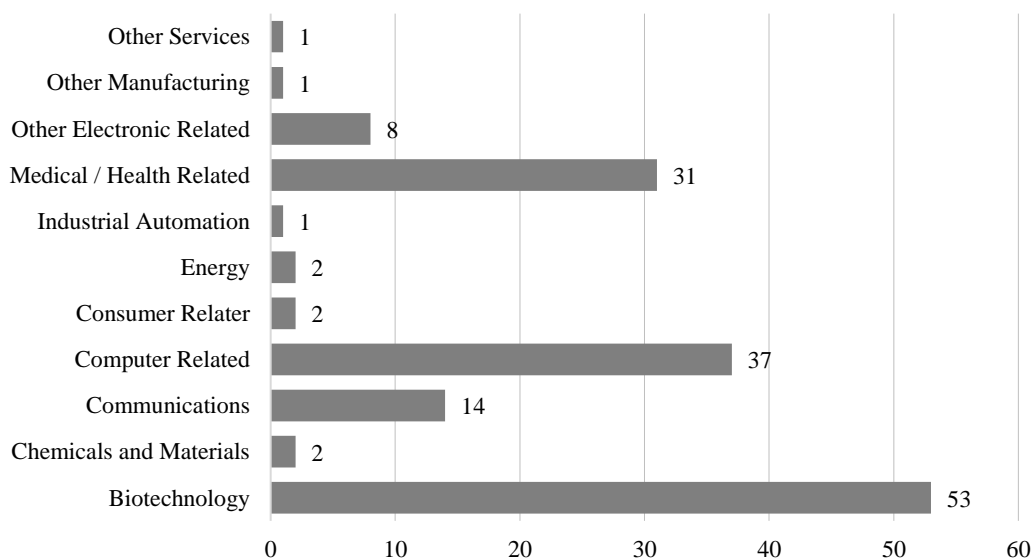
Source: Prencipe, (2017).

In terms of returns, the landscape establishes a positive correlation between IPOs and investor returns. During the period evaluated, the average IPO return is more than 100% higher than the average VC returns from acquisitions.

Besides the lower profitability of European VC exits in comparison with their US counterparts, Axelson and Martinovic (2013) found no difference in the success rate of European and United States' VC exits through IPOs.

Besides all of the conclusions presented, there is still a need to develop the research on the VC investments performance in Europe, since the evidences produced until now for European venture capital market are totally dominated by the comparison with United States' venture capital market (Prencipe, 2017).

CHAPTER 2

Hypothesis Development

2.1. Underpricing: Euronext VC-backed IPOs vs non VC-backed IPOs

Information asymmetry and signalling are the two major theories that justify the phenomenon of underpricing.

Following Nguyen (2018) the information asymmetry is revealed when underwriters, better informed than the issuers, take advantage of this superior information by inducing a certain degree of underpricing to minimize their distribution efforts, while the issuer, is forced to accept the lower price. It is also present in the relationship between the underwriter and investors, mainly due to the "winner's curse".

Signaling is also related with underpricing, because of the issuer intention to "leave a good taste" in investors mouth. These explanations for the underpricing phenomenon are not necessarily related with the participation or non-participation of venture capitalists in the floating firm. However, there are some arguments that perceive VC-backed firms as more willing to accept or deliberately induce underpricing in their IPOs. Besides, higher first-day returns represent an incremental cost to venture capitalists because of the wealth transfer to new shareholders, although they seem to be willing to support this cost (Nguyen, 2018).

According to Loughran and Ritter (1995), venture capitalists collaborate with underwriters and accept the underpricing deliberately, in exchange of larger shares allocation in other underpriced IPOs. Although the excessive dilution that results from underpricing lowers their wealth, they gain on personal account when other hot IPOs are allocated to them.

Gompers (1996) also upholds this idea, basing his arguments in the grandstanding hypothesis. Venture capital firms have as goal to achieve return for their investors, so they must liquidate their investments and return money to the original providers through an exit process. It is crucial to establish a reputation as a VC firm that succeeds in floating their portfolio companies and that is why they are willing to bear the cost of underpricing to guarantee the success of the IPO.

Lee and Wahal (2004), support the grandstanding hypothesis proposed by Gompers (1996) presenting results that show a positive relation between venture capitalists reputation proxies and higher future fundraising and first-day returns.

Therefore, with the intention to test the grandstanding hypothesis developed by Gompers (1996), the first hypothesis of the study will be constructed upon the idea that venture capitalists accept the underpricing deliberately in order to guarantee future returns and success.

Thus, the first hypothesis that the study aims to test is:

Hypothesis 1: Euronext VC-backed IPOs experience larger underpricing than Euronext non VC-backed IPOs

H0: VC-backed IPO underpricing is less or equal to non VC-backed IPO underpring

Ha: VC-backed IPO underpring is great than non VC-backed IPO underprincing

2.2. Long-run performance: Euronext VC-backed IPOs vs non VC-backed IPOs

Venture capitalists are external owners of the firm, therefore, they present an active contribution and participation in selecting, investing and monitoring the companies. The selection is rigorous and the continuous monitoring and supervision of VCs can enhance the long-run performance of IPOs they back. (Jain and Kini, 1995). Agency theory gives support to the long-run over-performance of VC-backed IPOs to non VC-backed IPOs.

On the other hand, VCs provide their portfolio companies with resources that are of critical importance for their long-term success. These resources include financial capital, management expertise, corporate governance structures, as well as strategic and operational advice and strong networks of potential customers and suppliers (Gosh, 2003). All of these structures built and shaped by VCs will tend to remain effective in the firm for a considerable length of time. Moreover, VCs generally retain considerable ownership in their portfolio companies and do not end their total involvement after the IPO due to factors such as lock-up agreements, performance incentives and liquidation plan, which contributes for the expectation of better long-run performance for VC-backed IPOs.

However, as presented by Rinderman (2003), in the European market there is no evidence that VC-backed IPOs over perform non VC-backed IPOs in the long-run, due to the stage of maturity of venture capital industry in Europe, that conduct to the difficulty in apply the findings of previous studies on the role of venture capitalists in the United States and their influence in the long-run market performance to European countries.

Coakley (2004), through the analysis of IPOs in the United Kingdom, also achieved a similar result, showing no evidence of significant differences in long-run performance between the two groups during the entire period.

As presented by Wang et al. (2003), VC-backed IPOs do not perform better than their non-VC counterparts. The VC-backed firms performance is worse than their counterparts in the long term analysis (two and three-years after IPO). The positive effect of venture capital of certification and monitoring, in the first-day return analysis, is offset in the long-term by adverse selection and grandstanding effects.

Having in consideration, that in the sample that is being analysed in this study, the mean of the long-run returns of VC-backed firms is lower than non VC-backed firms, the second hypothesis will be constructed upon this finds from Wang et al. (2003) that support the long-run over-performance for non VC-backed IPOs.

Thus, the second hypothesis that the study aims to test is:

Hypothesis 2: Euronext non VC-backed IPOs over perform Euronext VC-backed IPOs in the long-run

H0: VC-backed IPO long-run returns are greater or equal than non VC-backed IPO long-run returns

Ha: VC-backed IPO long-run returns are lower than non VC-backed long-run returns

CHAPTER 3

Data Sample and Methodology

3.1. Data Sample

This section is dedicated to explain the data collection and analysis process to estimate the models as well as the methodology used in the study. First, the data collection process, sources and the selection criteria to obtain the data used in the model are presented. Second, the measures to the variables used and the parametric tests specifications are described.

This study investigates if venture-backed firms have better performance in terms of stock return after floating than non-venture-backed ones in the Euronext market between 2012 and 2016, more specifically the first-day returns and long-run returns. The period of study, between 2012 and 2016, allows to analyse the stock return after the financial crisis and to be able to analyse three-year returns for the the last year of floating considered in the study (2016).

The first step was the construction of the sample of firms that floated in the Euronext market between 2012 and 2016, and for that, the Euronext website (https://www.euronext.com/en) was used. After, using again using Euronext website, was searched the life time of each firm in Euronext market in order to be able to analyse the long-run performance (3 year-return). In this process, eight firms were eliminated. For the remaining firms, I collected data about the foundation year, activity sector, location country, entrance door and firm's age at the IPO date.

Then, each was classified as either VC-backed or non-VC-backed. The criteria selected to this evaluation was the follow: if the firm had as shareholder a venture capital fund in the moment of the IPO (shareholding data presented in the Prospectus document at the time of the IPO), the firm will be considered as VC-backed, if not, the firm will be classified as non-VC-backed.

For this propose, the Prospectus document of each firm was analized and classified having in consideration the criteria defined above. After this process, was obtained total of 105 firms, composed by 61 VC-backed firms (58%) and 44 non VC-backed firms (42%).

For each firm was also collected data about their activity sector, location, Euronext entrance door, years of operation until IPO and retained ownership by the prospectus shareholders after the IPO.

After the classification of the firms as VC or non-VC-backed, the next step was collecting the first-day and three-year prices in order to calculate the respective returns. For this I used as sources the Yahoo!Finance website and Bloomberg.

From the above presented data collection, I construct the sample of IPOs for the study, for testing the two hypothesis.

In the Table 3.1 the sector distribution of the sample's firms is shown, divided in whole sample, VC-backed firms sample and non VC-backed firms sample. The most represented sector in the whole sample is "Biotechnology" with eighteen firms, followed by "Financial Services" and "Health Care". In terms of the VC-backed firms, the more represented sectors are "Biotechnology", "Health Care", while in the non VC-backed firms sample the most represented firms are from Banking Industry and "Financial Services".

Table 3.1

Sample firms activity sector distribution

Subsector	Whole Sample		VC-backed Sample		Non-VC backed Sample	
	Count	%	Count	%	Count	%
Aerospace	1	0,95%	0	0,00%	1	2,27%
Apparel Retailers	1	0,95%	1	1,64%	0	0,00%
Financial Services	17	16,19%	5	8,20%	12	27,27%
Biotechnology	18	17,14%	17	27,87%	1	2,27%
Food and Drinks	4	3,81%	1	1,64%	3	6,82%
Broadcasting&Entertainment	1	0,95%	1	1,64%	0	0,00%
Broadline Retailers	2	1,90%	1	1,64%	1	2,27%
Building Materials&Fixtures	3	2,86%	2	3,28%	1	2,27%
Business Support Services	4	3,81%	2	3,28%	2	4,55%
Computer Services	1	0,95%	1	1,64%	0	0,00%
Conventional Electricity	1	0,95%	0	0,00%	1	2,27%
Delivery Services	2	1,90%	1	1,64%	1	2,27%
Distillers&Vintners	1	0,95%	1	1,64%	0	0,00%
Industrial	2	1,90%	0	0,00%	2	4,55%
Electrical Components&Equipment	4	3,81%	2	3,28%	2	4,55%
Exploration&Production	1	0,95%	0	0,00%	1	2,27%
Farming&Fishing	1	0,95%	0	0,00%	1	2,27%
Financial Administration	2	1,90%	0	0,00%	2	4,55%
Telecommunications	3	2,86%	1	1,64%	2	4,55%
Furnishings	1	0,95%	1	1,64%	0	0,00%
Health Care	14	13,33%	12	19,67%	2	4,55%
Heavy Construction	1	0,95%	0	0,00%	1	2,27%
REITs	3	2,86%	0	0,00%	3	6,82%
Personal Products	1	0,95%	0	0,00%	1	2,27%

Recreational Products & Services	2	1,90%	2	3,28%	0	0,00%
Renewable Energy	3	2,86%	3	4,92%	0	0,00%
Software and Computer Services	3	2,86%	2	3,28%	1	2,27%
Specialized Consumer Services	1	0,95%	1	1,64%	0	0,00%
Chemicals	3	2,86%	2	3,28%	1	2,27%
Retail	1	0,95%	1	1,64%	0	0,00%
Transports	2	1,90%	0	0,00%	2	4,55%
Water Services	1	0,95%	1	1,64%	0	0,00%
Total	**105**	**100,00%**	**61**	**100,00%**	**44**	**100,00%**

The firms analysed have location in the main cities of the Euronext entrance doors. Paris is the most frequent location, with more that 50% of the whole sample firms, followed by Amsterdam and Brussels.

Figure 3.1

Sample firms location distribution
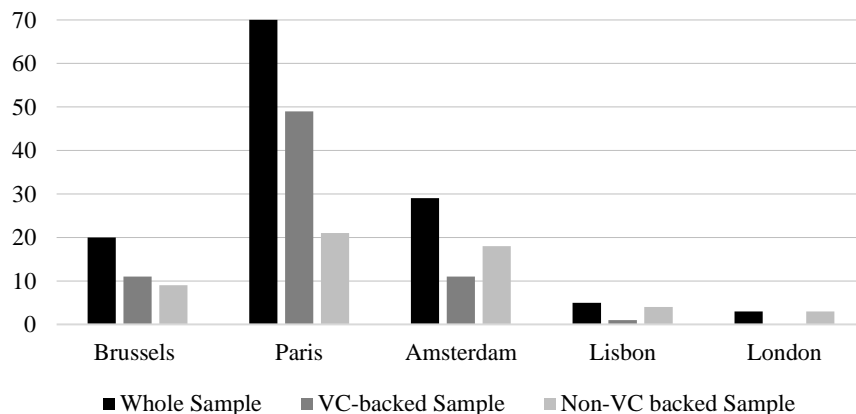

The majority of the sample's firms floated in 2015, being observed an expressive increase between 2013 and 2015, what appears to be similar to the European trend presented in the Literature Review. The number of VC-backed firms floating is higher than non-VC-backed, between 2013 and 2015. In 2012 and 2016, the number of non VC-backed firms going public outstands VC-backed IPOs.

Figure 3.2

Sample firms IPO year distribution
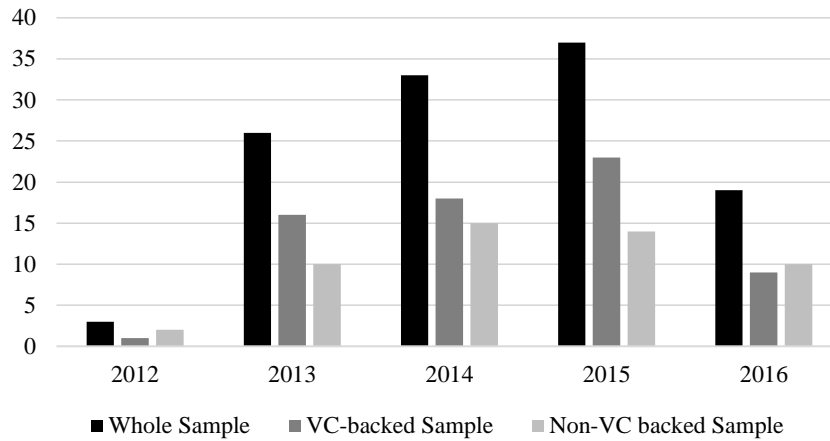
3.2. Methodology

Through this study, the main objective is to compare the VC and non VC-backed firms performance after their IPO in two distinct moments of time, in the first-day after floating in order to evaluate the underpricing phenomenon and three-years after the IPO day, in order to conclude about the differences in the long run performance of this two groups of firms. For these two are presented below the measures used.

3.2.1 Underpricing measures

For the first analysis, the underpricing differences evaluation, based on the work of Silva Rosa et al. (2003) it will be used two measures to calculate underpricing.

The first measure is the simpler and is the traditional underpricing measure calculation and will be designate as UP.

$$UP = \frac{(Pc - Pi)}{Pi} \tag{1}$$

where, Pc is the closing price on the first-day and Pi is the issue price.

After that, the second measure to underpricing is a variation from the first one and intends to figure out the issuers (shareholders before IPO) loss per share that can give information about the cost to VC funds in turning their companies public in the case of VC-backed firms and understand their costs of going public. This measured will be classified as UPIL.

$$UPIL = \frac{(Pc - Pi)}{Pi} (1 - RO) \tag{2}$$

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where, Pc is the closing price on the first-day, Pi is, again, the issue price and RO is the retained ownership percentage by the issuers (shareholders before IPO).

3.2.2 Long-run analysis

The period through which the firms long-run performance after the IPO is measured in 3 years (36 months), a choice in line with majority of the studies developed before in this field.

In order to measure this 3 year performance, that is used as measure of long-run performance, it will be used the proxy Buy-and-hold-return.

This measure is used in the vast majority of the main studies presented before, as for example Brav and Gompers (1997), and is here designated as BHR.

$$BHR = \frac{(Pl - Pi)}{Pl} \tag{3}$$

where, Pl is the share price 36 months after the IPO and Pi is the issuing price.

3.2.3 Parametric tests

The analysis will be developed through a parametric analysis, since it is the most appropriate approach when the goal is testing hypothesis and comparing group means. Parametric tests tend to have more statistical power than nonparametric tests. If an effect exists, a parametric analysis is more likely to detect it.

From among the various parametric tests, the two samples t-test will be used since we aim to compare the difference in means between two groups, having two variables: the first variable defines the two groups (backed type- VC or non VC) and the second variable is the relevant measure (UP, UPIL and long-run performance). The confidence level chosen is 95%, the level considered in the majority of the empirical literature.

The t-test is a statistical hypothesis test where the test statistic follows a Student's t-distribution under the null hypothesis. This test can be used to determine if the means of two groups of data are significantly different from each other, in the case of a bilateral test, or if the mean of a group of data is significantly greater or lower than the other group, in the case of a unilateral test.

In this case the samples are independent for each group that is being tested, they are mutually exclusive, since a company can only be one of two, VC or non-VC-backed.

In order to conduct the t-test to compare the means of two independent samples, two assumptions should be met. The first is that the quantitive variable in each of the two groups must follow the normal distribution. The second is the variance homogeneity, since using Student's definition of the t-test, the two populations being compared must have the same variance.

In the sample, the number of VC-backed firms is different from the number of non VC-backed firms. Because of this, a test indicated for unequal sample sizes with similar variances will be conducted.

The t-statistic to test whether the means are significantly different can be calculated as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_p \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \tag{4}$$

where $s_p = \sqrt{\frac{(n_1-1){s_{X_1}}^2 + (n_2-1){s_{X_2}}^2}{n_1 + n_2 - 2}}$ is an estimator of the standard deviation of the two samples.

In order to verify the first assumption required to perform the test (distribution normality) a distribution normality test, the Kolmogrov-Smirnov test, was performed, since it is the appropriate test to a number of observations near 50 observations for each distribution.

According to the test present in Table 3.2 is not possible to assume that variables follow normal distribution, since the null hypothesis (H0: The variable follows normal distribution) is rejected (Significance<0.05) for a 95% confidence interval.

However, taking into account that the number of observations is greater than 30 for every distributions, the Central Limit Theorem can be applied and the normal distribution will be assumed.

Table 3.2

Normality Test – Kolmogrov-Smirnov – for the several variables distributions for VC and non VC-backed groups

Variable	Group	Kolmogrov-Smirnov	
		Satistic	Significance
Years of Operation	VC backed	0.344	0.000
	Non- VC backed	0.329	0.000
Retained Ownership	VC backed	0.138	0.006
	Non- VC backed	0.147	0.019
UP	VC backed	0.291	0.000
	Non- VC backed	0.265	0.000
UPIL	VC backed	0.262	0.000
	Non- VC backed	0.209	0.000
Long run return	VC backed	0.129	0.013
	Non- VC backed	0.100	0.020

In order to evaluate the variance homogeneity, was carried out the Levene Test for every variables.

Table 3.3

Variance Homogeneity Test –Levene Test– for the several variables

Variable	Levene Test	
	Satistic	Significance
Years of Operation	0.570	0.452
Retained Ownership	8.041	0.006
UP	0.804	0.372
UPIL	1.383	0.242
Long run return	0.209	0.649

According to the test present in Table 3.3 is possible to assume variance homogeneity, since the null hypothesis (H0: The variance is equal between the two groups) is not rejected (Significance>0.05) for a 95% confidence interval, for all variables except retained ownership. Besides this divergence in retained ownership variance homogeneity will be assumed for every variable.

Having verified the two assumptions needed to conduct parametric tests, it is possible to use the Student's t-test in this study. The measures used to describe the variables will be the Mean and the Median.

CHAPTER 4

Results and Discussion

4.1.   Discriptive Statistics

Table 4.1 presents the two firms' characteristics that were included in the study, besides activity sector, location, Euronext entrance door and IPO year that were analysed in Chapter 2. The full sample traded before the IPO for more than 35 years on average, with a median of 13 years, meaning that more than 50% of the firms in tbe sample were trading for a maximum of 13 years before going public.

The VC backed group shows a smaller average age as at the IPO date, around 29 years, while the non VC-backed group posts a mean of more than 43 years. This results are in accordance to the idea that venture capitalists see the IPO as a diivestment strategy that make VC backed firms to float before non VC-backed ones. Although, the significance test shows that this difference in means is not statistically significant (the null hypothesis of equality of means is not rejected).

Table 4.1

Descriptive Statistics for the 105 IPOs included (Panel A), statistics for the 61 VC-backed firms (Panel B), for the 44 non VC-backed firms (Panel C) and significance t-test for difference between VC and non VC-backed firms (Panel D)

Variable	Years of Operation	Retained Ownership	
Whole Sample (Panel A)			
Mean	35.355	65.685%	
Median	13.000	65.792%	
VC backed (Panel B)			
Mean	29.483	67.599%	□
Median	10.000	67.500%	
Non-VC backed (Panel C)			
Mean	43.495	63.031%	
Median	18.000	65.792%	
Differences between samples (Panel D)			
T-test	-0.967	1.441	
Sig (two-tailed)	0.336	0.153	
Sig (one-tailed)	0.167	0.076	

The percentage of retained ownership by the shareholders indicated in the prospectus after the IPO is also analysed and was also used to calculate a measure of underpricing as presented in Chapter 3. The results show that the whole sample mean of retained ownership is about 65%. This value is also similar in the VC and non VC-backed firms groups, with a VC-backed sample mean of 67% and non VC-backed firms sample mean of 63%. The difference between means is not statistical significant, since the null hypothesis that the means are equal is not rejected.

4.2. Underpricing

Table 4.2

Descriptive Statistics for the whole sample underpricing measures (Panel A), statistics for the VC-backed firms (Panel B), for the non VC-backed firms (Panel C) and significance t-test for difference between VC and non VC-backed firms (Panel D)

Variable	UP	UPIL
Whole Sample (Panel A)		
Mean	0.124%	-0.055%
Median	0.000%	0.000%
VC backed (Panel B)		
Mean	0.153%	-0.065%
Median	-0.323%	-0.126%
Non-VC backed (Panel C)		
Mean	0.029%	0.005%
Median	0.000%	0.000%
Differences between samples (Panel D)		
T-test	0.060	-0.126
Sig (two-tailed)	0.952	0.989
Sig (one-tailed)	0.476	0.449

Table 4.2 displays the statistics for underpricing measures for the whole sample and for the to groups tested. The VC backed firms group posts a standard underpricing (UP) mean of 0.15%, while non VC-baked firms present for the same variable a mean of 0.03% Considering the means, the VC backed firms reveal a greater underpricing than non-VC, however, according to the statistical test, there is no significant difference between the two means (the null hypothesis defined is not rejected), making it possible to conclude that there is no significant evidence that VC-backed underpricing (UP) is greater that non VC-backed firms.

The underpricing measure that captures the loss to the issuer (UPIL) also reveals no statistical difference between the VC and non VC-backed groups. The null hypothesis defined is not rejected, being possible to conclude that there is no significant evidence that VC-backed underpricing (UPIL) is greater that non VC-backed firms. Although the diferences are not significant, it is still possible to see that the value for the UPIL mean for VC-backed firms is negative, showing a positive net effect on the wealth of the pre-IPO shareholders. These results show the importance of calculating wealth loss rather than simply headline underpricing, since the traditional underpricing measure may not represent the true wealth losses or gains suffered by the issuing company. In this case, the traditional underpricing measure (UP) is greater for VC-backed firms, indicating at the first look, that these firms are the ones that suffer a greater loss. However, when the measure that captures the loss to the issuers per issued share is analysed the conclusion is different, with the observation of a gain to VC shareholders (negative UPIL) and a loss to the sahareholders of non VC-backed firms.

These findings go in line with the study developed by Chachine et al. (2007) in European markets (UK, France and German) that found no significant difference in underpricing between VC and non VC-backed IPOs in either of the countries.

4.3. Long-run performance

Table 4.3 shows the statistics on the returns as at the 36th month (3 years) after the IPO for the whole sample and for the two groups of firms, VC and non-VC backed.

The mean to the VC-backed firms group to the long-run return is around -2.5%, revealing a negative performance in the three-years after floating. On the other hand, the non VC-backed sample, presents a very different result, with a mean of about 28%, which indicates a very high return and considerable performance in the first three-years after the IPO.

According to the significance tests, there is statistical evidence that the long-run return of VC-backed firms is lower than non VC-backed firms, since the null hypothesis is rejected for a confidence level of 95%.

This result is new in this type of studies, since the literature review show no results about significant lower performance of VC-backed firms in comparinson to non VC-backed firms in European markets. The results about markets in EU tend to present no significant difference between the returns of the two groups as stated by Coakley (2004) or Rinderman (2003) that attributes the outcome to the heterogeneity of venture capitalists in the European market and its level of maturity and consolidation.

Table 4.3

Descriptive statistics for the whole sample long-run return (Panel A), statistics for the VC-backed firms (Panel B), for the non VC-backed firms (Panel C) and significance t-test for difference between VC and non VC-backed firms (Panel D)

Variable	Long-Run return
Whole Sample (Panel A)	
Mean	10.399%
Median	-5.871%
VC backed (Panel B)	
Mean	-2.478%
Median	-15.109%
Non-VC backed (Panel C)	
Mean	28.253%
Median	14.653%
Differences between samples (Panel D)	
T-test	-2.005
Sig (2-tailed)	0.048
Sig (one-tailed)	0.023

Conclusion

This study began with the intention of providing an answer to the main question "Does Euronext reward venture capital?" and for that was conducted an examination of the IPOs that occured in the Euronext market between 2012 and 2016. The firms that became public were classified as VC-backed or as non-VC backed, having in account their shareholding participation at the IPO moment. Were collected and analysed the returns for this firms at the first day in Euronext and their returns 3 years after floating in order to evaluate their long run performance.

A detailed looking about these firms characteristics revealed that in Euronext market, venture capitalists take their firms public in an earlier stage than non VC-backed firms but that, after the VCs exit, the retained ownership in the firms of the other pre-IPO sharehodlers after floating is not much different than the one retained byshareholders of non VC-backed firms.

The analysis of underpricing measures reveal no significant differences between VC and non VC-backed companies. According to results is not possible to conlude that the underpricing of VC-backed firms is greater than non VC-backed firms. These results are in accordance with the studies developed in the EU area analysed in the literature review, that found no significant difference in underpricing between VC and non VC-backed IPOs in UK, France and German.

The evaluation of long-run returns was the topic where statistics were more significant and where results were more accurate. The outputs indicate that VC-backed firms have negative performance in the three-years after floating while non VC-backed firms show a considerable high return in the long-run. The significance tests, corroborate the statistical evidence that the long-run return of VC-backed firms is lower than non VC-backed firms.

This conclusion is new in the studies about this topic in the European area, since works that report significant lower performance of VC backed firms in comparison to non VC-backed firms in European markets were found. The results about markets in EU tend to present no significant difference between the returns of the two groups as stated by Coakley (2004) or Rinderman (2003).

This work concluded that the Euronext market seems to do not reward venture capital backed firms, since there were no significant differences in terms of IPO underpricing and the long-run results appear to be negative to VC-backed firms, while the non VC-backed ones demonstrate a high positive performance.

The results achieved in terms of underpricing are in line with previous studies developed about European markets while the conclusions about long-run performance can be seen as a new evidence perceived as a start point for further research. This work and consequent studies in this field may be interesting and add value to research about performance of VC-backed and non VC-backed IPOs in Europe, reducing the evident lack of studies in this area and providing results in a cross-country perspective.

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Appendix

Appendix A – List of firms used in the Data Sample and their atributes

Isin Code	IPO Date	Name	Sector	Location	Classification
BE0974303357	21-12-16	Cenergy Holdings S.A.	Diversified Industrials	Brussels	Non VC-backed
FR0012789386	20-12-16	Nextstage	Specialty Finance	Paris	VC backed
BE0974293251	11-10-16	Ab Inbev	Brewers	Brussels	Non VC-backed
FR0013185857	11-10-16	Abeo S.A.	Recreational Products	Paris	VC backed
NL0012015705	30-09-16	Takeaway.Com N.V.	Specialized Consumer Services	Amsterdam	VC backed
FR0013183985	13-07-16	Gensight Biologics	Biotechnology	Paris	VC backed
FR0013030152	13-06-16	Française de l'Energie	Exploration&Production	Paris	Non VC-backed
NL0011872643	10-06-16	Asr Nederland	Full Line Insurance	Amsterdam	Non VC-backed
NL0011872650	10-06-16	Basic/Fit	Recreational Services	Amsterdam	VC backed
GB00BDCPN049	31-05-16	Coca/Cola European Partners Plc	Soft Drinks	Amsterdam, London	Non VC-backed
NL0011821392	27-05-16	Philips Lighting	Electrical Components&Equipment	Amsterdam	Non VC-backed
FR0013153541	27-05-16	Maisons Du Monde	Furnishings	Paris	VC backed
NL0011832811	24-05-16	Forfarmers	Farming&Fishing	Amsterdam	Non VC-backed
NL0011660485	12-05-16	Sif Holding N.V.	Renewable Energy Equipment	Amsterdam	VC backed
BE0974289218	11-05-16	ASIT Biotech S.A.	Biotechnology	Brussels, Paris	VC backed
FR0013128881	22-04-16	Mediawan	Nonequity Investment Instruments	Paris	Non VC-backed
CH0308403085	15-04-16	Geneuro	Biotechnology	Paris	VC backed
FR0011665280	23-03-16	Figeac Aero	Aerospace	Paris	Non VC-backed
BE0974288202	11-12-15	Xior Student Housing N.V.	Real Estate Holding&Development	Brussels	Non VC-backed

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NL0011540547	20-11-15	Abn Amro Group	Banks	Amsterdam	Non VC-backed
FR0004191674	19-11-15	Direct Energie	Conventional Electricity	Paris	Non VC-backed
FI0009000681	19-11-15	Nokia	Telecommunications Equipment	Paris	Non VC-backed
BE0003763779	18-11-15	Warehouses De Pauw	Industrial&Office REITs	Amsterdam	Non VC-backed
FR0004125920	12-11-15	Amundi	Asset Managers	Paris	Non VC-backed
NL0011509294	11-11-15	Curetis N.V.	Medical Equipment	Amsterdam, Brussels	VC backed
FR0013006558	30-10-15	Srp Groupe	Apparel Retailers	Paris	VC backed
NL0010937058	15-10-15	Intertrust	Asset Managers	Amsterdam	VC backed
GB00BZ21RF93	08-09-15	Ares Allergy Holdings	Pharmaceuticals	Paris	VC backed
FR0012633360	10-07-15	Cellnovo	Medical Equipment	Paris	VC backed
FR0011051598	10-07-15	Amoéba Biocide	Specialty Chemicals	Paris	VC backed
NL0011279492	10-07-15	Flow Traders	Investment Services	Amsterdam	VC backed
CH0012214059	09-07-15	Holcim	Building Materials&Fixtures	Paris	VC backed
NL0011323407	02-07-15	Kiadis Pharma	Biotechnology	Amsterdam, Brussels	VC backed
BE0974283153	30-06-15	Mithra Pharmaceuticals	Pharmaceuticals	Brussels	Non VC-backed
FR0012767150	29-06-15	Hipay Group	Financial Administration	Paris	Non VC-backed
FR0012333284	26-06-15	Abivax	Biotechnology	Paris	VC backed
FR0012789667	26-06-15	Amplitude Surgical	Medical Supplies	Paris	VC backed
FR0012789949	26-06-15	Europcar Groupe	Travel&Tourism	Paris	Non VC-backed
FR0010395681	12-06-15	Turenne Investissement	Specialty Finance	Paris	Non VC-backed
FR0012757854	10-06-15	Spie	Business Support Services	Paris	VC backed
BE0974282148	12-05-15	Tinc Comm. Va	Investment Services	Brussels	VC backed
BE0974281132	27-04-15	Biocartis Group N.V.	Health Care Providers	Brussels	VC backed
FR0012650166	22-04-15	Electro Power Systems	Renewable Energy Equipment	Paris	VC backed
FR0012127173	30-03-15	Ose Pharma	Biotechnology	Paris	VC backed

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FR0012616852	30-03-15	Cerenis Therapeutics	Biotechnology	Paris	VC backed
NL0011214010	27-03-15	Refresco Gerber	Soft Drinks	Amsterdam	Non VC-backed
FR0012435121	11-02-15	Elis	Business Support Services	Paris	VC backed
FR0012452746	10-02-15	Safe Orthopaedics	Medical Equipment	Paris	VC backed
BE0974280126	06-02-15	Bone Therapeutics	Biotechnology	Brussels, Paris	VC backed
NL0010937066	06-02-15	Grandvision N.V.	Specialty Retailers	Amsterdam	VC backed
FR0012432516	06-02-15	Poxel	Biotechnology	Paris	VC backed
NL0010998878	04-02-15	Lucas Bols N.V.	Distillers&Vintners	Amsterdam	VC backed
NL0010949392	23-01-15	Cnova Nv	Broadline Retailers	Paris	Non VC-backed
FR0000121964	15-01-15	Klepierre S.A.	Retail REITs	Amsterdam	Non VC-backed
DE0007921835	27-10-14	Probiodrug AG	Biotechnology	Amsterdam	VC backed
GG00BPFJTF46	13-10-14	Pershing Square Holdings Ltd	Equity Investment Instruments	Amsterdam	Non VC-backed
NL0006294274	17-09-14	Euronext N.V.	Investment Services	Lisbon	Non VC-backed
LU1068091351	21-07-14	Brederode S.A.	Specialty Finance	Brussels	VC backed
NL0010832176	10-07-14	Argen/X	Biotechnology	Brussels	VC backed
FR0011992700	10-07-14	Ateme	Software	Paris	VC backed
NL0009272137	07-07-14	Esperite N.V.	Biotechnology	Paris	Non VC-backed
FR0011980077	02-07-14	Paragon ID	Electronic Equipment	Paris	VC backed
NL0010773842	02-07-14	Nn Group	Life Insurance	Amsterdam	Non VC-backed
FR0011981968	27-06-14	Worldline	Financial Administration	Paris	Non VC-backed
FR0010667147	27-06-14	Coface SA	Property&Casualty Insurance	Paris	Non VC-backed
NL0010801007	27-06-14	Imcd N.V.	Specialty Chemicals	Amsterdam	Non VC-backed
FR0011950682	25-06-14	Sergeferrari Group	Building Materials&Fixtures	Paris	Non VC-backed
BE0974276082	25-06-14	Ontex	Personal Products	Brussels	Non VC-backed
NL0006294274	20-06-14	Euronext	Investment Services	Amsterdam, Brussels, Paris	Non VC-backed

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FR0011950732	11-06-14	Elior	Restaurants&Bars	Paris	VC backed
IE00BJYS1G50	29-04-14	Mainstay Medical International	Medical Equipment	Paris	VC backed
FR0011800218	22-04-14	Awox	Telecommunications Equipment	Paris	VC backed
FR0004163111	17-04-14	Genfit	Biotechnology	Paris	VC backed
FR0011271600	16-04-14	Fermentalg	Specialty Chemicals	Paris	VC backed
FR0010127662	14-04-14	Txcell	Biotechnology	Paris	VC backed
FR0010526814	10-04-14	Supersonic Imagine	Medical Equipment	Paris	VC backed
FR0011790542	04-04-14	Genticel	Biotechnology	Brussels, Paris	VC backed
FR0011799907	02-04-14	Genomic Vision	Biotechnology	Paris	VC backed
FR0011742329	25-03-14	Mcphy Energy	Renewable Energy Equipment	Paris	VC backed
FR0011726835	27-02-14	Gaztransport Et Technigaz	Business Support Services	Paris	Non VC-backed
NL0010696704	20-02-14	Novisource	Business Support Services	Amsterdam	Non VC-backed
PTEPT0AM0005	12-02-14	Espírito Santo Saúde SGPS, S.A.	Health Care Providers	Lisbon	VC backed
LU1014539529	31-01-14	Altice	Fixed Line Telecommunications	Amsterdam	Non VC-backed
BE0974272040	18-12-13	QRF	Retail REITs	Brussels	Non VC-backed
PTCMHUIM0015	17-12-13	Caixa Económica Montepio Geral	Banks	Lisbon	Non VC-backed
PTCTT0AM0001	05-12-13	CTT Correios De Portugal S.A.	Delivery Services	Lisbon	Non VC-backed
FR0010458729	25-11-13	Implanet	Medical Equipment	Paris	VC backed
FR0004188670	22-11-13	Tarkett	Building Materials&Fixtures	Paris	VC backed
BE0974271034	22-11-13	Viohalco	Diversified Industrials	Brussels	Non VC-backed
FR0011594233	08-11-13	Numericable	Broadcasting&Entertainment	Paris	VC backed
FR0011592104	30-10-13	Blue Solutions	Electrical Components&Equipment	Paris	Non VC-backed
FR0011584549	23-10-13	MND	Heavy Construction	Paris	Non VC-backed
BE0974260896	05-07-13	Cardio3 Biosciences	Biotechnology	Brussels, Paris	VC backed
FR0010609206	05-07-13	Orège	Waste&Disposal Services	Paris	VC backed

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FR0000052870	04-07-13	Norbert Dentressangle	Transportation Services	London	Non VC-backed
BE0974268972	21-06-13	Bpost	Delivery Services	Brussels	VC backed
FR0011476928	20-06-13	Groupe Fnac	Broadline Retailers	Paris	VC backed
FR0011471135	07-05-13	Erytech Pharma	Pharmaceuticals	Paris	VC backed
FR0011471291	07-05-13	Ymagis	Computer Services	Paris	VC backed
FR0011466069	02-05-13	Ekinops	Electronic Equipment	Paris	VC backed
NL0000400653	03-04-13	Gemalto	Software&Computer Services	Amsterdam	VC backed
US5324571083	25-03-13	Eli Lilly And Company	Pharmaceuticals	Paris	VC backed
US4567881085	20-02-13	Infosys Limited	Software&Computer Services	London, Paris	Non VC-backed
US00287Y1091	20-12-12	Abbvie	Pharmaceuticals	Paris	Non VC-backed
FR0011341205	29-10-12	Nanobiotix	Biotechnology	Paris	VC backed