DIRECT PUBLIC INTERVENTION IN PRIVATE EQUITY INDUSTRY:
IMPACT AND PERFORMANCE IN THE ITALIAN CASE

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Abstract

The present dissertation focuses on the role of direct public intervention in the Italian private equity industry. Firstly, this work aims to explain why the public sector has looked with increasing interest at the private equity activity, providing at the same time a descriptive picture of the direct public intervention extent in the Italian private equity industry. Secondly, this study tries to identify what affects the performance (IRR) of public participated investors in order to explain why, during the period 1998-2009, it has been significantly lower than that of independent players. Through a double-level analysis on the whole PEM database 2009 and on a sample of Public participated investors, the findings suggest that the lower “Professionalization” of public participated investors’ management teams has played a key role in driving their poor financial returns. The investment team “Professionalization” has been found to be positively related to performance, while the “Experience” within the private equity industry has provided controversial results. Moreover, the financial returns of Public participated investors’ turned out to be significantly influenced by the ratio between public and private funds provided to run the investment activity, but not by the private equity investor’ shareholder structure.

The final part of this work poses questions on whether the IRR approach is still appropriate to assess the performance of public participated investors, and, in this regard, an alternative method is proposed in order to extend the evaluation of private equity investment deals beyond a mere financial perspective.
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INTRODUCTION

The aim of this thesis is to investigate the role of direct public intervention on supply side in order to sustain the Italian private equity industry. In the last two decades the relevance of private equity investors participated by public agencies has grown considerably within the market, both in terms of the number of players and in reference to the breadth of the public intervention. However, notwithstanding the increasing weight of direct public initiatives in the Italian private equity industry, this subject has not been widely investigated from an academic perspective. The objective of this dissertation is thus to provide a detailed analysis on the modus operandi of such category of private equity investors and to understand how they operate in the market and what affects their performance on investment. To the author’s knowledge, this thesis is the first empirical analysis exclusively focused on the role of direct public intervention in the Italian private equity industry, although it continues in the wake of the work of Caselli and Sattin (2011), which inspired this dissertation. The innovative potential of my thesis relies on its unique description of the scope of intervention of public participated players in Italy and in its analytical investigation on the root causes affecting the returns on investments of this operators’ category. Previous pan-European studies (Leleux and Surlemont, 2003; Cumming and MacIntosh, 2006) have focused on the aggregated impact of direct public intervention on competition within private equity industries, but they did not describe the current state of public players in Italy, nor they provided insights on the performance of such investors. Similarly, more recent academic sheets (Sattin, 2010, 2011) have discussed the most successful cases of direct public intervention in the Italian private equity industry, although they only described the origination process of such initiatives in terms of promoters of the operation, counterparts involved and corporate governance mechanisms. On the other hand, other scholars (Gualandri and Schwizer, 2008; Gervasoni, 2011) have classified the different forms of public intervention in support to private equity from a theoretical perspective, but they lacked to allege an empirical report on the status of such initiatives in Italy nor they did suggest how direct forms of public intervention on supply side can be more effective. My thesis aims thus to fill part of this current “academic gap” on direct...
public intervention on private equity, by providing not only a detailed picture of the extent of such initiatives in the Italian landscape, but also by trying to understand what affects the performance of such operators and why their financial returns are generally lower compared to those of independent investors. Hence, the present dissertation has three main scopes: to explain what pushes the public agencies to run directly the private equity activity, to describe the current landscape of direct public intervention in the Italian private equity industry and to identify the factors which affects the lower performance of public participated investors. In relation to this last point, bounded by the lack of recent and reliable data on the performance of private equity investors in Italy, the present analysis is limited to the Private Equity Monitor (PEM) database updated to 2009, integrated with additional information collected by the author from the main national and international private equity data providers (AIFI, Prequin, Thomson Financial), and from in-depth interviews with key figures of the industry (such as, for example, Anna Gervasoni, head of the Italian private equity and venture capital association). Although the achieved findings do not stem from a brand-new database, the author believes that they still may be considered up-to-date, or at least they could contribute to shed a light on the drivers of performance of direct public investors in private equity by introducing possible paths of future research.

Because of the complexity of the subject and the different dimensions involved, the following dissertation will embrace more fields of discussion and for this reason, in order to rationalize the work, it has been divided in five sections.

In the first chapter it is discussed “why” the public sector decided to enter the private equity market in a direct way. In this regard, through a review of the main literature on the topic, it will be remarked the importance of private equity as a source of social and economic development while, at the same time, it will be argued how the debt crisis and the European directives on public spending have spurred countries to find alternative ways in order to sustain their SMEs. The current scenario has indeed raised ideological questions upon the role of the State in sustaining the economy and, in this perspective, the adoption of direct forms of public intervention in private equity (often in partnership with private investors) seems to better suit the logic of a less invasive public interference within the market.
The second chapter will present the different forms of intervention that governments can adopt in order to sustain their national private equity industry. It is very important to remark that, although public initiatives in favour of private equity have been extremely incentivized at the community level, the governmental support to the industry is subject to European legislation, in order to avoid the risk of unfair competition within the Union members.

In the third chapter, the empirical description of the direct form of public intervention on supply side in the Italian landscape will be illustrated. In particular, this section will provide a detailed picture of the main features of the public participated investors’ category, such as, for example, their number and evolution over the years, their preferred style of investment, their stage financing focus, and their geographical scope.

The fourth chapter is dedicated to the analytical analysis of the main causes underlying the lower performance of public participated investors. A set of hypotheses is proposed to identify those variables affecting the performance of public participated investors and the data and the methodology adopted are presented. In this section I will try to answer the research question “What affects the performance of public investors in private equity?” and I will discuss and interpret the main findings.

In the fifth chapter, I will propose an alternative model to assess the performance of private equity deals, with the aim of extending the investment evaluation beyond a mere financial dimension, in order also to include the social and economic returns that the private equity activity is likely to generate.

In the last part, I will run the main conclusions of my work, highlighting the main contributions of this dissertation and its practical applications, and suggesting some potential paths of future research on this still under-investigated topic.
CHAPTER I: WHY PRIVATE EQUITY IS ATTRACTING PUBLIC INTERVENTION?

1.1. The Economic Impact of Private Equity Deals

The public sector started to look with increasing interest at the private equity market because of the positive benefits that private equity operations have on the economic system. The private equity activity contributes to the growth of the industrial and social fabric, and the development of an efficient private equity and venture capital market becomes a valid political instrument for sustaining national and regional economies (Gervasoni et al., 2009).

The positive effect of private equity on the economy is mainly due to its impact on the following dimensions:

Performance

The performance of private equity-supported companies has been widely investigated in literature and the majority of the researches found a positive relationship between private equity participation and company performance, showing a clear correlation between private equity involvement and company profits, growth and survival (Cressy, Munari and Malipiero, 2007; Kaplan, Harris and Jenkison, 2012) even if, in the US market, the persistence of such PE effect on company profitability in the long-run showed controversial results (Leslie and Oyer, 2008).

However, at least in the short-medium horizon, there is clear empirical evidence that private equity-backed companies have higher revenues CAGR than those which are not participated by private equity investors. In Italy, for example, according to the most recent AIFI report, during the period 2003-2011, the

![Figure 1.1. Revenues Growth Comparison between Independent and Private Equity-backed Companies During the Period 2003-2011. Source: AIFI 2012](image)
revenues growth of companies participated by private equity investors has been significantly higher than the revenues growth of a benchmark of independent companies (fig. 1.1). Similarly in UK, over the period 1995-2000, the operating profitability of private equity-backed buy-outs was 4.5% higher than the one of comparable non-buy-out companies during the first three years after investment (Cressy et al., 2007), while, in France and in the Netherlands, companies object of MBO deals were found to outperform comparable firms in the same industry with higher levels of cash flows, sales and returns on investments (Bruining, 1992; Desbrieres and Schatt, 2002). The reason why venture-backed firms perform better than all the other companies in terms of revenues growth is related to the intrinsic nature of private equity investments. In fact, the private equity investor support does not provide only financial resources to the company, but also managerial “know-how” and experience that can be used to help the entrepreneur to pursue the firm development (Gervasoni, 2009). Not by chance, the EBITDA growth of the venture-backed companies is mainly due to the development of the business rather than to costs reduction (Ernst & Young research, 2007) since, through the private equity deal, the entrepreneur gets access to the PE investor’s network of professionals and contacts, which can be of great help for sustaining the firm growth. At the same time, the PE investor contributes at increasing the performance of its portfolio companies by carrying out a “monitoring activity” (Cotter and Peck, 2001; Guo, Hotchkiss, and Song, 2007; Cornelli and Karakas, 2008), which helps firms at reducing the risk of dis-alignment between strategic goals and daily operations. Thus, thanks to PE impact on performance, also the enterprise value of the backed companies is supposed to increase and, in this regard, a study conducted in 2006 showed that private equity-backed companies have a yearly average EV growth of 23% in Europe and 33% in the US, moving from an initial value of $800M to $1500M and from 1200M to 2200M respectively (Ernst & Young, Thompson Financial, 2007). In the end, the private equity investor’s entry contributes to improve and strengthen the reputation of the backed firm in front of the market and in front of financial institutions, since the private equity investment is also a form of certification and recognition of the backed company potential.
**Tax Revenues**

The EBITDA growth, due to the intervention of the PE investor, does not only have a great impact on the development of venture-backed companies, but also indirectly on the entire economic system. In fact, to a growth in the backed firm EBITDA corresponds a significant increase in tax revenues. For example, in Spain, the tax increment generated by venture-backed companies, after PE investor’s entry, was around 27% (ASCRI, 2007) while similarly, in Germany, the tax revenues CAGR of such firms was close to 20%. In the end, in England, the yearly tax contributions of venture-backed firms is estimated around 43 billion euros (AT Kearney, 2007). Thus, the increase in profitability of the private equity-backed companies indirectly originates a potential social return, since the larger amount of taxes paid to the State should be theoretically addressed to provide better public services to the community. On the investors’ side, there has been a recent criticism towards private equity firms and buy-outs since, for example, in UK they have been accused to exploit the tax shield debt and the loopholes within the tax system in order to minimize their tax contribution (Treasury Select Committee, 2007). Although there remains a paucity of research on this issue, two effects of private equity deals and buy-outs particularly must be remarked: (1) some buy-outs involve firms that are in receivership and thus the buy-out deal prevents the company from bankruptcy and permanent death; and (2) buy-outs improve profitability. Arguably both of these effects could increase tax revenues (Wright et al., 2009), thus presumably compensating the potential tax advantage of debt in buy-out deals.

**Employment**

Private equity deals have also a great positive influence on employment rates (EVCA, 2013). A recent study of private equity disinvestment, looking at 473 private equity backed European companies with an enterprise value up to 150m at time of acquisition from 2005 onward, reports that employment in private equity financed companies grew by an average of 2.2% per annum (Ernst & Young, 2011), while, on the contrary, the yearly employment growth across EU27 has fluctuated between negative 1.8% and 1.8% between 2007 and 2011 (Eurostat, 2012). In Italy, the
number of employees in venture-backed companies increased by 5.4% during the period 2003-2011, in contrast with the reduction by -0.2% in the benchmark sample (AIFI report 2013, fig. 1.2).

Similarly in Spain, the private equity investors contributed to multiply by 6.4 times the employment rate during the period 1995-2004, even if the number of employees increased especially in the early stages and expansion period rather than during buy-out and replacement investments. In particular, leverage buy-out operations have been often accused of generating important job losses inside the target company. On the contrary, even if the marginal benefits on employment rates due to PE intervention are higher during the early stages of company development, several studies have also empirically verified the positive impact of buy-out operations. For example, in Italy, LBO deals have been proved to generate an increase in the number of employees 4.1% higher than the one of independent companies (LIUC-INSEAD report, 2001) while in France, such deals have been proved to generate an employment rate 3.5% higher than the national average (AFIC, 2007). In the US, it has been found out that LBO investments accelerate the creative destruction process in labor markets, generating only a modest net impact on employment, most of the time mitigated by a rapid reallocation of jobs (Davis et al., 2011). In UK, not only buy-outs deals have been found to lead to greater employment growth (Amess and Wright, 2007) but also to positively affect HR practices, with increases in training, employee involvements and pay-levels (Bacon et al., 2008) and parallel reductions in hierarchical tiers and supervisory staff, resulting in increasing employees’ span of control and discretion. (Amess et al., 2008).
**Innovation**

Private equity investors are important supporters of the innovation activity in their venture-backed companies because they help firms to prioritize their innovation efforts and to reduce the financial risks of the R&D, while improving the discovery rate and the relevance of innovation to the economy (EVCA, 2013).

First of all, four of the top five sectors supported by private equity investments appear in the list of top ten innovative sectors as measured by patents grant, thus giving a first hint of a positive correlation between private equity deals and innovation activity (EVCA, 2012).

Furthermore, in Europe, the R&D investment by private equity-backed firms has been found to be more effective than the same R&D investment run by non-venture-backed companies (Popov and Roosenboom, 2009), since 1€ of PE financing can be up to nine times more effective than 1€ of non-private equity finance in delivering innovations, as measured by patents granted, although the magnitude of this impact varies significantly by sector. A similar study conducted in the US shows how private equity investments, and in particular venture capital operations, generate higher innovation rates in the venture-backed company and, interestingly, this effect seems not to be biased by the PE investors’ selection of more innovative firms (Zingales and Mollica, 2007).

While boosting the innovation rate, private equity investments contribute at the same time to shape the quality of the innovation output. In fact, patents filed by private equity-backed companies are likely to deliver more economically relevant innovations, as measured by the number of citations of these patents, compared to non-private equity-backed companies (Lerner et al., 2011). On average, the citations for patents shift from 1.99 times to 2.49 after private equity investor’s intervention. It follows that private equity investors help portfolio companies to focus their innovation efforts towards more successful projects, by establishing management control systems that facilitate strategic change (Jones, 1992; Bruining, Bonnet, and Wright, 2004) and by introducing corporate governance mechanisms to manage more efficiently the innovation process (Bloom et al., 2009).
However, it’s worth to be noticed that not for all styles of private equity deals there is a significant link between private equity investment and innovation. For example, in Italy, a study considering venture capital operations having IPO as exit strategy, shows that, while the propensity to innovate is a key requirement for passing the screening phase of the VC selection process, once the investment is made, the venture-backed company does not seem to promote continued innovation, rather, it concentrates all efforts to improve other economic and managerial aspects (Caselli, Gatti and Perrini, 2009).

**Competitiveness**

Enhancing the competitiveness of an economy as a whole, at the domestic and international level, is a fundamental condition for economic growth. Although the role of private equity investments in boosting the competitiveness of individual economies has not been explicitly studied, it is possible to triangulate the impact of private equity on such competitiveness through two indirect measures: the ability of private equity investors to promote the internationalization of portfolio companies and the contribution that these investors can provide to innovative and risky ventures setting up new businesses (EVCA, 2013).

In relation to the first dimension, private equity investors’ active participation in the management team of financed companies can provide both strategic and operational guidance on entering foreign markets, especially creating pre-environmental conditions that are fundamental to internationalize effectively. In this regard, private equity participation is positively associated with the development of knowledge-based resources, such as human capital and proprietary assets, that are necessary for internationalization (Zahra et al., 2007).

In addition, internal owners tend to be risk adverse and to have a lower appetite towards internationalization than external owners, such as private equity firms (George et al., 2005), while the heterogeneous managerial and strategic resources provided by private equity investors positively influence the scale of internationalization in new ventures (Lutz and George, 2012).

Secondly, a private equity investment leads to further new companies creation and market development through effects that go beyond the direct investment that
portfolio companies receive. In this regard, in the US, during the period 1993-2002, a private equity investment in one additional firm generated a spill-over effect which ranges from 1 to 11 new establishments entry in the same metropolitan area, thus generating more new firms than those actually funded (Samila and Sorenson, 2011). Similarly in Europe, private equity deals have been found to have a strong positive impact on new business creation, especially in R&D intensive industries where there are traditionally greater opportunities to set-up new businesses (Popov and Roosenboom, 2009).

1.2. Funding Gap and Debt Crisis

The “funding gap” refers to a situation where deserving companies, due to imperfections of the market, do not obtain the volume of funding that they would get in a condition of market efficiency (Cressy, 2002). This situation stems from the existence of an “equity gap” and/or a “credit crunch” phenomenon and is further amplified during periods of uncertainty and difficulty of the financial system.

One of the main consequences of the current financial crisis in Italy is the reduction of debt loans to companies in order to sustain growth and financial needs. In this regard, according to recent data published by Osservatorio sul credito by Confcommercio (OCC), the “credit crunch” phenomenon has increased by 37,3% in the last four years, thus reducing, especially for SMEs, the chances to fill up the “funding gap” through debt instruments. Apart from the increasing difficulties of the Italian banking system, such a severe result stems from the particular conformation of Italian SMEs, traditionally undercapitalized and already loaded with high levels of debt. During periods of crisis, when generally the EBIT of companies are likely to decrease, these two characteristics of Italian SMEs amplify the credit crunch effect, further reducing the chances to obtain a debt financing by banks (Montanino, 2009).

In these years, the credit crunch phenomenon has directly affected the death rate of Italian SMEs because, as stated by InfoCamere 2013 report, the number of collapsed companies has increased by 65% during the last four years, reaching almost 48.950 bankruptcies since the beginning of the financial crisis in 2008.
The “credit crunch” is not only a problem affecting the Italian economy, but rather a common issue in many European countries. However, in contrast to past financial crisis, where countries central banks could intervene to provide additional liquidity to the national banking system in order to mitigate the effect of “credit crunch”, during the current recession governments were prevented to adopt Keynesian policies to give impulse to the economy, since the European Union imposed strict limits to the raise of new public debt, aiming at reducing unsustainable debt/GDP ratios of some of its members. This measure strongly affected those countries which had already overcome the limits signed in the Amsterdam agreement on public spending in 1997 such as Italy, which, after Greece, has the largest ratio public/debt PIL (120%).

The radical shift towards austerity in order to stop the recession has become a key point in the EU political arena and in almost every country there are political currents invoking a return to public spending to sustain growth. In fact, there is a widespread skepticism towards the real benefit of austerity on the economy system, even if empirical results have proved that “for fiscal adjustments, those based upon spending cuts and no tax increases are more likely to reduce deficits and debt over GDP ratios than those based upon tax increases” (Alesina and Ardagna, 2010). The austerity policy undermines the Keynesian assertion that cuts in public spending on weak economies produce further weakness in the system (Krugman, 2011) and represents a radical breakthrough in the macro-economic theory of public intervention.

The introduction of an austerity regime depriving governments of part of their spending power implies a re-definition of the role of the State in the economy, and that’s why alternative theories to Keynesian views have been suddenly reconsidered. For example, in the model proposed by the Nobel Prize J. Meade, the State should operate as an active player of the market, investing in minority shares of companies or in other financial vehicles (such as, for example, in private equity funds) rather than imposing its hegemony upon the entire economy. According to Meade’s view, by reducing its direct influence on the economic system, the State could benefit from a double return: a dividend on the capital invested (to be used for providing social services) and a “community dividend” realized through the growth of the companies financed. Hence, the State should only give generic guidance to the companies and
private institutions in which it invests in, while not being involved in the daily operating activities. Meade’s Weltanschauung is strongly rooted in the School of Friburg stream of thought which, during the ‘30s, bypassing the dichotomy between Socialism and the Laissez-fair liberalism, proposed a “third way” of public intervention where the production facilities are owned by private operators and where the State aims to create a favorable environment to sustain economic development, mainly through regulation.

The above quoted studies are extremely up-to-date because in Italy, since 2008, there has been clear evidence that national economic policies have been inspired by such theories (Montanino, 2009). Indeed, during the last years, where the idea of economic growth nurtured mainly by debt does not seem any longer sustainable, the Italian government has tried to find alternative ways to fill up the funding gap of its SMEs, as the increasing interest of public agencies in the private equity market has widely demonstrated. In this perspective, in a situation where there is a severe cap to debt raising by governments at EU level, the investment in private equity deals offers to the State an alternative opportunity in order to fill the “funding gap” of its SMEs and to sustain economic development, while at the same time having a return on the investment, to be potentially used for public purposes. Private equity operations can thus contribute to the re-launch of Italian economy since they exert a positive effect on the economic and social fabric of the country, impacting directly on macro-economic variables such as revenues, internationalization, employment rates and innovation (Gervasoni et al., 2000), as widely discussed in the previous paragraph.

CHAPTER II: FORMS OF GOVERNMENTAL INTERVENTION AND EUROPEAN LEGISLATION

2.1. How Governments can Support Private Equity Industries

The ratio of the public intervention has the aim to fill the “equity gap” of firms, by implementing policies in order to reduce the obstacles to the provision of equity capital for companies (Bracchi, 2006). However, when the public actor decides to intervene in order to support the private equity industry, the first choice to be made is
if it wants to focus its efforts on the supply side (investors) or on the demand side (firms). The modalities of intervention can be also classified as direct and indirect (Gervasoni, 2011): the first involve the use of public funds to set up venture capital funds, funds of funds, and incubators, while the second consist in the definition of schemes that facilitate and encourage the growth of the private equity industry.

The interventions on the demand side have the goal of reducing the deficit of entrepreneurship and the cultural gap of many small business owners: direct interventions consist in the creation of public incubators, while indirect interventions aim at developing an entrepreneurial culture and at promoting business initiatives such as technology parks and incubators.

On the supply side, direct public interventions consist in the constitution of private equity funds or funds of funds in partnership with private players, with the aim of sharing risks and returns; while indirect interventions generate asymmetric patterns of distribution of profits and losses between public and private partners and bring other significant benefits in favour of the private player (Gualandri and Schwizer, 2008).

The modalities of public intervention in private equity can be thus classified as follows:

Table 2.1: Taxonomy of Public Intervention in Private Equity

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<tr>
<th>Demand side Intervention</th>
<th>Supply side Intervention</th>
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<td>Direct measures</td>
<td>Public incubators</td>
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<tr>
<td>Indirect measures</td>
<td>Promotion of entrepreneurship and specific know-how, promotion of scientific and technological parks.</td>
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Source: Author adaptation on European Investment Bank (2001) and on Gualandri & Schwizer (2008)

The articulation of an efficient venture capital and private equity program promoted by the government is a very complex activity that goes beyond the mere injection of
funds in the private equity industry. In fact, as an academic study in UK has revealed (Mason and Harrison, 2003), the simple provision of capital to fill the company equity gap is not by itself effective.

In this regard, during the last three decades, in many developed countries there have been several examples of public intervention programs addressed to sustain national private equity industries. However, although the “modus operandi” and the implementation of such support have greatly differed from country to country, in recent years there has been an increasing convergence of governments towards the implementation of direct measures of public intervention (Gualandri and Schwizer, 2008) in order to sustain the development of the national private equity industry.

2.2. European Legislation on Public Support to Private Equity

The matter of public intervention in private equity has been disciplined at EU community level through the directive n.194/2006, in which the European Commission has set a normative framework defining the boundaries of the scope of the public support. The underlying principle is that every measure of public support towards private equity has to be implemented exclusively to avoid the industry failure, while not leading to unfair competition. In other words, the intervention of national governments should not bring to market distortions that could alter excessively the natural flow of capitals across EU countries (EU Commission, 2006/C; 194/02).

For this reason, each governmental policy has to be evaluated at EU level before being put into practice and it is subject to the Commission approval.

It’s worth to be noticed that the State promoting the initiative is in charge to demonstrate, in front of the Commission, the need of public intervention in order to avoid the industry failure. According to the EU perspective, there is the risk of industry failure in presence of serious distortions in the allocation of resources. These distortions are due to two main reasons: imperfect and asymmetric information and costs exchange, which both make the appraisal costs too high compared to the extent of the investment required (EU 2001, VI.3).

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1 See Orsi (2011) for Yozma ltd in Israel and Godi (2011) for a review of the main initiatives in Europe.
The implementation of the public intervention to private equity is thus conditioned to the consent of the Commission, which, during the approval process especially takes into account two aspects (Gervasoni, 2011):

1. The extent to which the public intervention may prejudice the activity of private operators.
2. The risk that the public intervention forces the survival of companies and of inefficient sectors that in normal market conditions would not have chances to survive.

In reference to the first issue, in fact, there might be a concrete risk that the entry of public investors reduces the activity of private operators in the private equity industry. In particular, direct public intervention can have negative effects on market development of venture capital from two points of view: the non-optimal allocation of resources and the increase, rather than the decrease, of the barriers to entry for private capitals in the industry. The causes of such situations are due primarily to the fact that the management of the funds is given to public managers, who lack experience in the selection of such initiatives and do not have the same incentive schemes of private companies. Moreover, there is the risk of the “crowding-out” of private capitals by public ones. This situation occurs if the public players, enjoying funding conditions at a lower cost, end up reducing the expected return on the investment, with the result of funding the best and less risky projects. In this way, only marginal projects would be left to the private operators, resulting in the so-called "market for lemon." (Gualandri and Schwizer, 2008). Although such collateral effect of public support has not been widely researched in literature, the empirical evidence on this issue is mixed: while a pan-European study on the impact of public intervention in equity has clearly rejected the “crowding-out” hypothesis (i.e. an higher rate of exit of private equity investors after the entry of public operators) for each of the fifteen EU countries analyzed during the period 1990-1996 (Leleux and Surlemont, 2003) a country-based analysis in Canada has shown how a public promoted venture capital fund, the LSVCC, beyond driving up the deal prices and
lowering the market returns, has out-bid the other types of VC funds (Cumming and Maclntosh, 2006).

Similarly, a direct intervention of the public actor on bankrupting companies would lead to a distortion of the market and to unfair competition (Gervasoni, 2011), since the State may provide large resources to save inefficient companies, with the risk of reducing support to the financing of deserving firms. This modern form of “protectionism” would thus undermine the functioning of economic and financial system at the community level, with serious negative effects in the competitive landscape.

In conclusion, the aim of this paragraph is to highlight how the magnitude of a public intervention in private equity has to comply with a set rules defined at the European level in order to avoid distortions of the industry, even if it’s often very difficult (not only for private equity measures) to discern the blurred line separating legitimate public support and unfair competition.
CHAPTER III: DIRECT PUBLIC INTERVENTION IN PRIVATE EQUITY ON SUPPLY SIDE: ITALIAN OVERVIEW

As anticipated in the introduction, the empirical analysis will focus only on direct forms of public intervention on supply side as means to sustain the private equity industry, taking into account private equity investors participated by public agencies that operate actively in the market, and in which the public actor contributes directly to run the investment activity. In this section, I hereby report the most important insights about the category of public participated investors in Italy, with the aim to highlight the breadth of direct public intervention in the private equity industry and to give a descriptive framework showing how such investors operate in the market.

The information provided below is the result of the author research activity based on web resources, interviews with heads of investment team, official investor websites, AIFI and Private Equity Monitor (PEM) annual reports.

3.1. Number and Evolution of Public Participated PE Investors

According to an accurate analysis on the shareholders structure of each AIFI associates, I identified 18 private equity investors participated directly by public agencies, or by institutional entities partially or totally owned by public agencies. Up to 2012, such category of private equity investors represents the 15.4% of all AIFI associates (fig. 3.1), thus playing a significant role in shaping the Italian private equity industry.

During the last two decades, there has been a higher entry level of public participated operators in the Italian private equity market, confirming the increasing interest of public agencies in such types of investments. Indeed, within the list of AIFI current associates, the number of such category of operators grew at a CAGR of almost 20% since 1994, with a relatively higher rate of entry especially during the last 10 years (fig. 3.2).

Hence, consistently to previous studies on this subject (Leleux and Surlemont, 2003), the “seeding hypothesis”, underlying the direct public intervention in the venture capital and private equity market, doesn’t seem to be confirmed even in the Italian case. Indeed, the proliferation of public investors in the Italian private equity market
tends to be the consequence of the development of the industry rather than its cause (i.e. the direct public intervention is not driven by the need of “seeding” an underdeveloped private equity industry).

In fact, it would be inappropriate to consider the Italian private equity as an “infant” industry since, up to 2012, there have been 117 PE operators in the market investing in around 1135 companies with a total portfolio value of €20,2Bn (AIFI, 2012). Nonetheless, even in the Italian case, the public sector participation tends to cause larger amounts of money to be used for VC and PE investment (Leleux and Surlemont, 2003). Indeed, the recent growth in the number of public participated operators has been also linked to an increasing availability of public funds addressed to the development of the Italian private equity market. In this regard, it’s worth to be noticed that especially during the last few years this amount of additional resources was provided by the national government, which intervened directly to promote and to finance private equity programs. For example, in 2009, the government sponsored the creation of the “Italian Fund of Investment”, in which the main Italian banks and the CDP, an institutional agency owned for 80% by the Ministry of Treasure, invested around €250M each. In order to give an idea of the scope of this initiative, the final commitment of the fund (€1220M) was more than the fundraising activity of the whole Italian private equity market in the same year (Sattin, 2009). Similarly, in 2011, the State managed the creation of “Fondo Strategico Italiano SPA”, a holding of...
participation for private equity investments, controlled by CDP and endowed with 4000M of capital.

3.2. Ownership Structure

The public actor has not been acting in the same way in each public participated investor in private equity. Indeed, within such category of operators, three different degrees of public involvement can be identified:

1) The private equity investor’s shares are fully owned by public agencies or by their subsidiaries. This is what happens for example for PE investors like Finlombarda SGR, Gepafin SGR, SFIRS and FILAS SPA.

2) The public actor still controls the majority of shares of the private equity investor but also there is also a minority participation hold by private players, mainly banks and foundations. Such structure can be found in PE investors like Friulia SGR, Orizzonte SGR and CFI.

3) The public agent only owns a minority participation, while the majority of the shares are in the hands of private operators. This scheme of public intervention can be found in Innogest SGR, Fondo Italiano d’Investimento, Como Venture SRL etc.

As showed by fig. 3.3, in the Italian context, most of the public agencies opted for a minority investment, 1/3 for a fully owned structure, and the remaining 22.22% for a fully ownership. It is important to assess the ownership structure of public participated PE investors because the percentage of shares hold by public agencies may affect the governance mechanisms and the system of relations between the shareholders of the private equity investor. In this regard, in literature

Figure 3.3. Investment Style of Public Participated Investors, 2012
Source: Author Research
there have been identified three forms of partnership between public and private actors in private equity investments (Jääskeläinen, Maula and Murray, 2007): (1) in the partnership there is an equal treatment between public and private investors in terms of loss and returns; (2) private investors benefit from a downside protection scheme; (3) private investors benefit from an upside leverage scheme. The downside protection scheme and the upside leverage scheme imply an asymmetric distribution of costs & returns between the private and the public investors, and they are usually introduced as incentives for the private operator to join the partnership (Gervasoni, 2011).

3.3. Stage Financing Focus

In relation to stage financing focus, according to what public participated private equity investors declare in their website, to the description of their portfolio investments and to what is officially stated by AIFI in its member list, the stage financing focus of these investors is quite homogeneously distributed along all stages of private equity deals (fig. 3.4). Nonetheless, most of such investors focus on the early stage and expansion deals rather than on replacement and buy-outs. This outcome is partially in countertendency with the thesis that public private equity operators more often tend to invest in later-stage rather than in early stage deals (Leleux and Surlemont, 2003). In fact, in the Italian context, the number of public PE investors focusing only on expansion, expansion & buy-outs, expansion & replacement stages, is lower than the number of public operators investing only in early stage and early stage & expansion deals.

**Figure 3.4. Public Participated Investors’ Stage Financing Focus of Investment, 2012**

*Source: Author Research*
3.4. Geographical Focus

In reference to the geographical focus, almost half of public participated PE investors declare to operate indiscriminately in all Italian territory. Nevertheless, most of them concentrate their efforts only in specific regions or macro-areas, mostly localized in the North and the Center of the country. Consequently, it is worth to be noticed that there might be a “causality problem” to explain this phenomenon, since the development of the PE market in some specific regions could drive the investment decision of public participated PE operators. Indeed, there is a clear correlation between the geographical focus of such investors and the regional development of the PE markets, as measured by the number of private equity deals localized in that region during 2012 (fig. 3.5 and table 3.1).

A study conducted in the US has found that venture capital and private equity firms cluster in areas with higher concentrations of financial institutions and technology based enterprises (Florida and Kenney, 1988) and thus the venture capital industry tends to display an high level of agglomeration due to the information intensive nature of the investment process and to the importance of network externalities in locating investments, transferring resources and establishing new businesses. Similarly, in UK and Germany, private equity industries have been found to be

<table>
<thead>
<tr>
<th>Region</th>
<th>N° of deals 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lombardy</td>
<td>397</td>
</tr>
<tr>
<td>Emilia Romagna</td>
<td>148</td>
</tr>
<tr>
<td>Veneto</td>
<td>117</td>
</tr>
<tr>
<td>Piemonte</td>
<td>109</td>
</tr>
<tr>
<td>Toscany</td>
<td>63</td>
</tr>
<tr>
<td>Lazio</td>
<td>59</td>
</tr>
<tr>
<td>Friuli Venezia Giulia</td>
<td>41</td>
</tr>
<tr>
<td>Marche</td>
<td>28</td>
</tr>
<tr>
<td>Liguria</td>
<td>28</td>
</tr>
<tr>
<td>Campania</td>
<td>26</td>
</tr>
</tbody>
</table>

Figure 3.5. Public Participated Investors’ Geographical Scope of Investment, 2012
Source: Author Research

Table 3.1. Top-Ten Regions for Number of Private Equity Deals, 2012
Source: AIFI Report 2012
spatially constituted and to concentrate in identifiable clusters (Martin et al., 2005), thus trapping the less-developed regions, with lower investment rates, fewer local venture capital firms and a dearth of experienced specialized intermediaries, into a situation of both depressed demand for and supply of venture capital investment.

In this perspective, it’s not surprisingly that also in Italy the majority of public participated private equity investors have localized their activity in the most advanced regions of the country. Moreover, the different degree of development of the regional financial systems has also a direct effect in shaping the nature of public intervention (Gervasoni, 2011). In fact, in the most advanced regions, endowed with developed financial markets in which the demand and the supply of capital interact efficiently, the “supporting function” of public agencies to the creation of a private equity market has only a marginal effect, and that’s why in such regions the public intervention focuses its main efforts on the demand side, by providing additional capital for those companies facing greater difficulties to receive funding, such as for example, high-tech SME and early stage firms. On the contrary, in less developed regions, public intervention firstly aims at the creation of an efficient private equity market through the reduction of those barriers preventing the efficient interaction between firms and private equity companies.

In the end, it’s worth to be noticed that the scope of public participated private equity investors can sometimes overcome the Italian boundaries, since some operators, for example Finlombarda SGR and Friulia SGR, have also invested in Italian companies active in foreign countries, such as Slovenia and Tunisia.

### 3.5. Legal Status of Public Participated PE investors

The legal vehicles through which public agencies have decided to run PE investment are SGR, SPA, SRL and SCPA (fig. 3.6). The majority of public initiatives involved the creation of a SGR company (ex. Filombarda SGR, Friulia SGR, SICI SGR etc): the most common vehicle to run such types of investments in Italy. Some other public agencies opted on the other hand for the SPA legal form (ex. Gepafin SPA, H2I SPA, Veneto Sviluppo SPA), while only one for SRL (Como Venture) and SCPA (CFI).
It should be noticed that the choice of the vehicle legal form to be used for private equity investment does not seem to be correlated with the nature of the public agencies sponsoring the vehicle constitution. For example, regional agencies do not decide to enter the PE market in the same way, since some have opted for SGR (Friulia Venezia Giulia with *Friulia SGR*, Lombardia with *Finlombarda SGR*) and others for SPA (Umbria with *Gepafin Spa*, Lazio with *Filas SPA*, Sardinia with *SFIRS SPA*).

### 3.6. Sectorial Focus

In the Italian case, private equity investments have been addressed to a wide range of industrial sectors. Indeed, considering the average number of investments per sector in the last three years (fig. 3.7), private equity activities have been fragmented in many industries, although there is clear evidence that some sectors present a higher level of attractiveness for private equity deals. In this regard, the energy & utilities sector has received the highest number of private equity investments in the last three years, followed by industrial services and medical industries.

<table>
<thead>
<tr>
<th>Sector</th>
<th>2010-2012</th>
<th>2011-2012</th>
<th>2012-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy &amp; Utilities</td>
<td>30</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Industrial Services</td>
<td>24</td>
<td>32</td>
<td>42</td>
</tr>
<tr>
<td>Medical</td>
<td>21</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Media &amp; Ent.</td>
<td>18</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Computer</td>
<td>16</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Retail</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Transportation</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Food</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Biotech</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Fin. Services</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Luxury</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Construction</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Electronics</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Telecom</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Automotive</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Ind. machineries</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Textile</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Figure 3.6. Legal Vehicles adopted by Public Agencies to run Private Equity Investments*

*Source: Author Research*

*Figure 3.7. Average Number of Private Equity Investments per Sector 2010-2012*

*Source: Author Elaboration on AIFI reports 2010-2012*

*Figure 3.8. Percentage Distribution per Sector of Public Participated Investments in Portfolio at 2012. Source: Author Research*
In relation to private equity investors participated by public agencies (fig. 3.8), the sectorial focus has followed a pattern only partially overlapped with the entire private equity industry. Indeed, the energy & utilities sector has so far attracted most of the investments, but, on the other hand, biotech, computer, food and transportation industries prevail on medical, industrial services, media & entertainment sectors.

3.7. Size of Capital Managed by Public Participated PE Investors

The public intervention in private equity is very heterogeneous in terms of capital managed by public participated investors.

Considering the AIFI members, the mean of funds managed by public participated investors is 400 million euros. However, this result is strongly influenced by the presence of the Italian Fund of Investment, of the Italian Strategic Fund and of F2I, which manage 1.2, 4 and 1.8 billion euros respectively. In fact, if these three operators are excluded in the computation, the average of capital managed by private equity investors drops to 53,15 million euros. The lower size of capital is managed by Como Venture SRL (5 million euros). Fig. 3.9 shows how the majority (33%) of public participated investors manages a capital between 20 and 60 million euros, while only 16,7% of such operators manages fund with a size lower than 20 million euros. The 22,2% of public participated operators has a fund size higher than 120 million euros, while the remaining 27,8% manages capitals between 60 and 120 million euros. Quite interestingly, the correlation matrix between the variables “fund size”, “number of investment” and “number of sectors of investment”, did not produce significant results (i.e. to an higher amount of capital managed does not correspond a higher number of investments, nor a broader focus on more sectors). Comparing the average size of capital managed by independent investors with the one of public participated operators, private operators manage a higher
amount of funds, (1207 vs. 53,15) even if the “Italian Fund of Investment” and the “Italian Strategic Fund” are considered (1207>400). It’s worth to be noticed that the public initiatives with higher amount of capital (Italian Fund of Investment, F2I, Italian Strategic Fund) have been promoted by the government at central level in recent years. This point further highlights how the relevance of public intervention in private equity is due not only to an increasing number of public participated players within the industry (3.1), but also to a significant amount of resources with whom such players have been endowed.

3.8. Source of Funds to run the Private Equity Activity: Public vs. Private Resources.

It’s very important to highlight how the percentage of private equity investor’s shares owned by the public agent does not very often correspond to the percentage of financial resources provided by public agencies to run the private equity activity. In other words, the participation of public agencies in the private equity investor’s shareholder structure does not imply a proportional provision of financial resources to be employed for private equity investments. In particular, there are three schemes that have been typically adopted in the Italian case:

1. The percentage of shares owned by the public agent is higher than the percentage of financial resources it provides to run the private equity activity.
2. The percentage of the private equity investor’s shares held by the public agent equals the percentage of financial resources that it provides to run the private equity activity.
3. The percentage of the private equity investor’s shares held by the public agent is lower than the percentage of financial resources it provides to run the private equity activity.

In Italy, in the 43% of cases the public agent provides a lower percentage of financial resources than its percentage of private equity investor’s shares, in the 29% of cases it provides a percentage of financial resources higher than its participation in the
private equity investor shares, while for the remaining 23% the public actor provides exactly the same percentage of financial resources compared to its percentage in the PE investor’s shareholder structure. This potential discrepancy between the percentage of shares hold and the financial resources provided by the public agent should be taken into account, because it might amplify the “moral hazard” problem (Hölmstrom, 1982). Indeed, if the private partner has the decision power but it provides less financial resources than its public counterpart, he is likely to promote investments in more risky projects, because his potential return will be higher, while the public partner will assume the majority of the risk.
CHAPTER IV: THE PERFORMANCE OF PUBLIC PARTICIPATED INVESTORS

4.1. Problem Delimitation and Research Question

The starting point of my analysis on the performance of public participated investors is based upon the data collected by a study of the Private Equity Monitor (PEM), the main observatory on private equity deals in Italy. In this study, the average internal rate of return of public participated PE investors during the period 1998-2009 is generally lower compared to the average of the market.

Table 4.1: Average IRR per Investment according to Operators’ Category, 1998-2009

<table>
<thead>
<tr>
<th>Operators</th>
<th>Average IRR for PE investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>32.70 %</td>
</tr>
<tr>
<td>Private Investors</td>
<td>36.17 %</td>
</tr>
<tr>
<td>Public Participated Investors</td>
<td>4.27 %</td>
</tr>
</tbody>
</table>

Source: Author Elaboration on Private Equity Monitor (PEM) data, 2009

Although a discrepancy between the returns of public participated and independent investors is always likely to happen – given the fact that these two categories of operators pursue different objectives and have a different risk-appetite – it seems to me that there should be some other reasons which could explain an IRR difference of 31.9%, especially because some public operators have a “modus operandi” really similar to that of independent players.

Thus, after having analyzed the main features of public participated private equity investors, it’s now time to address the core part of my research: which variables statistically affect the performance (IRR) of public participated PE investors and contribute to explain their lower returns compared to independent players?

4.2. Hypotheses

The first hypothesis that may explain the lower performance of public participated investors as compared to independent operators might be simply related to a
different degree of ability in running the private equity activity. In fact, private equity fund returns have been proved to be positively driven by managers skills (Kaserer and Diller, 2007) and the human capital of venture capital management teams has been proved to be a predictor of fund performance (Siegel and MacMillan, 1988; Zarutskie, 2010). Hence, independent investors might be better at attracting and/or selecting the best managers in the labour market, those who are able to guarantee higher returns. Public participated investors may thus suffer from a “competence gap” towards independent operators, since their investment team is not as “qualified” as that of independent investors. In this perspective, the investment team of public players might lead to lower performance because it does not possess the requested skills to select the optimal deals during the screening activity, or it underestimates some risks related to a project, or it misses the right timeframe to dis-invest the participation.

A good proxy of the competence level of an investment team might be the percentage of the team holding a MBA, a PHD or an Executive Master in the financial fields. Indeed, there is a widespread academic agreement on the issue that managers with higher educational attainment will be more adaptive and innovative, and more likely to possess other characteristics that may improve the firm performance (Gottesman and Morey, 2006).

Previous studies (Golec, 1996; Chevalier and Ellison, 1999; Gottesman and Morey, 2006) have already verified the positive correlation between the managers’ education and the mutual fund performance, but is it the case for the Italian private equity industry? Are more qualified management teams a key driver for performance? If this is the case, then the first hypothesis which could explain the lower performance of public participated investors refers to the lower level of “Professionalization” of the investment team, expressed as the percentage of team members holding an MBA, PHD or Executive Master in financial fields.

\[2\text{In particular, Siegel and MacMillan found a positive relationship between managers skills and Corporate Venture Capitalist (CVC) performance.}\]

\[3\text{Golec (1996) and Gottesman and Morey (2006) found a positive relationship between MBA hold by managers and firm performance, while Chevalier and Ellison emphasized the importance of undergraduate education.}\]
**H1:** *The lower performance of public participated private equity investors is due to a lower investment team degree of “Professionalization”.*

Although the managers’ education degree within the investment team surely impacts on the team competences, this is not the unique measure that should be adopted as a proxy for assessing their skills. Indeed, knowledge acquisition does not always guarantee the successful application of that same knowledge (Everwijn et al., 1993) and, in this regard, different streams of thought have argued about the role that “experience” may exert on performance. While some scholars (Golec et al., 1996) have demonstrated how the longer tenure of an investment fund is positively related to higher returns, other studies have shown how less experienced management teams are more risk accommodating and more likely to yield a higher performance (Menkkhoff, Schmidt and Brozynsky, 2006). Considering exclusively the category of private equity funds, managers with higher experience in the field turned out to be more "active" than their peers, and such a higher activism is positively associated with portfolio success (Bottazzi, Da Rin and Hellmann, 2008). Similarly, a recent study (Zarutskie, 2010) has pointed out that fund management teams with more task-specific human capital – as measured by a higher number of managers having past experience as venture capitalists and by a higher number of managers having past experience as executives at start-up companies – manage funds with greater fractions of portfolio company exits. In this perspective, it could be argued that if the private equity investor has a long experience in the market, thus allowing its investment team to acquire knowledge of the industry, the fund is more likely to reach a higher performance. However, since the evidence on the relationship between experience and fund performance is mixed and to the author knowledge there are not specific studies considering the impact of the experience on private equity fund in Italy, on the basis of my interview with Anna Gervasoni, the head of AIIF, I would consider experience as a potential positive predictor of private equity investor performance. In fact, considering the peculiarities of the Italian private equity industry, which is influenced by strong network contacts and confidentiality, it would make sense to suppose that longer established investors have developed a wider network and better relationships both within the industry and towards the private
equity intermediaries (for example, University incubators, technology parks and business angels associations), thus having a broader scope of investment opportunities to consider. In this regard, a previous study (Hockberg, Ljungqvist and Lu, 2007) has already confirmed how better-networked VC firms have significantly better fund performance. In addition, older investors might have consolidated routines that facilitate the creation of tacit knowledge (Nelson and Winter, 1982; Nonaka, 2000) and the higher exposure to “learning by doing” opportunities. Hence, the investor’s “Experience” within the PE industry may increase performance for the following reasons: (1) it can improve managers’ skills, (2) it may contribute to create better networks and (3) it may generate higher learning chances. In this perspective, another reason explaining the poorer performance of public participated investors might be related to the fact that, in most cases, public agencies have approached the private equity market only in the last 10 to 15 years.

**H2:** Public participated private equity investors have lower returns compared to independent investors because they have a lower level of experience on the field.

Focusing only on the sample of public participated investors, in the previous section it has been argued that the degree of public involvement can significantly vary across investors, and public agencies may decide to fully own all the PE investor’s shares or to join a partnership with private players, with a majority or minority participation. In this perspective, the first interesting issue is to investigate if the shareholder structure of public participated private equity investors has a direct impact on the investment performance. In other words, does the presence of private partners improve the performance (IRR) of public participated investors by driving the investment decision towards more financially attractive deals? Indeed, it would be reasonable to think that as the participation of private players in the PE investor shares increases, the investment decision will mainly focus on financial criteria, because the private partner is mainly interested in maximizing profits, and it is not driven by any social purpose. On the contrary, when the private equity investor’s shares are fully or mainly owned by public agencies, the potential social returns of the PE investment become key-drivers in the decision making
process, since public agencies do not only aim at receiving financial returns, but they are also strongly interested in the benefits that PE deals can generate on the economic and social fabric. In this regard, private equity operators, fully or mainly owned by public agencies, may decide to run PE investments with risk & return profile below the average of the market or in unattractive sectors, if the potential social returns can be extremely valuable. (For example, SFIRS and GEPAFIN, PE investors fully owned respectively by Sardinia and Umbria Region, have run PE investments in agriculture, a sector not usually targeted by PE deals, but in which there are still high employment rates in the above mentioned regions).

In literature, a very interesting work (Boardman and Vining, 1989) investigated whether the ownership structure has any impact on performance and, in this regard, the returns of private, mixed and State-owned enterprises have been compared. The results suggested that mixed and State-owned enterprises substantially performed worse than similar private companies and, moreover, mixed shareholder structures may perform even worse than public owned enterprises. In particular the authors highlighted how the different forms of mixed-ownership, which may significantly vary in the extent of public ownership and dispersal of private share ownership, could generate conflicts between these two categories of shareholders, leading to a high degree of managerial “cognitive dissonance” that may reduce performance.

Thus, the third hypothesis to be verified would focus on the shareholder structure of private participated investors, and it is proposed in order to investigate if the degree of public involvement in the private equity investor’s ownership exerts any effect on performance:

**H3:** As the participation of public agencies in the PE investor’s shareholder structure increases, the average IRR for investment decreases.

In the same perspective, not only the shareholder structure of the public participated investor may have an impact on performance, but also the percentage of funds provided to run the private equity activity. In fact, when most of the funds are provided by private entities, it could be argued that more attention is paid to the financial profile of the investment, because private funds providers expect a return
from their investment and are unwilling to waste their money to finance unattractive projects. This assumption does not mean that when the funds are mainly provided by private entities the investment will be directed only towards speculative projects, rather, within the basket of investment opportunities, the financial dimension will have a more relevant weight.

In literature, scholars have paid little attention to the role that the sources of funds of private equity investors may play on performance. In fact, scholars have concentrated their efforts in finding a relationship between the source of VC funds and investment activities, such as stage financing, geographical scope and industry focus (Mayer, Schoors and Yafeh, 2004) but they did not investigate the impact on performance. Nevertheless, a very interesting work (Van Osnabrugge and Robinson, 2001) comparing “Captives” (entities linked to a parent company, usually a financial institution) and “Independent” venture capital funds, found out that the latter conduct more due diligence, are attracted by investments with higher returns, invest more per deal, gain more contractual control, and claim to monitor their investments more intensively. Thus, independent VC firms are more willing to personally monitoring their investments (as compared to Captive VC firms) possibly to signal to their external fund providers that they have invested their allocated funds wisely and that they are monitoring their investments with the utmost care. Then, the authors suggest that this higher concern might lead to better performance. Hence, since Van Osnabrugge and Robinson found out that private equity investors are more careful when the funds come from external providers rather than from the parent company, it reasonable to think that they will be even more careful to the financial return of the investment when they provide funds by themselves. Arguably, if the private partners holding shares of the private equity investor put their own financial resources to run the private equity activity, they will exert a stronger monitoring activity on the investments, in order not to waste their money and to get a return from the deal. The fourth and final hypothesis can thus be developed:

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4 The study, comparing the VC industries in UK, Germany, Israel and Japan, found that, on average, Bank-backed funds are more heavily focused on late-stage investments while individual and corporate-backed funds on early stages.
**H4:** When the funds for the private equity activity are provided by private subscribers, the return of the investment will be higher (i.e. as the percentage of funds provided by private entities increases, the performance of the investment increases proportionally)

### 4.3. Data

The research of the dataset to be used for the present analysis has been the most difficult and time-consuming phase of my work, since most of the returns of private equity investors are not disclosed to the public. The international financial database I consulted (Thomson financial, Prequin, Capital IQ) provided detailed information on each investment carried out by private equity investors in Italy but they did not provide any clue on their performance and internal rate of return (IRR). Similarly, the Italian private equity and venture capital association (AIFI) releases only aggregated results on the state of the industry, with no information on specific players. The main observatory of private equity deals in Italy, the Private Equity Monitor (PEM), declared that, although providing performance results of private equity investors, it didn’t any longer collect data on public operators. The only database available was thus an exceptionally study provided by Private Equity Monitor in 2009, which reported the main data (performance included) of a sample of private equity investors in Italy. The information within this database have been checked with the results of other financial datacenters and enriched with the insights from the interviews I had with investment teams’ managers, with key figures of the industry and with financial journalists.\(^5\)

The variables “Experience of the PE Investor within the Industry” and “Professionalization of the Investment Team” were not initially present in the PEM database, and thus were artificially created by the author. To build the variable

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\(^5\) During my research activity I interviewed the following experts/managers of the Italian private equity industry:

- Anna Gervasoni (Head of AIFI),
- Barbara Balducci (Gepafin SPA),
- Simona Corno (Finlombarda SGR),
- Alessia Muzio (Research Center AIFI),
- Johnathan Donadonibus (Private Equity Monitor),
- Alessandra Pasi (Corriere della Sera)
“Professionalization”, I consulted the investors’ official websites and/or the main online professional network (Linkedin) to find information about the investment team members’ curricula. I thus divided the investment team size over the number of team members that have a MBA, PHD or Executive Master in financial fields and I obtained the percentage of qualified members within the investment team, which corresponds to the variable “Professionalization”. Similarly, to build the variable “Experience” I considered the foundation year of the private equity investors, which in most of the cases, was available on the official investors’ websites. I then subtracted the foundation year from 2009\(^6\), thus obtaining the number of years within the private equity industry, which corresponds to the variable “Experience”.

4.4. Methodology

In order to answer the research question and to verify the set of hypotheses, I performed a double-level analysis. Firstly, I considered the whole Private Equity Monitor database updated to 2009, and I assessed if “Professionalization” (H1) and “Experience” (H2) have an impact on the return of private equity investors. Secondly, from the database I extracted only the data referred to public participated private equity investors and, within this sample, I verified whether “Professionalization” and “Experience” were still significant predictors of performance and whether the two remaining hypotheses on the shareholder structure (H3) and on the source of funds (H4) of public participated investors were also key drivers of financial returns.

The analysis has been run with the help of the statistical software SPSS, and, in this regard, two regression models have been launched:

- The first regression, based on 58 observations, included all players in the PEM database and it was run to verify if “Professionalization” and “Experience” exert a positive impact on the performance of private equity investors.

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\(^6\)If an investor did no longer exist in 2009, I subtracted the year of foundation from the year of closing activity.
• The second regression focused only on the sample of public participated investors extracted from the original database. Although the number of observations was not high (<15), it represented almost half of the whole AIFI population of public participated private equity investors in Italy\(^7\). To this reduced database (H1) and (H2) have been further verified and, after having added the variables “Shareholder Structure” and “Percentage of Fund Tickets Subscribed by Public Agencies”, (H3) and (H4) have been tested \(^8\). The author added these two variables through a detailed research in the main financial databases, in investors’ official websites and in press reviews.

4.5. Limitations

As anticipated in the introduction, the scarce availability of data is the main limitation of this thesis: the lack of reliable data on the performance of private equity investors unfortunately represents a great burden to the strength of the achieved findings. When I interviewed Anna Gervasoni, I asked her why there was such a low level of transparency about the performance of private equity investors. In her reply, she firstly remarked how from a regulatory point of view the Italian law does not oblige investors to declare their returns from private equity activities. Moreover, since private equity activity can be run through different legal vehicles (SGR, SPA, SRL, etc.) and each of them is subject to a different legislative framework and/or different criteria of performance evaluation, it’s very difficult to draw a homogeneous landscape of private equity investors’ returns. Besides, most of the private equity investors are not willing to disclose their results also for fiscal reasons, fearing the risk of further taxes, especially when the legal headquarter of the company is located abroad whereas the private equity activity is run in Italy. In the end, as suggested by Alessandra Puato, journalist at Corriere della Sera, the management team benefits from the lack of data on performance because, in the absence of a clear picture of

\(^7\) There are 18 AIFI associates participated by public agencies (see part III). Among these, three of them (Italian Strategic Fund, Italian Fund of Investment and Futurimpresa) have not disinvested yet their participation and thus there isn’t any clue on performance.

\(^8\) I adopted the term “fund” because, although there are different legal forms adopted by public participated investors to run the private equity activity (see part II), in the PEM database 2009 are reported the results only for those adopting the SGR status.
competitors’ returns, investors cannot easily assess the managers’ conduct and, accordingly, they cannot adjust the management fees on the basis of the competitors’ performance.

Another significant shortcoming of the present dissertation is its unique focus on AIFI associates: although AIFI includes the most important players of the industry, it does not include all public participated investors who run a private equity activity in Italy. In fact, some public participated investors have not yet joined AIFI, although they apparently run the private equity activity on a constant basis; at the same time, some other public participated investors, beyond often operating on a very small-scale and with a local focus, have not joined the AIFI association because they run the private equity activity only occasionally and not on a constant basis.

4.6. Discussion

The first regression has been run on the whole PEM 2009 database integrated with the variables “Percentage of Qualified Members in the Investment Team” and “Experience of the Private Equity Investor within the Industry”. The explanatory power of the model is quite satisfying. The dependent variable is “Average IRR per Investment”, while the independent variables considered in the regression are: “Average Duration of the Investment in Portfolio”, “Percentage of Qualified Managers in the Investment Team”, “Experience”, “Number of Financial Stages in which the Company is Active”, “Number of Industries Covered by the Investor”, “Fund Size in Million Euro” and “Number of Companies in Investor’s Portfolio”.

The results of the regression are presented below:

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9 In my research I found out that during the years other Regions have activated “ad-hoc” private equity funds to sustain their local SMEs, but they do not operate on a constant basis. (Ex: Sviluppo Basilicata, Regione Liguria, etc.). I also found that some other regional players that apparently operate on a constant base do not have yet joint AIFI (for example, Piemonte High Technology).

10 i.e. “Professionalization” of the investment team.

11 R=0,725; R Square = 0.601,
Table 4.2: Results of the Regression Model on Private Equity Monitor database 2009.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
<td>Zero-order</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-0.16</td>
<td>.093</td>
<td>0.052</td>
<td>0.959</td>
<td></td>
</tr>
<tr>
<td>Average Duration in PTF</td>
<td>-0.074</td>
<td>0.062</td>
<td>-1.194</td>
<td>0.239</td>
<td>-1.180</td>
</tr>
<tr>
<td>% of Qualified Members***</td>
<td>0.012</td>
<td>0.004</td>
<td>4.19</td>
<td>0.02</td>
<td>0.636</td>
</tr>
<tr>
<td>Experience***</td>
<td>0.029</td>
<td>0.013</td>
<td>1.335</td>
<td>0.059</td>
<td>0.453</td>
</tr>
<tr>
<td>N° of Financial stage***</td>
<td>-1.168</td>
<td>0.066</td>
<td>-2.07</td>
<td>0.048</td>
<td>-3.022</td>
</tr>
<tr>
<td>N° of Industry</td>
<td>0.007</td>
<td>0.044</td>
<td>0.022</td>
<td>0.106</td>
<td>0.099</td>
</tr>
<tr>
<td>Fund Size in Million Euro</td>
<td>1.124E-5</td>
<td>0.000</td>
<td>0.66</td>
<td>0.720</td>
<td>0.427</td>
</tr>
<tr>
<td>N° of Portfolio Companies</td>
<td>-0.002</td>
<td>0.002</td>
<td>-1.135</td>
<td>0.262</td>
<td>-0.065</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Average IRR per Investment
b. * p-value < 0.01; *** p-value < 0.001

Considering the Collinearity statistics, I luckily didn’t have to face a Collinearity problem between variables (for each variable Tolerance>0,1/0,2 and VIF<5), thus no one of the considered independent variables can be considered as a linear combination of the others (this is also confirmed by a condition index <30 in the Collinearity statistics chart, not reported in the text).

Taking into account the significance levels, table 4.2 shows how the parameters of three variables, “Percentage of Qualified Members in the team”, “Experience”, and “Number of Financial Stage”, are statistically significant.

Thus, (H1) and (H2) have been verified from the regression results, and both the “Percentage of Qualified Members in the Investment Team” and the “Experience of the Private Equity Investor within the Industry” turned out to have a positive impact on performance. Quite interestingly, also the variable “Number of Financial Stage” resulted to be statistically significant in explaining the performance of private equity investors. Indeed, the investors focusing only on single financial stages performed better than those operating in more stages. This finding is in line with previous academic papers (Norton and Tenenbaum, 1993; Cressy, Munari and Malipiero, 2007), showing how the investment specialization by stage provides a competitive advantage to the private equity investor, because a higher degree of focus may help at controlling risk as well as at gaining access to networks, information, and deal flow from other venture investors. Similarly, an empirical study (Hege et al., 2008), comparing the returns between US and European venture capital funds, found out
that the first outperform their European peers, thanks also to their higher degree of stage financing specialization, which is a source of higher ability in selecting, monitoring and mentoring the target company. In addition, this outcome might be considered consistent with the (H1) hypothesis. In fact, within the investment team, a broader spectrum of competences might be required to invest in more than one or two financial stages, since each segment of the private equity industry (early stages, expansion, buy-outs, replacement) significantly differs from the others in terms of market dynamics, investment styles and managerial best-practices (Fenn, Young and Prowse, 1997).

On the other hand, in the regression, the positive relationship between industry specialization and performance has not been confirmed, and this is in contrast with previous studies (Cressy, Munari and Malipiero, 2007), which revealed a positive association between the performance of venture capital companies and their industry narrowing. Similarly, the correlation between the holding period of investment (Manigart, Wright et al., 2002) and the financial returns has not turned out to be statistically significant, although the model reported a negative relationship between these two variables.

Given that the regression model has confirmed (H1) and (H2), thus showing how both the “Professionalization” of the investment team and the “Experience” of private equity investors positively affect the returns on investment, if we look at table 4.3 there is a first hint of “why” the performance of private equity investors participated by public agencies is lower compared to the one of independent operators.

Table 4.3: Comparison Between Independent and Public Participated Investors in Reference to Management Teams’ “Professionalization” and Investors’ “Experience”.

<table>
<thead>
<tr>
<th></th>
<th>Independent Investors</th>
<th>Public Participated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Qualified Members</td>
<td>44,03%</td>
<td>21,98%</td>
</tr>
<tr>
<td>Average Experience (years)</td>
<td>16,06</td>
<td>9,5</td>
</tr>
</tbody>
</table>

Source: Author Research on PEM database 2009
The table above shows how public participated private equity investors have significantly under-qualified investment teams as compared to independent operators and how, on average, such investors have a lower level of experience. Hence, given the fact that both the investment team “Professionalization” and the years of “Experience” within the private equity industry have been proved to positively impact performance, and that public participated investors score lower along these two dimensions, through an inductive reasoning it could be argued that the lower returns of public investors may be due to the lower level of “Professionalization” and “Experience” of such investors.

In order to verify the truthfulness of this intuition, I hereby report the results of the second-level analysis on the sample of public participated investors extracted from the PEM database. If the “Professionalization” of the investment team and the “Experience” within the private equity industry are really key drivers of performance, even in this sample the operators with better returns should have a higher percentage of qualified members and a higher number of experience years.

Moreover, this second-level analysis is run to verify (H3) and (H4), in order to find out if the shareholder structure of the public participated investors and the source of funds employed to run the private equity activity have any impact on performance.

Again, the dependent variable is “Average IRR per Investment”, while the independent variables are: “Experience”, “Percentage of Qualified Managers in the Investment team”, “Fund Size in Million Euro”, “Number of Funds Managed”, “Percentage of Investor Shares Hold by Public Agencies (Pa_Shares)” and “Percentage of Fund Tickets Subscribed by Public Agencies (Pa_Ticket)”

Table 4.4. Second regression on the sample of Public Participated Investors from PEM 2009.
It’s worth to be noticed that, in this second regression, although the model has a high explanatory power \(^{12}\), some variables, “Percentage of Qualified Members”, “Percentage of Fund Tickets Subscribed by Public Agencies” and “Number of Funds Managed” present a higher potential risk of Collinearity. However, all of the variables comply with the thresholds adopted to identify a Collinearity problem in regression models (\(>0.1/0.2\) for tolerance and \(<5\) for VIF, O’Brian, 2007) and thus there is no need to adjust the predictors.

Table 4.4 provides very important insights. First of all, it further confirms (H1), showing how the investment team’s degree of “Professionalization” is a key driver of performance even within the sample of public participated investors. (It’s worth to be noticed that the statistical significance of this result is valid for \(p\)-value <0.05 and not for 0.01 as in the first regression). This result indicates that public participated investors, having investment team members holding a MBA, a PHD or an Executive Master in financial fields, perform better than their peers. Thus, the verification of (H1) in both regressions confirms, even in reference to the category of private equity funds, the previous findings of Golec (1996) and Chevalier and Ellison (1999) about the positive impact of education (in particular MBA programs) in driving fund performance, but it contradicts the Zarutskie’s result (2010), which, on the other hand, showed how, “for the category of first time venture capital funds, those management teams having more general human capital in business administration, as measured by more managers having MBAs, manage funds with lower fractions of portfolio company exits”.

Quite interestingly, (H2) has not been verified in this second regression since, according to the regression estimates, the investor’s “Experience” variable does not significantly affect, neither positively nor negatively, the returns of public participated investors. This outcome contradicts the finding of the first regression. While for all the PEM 2009 database “Experience” played an important role in driving performance, this effect is no longer confirmed if the analysis is focused only on public participated investors. Thus, for the considered sample, having more years of “Experience” within the industry is not a source of higher returns as compared to younger peers. For example, “Sviluppo Imprese Centro Italia” is one of the public participated investors

\(^{12}\) \(R = 949\ R\) Squared: 901
having lower returns, although it is one of the oldest players in the sample. The emerging contradiction between the findings of the first and the second regression further strengthens the academic uncertainty around the role that the investor’s “Experience” within the private equity industry may exert on fund performance.

Similarly, (H3) has not been confirmed by the model. The shareholder structure of the public participated investors does not seem to have any impact on their performance. In fact, although the model predicts a positive correlation between “Average IRR per Investment” and “Percentage of Investor Shares Hold by Public Agencies” the relationship does not have any statistical relevance.

Hence, in this case, the empirical evidence on the link between the degree of public involvement in the ownership structure and the performance of investors is not statistically significant, and it does not allow to confirm Boardman and Vining’s finding according to which some patterns of mixed shareholder structure between private and public investors may lead to lower returns both compared to independent companies and to fully public-owned enterprises. Indeed, from the regression results, between fully owned and public participated private equity investors no substantial differences in performance emerge. On the contrary, what seems to be statistically significant (p-value<0.1) in driving the performance of such investors is the percentage of funds provided by public agencies (H4) in order to run the private equity activity. The regression estimates show a negative correlation between the increasing provision of funds by public agencies and the operators’ performance. Hence, it could be said that, when private partners subscribe part of the fund tickets, there is a higher focus on the investment IRR compared to the case in which the majority of funds are provided by public agencies. This is a reasonable outcome. The presence of funds provided by private partners implies that the social function of the private equity investment has to be associated with an attractive financial return, since private partners are willing to be remunerated for their capital injections.

Finally, it’s worth to be noticed that the variable “Fund Size in Million Euro” has not turned out to be significant in explaining the performance in both regressions, although some results were expected, since, as discussed in the previous chapter (3.7), the fund size managed by public Equity partners is generally lower than the one of independent investors, and the amount of capital managed, even within the
sample of public participated investors, differs greatly from player to player. While the relationship between mutual fund size and performance has been widely discussed in literature (Droms and Wolker, 1996; Chen et al., 2004), low attention has been paid to the specific category of private equity funds. Nevertheless, a recent study (Humphery-Jenner, 2011) addressing the potential relationship between private equity fund size and performance, found out that large private equity funds in the US market earn, on average, lower returns because sometimes they run sub-optimal investments in small companies, while they should focus their activity on large deals. On the contrary, in my dissertation, the negative correlation between the size of fund and its performance has not been confirmed since, neither for all PEM 2009 operators nor for the sample public participated investors, the amount of capital managed doesn’t seem to have played any role in driving the return of investment. In fact, for example, within the category of public participated investors, Friulia SGR had one of the highest performances, although its fund size is more than 60 million euros higher than the average amount of capital managed by this category of investors.

4.7. Interpretation of the Main Results

Considering the results emerged from the analytical section, two key findings may help to answer the research questions of “what affects the lower performance of public participated investors and why their returns are so much lower compared to the ones of independent players”:

- Public participated investors suffer from a “competence gap” of their investment teams.
- The ratio private/public funds employed to run the private equity activity is an important driver of performance.

These two results have been found to have a positive impact on the performance of such operators, but why managers of public participated companies are less qualified? And why the provision of capital by private partners positively affects the performance of investment? In the next lines I will try to provide an answer to these two questions.
Politics Interference in Public Management

In an attempt to explain the origin of the competence gap of public investors, we should take into account the interference of politics on public firms’ management, since it may be one of the main reasons behind the lower “Professionalization” of such operators. Indeed, in the selection process of public firms’ management, politics often plays a crucial role in sustaining or in rejecting some candidatures and, in most of the cases, politicians and administrators often prefer to adopt a “fidelity model” (Bandiera et al., 2008; Boeri et al., 2010) rather than a performance-based approach. In other words, politicians tend to evaluate the individual sphere of a candidature, in terms of good personal relationships, network and loyalty with respect to a specific party or lobby, rather than the fair assessment of its professional skills and curriculum. Accordingly, in the board of directors of public firms, there are members who aren’t nominated on the basis of their professionalism and competence, but on the basis of their political significance. Thus, the adoption of a “fidelity model”, in the selection of public firms’ management, may imply a lower level of managers’ “Professionalization” and, accordingly, it may affect the lower returns of public participated private equity investors. In fact, the performance-based approach is usually associated to better firms’ outcomes compared to the fidelity model (Boeri et al., 2010) and previous studies (Bloom and Van Reenen, 2010) have shown how better-managed firms tend to be more productive, to grow faster, and to provide higher returns on capital employed. It’s worth to be noticed that, in the case of public participated private equity investors, managers politically nominated often have a seat within the board of directors but they are not directly involved in the investment activity. Nonetheless, moved by political reasons, they can still interfere with every investment decision by exerting, for example, a veto power or by delaying the approval for a deal. This is indeed what happened in Finlombarda SGR, when a political friction between the Lega Party and Roberto Formigoni, former president of Lombardy Region, led to a stalemate situation of several months in the investment activity, since the board representatives of these two counterparts still continued their
contrast during the board of directors’ meetings and froze any approval related to private equity deals (Gervasoni, 2013\textsuperscript{13}).

**Corporate Governance Mechanisms**

The second regression shows how the provision of funds by private partners has a positive impact on the performance of public participated investors. Thus, it isn’t the distribution of shares within the public participated investors (H3) that affects the financial return of the investment but the repartition of capital between private and public partners (H4). In other words, what’s matter is not the formal participation in the ownership structure, but rather the amount of funds provided by the private partner to run the private equity activity. This finding is in line with previous studies on corporate governance mechanisms (Hillman and Dalziel, 2003) in which the “resource dependency” and the “agency theory” perspectives, integrated together, have been proved to exert a positive effect on performance. In the “resource dependency” approach board members are considered as human capital providers, and empirical studies in the resource dependence tradition have shown a positive relationship between board capital and firm performance (Jhonson and Ellstrand, 1999). Similarly, in the “agency theory”, the monitoring activity of board members on management team has a positive effect on firm results (Zahra and Pierce, 1989). If the notion of resource is extended not only to human capital but also to funds provision, then it could be argued that a higher commitment of financial resources from private partners implies an intense monitoring activity on the investment process, which may lead to higher firm performance. In addition, the regression results confirmed the finding of the already mentioned work of Van Osnabrugge and Robinson (2001), one of the first academic paper highlighting how the source of funds employed to run the private equity activity may affect the returns from investment, by inducing higher due diligence and monitoring activity if the funds don’t come from the parent company (which, for example, in the case of public participated

\textsuperscript{13} This anecdote has emerged during my interview with Anna Gervasoni.
private equity investors may be the Regional Government) but are provided by other external sources (such as banks, private institutions or individuals).  

Hence, the governance mechanisms and the sources of capital providers play a very important role for an effective direct public intervention in private equity. Not by chance, the “Italian Fund of Investment”, one of the most relevant public initiative in this industry, has been articulated with a complex governance structure (Sattin, 2011) in order to guarantee the highest returns both for the private partners (MPS, Banca Intesa, Unicredit, Banche Popolari) and for the institutional ones (Ministry of Treasure, ABI, Confidustria Association). Even if the shares of the SGR company managing the fund are equally distributed among the partners involved in the initiative, not all the SGR partners provide directly financial resources. Thus, it is necessary to protect those partners investing directly their money without undermining the core of the initiative and, in this regard, the current architecture of the “Italian Fund of Investment” provides that the ordinary investment activity is coordinated by “ad hoc” committee composed mainly by representatives of private partners, while for operations involving large amount of money (>5M euros) the approval of the regular board of directors (in which also the representative members of the institutional partners are seated) is required.

\[14\] It is worth to be notice that, in the discussion, the private funds providers are assumed to be the private partners of the private equity investor and it is argued that when they provide their own capital there is a higher financial focus because such partners are risking their own resources. Although this is what occurs in most of the cases, there might the case in which private fund providers do not have any participation in the PE investor shareholder structure. Nevertheless, the underlying principle does not change. The provision of funds from private partners is associated with higher monitoring activity and with higher pressure upon the management team in achieving a satisfying financial result.
CHAPTER V: IS PERFORMANCE ONLY FINANCIAL?

5.1. A Model to Evaluate Private Equity Deals Run by Public Participated Investors

Although during the last few years some scholars have moved a widespread criticism towards this approach (Martin, 1995), the Internal Rate of Return (IRR) is still the most adopted method to evaluate the performance of a private equity investment (Kelleher and MacCormack, 2005). In the previous chapter, performance has been considered only in financial terms, but is this a good evaluating method to assess the overall public participated private equity investors' returns? Notwithstanding the technical argumentations on the IRR reliability, I would argue that this method is not appropriate for the evaluation of a private equity deal run by public participated investors, since it takes only into account the financial dimension of the investment, while disregarding the impact that such investment has on the social and economic fabric. In fact, some scholars (Gervasoni, 2011) have already pointed out how the success of a public intervention in private equity should not be measured exclusively in terms of IRR but, rather, the deal evaluation should include the impact that such investment may have on the whole economic system in terms of employment rates, birth of new companies, competitiveness improvements, and tax increase. Following this perspective, it would be necessary to provide an assessment method of private equity investments that extends the notion of performance beyond the mere financial perspective, by also including in the evaluation the non-financial and social returns coming from the deal. In literature, most of the research has focused on the relationship between the social – intended as meeting the needs of various corporate stakeholders – and the financial performance of the firm, but empirical studies have reported conflicting results. While some scholars (Freeman 1984, Preston and O’Bannon, 1997) found a positive correlation between the firm’s social and financial returns, some others (Spencer and Taylor, 1997) did not find any correlation between them. Nevertheless, most of these studies, considering the link
between social and financial performances, kept the measurement of the two
dimensions always separated from each other.
On the contrary, for private equity deals, the social and financial returns of the
investment should be considered simultaneously, since they are both key drivers in
the investment decision of public participated operators.
In this regard, an overlapping between financial and social returns may not always
occur\(^{15}\), and that’s why public participated private equity investors may face a “trade-
off” between an investment with a very attractive financial return, but low impact on
social fabric, and a similar investment impacting greatly on society but with a risk &
return profile below the average of the market.
In order to solve this potential conflict, I am hereby proposing a model that aims to
give to public participated private equity investors a useful tool taking into account the
overall impact of a private equity deal. The purpose is to adjust the IRR formula in
order to include, in the evaluation of the investment, also the social and economic
dimension of the deal, which is often the main driver of the private equity activity run
by the public agent (J. Lerner, 2002). Thus, the proposed model will not only consider
the financial return of the investment (IRR) but also the variables expressing the
social and economic significance of any private equity deal, following what I reported
in the first part of my dissertation.\(^{16}\) The descriptive formula of the model is:

\[
y = \frac{m}{k} (\Delta t + \Delta E + \Delta R&D) + IRR
\]

Where:

\(Y\) = Productivity index of the private equity investment
\(m\) = Regional multiplier
\(k\) = Sectorial weight
\(\Delta t\) = Percentage increase in taxes
\(\Delta E\) = Percentage increase in the number of employees
\(\Delta R&D\) = Percentage increase in the number of new products

\(^{15}\) For example, a private equity investment in Calabria, the Italian region with the highest unemployment
rate (20.6 %, Istat 2013) may have a significant social impact but not being particularly attractive in a
financial perspective.

\(^{16}\) See the chapter one, paragraph 1.1: “Economic Impact of Private Equity Deals”.

The output variable \( Y \) represents the “Productivity index” that synthetizes both the financial and the social return of the private equity deal. This measure allows public participated players to have a broader vision of the performance of their investment. The regional multiplier \( m \) adjusts the formula according to the differences in wealth between regions. A private equity investment in a poor region of a country has a broader social and economic impact compared to the same investment carried out in a richer area. Therefore, if \( m \) is close to zero, it means that the region has an advanced economic activity moderating the impact of the investment, while, as far as \( m \) distances from zero, the region presents a lower level of economic development, thus becoming more sensible to every new event affecting the local economy. In this regard, a good proxy for \( m \) might be the contribution of the region to the country GDP calculated as Total Country GDP/Region GDP.

The sectorial variable \( k \) takes into account that the impact of a private equity investment is affected by the “status” of the sector in which the venture-backed company operates. In a company having the potential to open up a new market in a specific area, a private equity investment should be considered more valuable since it introduces new possible paths of development for the regional productivity system. On the contrary, *ceteris paribus*, the private equity investment directed to a company operating in an already developed sector might give a relatively lower contribution to the local economy. In this perspective, the private equity investment will be marginal and incremental rather than disruptive. In other words, if the private equity investment implies the creation of a new market in a region, it will have more economic value than when it is directed to an already mature sector. A good proxy for estimating \( k \) could be the ratio between the value added by the sector within that specific region and the Regional GDP.

The tax variable \( \Delta t \) refers to the percentage variation in taxes owed to the venture-backed company’s EBITDA growth. Given the fact that in most cases the private equity investors increase the EBITDA of the venture-backed firm\(^{17} \), a proportionally higher amount of taxes will be paid to the state and greater resources will be potentially employed for public purposes.

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\(^{17}\) See Chapter 1 paragraph 1.1. pp. 5-6.
The employment variable ($\Delta E$) refers to the variation in the number of the employees of the backed company due to the private equity investor’s intervention. Indeed, as discussed in chapter one, private equity investors are likely to increase the employees’ number in the venture-backed company, beyond being able to train workers in order to achieve a higher performance.

Finally, the variable ($\Delta R&D$) represents the increased competitiveness of the company products or services after the private equity investor’s intervention. In fact, the private equity investment may enhance the company position in the market and foster the development of new products in order to open up new business opportunities, both in the domestic and in the international landscape. Therefore, the variable ($\Delta R&D$) corresponds to the percentage increase of new products launched by the venture-backed company during the period of private equity investment.

The model I have presented underlines the importance of widening the boundaries of the evaluation of private equity deal beyond a mere financial perspective. Although this model is only a basic draft, calling for future research and refinement, it constitutes a first step towards a more comprehensive understanding of the returns of private equity activity. Moreover, as far as public participated investors are concerned, it may represent a useful tool for an “ex-ante” evaluation of the investment during the screening and selection phase as well as an innovative mean for the “ex-post” assessment of the overall return of a private equity deal once the investment has been dismissed.

In the end, it’s very important to highlight that the model proposed does not prejudice the findings of the previous section, rather, it only stresses that the notion of performance private equity investors (especially for those participated by public Agencies) should not be only considered in a financial perspective.
CONCLUSIONS

My dissertation has analyzed the role of direct public intervention in the Italian private equity industry. The increasing attention that the Italian government has paid towards direct measures in private equity has to be attributed to the social and economic benefits that private equity deals are able to generate and to the need to find alternative ways to debt in order to foster the economic development. In this regard, the private equity activity turned out to be a very important opportunity for the State to sustain the economic system while also obtaining a return from the investment, to be potentially spent for public purposes.

National governments can adopt direct or indirect measures to develop their private equity industry and they can decide to intervene on the supply (investors) or demand (firms) side. However, whatever the policy adopted by the public agent, the extent of public intervention is subject to European regulation and requires the Commission approval. In fact, although governmental interventions in favour of the private equity industry are encouraged at European level, these measures shouldn’t undermine the efficient flows of capital and the fair competition between countries within the Union.

The empirical inquiry has provided a descriptive picture of the breadth of direct public intervention in the Italian private equity industry. The analysis showed how the number of public participated investors in private equity has significantly grown during the last two decades, and how, especially in the last few years, such investors have been endowed with considerable amounts of financial resources by the central government. Up to few years ago, direct forms of private equity activity have mainly developed autonomously and on a regional and fragmented basis, without being included in any coordinated program managed at the central level. Thus, the lack of a comprehensive plan of action has contributed to create a very heterogeneous landscape of public participated investors in the Italian private equity industry. In fact, public participated investors greatly differ in terms of ownership structure, size of capital managed, geographical and stage financing focus, sectors of investment, legal status and source of funds employed to run the private equity activity. However, as suggested by the analysis of the PEM 2009 database, most of the public participated investors have in common a lower performance of investment as compared to independent operators.
In this regard, the analytical part of my work has aimed to investigate what affects the performance of public participated investors and why their returns are so much lower if compared to those of independent players. The findings suggest that the degree of “Professionalization” of the management team is a key driver of investment performance both for independent and for public participated investors, and that, on average, public participated operators suffer from a “competence gap” towards independent players. On the contrary, the years of “Experience” within the private equity industry have been found out to be positively related to performance in the PEM 2009 database, but the result is no longer valid if we consider only the sample of public participated investors. Thus, the lower financial returns of public participated investors cannot be attributed to a lack of experience within the industry, although such category of investors has entered the market later compared to independent operators.

Similarly, I do not find evidence of a relationship between the public participated investors’ ownership structure and performance. In fact, in reference to the data analyzed, the percentage of shares owned by private and public partners does not statistically affect the investment performance. Public participated investors fully owned by public agencies did not have worse returns compared to public participated investors in which the public agent owned a majority or minority participation. On the contrary, the ratio between public and private funds used to run the private equity activity turned out to have a great influence on the returns from the investment of public participated operators. Thus, what drives the investment performance, irrespective of the private equity investor’s ownership structure, is the amount of funds provided by private partners. In fact, the regression model has shown how, as the percentage of funds provided by private providers increases, the performance of investment is likely to increase proportionally and this is due to the fact that when private funds are employed to run the private equity activity, the investment team is more concerned with the financial return of the investment, which, in most of the cases, is what private fund providers aim to get from their capital injections.

The findings from the analytical part have interesting practical implications and may help public participated investors to run their private equity activity in a more efficient way. First, they suggest to the public agent that, in order to achieve satisfying
financial returns from the private equity activity, the investment team should be composed of qualified and highly educated managers. This issue implies that the managers’ and administrators’ nomination of public participated investors should follow a meritocratic approach, and thus managers should be appointed not because of their connection with the political system but because of their competence and professionalism within the private equity industry. The selection process of the management team and of the board of directors, especially in the case of public participated investors promoted by Regional governments, should be less influenced by political interference, and a shift from a fidelity model towards a performance based approach is needed. In this perspective, it becomes necessary for public participated investors to compete with independent players in attracting the best managers, those who are able to guarantee the higher returns.

Secondly, the involvement of financial resources from the private partners is a key determinant of the investment performance while some other investor’s features, such as its fund size and its industry focus, do not affect the financial return of the investment. In order to run efficiently the private equity activity, the public agent doesn’t have to focus on specific industries or to operate with a particular size of capital. In fact, it is not the size of capital, but the sources of such capital that impact on the financial returns. The presence of private funds providers is a driver towards the achievement of higher financial returns, since it implies a higher monitoring activity on the investment team. However, the architecture of a corporate governance mechanism and of an incentive scheme able to integrate the expectations of both private and public partners is not an easily achieved, as the constitution of the “Italian Fund of Investment” has widely demonstrated. Public and private partners have different objectives: the former are willing to exploit the social and economic potential of private equity activity, while the latter aim to get a financial return from their capital investment. Thus, an efficient governance structure of public participated investors should be achieved through a compromise reflecting both the social and financial perspectives of the two counterparts involved.

In this regard, the present dissertation has proposed to public participated investors a model of private equity deal evaluation, which takes into account the overall returns from investment, both from a social and financial view. Designed exclusively for the
category of public participated investor, this model merges in a single index the
social, economic and financial performance of private equity investments, thus
reflecting the returns that both private and public partners expect to obtain from the
private equity deal.

From a theoretical perspective, this work has combined together different streams of
literature. In fact, since there is not a specific academic path considering the role of
public participated investors in the Italian private equity industry, the theoretical
framework of my thesis has been developed by integrating some contributions from
other economic research fields. In the first chapters, the discussion has embraced
the theories on the economic and social impact of private equity deals, on the role of
the state in modern economies and on the extent of public support towards private
equity industry within the European framework. In the analytical part, particular
attention has been paid to those academic papers investigating the relationship
between private equity fund performance and specific investor characteristics, such
as the “Professionalization” of the investment team, the “Experience” within the
private equity industry, the size of funds managed, the source of funding, and the
specialization of the investment for stage financing and/or industry. The qualitative
interpretation of the findings has also been enriched with insights from the agency
theory and from corporate governance studies, focusing particularly on the link
between politics and public firms.

The main limitations of my thesis are its unique focus on the Italian case and the fact
that I could not rely upon a brand-new database. In this regard, during my research
activity, I encountered great difficulties in finding information on the performance of
private equity investors, especially in reference to public participated operators.
Arguably, the lack of available data has been a relevant obstacle to the research
activity at the academic level, and I do believe that a higher level of transparency
should be reached in order to further inform the public opinion and the political arena
about the potential benefits of a well-developed private equity industry in Italy.

Although limited by the lack of comprehensive information, this thesis aimed to shed
a light on the category of public participated investors, and on the overall direct public
intervention in private equity in Italy. In my opinion, the empirical results have
provided very interesting insights, but they need further refinement and confirmation.
In particular, it would be really interesting to research if these results will still be significant when some very important players, who haven’t yet registered any performance (such as for example the Italian Fund of Investment), will dismiss some of their portfolio compa
Academic Papers:


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