CORPORATE GOVERNANCE AND INDEPENDENT DIRECTORS: MUCH ADO ABOUT NOTHING? THE EVIDENCE BEHIND PRIVATE EQUITY INVESTMENT PERFORMANCE

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Abstract

Recourse to independent directors by private equity investors is not tied to performance increases. We draw this conclusion from analyzing a unique data set representative of the European context: all deals made by Italian closed-end funds from 1999 to 2003. Our study shows, in fact, that corporate governance does not impact the rate of return on a deal. Performance, instead, is driven by the characteristics of an initiative (exit-way, holding period and shareholding).

Further, we find that independent directors are involved in deals requiring greater skills and know-how. They tend to resign when performance is unsatisfactory. Moreover, these professionals improve deal performance if their commitment with the management company lasts throughout the deal and if there is a continual turnover of these directors.

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Performance of firms is not simply related to markets trends and competitive positioning but also to corporate governance. As composition of a board of directors and internal rules of governance directly affect performance, public authorities and regulators in many countries have introduced specific laws to encourage adopting an effective framework of governance rules that can help firms perform better. Independent members on boards of directors, that is, members not appointed by the owners, are believed to be particularly valuable. Internal codes, stock exchange regulations and public authorities also focus on the question of independent members with a view to strongly promoting their presence in many firms. Use of independent directors is extremely common in several countries, especially in cases where a firm's performance has a great impact on public opinion and/or the number of stakeholders is very large (i.e., in listed companies, private equity-owned firms, large State-owned corporations, etc.). But while in many countries the profile of independent board members is clearly defined by law and regulations, the increasing use (or abuse) of these professionals has prompted an investigation as to whether their presence affects the performance of firms in different ways.

The private equity sector is a fitting area for this investigation because of the widespread recourse to independent directors as a tool to promote fair corporate governance rules within the boards of venture capital-backed firms. This practice serves as an instrument to ensure proper control for investors and as a channel to improve these firms' performance or the final results of private equity operations. Given the growing amount of resources channeled through private equity funds in all European countries, it has become crucial to understand – in order to evaluate market efficiency – if independent directors are a solution to improve and/or to maximize the internal rate of return for closed-end fund investments.

The paper is organized as follows. Section I highlights the main results obtained during empirical studies to monitor and control private equity operations, first focusing on the role and size of boards in the choice of corporate governance as the solution to manage venture capital investments and, following this, the role of independent directors on boards. Section II provides a comparison of the various ways independent directors are defined at European and non-European levels, followed by an outline of the approach used in this empirical study. Section III gives details of the sample and hypotheses to be tested, while section IV reports the key results. The conclusion in section V reports the main findings and some considerations.

I. *Review of literature*

The extensive literature on this subject focuses on three equally significant areas in terms of this empirical study.

The first group reviews the issue of monitoring and control of private equity deals by venture capital investors. On the one hand, it highlights the features of the relationship binding this type of financial intermediary to firms financed or eligible for financing, on the other, the tools that can be used to overcome problems concerning information that occur in all deals of this type.

The second group starts out from considerations made in the first group and analyzes the effects of one of the possible solutions that can be adopted, namely, defining specific rules and structures as regards corporate governance to aid monitoring and control activities by private equity operators. In particular, the analysis concentrates on the size and composition of boards, their tasks and also the characteristics of board members. Finally the third group focuses on the role of independent directors on boards, emphasizing their contribution in terms of overall performance of the financed firm, but also the difficulties that can be encountered when defining and analyzing such a specific issue.

A. Problems of relationships in private equity operations

Relations between financial intermediaries and firms are marked by certain underlying problems that operators are forced to resolve in order to develop a satisfactory medium/long-term relationship and, above all, to avoid inefficiencies as regards both definition of financial products and instruments and maximizing results. Limiting the analysis to the fields of venture capital and private equity highlights many problems: information asymmetries and debatable allocation of efforts, risk estimates, and valuation of the financier's commitment to the development of the firm. The academic world was the first to analyze the nature and origin of problems concerning relations between venture capitalists and firms, and as a consequence underlined the importance of aspects such as monitoring and control of investment operations. It then went on to make in-depth studies of solutions identified and implemented by financial intermediaries during the process of acquiring, selecting, managing and disposing of investments.

Monitoring and control activity performed by banks is typically far less intensive than that of venture capitalists and focuses on avoiding or minimizing bad outcomes.[1] In fact banks mostly monitor for covenant violations, deteriorating performance or worsening collateral quality that might jeopardize their loan; they exercise control by threatening to force default and possible liquidation. By contrast, as documented by Sahlman (1990), venture capitalists often hold seats on a borrowing firm's board with voting rights far in excess of their cash flow rights and may even have the contractual right to replace the entrepreneur by a new manager if covenants are broken.[2]

Schmidt (2003) set out to define a model establishing the entrepreneur and financier's efforts as regards achieving the final result and found there was a greater commitment on the part of private equity operators in the "best" and "worst" situations, that is, in the extreme scenarios, whereas entrepreneurs were more involved in ventures under normal conditions. Given this, Schmidt believes monitoring and control activity cannot be generalized and that the terms established contractually between the parties depends on expectations concerning the project.[3]

In an empirical test report, Kaplan and Stromberg (2001) show that bank loans usually take the form of pure debt while venture capitalists almost always employ convertible securities or a combination of debt and equity. The authors explain that this choice is in line with venture capitalists' greater need to resolve problems of information asymmetry and that the aim of subscribing convertible instruments is to reduce opportunistic behavior on the part of entrepreneurs to a minimum.[4]

Gebhardt and Schmidt (2006) sustain that the most suitable contract form to resolve conflicts of interest between most entrepreneurs and venture capitalists consists of a combination of convertible securities and contingent control rights. This solution, moreover, is particularly suitable for financing young and highly risky companies because it manages to reduce information asymmetries and opportunistic behavior.[5]

Isaksson et al. (2004) investigated and found causes that generate a contract and the use of such covenants,[6] while Klausner and Litvak (2001), Litvak (2004) and Bienz and Hirsch (2005) studied the clauses included in contracts. Generally speaking, all studies find that it is impossible to identify a standard contract or conventional formula applicable to all venture capital investments or even to the majority of them.[7]

B. Corporate governance used as a control tool for private equity

Empirical evidence shows that one of the options adopted by venture capitalists to manage and monitor their investments in firms is to exercise direct control by having their own board member. There has been considerable research in the corporate governance field although focus on the private equity world has emerged in recent years. Usually the aims of empirical studies are to verify the effective degree of use of corporate governance levers as a control tool, the way venture capitalists intervene in firms and the effects of the various solutions that can be implemented on venture capital-backed firms and their boards. Furthermore, there are more specific areas of study, for instance, the role of independent directors, the development of governance in venture capital-

backed firms, the role played by regulations and their impact on firms that, in addition to defining the venture capitalists" role more specifically as regards a firms decisions, are also more appropriate to gaining an understanding of relationships between financing and financed parties.

Gabrielsson and Huse (2002) indicate that venture capitalists persistently use boards for the management of their portfolios. Also, boards in venture capital-backed firms are more active than boards in other firms, even if the venture capitalist and the entrepreneur-owner-manager of the portfolio firm may have diverging expectations as regards board roles. All of this confirms the original idea that, unlike other financial intermediaries such as pension funds and banks, venture capitalists are active investors.[8]

Van Den Berghe and Levrau (2002) produce an overview of monitoring performed by venture capitalists and noted the following four ways such activities can be implemented, that is, through:

- shareholder agreements[9]

- differentiated shareholder rights[10]

- board membership[11]

- relationships with management[12]

Having said this, it must be emphasized that only the last two seem effectively capable of ensuring improved final results. According to the authors, furthermore, many venture capitalists (or their delegate-directors) perform more than the conventional tasks described in the different corporate governance codes and recommendations, and play an active role in human resources, merger and acquisitions and reporting systems.[13]

Hochberg (2005) examines the role of the venture capitalist in corporate governance of the newly launched public firm, comparing governance-related and monitoring-related variables for venture capital-backed and non-venture capital-backed firms. The findings are consistent with a role for venture capital in the governance and monitoring of IPO firms and, in particular, firms with venture-capital financing have more independent boards and committees than do similar non-venture capital-backed firms, and are less likely to have a dual CEO/chairman.[14]

Klein (1998) studies the relationship between a firm's performance and tasks of board members.[15] In general he finds little association between a firm's performance and overall board composition.[16] However, by examining the inner workings of the board via board committee composition, he reveals significant ties between performance of firms and how their boards are structured. According to this point of view, independent members/directors or independent directors are not a means to boost the performance of firms, but only "tools" used by venture capitalists to control and monitor their investment.

Allen and Song (2002) propose a country analysis of relationships between venture capital and corporate governance.[17] They find that venture capitalists seek to invest in countries with better creditor protection as opposed to shareholder protection (which is more relevant for publicly traded firms). The also discover that relationships can be a substitute for contracts with this type of financing.[18] (In fact, there is a negative relationship between the rule of law and venture capital development.)[19]

C. Independent directors, board structure and private equity

There are not many studies focusing on corporate governance structure and use of independent directors. The corporate governance approach is relevant for investors when it can improve a firm's performance. The debate on closed-end funds and their management of venture capital-backed firms started with Lerner (1996) and moved ahead with empirical evidence, almost all related to the US market: Gompers and Lerner (1998; 2000), Gottschalg et al. (2004), Hellmann et al. (2004), and Kaplan and Schoar (2005). In a very recent work, Lerner et al. (2005) looks more closely at the characteristics of boards of directors in venture capital-backed firms to see if there was specific evidence determining investor choices over a long-term investment horizon. However, there is still no hard evidence defining the true performance profile of independent members.

From a broader standpoint, certain empirical evidence can be mentioned concerning the role of independent directors and their behavior which we believe is useful to gain a better understanding of this issue.

Fich and Shivdasani (2006)[20] propose an in-depth analysis of "busy boards" and show that weak corporate governance or monitoring is related to the presence of directors involved in more than three boards.[21]

Belkhir (2004) investigate the relationship between board size and performance in a sample of banks and savings-and-loan holding companies. Contrary to theories predicting that smaller boards of directors are more effective, he finds that increasing the number of directors in banking firms does not undermine performance. In particular, he thinks that performance and corporate governance are not as closely linked as previous studies declare (Lipton and Lorsch (1992); Jensen (1993)) and that the number of directors is the effect of performance and not the contrary. In any case, Belkhir's results show that there is no negative relation between board size and performance in banking.[22]

Bhagat and Black (2002), starting from the assumption that a "monitoring board" composed almost entirely of independent members is an important component of good corporate governance, analyze a wide sample of US firms and find no supporting evidence for this conventional wisdom. In particular, firms with more independent directors do not perform better than other firms over the long term.

Hooghiemstra and Van Manen (2004) study independent directors as regards their role and what effective degree of independence they have. They affirm that although the majority agreed that monitoring is the main duty of independent directors, there are some doubts as to whether they can perform this "watchdog role" effectively. The primary limitation is pinpointed as being asymmetry of information that leads to the so-called "independence paradox": to obtain adequate information, non-executives are dependent on the executives they are supposed to supervise and be independent from. Unfortunately, the authors do not suggest any solutions for this situation.[23]

Leblanc and Gillies (2003) look again at some existing findings on corporate governance and directors. They argue that a rather non-homogeneous classification continues to exist because what are considered "external" directors are defined in various manners (for instance, unrelated, independent, outsider), depending on the degree of independence conceived by the regulator drafting the regulations or by parties involved in a contract (i.e. venture capital investors). For this reason the authors conclude by suggesting a new methodology, which assumes that a board's effectiveness is a function of the effectiveness of a director that, in turn, depends on independence, competence,[24] and behavior.

Roberts et al. (2005) review findings of major empirical studies concerning the effective ability of agency and stewardship theories[25] to explain the decision for corporate governance, showing that many critics exist. They propose a new approach to explain the role of non-executive and independent directors based on attitudes, behavior and skills, underlying the elements of control and collaboration too.[26]

Gillan et al. (2003) provide arguments and evidence that corporate governance structures are endogenous responses to the costs and benefits firms face when they choose the mechanisms that comprise those structures. In particular, corporate governance structures differ systematically across industries and firms due to differences in the costs and benefits of the monitoring mechanisms. Their findings are significant because they confirm the importance of different elements in the firm's governance structure. They also suggest that regulatory actions applying a one-size-fits-all criterion may be sub-optimal, and increase contracting costs for some firms.

II. Who should be defined as an "independent director"? An overview from around the world

In their initial work, Clifford and Evans (1997) study the disclosure requirements to be implemented in Australian companies in order to provide a more in-depth description of non-

executive directors. In accordance with Baysinger and Butler's findings (1985) they identify a three-scale classification system for directors (insider, grey-area, outsider) to better reflect board composition. Their results indicate that 35% of non-executive directors were involved in transactions with their companies, which potentially threatened their independence (i.e. gray-area directors). On average, the findings reveal that a combination of insider and grey-area directors constituted a majority of the board.[27]

Young (2000) proposes a study of non-executive directors in UK firms and notes that the use of this kind of governance scheme is steadily increasing. Nevertheless, he underlines that not all non-executive directors present are comparable in terms of their role, characteristics, involvement, etc.

Long et al. (2005) pursue the older work by Young and showed that in unlisted firms, non-executive directors have a greater degree of involvement in strategic development, financial monitoring, shareholder communication and overall board contribution than on listed-firm boards. However, they have a lesser degree of involvement in the monitoring of management, the setting of executive remuneration, the appointment and removal of executives, and succession planning.

Becht (2002) summarizes theory as regards the figure of independent directors and emphasizes that their presence in broad shareholder-base corporations reduces the danger of capture by the CEO/management, self-serving remuneration, self-perpetuating boards and self-serving related party transactions. On the other hand, in block-holder controlled corporations independent directors protect minorities by providing a counterweight against the block-holder appointed directors or by being the pivotal voter.[28]

A recent article in the Harvard Law Review proposed an interesting interpretation of independent directors and board independence topics. In the authors" opinion, regulators, commentators and courts have all used "independence" to mean different things at different times for different reasons. By looking at underlying policies these definitions contemplate three broad categories: the independent director as a "disinterested outsider", the independent director as an "objective monitor" and the independent director as an "unaffiliated professional".

Empirical studies indicate different roles and types of independent directors, also because of variables that the various authors consider as the basis for their analyses in each study. Here, a review is made of principles and regulations in force in several countries in order to arrive at an acceptable definition of independent director from a scientific standpoint.

In 2002, a comparative study on behalf of EU Commission showed that regulating the issue of independent directors was usually resolved by resorting to principles and codifying regulations as opposed to passing laws. Even more to the point, the codes themselves were normally based on more general stock exchanges regulations. Nevertheless, in most (if not all) countries, these directives are taken into account by non-listed firms or SMEs as instructions or guidelines for improving their corporate governance.

The empirical study shows general agreement as regards codes that the presence of a significant proportion of non-executive directors is necessary if both the supervisory board and unitary board are to perform their supervisory duties. These directors are individuals who lack close ties with management, controlling shareholders and the company. However, there is no real consensus on the proportion of executive and non-executive directors - and, within the latter category, independents, or on the definition of an independent director.

While the concept of director independence is similar in many codes, definitions of independence itself vary and this could condition final judgment. Having said this, individuals with the following characteristics are often judged not to be independent by codes: present or former executives of the company or executive or board members of an associated company (subsidiaries, etc.), a close family member of an executive; a controlling or dominant shareholder; an executive or board member of an entity that is a controlling or dominant shareholder; an individual with business, financial or close family ties with a controlling or dominant shareholder; a major supplier of goods or services to the firm (including advisory or consulting services); a person having any other type of relationship that might interfere with the exercise of objective judgment.

After this comparative study, which highlighted a lack of homogeneity among countries, three important documents caught the attention of the entire market: the 2004 OECD principles of corporate governance, then in 2005, the EC Recommendation on the role of non-executive or supervisory directors of listed companies, and the ICGN statement on global corporate governance principles. The objective of these provisions concerning independent and non-executive directors was to offer the market a more precise definition and a more or less comprehensive list of parameters to provide a profile for individuals occupying the roles concerned.[29]

TABLE 1 ABOUT HERE

At a market level, the OECD and EU documents are of fundamental importance inasmuch as they provide a uniform interpretation and a much more precise definition of the concept of independence. Furthermore, it should be emphasized that on the wave of this type of intervention many codes of self-regulation or corporate governance (including those applied in Italy) were reviewed and revised based on indications given in these documents.[30] Today the definition of independence in the various codes of self-regulation tend to be similar, while still leaving boards free to make an evaluation on a case by case basis. In effect, the content of the various codes can be considered more of a guideline rather than a mandatory rule.

Given the empirical evidence and level of homogeneity existing today as regards the concept and definition of independence, this paper will use definitions given in the Italian code of governance issued by the Milan Stock Exchange (or Borsa Italiana),[31] not only used by listed companies but also by major unlisted ones and SMEs in order to organize and define criteria for corporate governance. According to article 3.C.1 of this code, the board of directors should evaluate the independence of its non-executive members "based primarily on substance as opposed to form", defining cases in which an individual can never be considered independent.[32]

III. Sample and testable hypotheses

Our empirical investigation uses an extremely exhaustive database covering the Italian private equity market. The quality and originality of this data is important given that officially there is no such comprehensive database in Italy. In addition, the period chosen represents almost the entire history of Italian closed-end funds. Before 1999 there were very few funds or investments of this type; in fact, the first is dated 1995.

Data were collected by means of a questionnaire sent to 58 Italian private equity firms, which represent the entire universe of private equity management companies operating before 1999 and that managed all 87 closed-end funds available up to and during 1999. All firms were contacted and provided requested data, signing an agreement that we would not disclose the data to other parties. None of these firms is totally dedicated to start-up financing; in fact, this type of financing represents only a small part of closed-end fund portfolios – a traditional feature found in Italy and most other European countries, except for the UK.

The 5-year study period runs from 1999 to 2003. We decided that private equity firms and funds launched after 1999 would be excluded in order to avoid all risks associated with gathering only partial data, given that the time horizon for closed-end fund investments can be as long as 5-7 years. A total of 987 operations were reviewed from which 698 were used for the purpose of this study as they represent investments made and closed through exit-way (or also write-off) within the 1999-2003 timeframe. The remaining 289 operations are deals in progress; these were not used because they have no final value, so final performance of the deals concerned could not be calculated.

The following details were made available for all private equity firms[33] in the study: i) the structure of ownership and board of directors; ii) the number of funds and relevant amounts; iii) balance sheets.

Information available for each closed-end fund were: i) the number and typology of each single investment (balance sheet of the firm, size of the investment, activity sector); ii) the board structure in terms of name and profile of each board member; iii) the internal rate of return for the investment

itself. The names of directors sitting on boards were classified as independent or otherwise and were matched against three official databases[34] in order to determine the number of other directorships held in other firms or institutions.

The review of each of the 698 investments provided details concerning a significant number of variables. All elements investigated can be subdivided into several clusters: (a) characteristics of individual private equity deals; (b) characteristics of the closed-end fund and its manager; (c) characteristics of governance of firms receiving funding; (d) characteristics of the external environment.

(a) Characteristics of individual private equity deals

This cluster includes variables concerning aspects characterizing individual investments made by venture capitalists. In particular:

– G-INVIRR: the gross internal rate of return measured from the starting point of the investment to the exit

– Y-INVIRR: the annual rate of return for the investment measured from the starting point of the investment to the exit

– HOLD-PER: the holding period for the investment

– START: the starting year of investment for the closed-end fund

– The investment exit-way:

• E-TRADE: when the exit strategy is between the private equity operator and other financial investors or entrepreneurs

• E-IPO: when the exit strategy is to list the firm on a domestic or foreign stock exchange, independent of the closed-end fund's decision to either sell or retain shares

• E-WOFF: when the exit strategy is a write-off of the investment as the firm concerned has gone bankrupt

– The kind of initial investment:

• K-EARLY: a private equity investment that concerns seed capital or start-up financing

- K-EXP: when the private equity operator provides capital to the company to facilitate its growth and development objectives: in particular, in order to develop additional production capacity, product diversification, market expansion or to provide working capital

- K-BUYOUT: when the private equity investment concerns funding the purchase of a company or a controlling interest in a corporation's shares. Buy-out also concerns the purchase of listed shares for the purpose of de-listing the company

- K-TURN: private equity financing for a company that, having overcome difficulties (i.e. turnover problems), again intends to develop its business positively

– I-SIZE: the size of the investment in millions of euros

– %-SHARE: the percentage of shares in firms owned by the closed-end fund

(b) Characteristics of the closed-end fund and its manager

This cluster includes elements studied concerning the institutional nature of the venture capital investor.

– NAMEFUND: the name of the closed-end fund

– F-SIZE: the size of the closed-end fund in millions of euros

– I-NUMBER: the number of investments made by the closed-end fund

– MCO: the owner of the closed-end fund (an MCO could own more than one fund)

– The MCO's shareholders:

- %MCO-FI: the percentage of an MCO's shares held by banks and financial institutions

- %MCO-PI: the percentage of an MCO's shares held by private investors

- %MCO-IND: the percentage of an MCO's shares held by industrial or service companies

- %MCO-PA: the percentage of an MCO's shares held by public authorities or public entities

- %MCO-OTH: the percentage of an MCO's shares held by other parties

(c) Characteristics of governance of firms receiving funding

This cluster includes the distinctive elements of firms receiving funding from venture capitalists, especially items that can have a significant impact on the overall performance of deals.

- – N-INV: the name of the firm that receives the funds

- – NUM-DIR: the number of independent and other directors

- – TOT-DIR: the total number of people sitting on the firm's board of directors

(d) Characteristics of the external environment

In this cluster are relevant environmental variables not related to the venture capital investor or firm that receives financing. The elements selected are those that could possibly affect and/or emphasize the trend of a private equity deal.

- – G-IRRMKT: the gross internal rate of return for the investment on the domestic stock exchange, calculated from the starting point to the end of the private equity operation

- – Y-IRRMKT: the annual internal rate of return for the investment on the domestic stock exchange, calculated from the starting point to the end of the private equity operation

- – FREE: the risk-free rate measured at the time of the investment, calculated by using the average rates of return on all 2-year Italian Government Bonds

In the case of independent directors, additional data were gathered by means of direct interviews with the 58 private equity firms. These data regarded the agenda and commitments of these individuals, characteristics of the relationship linking them to the deal and venture capitalist and, lastly, how they behaved in relation to the firm financed. In effect we opted to use several proxy measurements as there was no way of measuring these variables directly. The first variable quantified was how many times the individual concerned attended the firm's board meetings. Our rationale was that more frequent attendance leads to greater care taken during monitoring and control activities concerning a deal. The second aspect was to check if there was a contractual clause linking the duration of the relationship between the management company and independent

director to the duration of the deal. And lastly, for the third aspect we decided to use an explicit variable, namely, remission of the mandate with the firm financed and/or resignation by the independent director.

Data gathered for each deal in which an independent director was involved concerned:

– B-CNMCd: the cumulative number of board meetings attended of the management company during the period of observation. The aim was to see if busy directors generated poorer performance than less busy ones.

– B-CNMCb: the cumulative number of memberships on boards of the management company before the period of observation. This item had to be measured to determine if an independent director's past involvement with the management company affected performance of the investment. (This variable is a proxy to determine if turnover among independent directors existed or ought to exist to improve performance.)

– B-CNF: the cumulative number of board meeting attended of firms owned by the closed-end fund during the period of observation. In this case the aim was to see if there was a closer relationship between the management company and the independent director. Compared to B-CNMCd above, here the focus was to find evidence regarding the use of independent directors for private equity investments only.

– B-TM: the presence of a synchronism of maturity between the boards of directors of the management company and firms owned by the closed-end funds. This concerns the independent director's role and motivation: if the relationship with the management company terminates when the investment closes, this will motivate directors to do their best to maximize final performance. Moreover, if a synchronism exists and is statistically important it could be claimed that independent directors are selected with a view to protecting investments only.

– B-VE: the voluntary termination of the director's mandate on the board of owned firms before the expiry date for the board. This item investigates if independent directors sit on boards without regard to how investments perform.

The aim was to test the following:

1) Contribution of a deal's characteristics to final performance:

The aim here was to test which variables concerning the deal, closed-end fund and its manager, governance of the firm being funded and external conditions can have a significant impact on final performance of investments made by venture capitalists.

2) Contribution of independent directors to final performance:

This was to test if final performance of closed-end fund investments is affected by the presence of independent directors on the boards of firms concerned.

3) Impact of variables concerning presence/absence of independent directors:

The aim was to compare the impact of the various variables explaining performance in deals where independent directors were and were not present on boards.

4) Contribution of subjective characteristics of independent directors to a deal's final performance:

In order to understand the effectiveness of using independent directors a test was made of how much subjective and personal items affected investment performance.

TABLE II ABOUT HERE

Table II summarizes certain data concerning the entire sample. It can be noted that the average annual rate of return for investments is 11.67%, however, there is a great difference between types of operation. The surprising datum concerning early-stage financing profit could be linked to inexperience of Italian financial institutions in this field or the time horizon selected.[35] The size of investment varies considerably and is particularly low for early-stage financing, whereas the

holding period (except for early-stage financing) and proportion of the firms' shares held are similar. We can see that in the Italian context, expansion investments represent the most frequent kind of private equity deal while trading shares is the most recurrent exit-way.

The next aspect investigated is the relationship between independent and other directors. Table III summarizes the most interesting data.

TABLE III ABOUT HERE

Of the 698 investments, 316 are independent-director cases and 382 are non-independent cases. These data show the importance of independent directors in Italian venture-backed firms: in fact, in 45.72% of the whole sample there are board members with no direct ties to the financial institution providing the funding. This finding would seem to be consistent with the private equity business and the value that reputation and autonomy have in the development of relationships and funding actions. Moreover, it should also be remembered that private equity is a skill-based business and the choice of independent directors could be to compensate for a lack of competency or know-how within the financial institution.

Table III shows that when there is an independent director on a board, the most likely exit-way is an IPO. Although the exit strategy could not be established with certainty at the entry date, private equity operators tend to use independent directors if they foresee the opportunity of a stock market launch. This decision also ties in with the need for autonomy and monitoring of firms required by stock markets, based on the assumption that independent directors are better placed to ensure this as their potential for conflicts of interest is lower. Moreover, the presence of an independent director improves a closed-end fund's reputation and standing, and recourse to such individuals is usually exploited in these situations because the IPO exit-way means the firm and financial institution will have much greater visibility.

As regards the average investment size, t-test results don't suggest hypotheses concerning a relationship with presence of independent directors. Therefore, preference for non-independent or independent directors does not seem to be related to the amount funded. Nevertheless, Table III shows that the average investment for a buy-out managed by independent directors is two and a half times the size of the average investment. In similar operations managed by non-independent directors, instead, the financial institution tends to fund just over double the average investment. From a management point of view this could mean that in operations like buy-outs, which call for precise and distinct skills, closed-end funds prefer to rely on experts sourced from outside their organization, especially when the amount funded is high.

As for the effect of the kind of investment, descriptive statistics show no differences between independent and non-independent cases. However, this does not conclusively prove that selecting either independent or non-independent directors is not a central issue. Results obtained in statistical tests to identify differences in average values for the entire sample, or for individual types of investment, are insufficient to identify a clear scenario in which independent directors are used. In fact, from a statistical standpoint the results are meaningful in terms of differences in returns obtained in early-stage financing deals and in the shareholding acquired by venture capital investors in buy-out and expansion financing operations.

IV. Results

The hypotheses mentioned in the previous section were tested using a statistical multivariate linear regression model to pinpoint the most significant variables, on the one hand, and, on the other, to maximize the quality of regression itself. The dependent variable used to obtain the results shown was Y-INVIRR (that is, the annual rate of return for the investment measured from the starting to the exit point of the investment), whereas different independent variables were used depending on the hypothesis being tested. However, it should be noted that also using the so-called excess return,

that is, Y-INVIRR net of FREE, the results obtained do not differ significantly from those using the original model.

From an analytical standpoint the model used can be represented as follows:

$$Y = \alpha + \sum_{i=1}^{n} \beta_i * X_i + \varepsilon \qquad [1]$$

where *Y* represents the values for Y-INVIRR (when appropriate, also net of FREE) and X_i represents the values for other variables taken into account.

The aim of the first test performed was to verify the importance of investment characteristics, that is, to test Hypothesis 1. In addition to variables mentioned previously, in this test a further one was added, defined as TYPE, which identifies if the director is non-independent or independent. (This is a dummy variable with a value of 0 if the director is non-independent and 1 if independent.) In this sense, therefore, an attempt was made to test if the deal's performance was significantly linked to the type of person sitting on the firm's board (that is, Hypothesis 2).

The equation capable of maximizing R^2 while eliminating any problem of self-correlation between explicative variables is as follows:

$$Y_{IY-INVIRR} =$$
$$\alpha + \beta_{FREE} * X_{FREE} + \beta_{Y-IRRMKT} * X_{Y-IRRMKT} + \beta_{E-IPO} * X_{E-IPO} + \beta_{E-WOFF} * X_{E-WOFF} +$$
$$\beta_{K-EARLY} * X_{K-EARLY} + \beta_{K-BUYOUT} * X_{K-BUYOUT} + \beta_{K-TURN} * X_{K-TURN} + \beta_{\%-SHARE} * X_{\%-SHARE} +$$
$$\beta_{\%MCO-FI} * X_{\%MCO-FI} + \beta_{\%MCO-PI} * X_{\%MCO-PI} + \beta_{\%MCO-IND} * X_{\%MCO-IND} + \beta_{\%MCO-PA} * X_{\%MCO-PA} +$$
$$\beta_{\%MCO-OTH} * X_{\%MCO-OTH} + \beta_{HOLD-PER} * X_{HOLD-PER} + \beta_{TOT-DIR} * X_{TOT-DIR} + \beta_{TYPE} * X_{TYPE} + \varepsilon$$

TABLE IV ABOUT HERE

Table IV shows that very few variables are effectively capable of making an impact on performance and that the presence of an independent director is not one of them. In this sense, therefore, Hypothesis 2 is not proven. On the other hand, the data would seem to confirm Hypothesis 1, given that the deal's characteristics are statistically significant in explaining investment performance. An

exit-way by share listing or write-off of the operation affects the final return for the deal, respectively, either positively or negatively. Shares held and the holding period both show an inverse-type relationship to final returns: lower shareholding and a shorter shareholding period leads to higher final performance. These results, furthermore, are in line with venture capital investor expectations, who are usually on the lookout for projects that are self-sustaining (that is, require very low financial resources) and which produce results right from the start (therefore, with a very short period to reach maturity).

In order to verify the statistical non-significance of independent directors and increase the model's overall explicative capability, the same model was applied separately for investments managed with recourse to independent directors and those managed by individuals within the management company.

To test Hypothesis 3 we verified whether performance of deals when independent and non-independent directors were present could be attributed to the same factors. The results obtained are shown in Table V. From a strictly analytical standpoint, the following model was applied. It is nearly identical to the previous one with the exception of an explicative variable, namely, I-SIZE that replaces TYPE, which is no longer necessary given that the test concerns two subsets that have already been divided.

$$
\begin{aligned}
Y_{IY-INVIRR} = & \\
\alpha + \beta_{FREE} * X_{FREE} + \beta_{Y-IRRMKT} * X_{Y-IRRMKT} + \beta_{E-IPO} * X_{E-IPO} + \beta_{E-WOFF} * X_{E-WOFF} + \\
& \beta_{K-EARLY} * X_{K-EARLY} + \beta_{K-BUYOUT} * X_{K-BUYOUT} + \beta_{K-TURN} * X_{K-TURN} + \beta_{\%-SHARE} * X_{\%-SHARE} + \\
& \beta_{\%MCO-FI} * X_{\%MCO-FI} + \beta_{\%MCO-PI} * X_{\%MCO-PI} + \beta_{\%MCO-IND} * X_{\%MCO-IND} + \beta_{\%MCO-PA} * X_{\%MCO-PA} + \\
& \beta_{\%MCO-OTH} * X_{\%MCO-OTH} + \beta_{HOLD-PER} * X_{HOLD-PER} + \beta_{TOT-DIR} * X_{TOT-DIR} + \beta_{I-SIZE} * X_{I-SIZE} + \varepsilon
\end{aligned}
$$

TABLE V ABOUT HERE

Differentiated application of the model highlights the different ability of independent variables to affect a deal's performance, but also the different role of independent directors in specific

operations. Specifically, the first interesting datum is R^2 which despite showing very good values in both regressions, at the same time seems very different in the two simulations performed. From the point of view of this paper, our explanation is the different role played by the two types of directors, which cannot be explained solely in terms of final performance. In other words, recourse to independent directors is the result of forces brought about by different variables from the ones identified and, probably, variables of a financial nature within the private equity operator organization.

Performance of investments managed through independent directors is explained by the same variables mentioned previously, even though at least two specific factors must be emphasized: first, the lesser statistical significance of the %-SHARE variable; second, the greater impact of exit-way. (In this case coefficients are higher both in the presence of IPO and WRITE-OFF.) Data in the table also confirm that independent directors are able to contribute more to performance in projects requiring very specific skills, such as buy-outs or turnarounds. Both variables have a favorable impact on performance, whereas if the same investments are coordinated and controlled by non-independent directors final performance is affected negatively. It must be emphasized, however, that these values are not significant from a statistical standpoint and so cannot be considered fundamental in explaining the performance of deals.

With reference to non-independent directors, the %-SHARE variable is not significant, while at the same time size of the investment is positively linked to final return. All of this suggests that when a management company believes an investment can be managed through a non-independent director it tends to allocate much of the available resources to it (implicitly confirming values produced by the descriptive statistical analysis).

To test Hypothesis 4 reference was made only to operations managed through independent directors. The statistical model was the same as used in previous tests but with certain rather important changes. Variables concerning composition of the management company's shareholders were eliminated; in fact, they make no significant contribution to explaining performance and do

not increase the regression model's explicative capability. These variables have been replaced by variables associated with the characteristics of independent directors, as detailed previously.

Analytically speaking, the model used was as follows:

$$Y_{IY-INVIRR} =$$
$$\alpha + \beta_{B-CNMCd} * X_{B-CNMCd} + \beta_{B-CNMCb} * X_{B-CNMCb} + \beta_{B-CNF} * X_{B-CNF} + \beta_{B-TM} * X_{B-TM} + \beta_{B-VE} * X_{B-VE} +$$
$$\beta_{FREE} * X_{FREE} + \beta_{Y-IRRMKT} * X_{Y-IRRMKT} + \beta_{E-IPO} * X_{E-IPO} + \beta_{E-WOFF} * X_{E-WOFF} +$$
$$\beta_{K-EARLY} * X_{K-EARLY} + \beta_{K-BUYOUT} * X_{K-BUYOUT} + \beta_{K-TURN} * X_{K-TURN} + \beta_{HOLD-PER} * X_{HOLD-PER} +$$
$$\beta_{TOT-DIR} * X_{TOT-DIR} + \beta_{I-SIZE} * X_{I-SIZE} + \beta_{\%-SHARE} * X_{\%-SHARE} + \varepsilon$$

The results obtained are shown in Table VI below.

TABLE VI ABOUT HERE

Variables linked to independent directors improve the model's explicative capability, in practice confirming Hypothesis 4 and highlighting how the commitment and involvement of these directors affects performance.

Of the five variables defined previously only two have a significant impact on performance: B-VE (voluntary termination of the mandate) and B-CNF (cumulative number of memberships on boards of firms owned by the closed-end fund). The first shows an inverse relationship to final return and suggests independent directors terminate their mandates when performance is unfavorable and, implicitly, this confirms that they don't sit on boards and ignore performance trends. The second variable, on the other hand, is linked positively to the investment's final performance. This means that performance is seen to improve with an increase in a director's presence on boards of companies in which the closed-end fund has invested. In practice, an independent director who has a good feel for companies in which the fund has an interest can improve overall performance of deals. This is very likely due to an ability to create a network of skills and manage similar projects or, in any event, those associated with a single instrument. In addition, people who are forced to

assess their performance based on a sole point of reference (that is, from the closed-end fund's standpoint) will have an incentive to do their best to improve final performance.

The descriptive statistical analysis shows that results vary very considerably, both in terms of performance of deals managed through independent and non-independent directors. For this reason we decided to investigate the explicative capability of certain variables in greater depth in cases of very high and extremely low performance levels. In this sense the same analyses used to test Hypothesis 4 were subdivided based on deciles and quintiles of return.

From an analytical standpoint, the model used is not very different from the previous ones and takes into account 16 variables. However, we should emphasize that the entire set was not used in the various proposed simulations. In effect, when one of the variables does not measure a phenomenon that helps explain the performance of a deal then regression cannot be carried out. In other words, regression can only be set up correctly when the explicative factor appears in at least one of the final data available.

$$Y_{IY-INVIRR} =$$
$$\alpha + \beta_{Y-IRRMKT} * X_{Y-IRRMKT} + \beta_{FREE} * X_{FREE} + \beta_{E-IPO} * X_{E-IPO} + \beta_{E-WOFF} * X_{E-WOFF} +$$
$$\beta_{K-EARLY} * X_{K-EARLY} + \beta_{K-BUYOUT} * X_{K-BUYOUT} + \beta_{K-TURN} * X_{K-TURN} + \beta_{I-SIZE} * X_{I-SIZE} +$$
$$\beta_{\%-SHARE} * X_{\%-SHARE} + \beta_{HOLD-PER} * X_{HOLD-PER} + \beta_{TOT-DIR} * X_{TOT-DIR} +$$
$$\beta_{B-CNMCd} * X_{B-CNMCd} + \beta_{B-CNMCb} * X_{B-CNMCb} + \beta_{B-CNF} * X_{B-CNF} + \beta_{B-TM} * X_{B-TM} + \beta_{B-VE} * X_{B-VE} \varepsilon$$

As we expected, the results obtained lead to some very interesting considerations.

TABLE VII AND VIII ABOUT HERE

The data reported in the table show that variables concerning the characteristics of independent directors are particularly significant when return on investments is not very impressive. In addition, the model adopted and independent variables are better for explaining negative performance. Analyzing the performance of the top 10% of investments clearly shows that the 5 variables associated with independent directors have no statistically significant impact. The exception is B-

CNMCd (the cumulative number of memberships on boards belonging to the management company during the period of observation), with a 10% level of significance, which shows that busy directors perform better than others. However, while this variable confirms its relationship with final performance it does not hold true when the first 20% of values are analyzed; for this reason it is not sufficiently strong.

Moreover, again with reference to this subset, the holding period is not important in terms of the final result. Very likely this can be explained by the fact that the best projects appeal to the market on an ongoing basis and can remain in portfolio or be sold without having any particular effect on the closed-end fund. Such a fund, on the one hand, benefits from periodic results or alternatively from capital gains.

Moving on to the analysis of the worst performers, certain variables linked to the specific characteristics of independent directors are important: B-CNF (cumulative number of memberships on boards of firms owned by the closed-end fund) and B-VE (voluntary termination of the director's mandate), as was already highlighted in the overall analysis. What is truly surprising is not the significance of one variable or another, but rather the relationship of the B-VE to final performance for the closed-end fund's investment. Looking again at the data presented in the two previous tables, we can deduce that the relationship between Y-INVIRR and the 5 variables concerning the commitment and involvement of independent directors does not follow a common path.

TABLE IX ABOUT HERE

It can certainly be asserted that independent directors who terminate their mandate with the management company (B-VE) do so when performance is negative. In this sense, as already mentioned previously, independent directors act in a manner consistent with their role and withdraw from deals that they are unable to make perform satisfactorily.

The conclusion is equally certain as regards turnover (CNMCb), that is, a director serving a number of roles, to the point of being seen as an ongoing presence. If an independent director is already very much involved in the management company organization before the investment then performance of the deal is lower. All of this points to the need for a high turnover of independent directors in order to stimulate performance and avoid the possibility of lax decisions.

While not as certain as the previous cases, also the synchronism of maturity between the boards of directors of the management company and firms owned by closed-end fund (B-TM) is important. The presence of clauses in this regard leads to improved performance.

There is some doubt as to the interpretation of the role played by so-called " busy directors" who, in this empirical test are taken into account with reference to the specific closed-end fund or the management company. As regards the specific commitment with the closed-end fund measured by means of the variable B-CNF, we can state that independent directors make a contribution when the scenario is negative whereas their presence does not maximize results when the trend is positive. In this sense, therefore, directors who work for the fund, on the one hand, do not increase profitability but, on the other, do tend to avoid losses. This behavior is completely understandable because a loss (or a less than positive result) would reflect badly on the image of the directors concerned.

The variable CNMCd measures the independent director's overall involvement with the management company and the results obtained are completely opposite to the previous ones: there is an extremely positive direct relationship with Y-INVIRR and an inverse one if performance is negative. This suggests the following type of behavior: when deals are generating negative results independent directors tend to focus on other assignments outside the fund and not on the investment concerned, and no longer commit their contribution.

V. Conclusions

The paper focuses on factors that explain the performance of investments made by Italian closed-end funds between 1999 and 2003, especially the contribution made by independent directors. Our

take off point is the observation that empirical evidence focusing merely on financial aspects does not provide a definitive picture of the characteristics these individuals should possess, or the tasks they should undertake on the board. We then tackled the issue by referring to the various regulatory and/or juridical definitions for independent directors found in various countries. In this case, we noted a certain degree of similarity among the various definitions, thanks also to moves towards harmonization requested by EU Directives and cooperation between several countries. Based on this, we decided to use the definition provided by Italian regulations, given that it is not significantly different from that in force in many other countries (including countries outside the EU).

Seeing as there is no database for private equity investments in Italy, we used information gathered from 58 operators managing 87 closed-end funds. We compiled a set of 698 deals that took place between 1999 and 2003, effectively representing the entire universe of operators and instruments existing in Italy in 1999. A series of very specific data was then requested and obtained for these operations. Further, a wide-ranging set of variables was collected for each operation: characteristics of the deal (i.e., return, exit-way, holding period), characteristics of the external environment (i.e., interest rate for risk-free investments, rate of return in the stock market), characteristics of the closed-end fund and its manager (i.e., number of investments, amounts invested), governance characteristics of firms financed (i.e., total number of independent directors, number of board members). Furthermore, when independent directors were present, an additional series of variables were mapped: (a) present and past involvement of each individual with the closed-end fund and management company; (b) characteristics of the relationship linking the closed-end fund, the independent director and the duration of the investment; (c) behavior of the independent director as regards the firm financed.

All these items were factored into a statistical regression model with return on investment as the dependent variable and all the others as independent. Use of this model was intended to achieve several objectives, ranging from a search for factors better explaining performance to identifying

operating differences between non-independent and independent directors and the affect of the subjective characteristics of the latter.

The first result showed that characteristics of the deal have an impact on final return; in particular, shareholding, holding period and exit-way are items that have the greatest effect on final performance. However, it must be said that the explicative capability of the model is not particularly high given the extreme variability of the results. The most surprising result was the neutrality of independent directors, who didn't make a statistically significant impact on the outcome of investments.

When the operations are broken down in terms of presence or absence of independent directors, we observe that the statistical model yields different results for the two subsets; furthermore, independent directors become important under specific operating conditions. As regards the coefficient R^2, we can state that it is decidedly higher for the independent director subset. This indirectly shows that the decision to use non-independent directors is based on reasons other than those considered in this paper. In addition, the empirical test showed that independent directors can make a greater contribution to project performance when very specific skills are required, as in buy-out or turnaround operations. In this case, however, it should be noted that while the values are interesting from a financial-company standpoint, from the statistical point of view they are not significant.

Focusing only on the group of investments which involved independent directors and taking into account the specific profile on the individuals concerned, an improvement can be noted in the model's explicative capability, even though not all the characteristic factors are significant. From data available it emerges that independent directors resign in the event of negative performance, and that presence in the fund can improve overall performance of an individual deal. Given that results for investments vary considerably, we decided to investigate further by applying the model, first to deals with the best performance and then to those that performed worst. Overall, the approach used in this paper better explains negative results, also because variables linked to activities of

independent directors have a greater significance. As far as deals showing positive results are concerned, we can assert that the subjective characteristics of independent directors do not help explain performance of private equity deals. On the contrary, much doubt remains as to the impact of so-called "busy directors" on closed-end fund investment performance, given results that figure near the bottom of a hypothetical league table. In effect, it is evident that independent directors tend to resign when performance is negative, that turnover is necessary in order to maximize results, and that it is better to terminate relations between director and management company at the close of the investment to provide a greater incentive for their activities. However, the behavior of the individuals concerned is not clear when they have several appointments. In effect, data analyzed show that in the case of negative performance independent directors tend to make maximum effort in the fund if they do not have commitments in other "external" bodies in some way linked to the management company. Consequently, the commitment of independent directors seems to be determined by two factors: visibility outside the fund and the incentive to achieve positive performance. If an individual is used by a single closed-end fund, the second factor tends to be emphasized at the expense of the first, which cannot be fully realized because of the restricted area of responsibility. When independent directors do not have to answer to a single fund but to the management company, their desire to emphasize their role means they are more willing to take on additional positions (possibly differentiated by type of party concerned), above all when returns are positive. In this case the visibility effect is positive and probably the involvement of a successful director improves a project's results. However, in the case of negative performance the situation is more complicated. An excessive number of appointments reduces possibilities to provide incentives for a director's growth in companies with which the director is involved, leading to a completely opposite effect in terms of image.

The most important messages furnished by the empirical test can be summarized as follows:

– In recent years there has been too much emphasis on corporate governance and, especially, of independent directors as a tool to maximize performance of venture capital investments.

– In the Italian case, an analysis of closed-end funds shows that it is above all the characteristics of deals that explains their performance, whereas, especially for the highest returns variables linked to governance do not have a significant impact of final results.

However, at the same time specific traits emerged that characterize the behavior and actions of independent directors, which can be very important from an operations standpoint, even if from a statistical point of view they are not always significant. In particular, reference is made to the following factors:

– It appears that the presence of independent or non-independent directors is linked to the type of operation, that is, the skills required to implement the deal.

– Resignation or termination of the mandate by independent directors is an extremely important signal, given that this occurs when results are negative.

– A high turnover of independent directors seems to lead to improved performance or, alternatively, when there is little turnover results are lower.

– When the duration of the mandate and operation are in synchrony, and therefore mandates are for a "fixed term", performance of deals managed through independent directors increases.

Overall these factors have an effect on operations that implies an improvement and updating of the relationship between venture capital investors and independent directors, while there do not appear to be any messages addressed directly to firms or the authorities and/or legislators.

– As closed-end fund investment performance can above all be explained by business as opposed to corporate governance-related factors, it is reasonable to expect private equity operators will focus on the characteristics of deals. Governance, instead, will be important although not a priority factor, except for those operations requiring special skills.

– The relationship between the independent director's degree of involvement with the management company and overall results is not clear and in any event does not give a definite indication. This being the case, venture capitalists should start to monitor the number and type of roles assigned to the various parties with whom they have relations on an ongoing basis.

They should then compare these data with returns from deals so that they can vary the level of involvement and optimize use of independent directors.

– A targeted use of independent directors can bring benefits if the skills of individuals are evaluated bearing in mind the type of deal to be implemented.

– As the advantage in performance terms is obtained by turnover and when there is parity between duration of deals and mandates, many management companies will establish new types of contract that, de facto, will have a "fixed term" and will cover lesser periods than are found today.

From a purely scientific standpoint empirical evidence does not provide a definite answer as to why Italian venture capital investors use independent directors (even in deals not requiring specific skills). Certainly they do not do it to improve performance. This would suggest that further studies will probably be done in the near future. In effect the results obtained could be misleading for the simple reason that governance is not a factor taken into account in the process of selecting investments, whereas a deal's characteristics certainly are. In practice, this would explain the importance of deal-making process variables to the detriment of all others. Furthermore, it could also be interesting to broaden the set of explicative factors for performance to include factors such as contractual clauses establishing the powers for and priorities to be pursued by independent directors, or clauses that reflect the venture capital investor's financing conditions. As a result of these studies, in effect, different types of roles for independent directors could be instituted. A further study could involve the relationship of variables identified in this paper and items such as improvements to the image of the financial intermediary or enhanced reputation. These could prove more legitimate reasons for such widespread use of independent directors by venture capitalists.

VI. Executive summary

The paper focuses on the role played by independent directors in private equity investments in Italy.

Existing empirical evidence shows that control and monitoring of venture capital investments is a challenge for operators, given that they must resolve a situation in which there is obvious asymmetry as regards information and where temptations for opportunistic behavior abound.

One of the solutions normally adopted is to implement governance structures and specific rules to enhance relations between the parties involved and, consequently, improve private equity operators' control and monitoring activities. On this subject, the role played by independent directors on boards has been emphasized many times, even though the relationship between the latter and performance of firms is not at all clear in either traditional contexts or, even more so, with express reference to the private equity field.

Our empirical study certainly did not identify the necessary characteristics required for independent directors and, above all, it failed to indicate the extent of their contribution to the board and the firm's final results. However, today the regulatory framework is much more standardized, also thanks to a series of actions taken to harmonize this area by parties responsible for drafting company codes of governance. In this sense, therefore, there is much wider agreement concerning the formal characteristics required by these individuals as opposed to their economic and organizational role.

Using a sample of 698 private equity investments made in Italy between 1999 and 2003, an attempt was made to resolve the puzzle of what determines performance in these deals. We took into account: characteristics of the deals, characteristics of the closed-end funds and their managers, external environmental conditions, governance of the firms financed, presence or absence of independent directors, and subjective characteristics of independent directors.

The statistical processing performed showed that characteristics of a deal - above all the exit-way, holding period and shareholding - have an impact of final performance, whereas the presence of independent directors is not at all significant in terms of a deal's outcome. But it also clearly emerges that recourse to independent directors is necessary to achieve positive results in deals requiring specific skills, such as buy-outs or turnarounds; in fact, if such initiatives were managed

using non-independent directors, a lower performance would result. Furthermore, independent directors seem to be used especially during times when interest rates on risk-free securities are high, even though the reason for this cannot be given based on the available data.

Variables linked to the commitment and involvement of independent directors manage to improve the understanding of motivations for performance, showing that these individuals tend to resign if results are negative and that their greater involvement with the fund leads to better results. The analysis by quality of results (considering the best and worst investments) on the one hand confirms certain intuitive hypotheses and, on the other, offers ambiguous hints as to the role effectively played by "busy directors". This is the picture that emerges. As already mentioned, independent directors certainly tend to resign in cases of worst performance, the synchronism of maturity between boards of directors of the management company and firms owned by the closed-end funds leads to the best results because it acts as an incentive, the absence of turnover (or use of the usual independent directors) leads to worse results. But the behavior of individuals who have a high number of commitments with either firms belonging to the closed-end fund or firms belonging to the management company is not at all clear. In effect the actions of these individuals seem to be determined by two factors: visibility outside the fund and an incentive to achieve positive performance. If an individual is used in just one closed-end fund the second factor tends to be emphasized to the detriment of the first, which cannot fully emerge because of the restricted field of responsibility. If independent directors are not forced to measure themselves with just one fund but with the overall management company, the desire to emphasize their role makes them tend to take on more appointments (possibly highly differentiated in terms of type of area). This is especially true when returns are positive: in this case the visibility effect is decisive and probably the involvement of a successful director enhances a project's results.

Table I: The concept of independence in certain countries

A person could not be believed independent if:	UK	FRANCE	AUSTRIA	DENMARK	ITALY	SPAIN	USA	BRAZIL	AUSTRAL
He is or has been an employee of the company or group	5 years	5 years	5 years	5 years	3 years	3 years (5 years if executive directors)	3 years	YES	3 years
He has or has had material business relation (directly or indirectly)	3 years	YES	1 year	YES	1 year	YES	Not directly	YES	3 years
He receives, has received or could receive additional remuneration from the company apart a director's fee	YES			YES	YES	YES	YES (but a threshold exists)	YES	YES
He has close family ties with any of the company's advisers, directors or senior employees	YES		YES	YES	YES	YES	YES ("immediate family member")	YES (second degree)	YES but n provided dir
Holds cross-directorships or has significant links with other directors through involvement in other companies or bodies	YES	YES	YES	YES	YES	YES	YES	YES	YES
He has served on the board for more than nine years from the date of their first election	YES	YES (CEO in the last 12 years)		YES (but there is no time specification)	YES (9 years in the last 12)	YES (12 years)			
He is or has been or represents a substantial shareholder	YES		YES		YES	YES	YES	YES but he can have some shares	YES

Table II: Descriptive analysis based on the whole sample

Y-INVIRR is the investment's annual rate of return, HOLD-PER is the holding period in months, I-SIZE is the average size of the investment in the firms in millions of euros, %-SHARE is the private equity operators' shareholding acquired by the investment. E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure, E-TRADE represents the case of an exit strategy by trading the shareholding. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, EXP if it concerns the firm's development, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing.

	Y-INVIRR
AVERAGE	11.67%
MEDIAN	11.78%
STANDARD DEVIATION	22.83%
MIN	-100.00%
MAX	98.00%

	Number	%
E-IPO	40	5.73%
E-WOFF	43	6.16%
E-TRADE	615	88.11%

	Number	%
K-EARLY	115	16.48%
K-EXP	358	51.29%
K-BUYOUT	185	26.50%
K-TURN	40	5.73%

	Y-INVIRR	HOLD-PER	I-SIZE	%-SHARE
Total Average	*11.67%*	*34.16*	*6.76*	*22.69%*
K-EARLY Average	3.64%	42.78	0.98	24.16%
K-BUYOUT Average	14.06%	30.36	15.85	23.19%
K-EXP Average	13.22%	33.49	3.76	22.64%
K-TURN Average	9.82%	33.00	8.17	16.54%

	Y-INVIRR				
	Average	Standard Deviation	Median	Min	Max
K-EARLY	3.64%	25.72%	9.70%	-100.00%	+45.00%
K-BUYOUT	14.06%	20.84%	14.02%	-100.00%	+88.00%
K-EXP	13.22%	20.12%	11.80%	-100.00%	+61.00%
K-TURN	9.82%	37.41%	12.41%	-100.00%	+98.00%
Whole sample	*11.67%*	*22.83%*	*11.78%*	*-100.00%*	*+98.00%*

T-TEST EQUIVALENCE Y-INVIRR				
	K-EARLY	K-BUYOUT	K-EXP	K-TURN
K-EARLY	-			
K-BUYOUT	-3.661*	-		
K-EXP	-3.650*	-0.452	-	
K-TURN	-0.967	-0.694	0.566	-
Levels of significance: *; **; *** correspond respectively to 1%; 5%; 10%				

Table III: Descriptive statistics for independent and non-independent directors

Y-INVIRR is the investment's annual rate of return, HOLD-PER is the holding period in months, I-SIZE is the average size of the investment in the firms in millions of euros, %-SHARE is the private equity operators' shareholding acquired by the investment. E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure, E-TRADE represents the case of an exit strategy by trading the shareholding. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, EXP if it concerns the firm's development, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing. DIP stands for non-independent directors, IND stands for independent directors

Y-INVIRR	DIP	IND
AVERAGE	11.87%	11.43%
DEV. STD.	20.98%	24.95%
MEDIAN	11.87%	11.58%

	Number		%	
	DIP	IND	DIP	IND
E-IPO	15	25	3.93%	7.91%
E-WOFF	22	21	5.76%	6.65%
E-TRADE	345	270	90.31%	85.44%

	Number		%	
	DIP	IND	DIP	IND
K-EARLY	64	51	16.75%	16.14%
K-EXP	191	167	50.00%	52.85%
K-BUYOUT	104	81	27.23%	25.63%
K-TURN	23	17	6.02%	5.38%

	Y-INVIRR	HOLD-PER	I-SIZE	%-SHARE
DIP				
Total Average	11.87%	34.21	6.9	23.19%
K-EARLY Average	8.96%	42.38	1.01	24.30%
K-BUYOUT Average	12.19%	31.37	15.83	24.13%
K-EXP Average	13.08%	33.11	3.83	23.14%
K-TURN Average	8.47%	33.91	8.46	16.30%
IND				
Total Average	11.43%	34.1	6.58	22.06%
K-EARLY Average	-3.03%	43.29	0.97	23.92%
K-BUYOUT Average	16.46%	29.19	15.88	21.98%
K-EXP Average	11.64%	33.92	3.68	22.07%
K-TURN Average	13.38%	31.76	7.77	16.76%

T-TEST EQUIVALENCE FOR RESULTS OF DIP/IND				
	K-EARLY	K-BUYOUT	K-EXP	K-TURN
I-SIZE	0.505	-0.074	1.137	0.535
%-SHARE	0.248	2.670*	1.648***	-0.256
Y-INVIRR	2.361**	-1.389	-0.133	-0.264
Levels of significance: *; **; *** correspond respectively to 1%; 5%; 10%				

Table IV: Investment characteristics

R2 is the determinant coefficient, Number is the sample size. Coefficient is the value of each variable, (Stat-t) stands for the level of statistical significance. Constant is the intercept point, FREE is the risk-free rate measured at the time of the investment, Y-IRRMKT is the annual internal rate of return of the investment on the domestic stock exchange, E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure, E-TRADE represents the case of an exit strategy by trading the shareholding. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, EXP if it concerns the firm's development, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing. %-SHARE is the private equity operators' shareholding acquired by the investment, %MCO is the percentage of management company shares held by different kinds of investors: FI represents banks and financial institutions, PI represents private investors, IND stands for industrial or service companies, PA represents public authorities or public entities, OTH means other parties. HOLD-PER is the holding period in months, TOT-DIR is the total number of people sitting on the firm's board of directors, TYPE is the presence of independent or non-independent directors. Levels of significance: *; **; *** correspond respectively to 1%; 5%; 10%.

Regression statistics	
R2	0.687
Number	698

	Coefficient	(Stat-t)
Constant	1.38768305	(1.371)
FREE	-1.032789623	(-1.344)
Y-IRRMKT	-0.041897084	(-0.713)
E-IPO	0.177440951	(8.316)*
E-WOFF	-0.665418615	(-32.328)*
K-EARLY	0.001080945	(0.074)
K-BUYOUT	-0.001224667	(-0.104)
K-TURN	0.007433932	(0.335)
%-SHARE	-0.158348769	(-2.09)**
%MCO-FI	-0.94445042	(-0.936)
%MCO-PI	-0.936836143	(-0.926)
%MCO-IND	-0.95659886	(-0.945)
%MCO-PA	-0.90175068	(-0.893)
%MCO-OTH	-0.936374249	(-0.929)
HOLD-PER	-0.006287211	(-15.852)*
TOT-DIR	-0.001435845	(-0.436)
TYPE	-0.008218089	(-0.806)

Table V: Non-independent and independent director comparison

R2 is the determinant coefficient, Number is the sample size. Coefficient is the value of each variable, (Stat-t) stands for the level of statistical significance. Constant is the intercept point, FREE is the risk-free rate measured at the time of the investment, Y-IRRMKT is the annual internal rate of return of the investment on the domestic stock exchange, E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure, E-TRADE represents the case of an exit strategy by trading the shareholding. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing. %-SHARE is the private equity operators' shareholding acquired by the investment, %MCO is the percentage of management company shares held by different kinds of investors: FI represents banks and financial institutions, PI represents private investors, IND stands for industrial or service companies, PA represents public authorities or public entities, OTH means other parties. HOLD-PER is the holding period in months, TOT-DIR is the total number of people sitting on the firm's board of directors, I-SIZE is the average size of the investment. Levels of significance: *; **; * correspond respectively to 1%; 5%; 10%.**

INDEPENDENT DIRECTORS			NON-INDEPENDENT DIRECTORS		
Regression statistics			*Regression statistics*		
R2	0.745		R2	0.638	
Number	316		Number	382	

	Coefficient	(Stat-t)		Coefficient	(Stat-t)
Intercept	2.327919742	(1.668)	Intercept	0.571654	(0.372)
FREE	-2.614091843	(-2.302)**	FREE	0.533571	(0.501)
Y-IRRMKT	-0.075809892	(-0.920)	Y-IRRMKT	-0.03539	(-0.398)
E-IPO	0.202457484	(7.377)*	E-IPO	0.128307	(3.732)*
E-WOFF	-0.696791862	(-23.051)*	E-WOFF	-0.62998	(-21.738)*
K-EARLY	-0.003738899	(-0.161)	K-EARLY	0.016913	(0.766)
K-BUYOUT	0.005440262	(0.156)	K-BUYOUT	-0.05167	(-1.109)
K-TURN	0.020807044	(0.587)	K-TURN	-0.01662	(-0.484)
%-SHARE	-0.187815341	(-1.700)***	%-SHARE	-0.09541	(-0.890)
%MCO-FI	-1.808791578	(-1.297)	%MCO-FI	-0.24457	(-0.160)
%MCO-PI	-1.845903356	(-1.318)	%MCO-PI	-0.19954	(-0.130)
%MCO-IND	-1.845625125	(-1.318)	%MCO-IND	-0.23987	(-0.156)
%MCO-PA	-1.766918081	(-1.266)	%MCO-PA	-0.20309	(-0.132)
%MCO-OTH	-1.743558663	(-1.253)	%MCO-OTH	-0.29008	(-0.189)
HOLD-PER	-0.006826437	(-11.439)*	HOLD-PER	-0.00574	(-10.559)*
TOT-DIR	-0.000165422	(-0.033)	TOT-DIR	-0.00092	(-0.203)
I-SIZE	-0.001370615	(-0.556)	I-SIZE	0.004237	(1.159)

Table VI: Role of governance variables

R2 is the determinant coefficient, Number is the sample size. Coefficient is the value of each variable, (Stat-t) stands for the level of statistical significance. Constant is the intercept point, FREE is the risk-free rate measured at the time of the investment, Y-IRRMKT is the annual internal rate of return of the investment on the domestic stock exchange, E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing. %-SHARE is the private equity operators" shareholding acquired by the investment, HOLD-PER is the holding period in months, TOT-DIR is the total number of people sitting on the firm's board of directors, I-SIZE is the average size of the investment, B-CNMCd is the cumulative number of memberships on boards belonging to the management company during the period of observation, B-CNMCb is the cumulative number of memberships on boards belonging to the management company before the period of observation, B-CNF is the cumulative number of memberships on boards of firms owned by the closed end fund during the period of observation, B-TM is the presence of a synchronism of maturity between the boards of directors of the management company and the firms owned by the closed-end funds, B-VE is the voluntary ending of the mandate of director on the board of owned firms before the expiry date of the board. Levels of significance: *; **; * correspond respectively to 1%; 5%; 10%.**

Regression statistics	
R2	0.756
Number	316

	Coefficient	(Stat-t)
Constant	0.522493691	(9.071)
B-CNMCd	-0.004504396	(-1.066)
B-CNMCb	-0.001035468	(-0.292)
B-CNF	0.011041951	(2.567)*
B-TM	-0.004791609	(-0.258)
B-VE	-0.130792657	(-3.565)*
FREE	-3.08173324	(-2.787)*
Y-IRRMKT	-0.09586166	(-1.215)
E-IPO	0.211664352	(7.794)*
E-WOFF	-0.648676862	(-19.509)*
K-EARLY	-0.001589912	(-0.070)
K-BUYOUT	0.016983329	(0.495)
K-TURN	0.020984062	(0.598)
HOLD-PER	-0.006617792	(-11.626)*
TOT-DIR	0.000987311	(0.203)
I-SIZE	-0.002164929	(-0.885)
%-SHARE	-0.181037197	(-1.711)***

Table VII: Decile analysis

R2 is the determinant coefficient, Number is the sample size. Coefficient is the value of each variable, (Stat-t) stands for the level of statistical significance. Constant is the intercept point, FREE is the risk-free rate measured at the time of the investment, Y-IRRMKT is the annual internal rate of return of the investment on the domestic stock exchange, E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing. %-SHARE is the private equity operators" shareholding acquired by the investment, HOLD-PER is the holding period in months, TOT-DIR is the total number of people sitting on the firm's board of directors, I-SIZE is the average size of the investment, B-CNMCd is the cumulative number of memberships on boards belonging to the management company during the period of observation, B-CNMCb is the cumulative number of memberships on boards belonging to the management company before the period of observation, B-CNF is the cumulative number of memberships on boards of firms owned by the closed end fund during the period of observation, B-TM is the presence of a synchronism of maturity between the boards of directors of the management company and the firms owned by the closed-end funds, B-VE is the voluntary ending of the mandate of director on the board of owned firms before the expiry date of the board. Levels of significance: *; **; * correspond respectively to 1%; 5%; 10%.**

INDEPENDENT - FIRST DECILE			INDEPENDENT - LAST DECILE		
Regression statistics			*Regression statistics*		
R2	0.740		R2	0.855	
Number	32		Number	32	

	Coefficient	*(Stat-t.)*		*Coefficient*	*(Stat-t.)*
Constant	0.593936644	(3.789)	Constant	1.17055941	(1.851)***
Y-IRRMKT	-0.07370508	(-0.667)	Y-IRRMKT	-1.289731787	(-1.334)
FREE	-0.98425853	(-0.312)	FREE	-23.61111022	(-2.923)*
E-IPO	0.245076963	(3.248)*	E-WOFF	-0.625518605	(-4.797)*
K-BUYOUT	-0.16913263	(-1.231)	K-EARLY	-0.098645258	(-0.551)
K-TURN	0.06094691	(0.638)	K-BUYOUT	0.80131906	(1.663)
I-SIZE	0.01300548	(1.252)	K-TURN	0.273886245	(0.928)
%-SHARE	-0.37034023	(-1.311)	I-SIZE	-0.069430451	(-1.977)***
HOLD-PER	-0.01586718	(-2.794)*	%-SHARE	-0.193642014	(-0.248)
TOT-DIR	0.015688713	(0.750)	HOLD-PER	-0.006592729	(-1.501)
B-CNMCd	0.023123929	(1.897)*	TOT-DIR	0.056954998	(1.571)
B-CNMCb	-0.01285834	(-1.196)	B-CNMCd	-0.038276303	(-0.903)
B-CNF	-0.02301653	(-1.392)	B-CNMCb	-0.008380833	(-0.249)
B-TM	0.049413645	(0.963)	B-CNF	0.074864229	(3.293)*
B-VE	-0.06942916	(-0.709)	B-TM	-0.046689672	(-0.304)
			B-VE	-0.28508551	(-1.944)**

Table VIII: Quintile analysis

R2 is the determinant coefficient, Number is the sample size. Coefficient is the value of each variable, (Stat-t) stands for the level of statistical significance. Constant is the intercept point, FREE is the risk-free rate measured at the time of the investment, Y-IRRMKT is the annual internal rate of return of the investment on the domestic stock exchange, E-IPO stands for Initial Public Offering and represents the exit-way when the investor lists the firm on a domestic or foreign stock exchange, E-WOFF stands for write-off when the investment is a financial failure. K is the kind of investment made by the private equity investor: EARLY if it concerns seed and start-up financing, BUYOUT if it concerns a buy-out operation (LBO, MBO, etc.), TURN if concerns a turnaround financing. %-SHARE is the private equity operators" shareholding acquired by the investment, HOLD-PER is the holding period in months, TOT-DIR is the total number of people sitting on the firm's board of directors, I-SIZE is the average size of the investment, B-CNMCd is the cumulative number of memberships on boards belonging to the management company during the period of observation, B-CNMCb is the cumulative number of memberships on boards belonging to the management company before the period of observation, B-CNF is the cumulative number of memberships on boards of firms owned by the closed end fund during the period of observation, B-TM is the presence of a synchronism of maturity between the boards of directors of the management company and the firms owned by the closed-end funds, B-VE is the voluntary ending of the mandate of director on the board of owned firms before the expiry date of the board. Levels of significance: *; **; *** correspond respectively to 1%; 5%; 10%.

INDEPENDENT - FIRST QUINTILE				INDEPENDENT – LAST QUINTILE		
Regression statistics				*Regression statistics*		
R2	0.716			R2	0.786	
Number	64			Number	64	
	Coefficient	*(Stat-t.)*			*Coefficient*	*(Stat-t.)*
Constant	0.563081221	(6.17)*		Constant	0.678789899	(2.447)**
Y-IRRMKT	-0.06804047	(-0.758)		Y-IRRMKT	-0.231033288	(-0.493)
FREE	0.256731211	(0.128)		FREE	-8.46781544	(-1.946)**
E-IPO	0.209806858	(5.571)*		E-WOFF	-0.548422426	(-8.153)*
K-EARLY	-0.03001058	(-0.541)		K-EARLY	-0.093549854	(-1.137)
K-BUYOUT	-0.06745293	(-1.048)		K-BUYOUT	0.390649511	(2.081)**
K-TURN	0.137858279	(1.734)***		K-TURN	0.085733428	(0.589)
I-SIZE	0.00708066	(1.358)		I-SIZE	-0.035326602	(-2.258)**
%-SHARE	-0.26419265	(-1.527)		%-SHARE	-0.483443643	(-1.321)
HOLD-PER	-0.0135911	(-6.472)*		HOLD-PER	-0.005932569	(-2.425)*
TOT-DIR	0.003942321	(0.381)		TOT-DIR	0.027052746	(1.378)
B-CNMCd	0.014660723	(1.861)		B-CNMCd	-0.011197269	(-0.611)
B-CNMCb	-0.00134871	(-0.198)		B-CNMCb	-0.007773894	(-0.505)
B-CNF	-0.01949621	(-1.641)		B-CNF	0.037840422	(2.967)*
B-TM	-0.00866079	(-0.259)		B-TM	0.009120967	(0.126)
B-VE	-0.03030095	(-0.465)		B-VE	-0.240892518	(-2.504)*

Table IX: Relationships between commitment and involvement variables of independent directors and final investment performance

B-CNMCd is the cumulative number of memberships on boards belonging to the management company during the period of observation, B-CNMCb is the cumulative number of memberships on boards belonging to the management company before the period of observation, B-CNF is the cumulative number of memberships on boards of firms owned by the closed end fund during the period of observation, B-TM is the presence of a synchronism of maturity between the boards of directors of the management company and the firms owned by the closed-end funds, B-VE is the voluntary ending of the mandate of director on the board of owned firms before the expiry date of the board. Best and worst 10% or 20% refer to the performance decile and quintile.

	BEST 10%	BEST 20%	WORST 10%	WORST 20%
CNMCd	+	+	-	-
CNMCb	-	-	-	-
CNF	-	-	+	+
B-TM	+	+	-	+
B-VE	-	-	-	-

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[1] See also Benveniste et al. (1998).

[2] Control activity is also confirmed in a study by Gorman and Sahlman (1989) where it is seen that, on average, venture capital investors visit the firms in which they hold investments at least 18-19 times a year, whereas banks usually monitor a firm's situation at most 2-3 times a year, which only rises to 10-12 times in cases where risk exposure is very high indeed (Blackwell and Winters (1997)).

[3] Winton and Yerramilli (2004) tackle the same issue analyzed by Schmidt (2003) and came to the conclusion that relations between private equity intermediaries and entrepreneurs are a function of the company's cash flow.

[4] Kaplan and Stromberg (2002) analyze the terms found most frequently in contracts between firms and venture capital operators and noted that normally private equity investors play a fundamental role in recruiting management and/or provide value-added services, such as developing strategy, or facilitate partnerships. Furthermore, the authors note that, consistent with asymmetric information and moral hazard theories, greater internal risk is associated with more contingent compensation for the entrepreneur and greater control (i.e. more seats on the firm's board). Greater external risk is also associated with more venture capital control, as Dessein (2001) or Aghion and Bolton (1992) noted earlier. The same results were found by Cumming (2002) as regards the European market, by Cumming (2001) for the Canadian market, by Mayer et al. (2003) for the Israeli market and by Bascha and Walz (2002) for the German market.

[5] As regards use of convertible securities in venture capital financing, see, among others, Cornelli and Yasha (2003), Repullo and Suarez (2004), Berglof (1997), Bascha and Walz (2001), Hellmann (2006).

[6] Starting from the classification proposed by Schmidt and Wahrenburg (2003) various examples of covenants can be identified. See also Gompers and Lerner (1996).

[7] However, according to results of the Kaplan and Schoar (2005) study the most experienced venture capitalists tend to implement "US-style contracts" independent of where the transaction takes place. In addition, those adopting this contractual structure are also those who in the long run have lower losses.

[8] Aoki (1999) shows that usually the private equity operator retains a control block of shares in entrepreneurial firms and exercises a broad range of governance roles.

[9] See also Brancato (2001).

[10] See also Kaplan and Stromberg (2001) and Kaplan et al. (2005).

[11] See also Bruton et al. (2000) and Kaplan et al. (2005).

[12] See also Aoki (1999) and Sapienza et al. (1996).

[13] Campbell II and Frye (2005) provide strong evidence that venture capitalist involvement shapes a firm's governance structure. The authors find that venture capitalists typically rely heavily on themselves to monitor in a non-traditional manner.

[14] In a wide-ranging empirical study Lehn et al. (2004) show that size and structure of boards of directors are determined by tradeoffs involving the incremental information that directors bring to boards versus the incremental coordination costs and free-rider problems engendered by their additions to the boards.

[15] Gabrielsson and Winlund (2000) contribute to this field of research by investigating SMEs and their needs concerning governance and control. See also Yacuzzi (2005) who proposes a primer on corporate performance, corporate governance, and their interrelationships and measurement systems, with a particular focus on SMEs.

[16] These findings are similar to those of Weir et al. (2003).

[17] Another interesting study on this topic is proposed by Andres et al. (2005), which shows a negative relationship between a firm's value and the size of its board of directors.

[18] These findings are in contrast with those of La Porta et al. (1997).

[19] Anderson and Reeb (2003) looked specifically at the family-owned case and to the role of board members not linked to the controlling family, finding specific evidence concerning performance of firms. Villalonga and Amit (2004) focused in depth on family-owned firms, testing the relationships between performance, rules of governance and

composition of boards. Faccio and Lang (2002) examined corporate governance rules, particularly as regards the presence of institutional investors on the boards of family firms.

[20] This empirical study is based on a work dating from 2004. The results that Fich and Shivdasani obtained are not very clear because, on the one hand, companies with a majority of busy outside directors show significantly lower market-to-book ratios and weaker operating performance, but on the other hand, the presence of directors who hold more than one directorship was not more likely to occur in firms that are performing poorly.

[21] Ferris et al. (2003) examine the number of external appointments held by corporate directors and conclude that the evidence does not support calls for limits on directorships held by an individual.

[22] Adams and Mehran (2005) study in depth the relationship between on the one hand, board size and composition and, on the other hand, Tobin's Q in banking firms, and found a surprising result: a non-negative relationship, which is contrary to the evidence for non-financial firms. As did Belkhir (2004), even these authors concluded that the connection between governance and performance in the banking industry is particular and has no correlation with other industries. Rowe and Davidson III (2002), studying the case of closed-end funds, conclude that the evidence that board composition influences financial performance is not very strong and depends on the definitions of financial performance and board composition as well as the type of econometric model utilized.

[23] See also Nowak and McKabe (2003).

[24] Keys and Li (2005) show that after a takeover, professional directors are three times more likely to receive new appointments than other types of directors released from their respective boards or that the proportion of professional directors in above-average performing targets is significantly greater than that in under-performing targets.

[25] The Stewardship Theory proposes that there is no conflict of interest between managers and owners and that to be successful the organization requires a structure that allows coordination to be achieved most effectively. See: Muth and Donaldson (1998); Demsetz and Villalonga (2001); Gay (2002); Jones and Wicks (1999).

[26] Even Carpenter and Westphal (2000) analyzed the role of external directors in terms of contribution to strategic decisions, to monitoring activity, to board advice-giving. Van den Berghe and Levrau (2004) contributed to the discussion with an empirical study concerning the evaluation of boards of directors and showed that quantifiable variables are not enough to arrive to a correct conclusion. Nicholson and Kiel (2004) proposed a framework that led to a particular mix of board intellectual capital in which the exact nature of these components will depend on the company's requirements.

[27] Nowak and McCabe (2003) concluded that even when independent directors have free access to the information required to fulfill their role in monitoring and control, there is still evidence of information asymmetry so they are

forced to adopt strategies to keep themselves informed. They also noted additions to information that they believed should be available as a matter of course.

[28] Becht (2002) showed that, in practice, in broad shareholder-base corporations CEOs usually have superior information and independent directors tend to play the role of advisor (and not monitor), while in block-holder corporations independent directors are usually appointed by the block-holder and are often its "independent friends".

[29] The ECGI's database was used to analyze the definition of independent directors in the codes of several countries: Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Estonia, Finland, France, Germany, Jamaica, Japan, Greece, Hong Kong, Ireland, Iceland, Letonia, Lithuania, Norway, New Zealand, the Netherlands, Portugal, Czech Republic, Russia, Singapore, Slovenia, Spain, Sweden, Switzerland, UK, USA, Hungary, and Italy.

[30] The need for revision had already be brought up. Santella et al. (2005) stated that the code of self-regulation applying only to listed companies, but also used as a benchmark by unlisted companies, gave a much too vague definition of independence and failed to cover certain fundamentally important elements (for instance, the requirement of independence from the standpoint of family ties).

[31] See: Borsa Italiana – Committee for corporate governance, (2006).

[32] In Italy, according to article 3.C.1 of the code of corporate governance, an individual cannot be considered independent if: he/she

- directly or indirectly, even through subsidiaries, trustees or delegates, controls the issuer or can exercise considerable influence over it, or participates in a quasi-company agreement based on which one or more parties can exercise control of considerable influence over the issuer;

- holds or has held in the past three years, a significant position in the issuer, in one of its strategically important subsidiaries or a company subject to joint control with the issuer, or a company or other body that, even together with others based on a quasi-company agreement, controls the issuer or can exercise considerable influence over the latter;

- directly or indirectly has, or has had in the previous year, a significant business, financial or professional relationship with the issuer, one of its subsidiaries or with one of its important members, or with a party that, even together with others based on a quasi-company agreement, controls the issuer; or who is, or has been in the past three years, an employee of one of the aforementioned parties;

- receives, or has received in the past three years, from the issuer or one of its subsidiaries or holding companies, significant compensation in addition to the emoluments established by the issuer's non-executive board member;

- has been a board member of the issuer for more than nine of the previous twelve years;

- holds the position of executive director in another company in which the executive director of the issuer is a board member;

- is a stakeholder or board member of a company or other body owned by the firm appointed as the issuer's auditors;

- is a close family member of a person who can be identified as being in one of the positions indicated in the previous points.

[33] Two databases were used to gather information: the one maintained by the Bank of Italy and one maintained by AIFI. AIFI is the Italian Association of Private Equity Investors.

[34] The databases used for the matching process were the AIDAF one (that covers Italian family firms), the CONSOB one (that covers listed companies) and the Bank of Italy one (that covers banks and financial institutions).

[35] Only 4 early-stage financing investments were able to achieve a final performance high enough to be included in the first quintile.