

PRIVATE EQUITY AS A GOVERNANCE MECHANISM IN A CONTEXT OF CONCENTRATED OWNERSHIP

ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: We examine the performance implications of the presence of private equity in the capital structure of companies. We address two main research questions: Is the presence of private equity investors associated with firm valuation? How does this relation vary with the presence of other large shareholders (with more than 5% ownership)?

Research Findings/Insights: Our findings indicate that the presence of private equity investors is associated with higher valuation. Moreover, companies with a large family shareholder but without private equity investors have lower valuations, while the presence of private equity investors without family shareholders is associated with higher valuations. This finding is more significant for family shareholders that are not involved in the governance of the company. Greater improvements in valuation are found in firms with corporation and private equity shareholders. These findings are consistent with private equity investors adding value beyond being a source of funding. In particular, they are perceived as enhancing corporate governance.

Theoretical/Academic Implications: The findings are consistent with engaged investors such as private equity firms reducing agency costs more effectively than other types of shareholders.

Practitioner/Policy Implications: Private equity shareholders emerge as a source of value creation. This role is enhanced when compared with family shareholders, more so when these shareholders are not involved in the governance of the company.

INTRODUCTION

Private equity (PE) has emerged as an important investment vehicle in the corporate world funneling large amounts of financing to firms. This type of shareholder has been argued to introduce major changes in corporate governance through increased monitoring, a larger involvement in the definition of strategy and the management team who implements the agreed upon strategy, and a close interaction with other suppliers of financing. This change has been especially significant in publicly-listed firms with small shareholders that often have not exercised their voting power (Wright, Amess, Weir and Girma, 2009). The involvement of PE firms in the governing bodies of companies (board of directors and executive board) has emerged as an alternative mechanism to improve corporate governance.

Despite their growing importance, the evidence about the impact of PE investors on firm's performance is limited, more so when considering the presence of other types of investors with a large presence in the capital structure.

The rise of the modern corporation characterized by the separation of ownership and control has been one of the drivers of economic development throughout Western countries for the last century. Berle and Means (1932) were among the first to describe the rise of large corporations and the emergence of professional managers. Jensen and Meckling (1976) formalized the relationship between shareholders and managers in their 'Theory of the Firm' and defined the concept of agency costs. One option to reduce these agency costs is to have a large shareholder represented on the governing bodies of the firm (board of directors and management board) who takes an active role in the monitoring and control of management actions (Jensen, 1993; Kapopoulos and Lazaretou, 2007; Perrini, Rossi and Rovetta, 2009; Shleifer and Vishny, 1997). Although the presence of large shareholders in the governance of companies is quite a common practice in non Anglo-Saxon countries (La Porta, Lopez de Silanes, Shleifer., 1999), it is not without problems. For example, the participation of a large shareholder in the management of the firm may lead to the extraction of rents from minority shareholders and bondholders, insider trading, and market premiums paid by the market for controlling stakes (Holderness, 2003, Perrini et al., 2009) that may offset the expected benefits associated with closer monitoring. Therefore, a second type of agency problem appears between the large shareholder participating in the management of the firm and minority shareholders from outside. The large shareholder who is actively involved in monitoring management plays the role of agent for the minority shareholders, acting as principal, who might be unable to exert control over the decisions of this large shareholder (De Miguel, Pindado and De la Torre, 2004; Morck and Nakamura., 1999; Villalonga and

Amit, 2006). Unlike Anglo-Saxon countries, concentrated ownership is very common in publicly listed firms in other parts of world.

In a context of companies with various and diverse types of large shareholders, PE firms have been portrayed as an effective response to minimize these agency problems. Their involvement in the company through governance bodies affecting company policies such as incentives, strategy, or management composition enhances company performance. We examine the impact of the presence of PE firms on the equity structure of publicly-listed companies on their valuation.

We structure our study around two research questions. First, is the presence of PE investors in the ownership structure of a firm associated with company valuation? PE typically involves significant ownership as well as an active involvement in the governance of the firm. These two mechanisms may reduce agency costs through enhanced governance and thus increase performance. In a context such as the Swiss market where ownerships is concentrated, private equity investors often share ownership with other types of large shareholders. Our second question examines whether the association between private equity presence and valuation varies with the presence of other types of shareholders in the ownership structure of the company.

In comparison with other types of shareholders, our results indicate that PE shareholders have a positive association with firm value. We further find that family shareholders who do not actively participate in the governance of the company are associated with lower valuation. When examining the combination of PE with other types of shareholders, we find that the presence of PE and the absence of other types of shareholders is significantly associated with valuation compared to the absence of PE and other large shareholders. Furthermore, the presence of PE together with corporations as another large shareholder has a significant value compared to the absence of both types of investors. These

results are consistent with the governance approach of PE firms reducing the agency costs. Furthermore, the significance of the presence of PE and corporate investors suggest that this combination may enhance the governance of companies.

Our study contributes in a number of ways to the corporate governance literature. First, it highlights the relevance of private equity investors as an alternative solution to the agency problems of corporate governance. Second, it explores corporate governance issues in Swiss firms where ownership is more concentrated than in Anglo-Saxon countries with different types of shareholders having significant stakes in the equity of publicly-listed companies. This feature allows us to explore the interaction of various types of large investors.

The remainder of this paper is organized as follows. Next section reviews the background literature and develops the hypotheses related to the impact of PE shareholders. Next, we describe our research design and present our results. Finally, we discuss their implications and limitations to conclude proposing areas for further research.

LITERATURE AND HYPOTHESIS DEVELOPMENT

Agency Theory

Agency costs arise when divergence of interests appears between principals and agents. In publicly-listed companies ownership is separated from control. In these circumstances utility-maximizing managers may pursue their own personal interests at the expense of shareholders. To minimize these divergences and the associated costs, shareholders can rely on external mechanisms set by the legal and regulatory environment – such as the possible takeover raids that could happen in an open market for corporate control, the financing conditions imposed by the capital market, the forces of the labor and product markets – or implement some internal governance mechanisms like written contracts, monitoring systems, and incentive plans (Jensen, 1993).

The literature has largely discussed the agency problems raised by the separation of ownership and control (Eisenhardt, 1989), which can be associated with two situations. The first, known as the shareholder-manager conflict, is linked with the increasing isolation of professional managers from these external and internal governance mechanisms through their increasing power and the dilution of control by the shareholders. The second agency problem, known as the large-minority shareholder problem, relates to the participation of a large shareholder with sufficient economic interests in the management of the firm. While such a participation should facilitate the writing of top management contracts, lower the costs of monitoring, reduce information asymmetries, and as result limit the shareholder-manager agency costs, it might generate a new agency problem between large and minority shareholders. With a large shareholder acting as the agent for the rest of the shareholders, a potential principal-agent conflict emerges (Villalonga and Amit, 2006). This conflict presents some differences with respect to the shareholder-manager problem since the large shareholder is immune to external governance mechanisms. In addition, large shareholders can count on the legitimacy and power of their economic and voting rights.

Private Equity

PE firms use a unique governance structure to minimize the costs generated by the shareholder-manager agency problem and enhance corporate value. PE firms play a role of intermediation between investors and corporations (Cumming and Walz, 2009). PE management organizes the firm as limited partnership or limited liability corporations (Cumming and Walz, 2009, Kaplan and Strömberg, 2009). These firms raise PE funds from pension, investment or other types of investors such as wealthy individuals that participate in the gains of the different investments in which the fund engages usually through acquiring a controlling interest on different firms (Cummings and Walz, 2009; Kaplan and Strömberg, 2009). Individual partners of PE firms typically provide a significant part of the funds

(Kaplan and Strömberg, 2009). Like other types of financing, there is a large variety of PE firms. Woods and Wright (2009) categorize them in insider driven (MBOs and MEBOs) and outsider driven (LBOs, MBIs or IBOs). Other categories consider the maturity of the different investment projects. Venture capital or angel investments aim at young start-ups in an early stage, while investment strategies in more mature firms aim to restructure them through LBOs, VC, growth capital, mezzanine debt, management share participation programs or other methods (Cumming and Walz, 2009).

Despite this diversity, PE firms bear some common features. In most cases, they put a special emphasis on the design of the corporate governance structure including monitoring practices, mechanisms to be involved in setting the strategic direction of the company and management incentives (Kaplan and Strömberg, 2009). These incentives include the ownership participation of the management through the purchase of shares (Jensen, 1993; Kaplan, 1989) and the design of additional compensation schemes that align management interests with those of the shareholders (Wright et al., 2009). In addition, PE funds' investments are highly leveraged, reducing temptations to divert free cash flow excess from meaningful investments and serving the debt (Kaplan and Strömberg, 2009, Wright et al., 2009). Finally, PE firms become active actors in the governance of the firm, through the involvement on the board, setting specific contract restrictions on management, involving themselves in strategy definition and control, and implementing detailed monitoring and incentive controls (Woods and Wright, 2009; Wright et al., 2009). These characteristics have been argued to have a positive impact on the shareholder-manager conflict and mitigate its intensity (Eisenhardt, 1989; Jensen, 1993) as they aim to replicate the governance structure of family insider firms (Jensen, 1993, Kaplan and Strömberg, 2009; Wright et al., 2009).

Reduction of Agency Costs

Various theoretical arguments support the effect of the presence of PE in the equity of a company on performance. First, from an agency theory perspective, private equity managers' substantial economic incentives may increase their willingness to follow their agents more carefully, enhancing the monitoring and control of the firm (Jensen, 1993; Perrini et al., 2009; Shleifer and Vishny, 1997; Stiglitz, 1985). Second, increasing monitoring enhances the information about agent behavior, reduces information asymmetries, limits the possibilities of moral hazard, and amends adverse selection (Conlon and Parks, 1990; Eisenhardt, 1989). Third, the relation between shareholders and managers becomes closer and information flows better in both directions, reducing the shareholder-manager agency conflict. Fourth, ownership creates outcome-based incentives which are expected to have positive effects on firm performance (Eisenhardt, 1989). Finally, the presence of a large shareholder in the governing bodies increases the effectiveness of the boards since there is an alignment of objectives with the rest of the shareholders (Andres, 2008; Hermalin and Weisbach, 1991; Warther, 1998).

Another important aspect to reduce agency costs is personal economic investments. Like family investors, PE partners have incentives to maximize firm value, an objective aligned with the rest of the shareholders. Alternatively, banks, insurance, industrial, and service companies, governmental organizations, mutual funds, and pension funds who act on behalf of somebody else – fiduciary shareholders – bear the characteristics of being themselves exposed to an agency problem as they are often controlled by professional managers and not by their owners. Although the presence of large fiduciary shareholders in the ownership of firms might mitigate the shareholder-manager agency problem, the personal interests of the investor's managers might conflict with those of the shareholders. In addition, fiduciary shareholders might themselves be controlled by other fiduciary shareholders and as

a result can create a chain of shareholder-manager conflicts that is expected to have a negative impact on the firm valuation due to the dilution of control, responsibility, and attention.

PE funds have certain traits that make them similar to family shareholders. In particular, PE partners have a significant amount of personal investment in the fund (Jensen, 1993) and thus the incentives to enhance fund performance. Because of this personal investment, PE and family shareholders have stronger incentives to reduce agency costs and enhance company value (Andres, 2008; Hermalin and Weisbach, 1991; Warther, 1998). While PE investors are always involved in the governance process, family shareholders choose whether to be involved in this process or maintain an arms length relationship. The latter ones act much like a financial investor without close involvement in the governance of the company. This absence from the governing bodies can lead to greater agency costs, affecting negatively firm value. Managers can fully control the governing bodies (board of directors and management board) and can be isolated from other governance mechanisms.

Types of Shareholders

Although often considered as a homogenous group, large shareholders present differences in terms of goals and motivations, risk preferences and investment horizons. Exploring the types of ownership, La Porta et al. (1999) classified large shareholders into five different categories: family, widely-held financial institution, widely-held industrial or service company, government, and miscellaneous shareholder, which include pension and mutual funds and other types of investors. In the last decade, PE firms emerge as a new category of large shareholders.

Like family investors, PE managers, have greater incentives to monitor their investment than other types of investors. Personal share ownership provides incentives to monitor investment. Additionally, PE managers have compensation schemes linked to firm

performance generating further incentives to aim for value maximization of the firm. By being personally exposed to the firm's performance, PE shareholders are expected to increase the intensity of their monitoring and be positively associated with firm's value. The hypothesis in its null form is:

Hypothesis 1. The presence of a large private equity investor is unrelated to firm value.

Large family shareholders actively involved in the governance of the company may have a similar association with firm value. These shareholders have incentives very much aligned with those of PE investors. However, large family shareholders that have chosen not to be involved in the management of the company do not assume a monitoring role and might not have the competences and the knowledge to do so. This situation leaves managers with the possibility of accumulating power, isolating themselves from other governance mechanisms, and taking personal advantage of the situation, with negative consequences for the firm's value.

The remaining shareholder categories present a fiduciary type of ownership. Their representatives and managers are either professional executives or politicians, in the case of the government shareholders. They themselves are exposed to a shareholder-manager agency conflict that may affect their firm's value. Nevertheless, this conflict may be moderated or intensified by different factors. Additionally, financial institutions, industrial and service companies, and governments as investors might also buy an equity stake for reasons other than to obtain the maximum return on investment.

Multiple Large Shareholders

Ownership concentration drives a positive increase on the monitoring of the management (Jensen, 1993). However, too much concentration might shelter the firm from

other governance mechanisms such as takeovers (Hermalin and Weisbach, 1988; Morck, Shleifer and Vishny, 1988; Short and Keasey, 1999), reducing the possibility of restructuring an underperforming firm. Ownership concentration can also be the response to low shareholder protection and has a positive impact on the market value of controlling stakes if its purpose is to prevent an easy takeover (Holderness, 2003; La Porta et al., 1999, 2002). Under these circumstances, the controlling shareholders can find opportunities to transfer wealth from minority shareholders and bondholders for their own benefit (De Miguel et al., 2004; Fama and Jensen, 1983; Morck and Nakamura, 1999; Villalonga and Amit, 2006). Therefore, by holding a controlling stake, large shareholders are in a better position to negotiate a market premium at the expense of the other shareholders in case of a takeover (La Porta et al. 1999, 2002; Holderness, 2003).

The presence of a PE shareholder in combination with other shareholders should have a twofold positive impact on firm value (Lehman and Weigand, 2000; Maury and Pajuse, 2005). First, the improved monitoring and governance mechanisms put in place by the PE investor in addition to those implemented by the additional shareholder should minimize the shareholder-manager agency problem. Second, the focus on value maximization of PE investors and a more balanced distribution of power (Volpin, 2002) is expected to prevent departures from this objective through the extraction of rents from the other shareholders, reducing therefore, the large-minority shareholder agency problem.

However, the efficiency of the combination between a PE shareholder and a second large shareholder as a mechanism of governance is bounded by the type of shareholder (Franks and Mayer, 2001; Maury and Pajuse, 2005) and its level of involvement in the governance of the firm (Lehman and Weigand, 2000). These two characteristics determine the time horizon and the degree of risk that can be accepted, which as a result should have an impact on the monitoring of management (Hoskisson, Hoskisson, Busenitz and Johnson,

2008). Therefore, the active presence of a PE shareholder in combination with a second large shareholders is expected to mitigate both shareholder-manager and large-minority shareholder conflicts.

We make a distinction between the combination of PE and family shareholder and PE and fiduciary shareholders. PE and family shareholders are aligned in terms of shareholder value maximization, which in turn is aligned with those of minority shareholders (Hermalin and Weisbach, 1991; Warther, 1998). Because family shareholders with presence in the governance of the company (insider family) already mitigate the shareholder-manager agency problem, the combination between a PE shareholder and family insider shareholder may only have a marginal effect on this ongoing agency problem. However, their combination may allow mutual monitoring to reduce rent extraction from minority shareholders. Their combined presence in the ownership of the firm may therefore mitigate both agency problems unless they collude to extract rents at the expense of minority shareholders.

Hypothesis 2a. The presence of private equity and insider family shareholders in the equity is unrelated to firm value.

From the agency theory perspective, there should be a difference if the family is actively involved in the governing bodies of the firm or not. A non-engaged family shareholder provides the opportunity to the PE shareholder to extract rents for their own benefit. The presence of a PE shareholder might therefore reduce the shareholder-manager conflict, but might also allow a large-minority shareholder agency problem.

Hypothesis 2b. The presence of private equity and outsider family shareholders in the equity is unrelated to firm value.

Financial institutions, widely-held industrial or service companies, and governments as shareholders are fiduciary shareholders, and managers do not have as strong incentives as PE or family shareholders. Moreover, their objectives may be different from enhancing firm

value. There is little consensus on the impact of banks as shareholders on firm value. Edwards and Fisher (1994), Edwards and Nibler (2000), and Gorton and Schmid (1999) present contradictory results on the association of bank shareholdings with firm performance and value. It is not the mission of banks or insurance companies to take a financial stake in another company. The entry of financial institutions in the ownership of a company is often motivated by reasons other than the maximization of shareholder value, such as the securing of a loan reimbursement or the acquisition of a stake on behalf of an unidentified customer. Similarly, it is not the purpose of a company to invest in other firms for financial reasons, as the shareholders of these companies can do it on their own at a lower cost. However, it is the company's duty to manage its strategic and operational competitiveness and this could require the acquisition of a stake in another company. Therefore, a widely-held industrial or service company is more likely to pursue a strategic objective when it acquires an equity stake in another company, such as securing a partnership, facilitating the entry to a certain market, gaining specific knowledge, or controlling a potential threat. In a well-functioning capital market, companies should not invest for portfolio diversification reasons and therefore the acquisition of an equity stake is often not geared towards the maximization of shareholder value of the acquired firm. Additionally, widely-held companies as large shareholders may be willing to seek positions of control where they can easily funnel rents through transfer pricing and other commercial transactions against the interests of other shareholders.

The same rationale applies to governments, which cannot and do not invest in companies for financial reasons but do so to implement a certain political or economic program or to bail out distressed companies. Governments aim to increase the overall welfare of society, which often means sacrificing financial profit. In fact, profitability might not be the main objective as political and social interests usually dominate as a goal. However, it is worth noting that government controlled firms might be highly profitable if they benefit from

a monopolistic position that largely overcomes the drawbacks associated with having a shareholder not pursuing the maximization of the firm's value. However, the presence of a PE shareholder should put profit maximization back to the top of priorities of the management. The governance and control mechanism introduced by PE investors should therefore have a positive effect on the overall value creation of the firm.¹

Hypothesis 2c. The presence of private equity and a large financial, government or non-financial corporation shareholders in the equity is unrelated to firm value.

RESEARCH DESIGN

To explore the hypotheses related to the impact of PE shareholders on firm value, we examine publicly-listed firms in Switzerland. The focus on a single country allows us to work in a homogeneous legal, political, and economic environment and avoids some confounding effects of international settings. Firms from the same country and traded on the same stock exchange not only share a similar legal and governance framework but are also required to disclose governance information in a standardized format according to a set of accounting rules.² However, restricting our study to a single country constrains the possibility of generalizing our results to a certain extent.

From a country point of view, Switzerland provides the opportunity to study a diverse array of firms in a multicultural setting. The country is geographically located in the heart of Europe and is exposed to three of the largest and most influential European countries: Germany, France, and Italy. At the same time, Switzerland is also known for its free economic system inspired by Anglo-Saxon countries. The governance structure imposed on Swiss firms is also particular. It combines the traditional German governance, where banks play an important coordinating and monitoring role, with the Anglo-Saxon governance model, where the market is the most influential force (Demirgüç-Kunt and Levine, in

Demirgüç-Kunt and Levine, 2001, p. 81). In that respect, Switzerland ranks among the highest in the world in terms of governance indicators (World Bank, 2005) and enforcement variables (La Porta et al., 1999), but scores low in terms of shareholder protection (Dyck and Zingales, 2004; La Porta et al., 1999). According to La Porta et al. (1999), this latter circumstance is related to ownership concentration. From our dataset, around 65 percent of the market capitalization of the companies is widely held (La Porta et al., 1999, report 40 percent concentration in Switzerland).

Nevertheless, the Swiss stock market is considered sophisticated. The total market capitalization of publicly-listed firms in Switzerland amounted to approximately CHF 1 trillion (about USD 880 billion) at the end of 2007, which is very high compared with the Gross Domestic Product of the country. It is known for the high level of ownership concentration, the traditional focus of the firms on delivering dividends to their shareholders, and the legal possibility of keeping hidden reserves to smooth results and maintain dividends in difficult moments (Cormier Magnan and Morard, 2000; Leuz, Nanda and Wysocki, 2003). In addition, Switzerland presents a system where economic and voting rights are not always equal. Proxy voting is permitted, and in some cases family firms still hold a large majority of the voting through dual class share structures. Like in Germany, Swiss banks have a large indirect influence on many companies through the use of voting rights of the depository shares, their lending power, and their ability to place board members in different corporations (Ruigrok, Peck and Keller, 2006).

Sample

The initial sample for our study consists of all firms located in Switzerland and listed on the main Swiss stock market, the Swiss Stock Exchange (SWX). Consistently with previous research, we exclude banks, insurance companies, and other financial holdings. Our final sample therefore includes 116 non-financial firms. The data for our study were collected from

different sources over a six-year period from 2002 to 2007. Financial data on market and operational performance were obtained from Thomson Financials Banker database. To gather corporate governance data, due to the lack of an electronic database we had to access the annual reports one by one and collected data by hand. Only shareholders with participations greater than 5 percent have to be reported. The examination of the annual reports for our sample enabled us to identify about 1500 large shareholding observations and to trace their evolution during the period of our study. These observations are not unique and the same investor can be found in the ownership structure of different corporations. We use the websites of the firms and other public information to track the final ownership of the shareholders including the five largest shareholders of the companies in our sample (Perrini et al., 2008; Shleifer and Vishny, 1986). Three companies have more than five significant shareholders at some moment of the sample period. Only one of them adds one new category to the types of shareholders in its ownership structure. However, in this particular case, family ownership represents all together more than 50 percent of the voting rights and it has no significant impact in the overall results.

Research methods

We adopt a multi-method approach combining univariate and multivariate analysis. For the univariate tests, we perform means comparisons of performance indicators between different subsamples of firms sorted by ownership criteria. In the multivariate analysis, we calculate the predictive power of ownership variables on firm value using a Generalized Least Squares regression method (GLS). We include in our models variables to control for differences in size, capital expenditures, leverage, accounting profitability, and risk using robust standard errors to control for heterocedasticity. Table 1 provides the definitions of the variables.

Insert Table 1 about here

Since our final sample includes 116 non-financial firms with one observation per year per firm across a five-year period, we test our hypotheses using panel data models adjusted for random and fixed effects. For our empirical tests, we specify the following model:

$$\text{Firm's value} = \alpha + \beta_1 \text{ Shareholder Type 1} + \beta_2 \text{ Shareholder Type 2} + \dots + \chi_1 \text{ Control variable 1} + \chi_2 \text{ Control variable 2} + \dots + e$$

For the dependent variable expressing firm value, we use a variation of Tobin's Q³ as defined by Demsetz and Villalonga (2001) and Seifert, Gonenc, and Wright (2005). It is defined as the ratio of the year-end market value of the common stock plus the book value of total debt and preferred stock to the book value of total assets. Tobin's Q has been used as the measure for firm value in numerous studies of corporate governance such as Agrawal and Knoeber (1996), Kapopoulos and Lazaretou (2007), Perrini et al. (2008), Morck et al. (1988), Morck and Nakamura (1999), Seifert, et al. (2005), and Yermack (1996). We control for various variables. Log of Sales controls for firm size and possible economies of scale and scope. We control for return on assets as an indicator of a firm's profitability, assuming that accounting profitability has a positive impact on firm value (Yermack 1996). Capital expenditures scaled by total assets are used as a proxy for investment. Capital expenditures also controls for one of the limitations of Tobin's Q as a measure of firm's value since it partially captures the future investment opportunities of the firm. We control for leverage defined as the ratio of debt to total assets. The Beta of the firm is used to control for risk. To control for industry, we consider the broadest category of the Industrial Classification Benchmark (ICB), including seven different categories.

One of the arguments to a superior value creation of firms with a PE shareholder is the introduction of better governance practices designed to improve monitoring, control and the

alignment of the management's objectives with those of the shareholders. We consider ten different governance mechanisms suggested by the Swiss code of Best Practices for Corporate Governance (2002). These mechanisms include the existence of a 'one-share-one-vote' ownership structure, the presence of two thirds of non-executive directors, the separation of CEO and Chairman's positions, the creation of a nomination, compensation and audit committees. Additionally, we control whether the firm discloses the number of meetings held by the board, their use of equity compensation for managers and directors. Finally, we consider the adoption of the IFRS or US GAAP in contrast to the Swiss GAAP.

Independent Variables Reflecting Ownership Types and Structure

To explore the impact of ownership on firm value, we develop a specific set of constructs. We follow an approach similar to that of La Porta et al. (1999) to determine the types of large shareholders in our sample. These shareholders hold at least 5 percent of the shares of the firm and are classified as: private equity, family, financial, non-financial corporations, government, and miscellaneous. Compared with La Porta et al. (1999), we add the PE⁴ category as the focus of our study. Many blocks of shares are not disclosed by their direct owner: family or institutional shareholdings are sometimes hidden behind a series of special investment vehicles or other entities. To accurately determine the ownership structure of our sample firms, we traced the chain of ownership relations according to La Porta et al. (1999) until we found the ultimate shareholder, which is defined as the owner of at least 20 percent of the votes of the ultimate holding entity.

To test the impact of involvement on firm value, we made a distinction between insider and outsider family shareholders. The distinction is made according to the level of involvement of the shareholder in the governing bodies of the firm: the board of directors or the management board. Our level of information did not allow us to detect the presence of

family shareholders in advisory boards since the information reported by publicly-listed firms in Switzerland does not indicate the link between large shareholders and board members on an individual basis. Therefore, we had to proxy the inside or outside involvement of the large family shareholders by using the percentage of shares owned by insiders. Insider ownership indicates the percentage of shares owned by the management and the members of the board of directors. Family insider shareholder is the result of the interaction between the variable for family shareholder and a dummy indicating that insider ownership is larger than 5 percent of the shares. Family outsider shareholder indicates the presence of a family shareholder and insider ownership below the 5 percent threshold. This classification differs slightly from previous studies that focus on the presence of the founder and successive family generations (Miller, Le Breton-Miller, Lester and Canella, 2007; Villalonga and Amit, 2006) and aligns with the family insider ownership definition by Andres (2008).

We group fiduciary shareholders as: financial, corporation and government. Miscellaneous shareholders are used as the reference group in our regressions. Combinations of PE and other types of investors are the results of the interaction of the binary variables determining the presence or absence of both types of shareholders.

MAIN RESULTS

Descriptive Statistics

Table 2 reports the distribution of the various types of large shareholders associated with the firms in our sample. Within the six-year period of the study, the overall number of large shareholders has decreased for every category of shareholder except PE and financial shareholders. However, the average market value of the shareholdings has increased due to the boom of the financial market and the increasing investments made by large shareholders. PE investors have grown from CHF 3.5 billion to CHF10.6 billion in 2007 increasing the average size of the investments by 140 percent in the same period. Yet, the average value of

the blocks remains relatively small in comparison with other types of shareholders. We also observe that most of the firms (74 out of 116 in 2002) have a large family shareholder in their ownership structure, accounting for about half of the market capitalization in the hands of large shareholders. Financial shareholders have reduced their presence both in terms of the number of large blocks and the number of firms they have invested in. However, JP Morgan's major investment in Novartis in 2004 caused the average value of the block held by financial shareholders to increase substantially. It is worth noting that, unlike Germany, the direct equity ownership of banks in Switzerland is relatively low, which limits their scope of influence. However, banks can exert a certain pressure on the governing bodies of publicly-listed firms through the representative power they have from holding depository shares or through the financing conditions (Ruigrok et al., 2006). Regarding non-financial corporations and miscellaneous shareholders, the evolution has been similar to the pattern of financial shareholders, reducing the number of firms, but increasing the market value of the holdings. Government shareholders, on the other hand, have evolved in different directions. The number of blocks has increased slightly, from 6 to 7 until 2006, to be reduced to 3, however, maintaining the average market value of these blocks relatively stable.

Insert Table 2 about here

Univariate Results

Table 3 compares our measure of company valuation for the various types of shareholders. These univariate analyses indicate that the presence of private equity and family shareholders involved in the governance of companies is associated with higher valuation, while the presence of family shareholders with no involvement in the governance is associated with lower valuation. Corporate shareholders are also associated with lower valuations.

Insert Table 3 about here

Table 4 presents a matrix with the comparison of Tobin's Q means for different ownership categories, distinguishing firms with large PE, family and fiduciary shareholders. PE, family insider and financial shareholders present the highest Tobin's Q with no significant differences among these three categories. However, the value of the firms with these three categories of shareholders is significantly higher than the value of firms with most other types of shareholders.

Insert Table 4 about here

Multivariate Results

Table 5 presents the multivariate results. We control for random effects. The Hausman tests (Hausman, 1978) justified this choice over the fixed effects alternative.

The presence of private equity has a positive impact on firm value: the coefficient of the variable is statistically significant for both regressions at the 1 percent level (0.21 & 0.24). The coefficient on private equity is also significantly larger than the coefficients on Family Insider, Family Outsider, Financial, and Corporation. This evidence is consistent private equity being associated with firm value (hypothesis 1). The results are robust after controlling for corporate governance mechanisms suggesting that it is not the particular mechanisms in place, but the use that private equity investors make of these mechanisms. It is interesting to note that the coefficient for family insider shareholder is not statistically significant and is smaller than the coefficient for private equity and government shareholders, suggesting that only personal ownership is not a sufficient condition to be associated with firm value. The particular governance, experience and organizational structure of PE firms appear to influence managers and reduce the principal-agent conflict. In contrast, the family insider

shareholder does not seem to play the same role. The coefficient of the large family outsider shareholder is associated with a reduction in firm value (-0.20 & -0.19) and is statistically smaller than Family Insider suggesting that family shareholders not involved in the governance of the company have a negative association with valuation. This highlights the possible existence of an agency problem between inactive shareholders and professional managers, with the latter taking advantage of competence and information asymmetry. Finally, we find Government's coefficient to be larger than the coefficients for Family Insider, Financial, and Corporation consistent with the government investing in companies with better prospects.

Only leverage among our control variables shows a consistent statistical significance. Size, as the log of sales is positive and statistically significant only on the model specification that does not include the adoption of corporate governance mechanisms. Large companies adopt more control mechanisms and the relevance of size disappears when controlling for this governance variable. In all these models, the results are consistent and show a positive relation between a more sophisticated corporate governance system and firm value.

Insert Table 5 about here

Table 6 presents the results when considering the presence PE investors together with family shareholders in the same firm. We find that companies with family shareholders but without PE have lower valuation than those without any of these two types of shareholders and those with PE but no family shareholders. When we separate between family shareholders with participation in the governance of the company and those without, we find similar results but more sizable for family not involved in the governance. In contrast, companies with PE and without family shareholders show a significant valuation association compared to those without these two types of shareholders. Again, this effect is more

significant for family shareholders without presence in the governance structures. These results suggest the existence of higher agency costs in family owned firms that may be mitigated by the presence of PE shareholders.

Insert Table 6 about here

Table 7 presents the regression results of the combinations of PE and the different types of fiduciary shareholders. The presence of PE without other types of investors has a significantly higher value than when none of these investors are present. Furthermore, the presence of PE without financial shareholders has a significantly larger coefficient than when financial shareholders are present without PE investors. When we consider PE and government shareholders we find that the presence of PE without government is significantly larger than if none of those investors are present. Otherwise, the coefficients are not statistically different. Finally, we observe a positive and significant relation between PE and corporation shareholders (0.25 & 0.23). Furthermore, this positive relation is combined with a negative relation between corporate shareholders and firm value in the absence of PE investors (-0.20 & -0.27). The combination of these two results indicates an important role of PE investors in improving the governance of firms with large corporations in the shareholder structure of the firm. The presence of PE investors leads to the reduction of rent extraction through business transactions of corporation shareholders, the improvement of efficiency towards value maximization and an improvement of governance practices.

Insert Table 7 about here

DISCUSSION AND LIMITATIONS

This paper addresses questions related to the role of PE shareholders in the ownership structure of publicly-listed firms in a context of concentrated ownership. Our first research question tackles the impact of a PE shareholder in the ownership structure of the firm. Our results show that the presence of PE shareholders has a positive effect on the firm's value. Comparing these results with those of other shareholder categories we find PE investors as the only category with positive results. Furthermore, firms with family outsider shareholders are associated with lower valuations suggesting a higher relevance of agency costs. The presence of a PE firm therefore improves the governance of the firm as increase monitoring of management (Stiglitz, 1985; Jensen, 1993; Shleifer and Vishny, 1997), reduces information asymmetries (Eisenhardt, 1989; Conlon and Parks, 1990), creates outcome-based incentives aligned with the remaining shareholders (Eisenhard, 1989), and improves the effectiveness of the board of directors (Warther, 1998). The presence of a PE shareholder in the governing of the firm can contribute to the reduction of agency costs mitigating the shareholder-manager conflict.

Our second research question focuses on the effect of combining PE firms with different types of shareholders in a firm's ownership. We test the presence of a PE and a family shareholder and the combined presence of PE and financial, government and corporation shareholders in the ownership structure of the same firm. Double monitoring may further reduce at the same time the shareholder-manager agency conflict and the large-minority shareholder conflict. We find that in absence of PE shareholders firms with family shareholders present a negative relation with the firm's value, providing some evidence of high agency costs. However, this negative effect disappears in the presence of PE investors, suggesting certain reduction of these agency costs through improved monitoring and better governance.

Greater improvement becomes apparent when we consider the combination of PE and corporation shareholders. In coexistence, we find a positive relation with the firm's value. In the absence of PE investors, corporation shareholders show a negative association with the firm's value. These combined results highlight the great improvements that PE shareholders are able to generate through improved management and governance practices as well as focusing on value creation.

Although our results shed some light on the relationship between PE shareholders and firm value, they contain some limitations and additional research is needed. Focusing on a single country limits the possibility of generalizing these results. Exploring similar questions with international data could be very insightful. In this respect, it would be useful to gather data from continental European firms, which are known to combine various types of shareholders. Several studies have used similar methodologies using other country data (Greece, Italy, Germany, France, etc.) but do not consider the phenomenon of PE investments. Additional thresholds of shareholdings may be used to define the variables or a more precise definition of shareholders could be applied to study the impact of a more specific category of shareholder. Considering different ownership thresholds may also clarify the impact of each shareholder type on firm value and help to understand the large-minority shareholder agency problem. Furthermore, PE appears as a broad amalgam combining different types of investors. Further research on their different levels of leverage, business models and their effect on long term firm performance would improve our knowledge on the field.

The use of Tobin's Q as the dependent variable is not exempt of limitations and event studies could be a solid complementary research approach to track abnormal performance due to the involvement of PE firms. Tobin's Q has been a source of large debate about its use and accuracy (Erickson and Whited, 2006) and as a measure of value added as it captures the

value of future market opportunities (Yermack, 2004). Alternative methods of firm valuation use accounting measures as indicators of operating results instead of capital structure decisions and claim to be less influenced by future expectations (Elsayed, 2007, Andres, 2008). Despite all its limitations, Tobin's Q and its multiple alternatives, remains as the most common used measure in the finance (Erickson and Whited, 2006) and governance literature in general.

Finally, our results cannot infer causality. These problems are linked to the direction of the relations between ownership and firm value. In other words, we can hypothesize that firm value may influence the ownership structure by attracting certain types of shareholders. However, this causality may be more linked to the percentage of shares held by the shareholders than by their typology. Similar issues emerge with the adoption of corporate governance mechanisms.

CONCLUSIONS

Our study explores the impact of PE shareholders on firm value in Switzerland. Publicly-listed firms are exposed to a potential agency problem due to the separation of ownership and control. We attempt to explore whether the governance model proposed by PE firms, with a more professional supervision, aligned ownership and a clear objective of maximizing value can represent a good internal governance mechanism leading to a better alignment of interests between managers and shareholders.

The financial scandals that occurred in 2000-2002 in Switzerland and other countries highlighted the need for a better governance system. Under the leadership of EconomieSuisse, the Swiss Stock Exchange decided to implement a new code of corporate governance. Among the various new rules that are now applicable, shareholders with more than a 5 percent stake of a publicly-listed firm now need to be reported to the Stock Exchange and to the firm. With this information, we have been able to study the impact of PE

shareholders on firm value. Our results show that large PE shareholders seem to have a positive impact on a firm's value, while firms with family outsider shareholders may suffer from extraction of rents from the management. Other types of large shareholders do not seem to matter. However, the presence of PE shareholders in combination with family shareholders seems to reduce some of the agency problems. Similarly, we also observe the reduction of agency costs and increases in value on firms with non-financial corporation shareholders through the presence of PE investors. Consequently, PE investors in a context of concentrated ownership appear a source of value creation through, among other transformations, the improvement of governance practices. Improving these practices is the first step towards a healthy corporate governance system on which other internal mechanisms could be anchored.

ENDNOTES

¹ It is not rare to have multiple large shareholders in the ownership structure of a firm. Using two shareholders simplifies our reasoning. However, theoretically, the analysis can be generalized grouping multiple shareholders. Nevertheless, the practical implications increase in complexity as the interactions multiply.

² On that matter, it is important to note that Swiss firms listed on the Swiss Stock Exchange can apply the IFRS rules, U.S. GAAP or in the case of small firms (Small Caps) the Swiss GAAP. All three frameworks are known to provide high quality information to shareholders.

³ Other dependent variables such as Return on Assets and Return on Equity have been tested in previous versions of this paper with similar results.

⁴ Our definition of Private Equity is quite broad. By the characteristics of our sample, private equity funds are involved both in venture capital financing of new firms and buyout activities of more mature firms (Wright et al. 2009). Public to private (PTP) transactions are excluded from the sample once firms become private.

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TABLES

Table 1
Variable definition

Variable	Description
<i>Private Equity (PE) Shareholder</i>	Equals one if a private equity firm or alike (LBO) holds more than 5% of the shares and zero otherwise (1/0).
<i>Family Shareholder</i>	Equals one if an individual or family holds more than 5% of the shares and zero otherwise (1/0).
<i>Family Outsider Shareholder</i>	Equals one if an individual or family holds more than 5% of the shares and is not actively involved in the management or the board of directors and zero otherwise (1/0).
<i>Family Insider Shareholder</i>	Equals one if an individual or family holds more than 5% of the shares and is actively involved in the management or the board of directors and zero otherwise (1/0).
<i>Fiduciary Shareholder</i>	Equals one if shareholders other than Private Equity and Family hold more than 5% (1/0).
<i>Financial Shareholder</i>	Equals one if a widely held bank or insurance company holds more than 5% of the shares and zero otherwise (1/0).
<i>Government Shareholder</i>	Equals one if the government (domestic or foreign) holds more than 5% of the shares and zero otherwise (1/0).
<i>Corporation Shareholder</i>	Equals one if a widely held non-financial for profit organization holds more than 5% of the shares and zero otherwise (1/0).
<i>Miscellaneous Shareholder</i>	Equals one if an organization holds more than 5% of the shares and is different from Private Equity, Family, Financial, State, Corporation, and zero otherwise (1/0).
<i>Corporate Governance Mechanisms</i>	Number of corporate governance mechanisms adopted by the firm (1-10). Includes: 'one-share-one-vote', non-duality, 2/3 independent directors, nomination, compensation and/or audit committees, disclosure of the number of meetings, equity compensation for directors and/or executives, IFRS or US GAAP in contrast to Swiss GAAP.
<i>Tobin's Q</i>	Indicator of firm value scaled by assets. We use Tobin's Q as the ratio of the year end market value of the common stock plus the book value of total debt and preferred stock to the book value of total assets.
<i>Market Capitalization</i>	Market Capitalization of the firm in million Swiss Francs at the end of the year.
<i>LSales</i>	Log10 of Total Sales in million Swiss Francs. We use the log of Sales as a proxy for firm size.
<i>Capex as % of sales</i>	Capital Expenditures scaled by Total Assets are used as a proxy for Investment.
<i>Leverage</i>	Ratio of debt to Total Assets.
<i>Return on Assets</i>	Return on Assets as an indicator of firm's accounting profitability.
<i>Beta</i>	A measure of the sensitivity of a stock's price to the movement of the Swiss Market Index (SMI). Represents the tf.Beta category in the Thomson Financial's Banker database.
<i>Industry</i>	Dummy variable (1/0) considering the industrial classification benchmark (ICB).

Table 2
Type of shareholders and the market value of their holdings

	Type of Large Shareholder						Total Large Shareholdings	Total Market Capitalization
	Private Equity	Family	Financial	Non - Financial	Government	Miscellaneous		
2002								
Number of Large Shareholders	34	74	19	15	6	22	170	116
Market Capitalization of Shareholdings	3,419.0	54,690.1	1,138.4	21,414.1	13,869.6	1,579.8	96,110.9	344,211.5
Average Market Capitalization of Shareholdings	100.6	739.1	59.9	1427.6	2311.6	71.8	4710.5	2967.3
2003								
Number of Large Shareholders	36	74	16	18	5	13	162	116
Market Capitalization of Shareholdings	5,734.4	80,514.9	2,093.5	31,717.4	15,947.5	749.2	136,756.9	454,858.0
Average Market Capitalization of Shareholdings	159.3	1,088.0	130.8	1,762.1	3,189.5	57.6	6,387.4	3921.2
2004								
Number of Large Shareholders	43	73	15	12	5	13	161	114
Market Capitalization of Shareholdings	7,707.2	92,206.7	11,711.6	34,489.7	19,360.6	1,133.1	166,608.9	513,056.5
Average Market Capitalization of Shareholdings	179.2	1,263.1	780.8	2,874.1	3,872.1	87.2	9,056.5	4500.5
2005								
Number of Large Shareholders	40	69	13	10	5	8	145	105
Market Capitalization of Shareholdings	4,787.9	109,029.0	15,618.9	44,452.3	15,426.3	866.9	190,181.2	568,187.7
Average Market Capitalization of Shareholdings	119.7	1,580.1	1,201.5	4,445.2	3,085.3	108.4	10,540.1	5411.3
2006								
Number of Large Shareholders	44	70	14	9	7	6	150	103
Market Capitalization of Shareholdings	9,377.8	140,051.7	18,416.6	54,935.5	20,509.1	1,706.5	244,997.2	716,935.1
Average Market Capitalization of Shareholdings	213.1	2,000.7	1,315.5	6,103.9	2,929.9	284.4	12,847.6	6960.5
2007								
Number of Large Shareholders	44	60	23	8	3	10	148	94
Market Capitalization of Shareholdings	10,614.8	137,743.1	15,896.8	51,846.9	17,683.8	2,903.4	236,688.7	771,998.9
Average Market Capitalization of Shareholdings	241.2	2,295.7	691.2	6,480.9	5,894.6	290.3	15,893.9	8212.8

Definitions for each ownership category are found in Table 1. Market capitalization and average market capitalization are expressed in million CHF and represent the total market value and the average market value of the shares held by the large shareholders of the category. Total Large Shareholdings is the addition of all previous columns. A company can have more than one large shareholder. Total Sample considers all companies (116 in 2002), including those with dispersed ownership. Market Capitalization therefore represents the total market value of the sample. Average Market Capitalization represents the mean size of these companies.

Table 3
Descriptive statistics and test of difference

Type of Shareholder	Tobin q			Type of Shareholder	Tobin q			Difference	
	N	Mean	Std Dev		N	Mean	Std Dev	(2) - (5)	t-stat
<i>Private Equity Shareholder</i>	241	1.64	1.61	<i>Non Private Equity Shareholder</i>	407	1.38	1.19	0.26	2.39 ***
<i>Family Firms Shareholder</i>	420	1.54	1.37	<i>Non Family Firms Shareholder</i>	228	1.36	1.35	0.19	1.66 *
<i>Family Insider Shareholder</i>	309	1.72	1.53	<i>Non Family Insider Shareholder</i>	280	1.26	1.16	0.47	4.39 ***
<i>Family Outsider Shareholder</i>	111	1.05	0.55	<i>Non Family Outsider Shareholder</i>	537	1.57	0.06	-0.52	-3.67 ***
<i>Financial Firms Shareholder</i>	100	1.67	1.77	<i>Non Financial Firms Shareholder</i>	548	1.44	1.28	0.23	1.54
<i>Government Shareholder</i>	31	1.50	1.70	<i>Non Government Shareholder</i>	617	1.48	1.35	0.03	0.11
<i>Corporation Shareholders</i>	72	1.17	0.71	<i>Non Corporation Shareholders</i>	576	1.52	1.42	-0.34	-2.02 **

Means, standard deviation, and test of difference in means between firms with different categories of shareholders and the rest of firms on Tobin's Q. Variables are defined in Table 1.

Table 4
Tobin's Q by Shareholder Type

		<i>Private Equity</i>	<i>Family Insider</i>	<i>Family Outsider</i>	<i>Financial</i>	<i>Government</i>
<i>Private Equity Shareholder</i>						
	<i>Mean</i>	1.64				
	<i>N</i>	[241]				
<i>Family Insider Shareholder</i>						
	<i>Mean</i>	1.72	-0.08			
	<i>N</i>	[309]	-0.57			
<i>Family Outsider Shareholder</i>						
	<i>Mean</i>	1.05	0.59 ***	0.67 ***		
	<i>N</i>	[111]	4.55	4.73		
<i>Financial Shareholder</i>						
	<i>Mean</i>	1.67	-0.03	0.05	-0.62 ***	
	<i>N</i>	[100]	-0.14	0.25	-3.07	
<i>Government Shareholder</i>						
	<i>Mean</i>	1.50	0.14	0.22	-0.45	0.17
	<i>N</i>	[31]	0.44	0.68	-1.42	0.47
<i>Corporation Shareholder</i>						
	<i>Mean</i>	1.17	0.47 ***	0.55 ***	-0.12	0.50 ***
	<i>N</i>	[72]	3.93	4.14	-0.96	2.55
						1.05

Test of mean Tobin's Q by type of shareholders. The first column presents Tobin's Q mean and sample size [N] for each category of shareholder. The other columns present the difference in mean of Tobin's Q between two categories and the corresponding t-value. The definition of each variable can be found in Table 1. The sample comprises 648 yearly observations from publicly listed firms in the Swiss Stock Exchange in the period 2002-2007. Shareholder types are not mutually exclusive in one firm. Asterisks (*), (**), (***) denote statistical significance at the 10%, 5%, and 1% level respectively.

Table 5
The impact of private equity on firm value

	Dependent Variable: Tobin's Q	
	Model 1	
Private Equity	0.21 *** ⁺⁺⁺ 3.36	0.24 *** ⁺⁺⁺ 3.91
Family Insider Shareholder	-0.06 ^^ -0.68	-0.04 ^^ -0.42
Family Outsider Shareholder	-0.20 ** [@] -2.44	-0.19 ** [@] -2.40
Financial Shareholder	-0.05 & -0.83	-0.04 & -0.68
Government Shareholder	0.24 \$ 1.50	0.16 \$ 0.93
Corporation Shareholder	-0.09 -0.99	-0.15 -1.61
LSales	0.05 1.44	0.09 *** 2.84
Capital Expenditures as % of Sales	-0.11 -0.50	-0.06 -0.27
Leverage	-0.76 *** -3.14	-0.92 *** -3.75
ROA	0.01 * 1.76	0.01 * 1.84
Beta	0.13 0.79	0.16 0.98
CG Mechanisms	0.07 *** 4.50	
Intercept	0.16 0.67	0.37 1.56
Industry	Yes	Yes
R-Squared Overall	0.29	0.27
N	622	622

Reports panel data using random effects on an unbalanced panel data set. The first columns exhibit the results including the adoption of corporate governance mechanisms as an independent variable, while the second column does not consider that variable. All variables are defined in Table 1. Asterisks (*), (**), (***) denote statistical significance at the 10%, 5%, and 1% level respectively. Testing differences in coefficients: +++ represent significant difference from Family Insider, Family Outsider and Financial at 1% and Corporation at 5%; ^^ significantly different from Family Outsider at 5% and Government at 10%; @ significantly different at 1% from Government; & significantly different from Government at 10%; \$ significantly different from Corporation at 5%.

Table 6
Private equity and family shareholders

	Dependent Variable: Tobin's Q					
	Model 2		Model 3		Model 4	
Family Insider Shareholder					-0.13	-0.12
					-1.53	-1.41
Family Outsider Shareholder			-0.26 ***	-0.27 ***		
			-3.07	-3.17		
Financial Shareholder	-0.06	-0.05	-0.05	-0.05	-0.07	-0.06
	-0.97	-0.89	-0.93	-0.83	-1.14	-1.05
Government Shareholder	0.24	0.15	0.23	0.15	0.22	0.13
	1.55	0.87	1.49	0.88	1.34	0.75
Corporation Shareholder	-0.13	-0.19 **	-0.12	-0.18	-0.13	-0.19 **
	-1.29	-1.98	-1.24	-1.90	-1.30	-1.97
LSales	0.04	0.08 **	0.04	0.08 ***	0.04	0.08 ***
	1.07	2.43	1.22	2.61	1.24	2.62
Capital Expenditures as % of Sales	-0.10	-0.04	-0.11	-0.06	-0.10	-0.04
	-0.46	-0.21	-0.51	-0.26	-0.44	-0.20
Leverage	-0.78 ***	-0.96 ***	-0.76 ***	-0.92 ***	-0.76 ***	-0.92 ***
	-3.21	-3.86	-3.08	-3.68	-3.07	-3.67
ROA	0.01 *	0.01 *	0.01	0.01 *	0.01 *	0.01 *
	1.75	1.82	1.71 *	1.78	1.70	1.77
Beta	0.14	0.18	0.14	0.17	0.14	0.18
	0.82	1.02	0.82	1.01	0.82	1.02
CG Mechanisms	0.08 ***		0.07 ***		0.07 ***	
	4.83		4.69		4.67	
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	0.31	0.55 **	0.27	0.50 **	0.26	0.49 **
	1.24	2.26	1.08	2.05	1.04	2.01
PE & Family Shareholders	-0.03 +	0.00 +				
	-0.39	-0.06				
PE & Non Family Shareholders	0.09 ^	0.13 **, ^				
	1.37	1.97				
Non PE & Family Shareholders	-0.22 **	-0.21 **				
	-2.42	-2.31				
PE & Family Insider Shareholders			0.05 &	0.09 &		
			0.50	0.88		
PE & Non Family Insider Shareholders			0.11 *, \$	0.14 **, \$		
			1.90	2.34		
Non PE & Family Insider Shareholders			-0.16 *	-0.15 *		
			-1.77	-1.68		
PE & Family Outsider Shareholders					-0.12	-0.11
					-1.27	-1.16
PE & Non Family Outsider Shareholders					0.17 ***	0.20 ***
					2.76	3.37
Non PE & Family Outsider Shareholders					-0.25 **	-0.25 **
					-2.58	-2.48
R-Squared Overall	0.27	0.24	0.29	0.26	0.29	0.26
N	622	622	622	622	622	622

Reports panel data using random effects on an unbalanced panel data set. The first column of each model exhibits the results including the adoption of corporate governance mechanisms as an independent variable, while the second column does not consider that variable. All variables are defined in Table 1. Asterisks (*), (**), (***) denote statistical significance at the 10%, 5%, and 1% level respectively. Testing differences in coefficients: + represent significantly different from NonPE & Family at 10%; ^ significantly different from NonPE & Family at 1%; & significantly different from NonPE & Family Insider at 5%; \$ significantly different from NonPE & Family Insider at 1%; # significantly different from PE & Non Family Outsider at 1% and from NonPE & Family Outsider; @ significantly different from NonPE & Family Outsider at 1%.

Table 7
Private equity and fiduciary shareholders

	Dependent Variable: Tobin's Q					
	Model 5		Model 6		Model 7	
Family Insider Shareholder	-0.14 <i>-1.60</i>	-0.13 <i>-1.47</i>	-0.14 <i>-1.60</i>	-0.13 <i>-1.50</i>	-0.13 <i>-1.45</i>	-0.12 <i>-1.35</i>
Family Outsider Shareholder	-0.27 *** <i>-3.22</i>	-0.28 *** <i>-3.29</i>	-0.27 *** <i>-3.22</i>	-0.28 *** <i>-3.33</i>	-0.26 *** <i>-3.02</i>	-0.27 *** <i>-3.13</i>
Financial Shareholder			-0.07 <i>-1.22</i>	-0.07 <i>-1.13</i>	-0.06 <i>-1.09</i>	-0.06 <i>-1.00</i>
Government Shareholder	0.22 <i>1.35</i>	0.14 <i>0.79</i>			0.29 * <i>1.85</i>	0.22 <i>1.31</i>
Corporation Shareholder	-0.13 <i>-1.31</i>	-0.19 ** <i>-1.97</i>	-0.13 <i>-1.34</i>	-0.20 <i>-2.02</i>		
LSales	0.04 <i>1.24</i>	0.08 ** <i>2.64</i>	0.04 <i>1.26</i>	0.08 *** <i>2.64</i>	0.04 <i>1.18</i>	0.08 ** <i>2.54</i>
Capital Expenditures as % of Sales	-0.10 <i>-0.44</i>	-0.04 <i>-0.19</i>	-0.10 <i>-0.43</i>	-0.04 <i>-0.19</i>	-0.20 <i>-0.95</i>	-0.15 <i>-0.77</i>
Leverage	-0.76 *** <i>-3.10</i>	-0.93 *** <i>-3.71</i>	-0.77 *** <i>-3.11</i>	-0.94 *** <i>-3.72</i>	-0.78 *** <i>-3.17</i>	-0.94 *** <i>-3.78</i>
ROA	0.01 * <i>1.70</i>	0.01 * <i>1.77</i>	0.01 * <i>1.70</i>	0.01 * <i>1.77</i>	0.01 * <i>1.76</i>	0.01 * <i>1.83</i>
Beta	0.13 <i>0.80</i>	0.17 <i>1.00</i>	0.14 <i>0.83</i>	0.18 <i>1.02</i>	0.14 <i>0.85</i>	0.18 <i>1.04</i>
CG Mechanisms	0.07 *** <i>4.71</i>		0.07 *** <i>4.66</i>		0.07 *** <i>4.60</i>	
Industry Intercept	Yes 0.26 <i>1.04</i>	Yes 0.49 ** <i>2.01</i>	Yes 0.25 <i>1.02</i>	Yes 0.49 ** <i>1.99</i>	Yes 0.29 <i>1.18</i>	Yes 0.53 ** <i>2.14</i>
PE & Financial Shareholders	0.08 <i>0.90</i>	0.12 <i>1.42</i>				
PE & Non Financial Shareholders	0.17 ***, ^ <i>2.79</i>	0.19 ***, ^ <i>3.17</i>				
Non PE & Financial Shareholders	-0.05 <i>-0.72</i>	-0.05 <i>-0.81</i>				
PE & Government Shareholders			0.31 * <i>1.69</i>	0.24 <i>1.17</i>		
PE & Non Government Shareholders			0.17 *** <i>2.92</i>	0.20 *** <i>3.49</i>		
Non PE & Government Shareholders			0.29 * <i>1.91</i>	0.22 <i>1.36</i>		
PE & Corporation Shareholders					0.25 **, ^ <i>2.26</i>	0.23 **, ^ <i>2.08</i>
PE & Non Corporation Shareholders					0.13 **, # <i>2.02</i>	0.16 **, # <i>2.47</i>
Non PE & Corporation Shareholders					-0.20 * <i>-1.91</i>	-0.27 ** <i>-2.59</i>
R-Squared Overall	0.28	0.26	0.28	0.26	0.28	0.26
N	622	622	622	622	622	622

Reports panel data using random effects on an unbalanced panel data set. The first column of each model exhibits the results including the adoption of corporate governance mechanisms as an independent variable, while the second column does not consider that variable. All variables are defined in Table 1. Asterisks (*), (**), (***) denote statistical significance at the 10%, 5%, and 1% level respectively. Testing differences in coefficients: ^ represent significant difference from NonPE & Financial, NonPE & Corporation at 1%; # significantly different from NonPE & Corporation at 1%..