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Are Private Equity Investors Good or Evil?*

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Abstract

The paper investigates the motives of activity (entry and exit) of Private Equity (PE) investors in European companies. Investment of a PE firm is not viewed unambiguously. First, it is claimed that PE investment is made for the sake of seeking short-term gains by taking control and utilizing the company's resources. Second, PE firm invests because of prior identification of chances to add value to the company. We attempt to resolve these two conflicting conjectures. We use the Bureau van Dijk's Amadeus database of very large, large and medium sized European companies. Our major results can be summarized as follows. First, PE firms are less willing to enter the firm if there is already a blocking majority and try to leave the firm if control cannot be overtaken. Second, less mature firms have a lower chances to lure a PE firm to invest, thus indicating a safe strategy of PE investor. Third, we do not find empirical evidence that a PE investor comes in to strip a firm of its equity. On the other hand, PE is likely to leave the company if it deteriorates in terms of returns and cash. Finally, when comparing the activity of PE and other financial investors, we find essential differences in choosing the field and environment of activity.

Keywords: Private equity financing, leverage, corporate finance

JEL classification: M14, G24, G34

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1 Introduction

In many European countries the importance of private equity (PE thereafter) activity has risen in recent years. At the same time, domestic private equity/buy-out providers have come under increased scrutiny of policy makers. For example in spring 2008 Germany has enacted the Risk Limitation Act in hope to prevent objectionable macro economic activities of financial investors without simultaneously impairing efficient financial and corporate transactions. Similar activities have been initiated in other European countries. Despite the fact that the German law concedes a trade-off between the benefits and the costs of PE investment, the fear of the public that PE investors behave as "locusts" once they have entered a firm is still at the center of the public debate. PE investors are often blamed for the opportunistic behavior and PE investors are seen as seeking short-term gains by taking control and utilizing the firm's resources. Furthermore, the fear has it that PE focus primarily on wealth redistribution that is detrimental for the rest of the firm's stake holders. The holders of the opposite view, however, see PE as a mechanism that facilitates the development of a firm which would otherwise be constrained from exploiting opportunities for growth, that is support the 'welfare-improving' argument. The empirical evidence for these competing views of the phenomenon of private equity is however merely missing. Investigation of the motives of PE engagement in a firm and its impact is lacking (EEAG, 2006).

The need for a clarification of the role of PE in corporate financing has become ever more pressing during the financial crisis. The ongoing poor working of the markets for credit securitization has left deep scars in the private equity industry. In particular, the number and volume of buy-outs in the past year across Europe declined. At the same time the acquisition of public equity capital through IPOs and/or capital increases is almost at a standstill. Hardly anything, however, is in the current financial crisis for companies as important as sufficient access to equity capital.

The present paper is the first attempt to study the determinants of private equity activity (investment and exit) in Europe. By analyzing the determinants of PE activity at a micro-level, we intend to address two conflicting conjectures about the motives of PE investors: (i) investing for the sake of pure rent-seeking and (ii) investing because of prior identification of chances to add value to the company.

Because the comprehensive ownership and financial data are largely missing, particularly across countries, previous studies on the determinants of PE investment have focused on mere qualitative analysis (e.g. Thompson and Wright, 1995) or have looked only at particular aspects of the investment decision (e.g. Opler and Titman, 1993). Moreover, the analyses of activity of PE firms have been limited to the US market and listed firms as target companies. In the latter case the significant drivers for the investment are often indirectly redesigned by means of an event study (e.g. Achleitner et al., 2008).

In this paper, we examine whether PE investment is motivated by the benefits of relaxing financial constraints and incentive realignment or whether PE firm is attracted by possibilities of wealth redistribution. We do so by comparing the previous year characteristics of firms that have received a PE shareholder with those that have not. Evidence that PE shareholding is more common in firms with characteristics that indicate severe financial restrictions and/or a high potential for incentive realignment would support the hypothesis that the investment has been motivated by possibility to create rather than redistribute wealth. In addition, evidence that firms with a relatively high potential for redistribution are not the dominant targets of PE investors would suggest that concerns about rent-seeking activities are overstated.

PE funds are one particular class among financial investors. Financial institutions, specifically banks, are another prominent class of financial investors. Many researcher have focussed on the role of banks as investors in corporate debt and in equity (see e.g. Cable (1985), Rajan (1992) and John et al. (1994)). Theoretical and empirical research has shown that banks holding equity stakes in the firm often intend to influence corporate control (e.g. Gorton and Schmid, 2000). This research indicates that PE and other financial investors could be driven by similar ideas about their role in their target firms. On the backdrop of this hypothesis we intend to check in what ways PE investors are indeed unique. Therefore, we compare additionally the activity of PE and other financial investors.

We are interested in a cross-country comparison because different features characterize the financial systems and the capital markets of the countries within EU. UK usually sets an example of an extensively market-based financial system, while German economy has a reputation of being mainly bank-based. Other EU members fall somewhere in between these two extremes. Thus, in 2005 the ratio of the stock market capitalization to GDP is 1.26 for the UK and 0.43 for Germany, while

for other countries such as France and Hungary (the new EU member state) the ratio is equal 0.83 and 0.24, respectively. The picture is less pronounced if we consider ratio of private credit by deposit money banks to GDP. The indicator ranges from 1.6 for the UK and 1.23 for Germany to 0.96 for France and 0.47 for Hungary. The reason for paying attention to differences in the financial architecture is twofold. First, the financial system may significantly influence the investment activity of the PE industry (Black and Gilson, 1998). Second, in our econometric setting the financial environment is most likely to be an important control variable for unobserved cross-country heterogeneity.

We use the data from two sources. We build our firm-level data-set from the 2008 (November) edition of the Amadeus data base provided by Bureau Van Dijk. The data base includes ownership history beginning in 2000. From this base, we retrieve financial ratios, ownership information and other firm-specific variables for companies in all European countries for the years 2000 to 2008. The country-level data on the nature and evolution of the financial system is adopted from the World Bank Financial Structure Database (Beck et al., 2000).[1]

Our major results can be summarized as follows. First, PE firms will invest with lower probability if a target firm already has blocking majority and try to leave the firm if control cannot be overtaken. Second, risky and financially constraint target firms have lower chances to receive PE investment. Third, PE investor does not seem to care much about the management of the company, but when it leaves labor productivity better be bigger. Finally, on both entry and exit PE wishes large shareholder funds, yet it initiates exit once firm's cash melts. Additionally, we come to the conclusion that PE investor stands out as a separate type of the investor since its activity is driven by different motives than other non-PE financial investor.

The paper unfolds as follows. In Section 2 we briefly review the literature and sketch the evolution of the PE industry in Europe in last years and develop behavioral hypotheses based on previous theoretical models and literature in Section 3. Section 4 presents the empirical model and describes the data. The empirical results and their discussion are provided in Section 5, while Section 6 concludes.

[1]The financial structure data were accessed at the http://siteresources.worldbank.org/INTRES/Resources/469232-1107449512766/FinStructure_2007.xls.

2 PE investments in Europe in recent years

According to the commonly used broad definition in Europe, the activities of PE investors range from complete buy-outs over minority stakes and expansion capital to start-up and seed investments. Traditionally, the most active PE market in Europe in terms of both fundraising and investing is the United Kingdom, followed by France and Germany (EVCA, 2008). Within few years, buy-outs have become the most important segment in the PE sector in Europe. The buy-out segment dominates in various countries, including the countries in Central and Eastern Europe such as the Czech Republic, Hungary, and Poland. Since 2003 more than three quarters of the fundraising of European PE-firms were going to the European buy-out segment. The investment of these firms into buy-outs increased from more than 60 in 2003 to nearly 80 percent in 2007 (EVCA, 2008). In 2007 international financial investors completed 1485 European buy-out deals worth an unprecedented amount of 177 billion EUR (CMBOR, 2008). Both figures fell sharply in 2008. The buy-out market lost about two third of its volume. All deals of 2008 added up only to 69 billion Euro. The number decreased to 1198. The final quarter of 2008 is in particular responsible for the shrinkage of the market. It showed only 220 buy-outs with a total volume of Euro 10 billion.

By buying-out, a PE firm takes control of a company, turns it around, and is willing to sell it or to float its shares after several years. A considerable share of a buy-out price is traditionally debt financed. The debt share in the total acquisition price generally fluctuates between 60 and 80 percent (Axelson et al., 2008). The equity capital for these acquisitions is provided not only by the buy-out funds, but also by the future management of the acquired companies, although to a substantially lesser extent. In the past the debt capital for European buy-outs generally came from banks and from institutional investors. Upon completion of the acquisition, the different risk-bearing loan tranches are passed on to the participating investors and, in some cases, also to the market. In 2008, due to the financial crisis and the downturn in the market for syndicated and securitized loans there is a clear tendency towards downsizing of a deal, more specifically, the average deal shrank to around 58 million EUR in 2008 compared to 118 million EUR during 2007, accompanied by decrease in leverage ratios (CMBOR, 2008). Anecdotal evidence suggests also that increasing number of PE firms invest in minority stakes either to use the stake as a platform for acquiring majority stake in the future or to

gain a seat on the board for the purpose of increasing and exerting the influence on the target company's business strategy. So called acquisitions by buy-out companies amount to 106 transactions in the UK and Central Europe (CMBOR, 2008). Because the median age of targeted companies in our sample is 16 years we are set to scrutinize exactly the buy-out segment (whose targets are typically mature firms) as this segment receives ever increased attention.

3 The factors that influence the PE activity

The reasons for PE investors to acquire stakes, hold them for a certain period and then sell it to companies, other financial investors or to the public extend from the demand of family owners or individuals for decreasing their cluster risk to realizing increased earning opportunities by removing a poorly working corporate governance regime. Usually the lifetime of a PE fund ranges from 7 to 10 years. Then, returns have to be distributed to investors, mainly pension funds and other institutional investors. Accordingly, by the very definition of its business model, PE is present in a company only for a limited period of time. The reasons for exit are clearly connected to the entry decision. Basically one would expect that PE fund managers exit if they have reasons to believe that "the job for what they came in is done" or that the chance to achieve the goals has vanished. Therefore, we assume that the motives which drive PE entry affect PE exit as well, although in a modified form. Accordingly, we discuss general behavioral factors that as the literature identifies might influence the activity of private equity firms in European countries.

3.1 Ownership and control in a target firm

Berle and Means brought up the issue of a separation of ownership from control already in 1932. They emphasized that dispersion of shareholding creates for each single shareholder an incentive to free ride on the control intensity of company's shareholders. As a result no control occurs, and the management would pursue all kinds of personal goals to the detriment of the shareholders (Manne, 1965; Williamson, 1967). In the line of this argument active investors buying a share big enough to cover their control costs and combine this deal with a considerable participation of

the management in the ownership of the company would reinstate the unity of ownership and control. Dispersed ownership signals the possibility for PE investors to gain high returns (Jensen, 1986). If, however, there is already a powerful shareholder present, this signals to PE investors that the potential for value adding is low. Moreover, presence of non-PE financial investor (probably bank) might imply good performance and low risk but also lack of opportunities. On the other hand, inability of PE firm to acquire control over the firm, and thus manage firm's resources at will might drive PE investment out.

3.2 Equity or debt capacity of a target firm

The ability of PE funds to raise a great deal of debt capital for the acquisition of a target company, in addition to equity capital, has had a strong influence on promoting the negative image of financial investors in many European countries. However, the debt ratio plays a significant part in corporate management. Jensen (1986) describes high debt ratio as a carrot and stick strategy. On the one hand, it permits a high concentration of the share holding and a fairly high participation by the management, which guarantees high performance incentives. On the other hand, the high debt and the inherent threat of rapidly losing their position because of the narrow distance to default is like a hard sanction mechanism. In this sense companies that are highly capitalized indicate slack and a low level of automatically working management control. In addition, highly capitalized companies leave room for savings on corporate taxes. In years with a sufficient low risk premia on loan financing, the leverage effect would guarantee an immediate increase of the shareholder return by reorganization of the capital structure (see e.g. The Economist, 2006). The debt can serve as a controlling device and a mean of realizing higher tax savings and shareholder returns. This powerful device has also implication for ending the engagement of PE firm with negative consequences for the firm, i.e., after several rounds of distributing existing equity capital to themselves as shareholders leaving the company saddled with debt and interest payments and selling its assets.

3.3 Maturity of a target firm

Risky and financially constraint firms have advantages and disadvantages in attracting PE investors. Small companies, companies that are owned privately and/or by families, are often regarded as being opaque and nontransparent for a potential lender or shareholder. Asymmetric information between companies and investors and moral hazard lead to rationing by lenders (e.g. Bester, 1985) or by the capital market, if the company is listed in an illiquid stock market segment (see Wright et al., 2006). Almeida et al. (2004) argue that constrained firms save high cash out of cash flows to be insured against shortage of liquidity if positive net present values have to be funded. They find that US-firms that are located in the lower quartile of the size distribution indeed accumulate liquidity while larger firms refrain from doing so. Baum et al. (2008) show that European firms in the lower quantiles of the size distribution also stockpile cash out of cash flow. In addition, they find that the magnitude of the stockpiling depends on the country's financial structure and the development. Off-the capital market equity capital may ease the level of financial constraints. Additional equity injection may improve the capital structure of these firms. The observed close relationship of PE firms, in particular buy-out specialists, with the banking sector may also enable PE investors to activate additional debt capital.

The risky companies are quite unlikely to raise debt capital from the capital market (The Economist, 2009a). We measure the risk by company's probability of default (PD) and since banks are not going to grant a credit to a company once it crosses certain PD threshold, the only way this risky company can obtain capital is from institutional investor(s) such as PE funds. PE investors have gained a reputation of being specialists to turn around a company (e.g. Thompson and Wright, 1995). However, if the evil image of PE investors is true the engagement into the company would turn the company from being mature—not financially constraint and not risky—into abysmal state, and exit should be positively affected by these characteristics.

3.4 Management in a target firm

PE investors are said to refurbish the market for corporate control and to bring fresh managerial skills to a target company (Wruck, 2008). They

do invest when they see a possibility to improve the management and efficiency of a target firm. Since they usually come for relatively short period of time, they are balancing between making long– and short-term improvements. For example, Williamson (1967) and Jensen (1986) consider excess cash flow (free cash flow) as complementary to high capitalization, and as a further indication of a company's weak corporate governance. Given little debt service, the management enjoys large discretion in spending money on unprofitable projects (see also Opler et al. (1999) and Lehn and Poulsen, 1989). PE investor targeting such company may recognize the potential of stopping such practice of wasting company's resources by restructuring the companies financing and by initiating a business model that generates more profitable growth.

However, the common public perception of PE investments in mature firms is different. The targeting of "cash cows" is ascribed to the fact that the generated liquidity can be used either to buy back shares on the market or pay large dividends to shareholders. Both would allow a quick amortization and a high return to the PE investment.

Short-term barometers of firm's management such as current labor productivity or return may indicate possibilities to PE investor to transfer wealth from employees to shareholders or ripping the profit benefits (Betzer, 2006). Fast growing companies are becoming a powerful magnet for PE investment due to potential to satisfy PE's financial interest. However such target companies are not always fond of being bought-out because they would thus loose control over the firm.

3.5 Financial development of country in which a target firm operates

Black and Gilson (1998) suggest that a bank-centered financial system is unable to develop an effective PE industry since its underdeveloped stock markets fail to deliver an efficient exit channel. However, this supply side-driven conclusion may not hold from the point of view of the demand side. Equity capital enables companies to insure themselves against liquidity and income risks. This financing mode is also a "door-opener" for debt capital. With low significance of capital markets in a country's financial system, off-market investment financing is becoming more and more important since possibly existing equity capital gap could be closed using such type of financing. PE funds are one of the few available sources

for off-market equity capital and PE capital outside of the stock-market could in theory at least partly compensate for a lack of public equity capital. Since financial development of a country is a proxy for environment in which PE firm would operate, it should be a positive driver of the PE activity viewed in broader sense, i.e., be important for both PE entry and PE exit.

Addressing these behavioral hypotheses in general framework of PE activity, that is PE entry and PE exit, would indicate which on two conflicting views is favored: PE having welfare-improving characteristics, or PE as a mechanism to redistribute the company's resources and hinder its long-term goals.

4 Methodology and data

Shareholder history The data comes from Amadeus Database (Bureau van Dijk.) The Amadeus base contains a historical data of shareholders, which runs back to 2000. The base enables to identify the type of the shareholder, though the classification of the PE investment is tricky. We made sure that we really deal with the PE, by inquiring and choosing the appropriate NACE code of the investor and by comparing the names to the established list of the PE firms.[2] We have generated a dummy variable 'd_P' equal to 1 if at least one PE investor is among the shareholder in a particular year. Variable 'd_P_d' is then the difference of 'd_P' in two subsequent years. Accordingly, that 'd_P_d' is equal to one, implies that the PE investor entered in this year. Among total of 151,243 cases, the data reveals 3,335 PE entries (2.21 percent). The way the dependent variable is constructed precludes a secondary buy-out (Strömberg, 2007).[3] We only look at the cases when underlying variables suited for the analysis are available. Thus, of approximately 250,000 cases available in the data base, the sample reduces to 151,243 observations fit for the regression analysis. Table 1 presents the frequency of the variable 'd_P_d' by years. We observe increasing tendency in PE investment up to year 2007 and an abrupt plummet in 2008. Table 1 seems to mirror the aggre-

[2] A subscription was acquired at http://www.privateequityinfo.com.

[3] A secondary buy-out implies that one PE firm acquires the company from another PE firm. Our 'd_P_d' variable indicates that in period t a company has at least one PE investor and that in period $t-1$ PE firm(s) was(were) not among company's shareholders.

Table 1: Frequency of PE Entry by years

Year	N_{total}	$N_{\text{PE Entry}}$	PE Entry, %
2001	1,219	4	0.33
2002	2,200	37	1.68
2003	13,659	221	1.62
2004	13,717	295	2.15
2005	22,490	428	1.90
2006	29,601	824	2.78
2007	42,532	1,332	3.13
2008	25,825	194	0.75
Total	151,243	3,335	2.21

gate market development in the recent months. The sharp devaluation of mortgage backed securities and collateralized debt obligation beginning in the midst of 2007 immediately infected other markets for asset backed securities. Banks are now stockpiling syndicated loans given to PE firms in earlier deals since the securitization and distribution to the capital market is not feasible. Leveraged financing of PE deals has dried up as inventories of PE loans for earlier deals have grown in the banks' books and risk aversion of credit institutions reached new heights. A deepening financial crisis resulted in a sharp decline of PE investments (e.g. The Economist, 2009b).

PE in the form of venture capital is said to enter young firms while buy-out investors primarily target older firms. Figure 1 shows the distribution of the age[4] of firm at the moment of PE entrance. The mean and the median are 28 and 16 years respectively. These numbers indicate quite a large share of mature firms.

Table 2 gives frequencies of the PE entries by countries. United Kingdom, France, and Spain received the most of the PE investments, although Ireland and Switzerland have the largest portions of PE entries. Other significant recipients of PE investments are Germany, Italy, Belgium, Sweden. Norway has the largest number of observations but lags in terms of attracting PE investors: the share is only 0.4 percent.

[4]The age of a company is defined as a difference between year of the observed PE entry and year of company's incorporation.

Table 2: Frequency of PE Entry by countries

#	Country	N_{total}	$N_{\text{PE Entry}}$	PE Entry, %
1	Ireland	38	14	36.84
2	Switzerland	812	84	10.34
3	Luxembourg	13	1	7.69
4	United Kingdom	21,025	1,065	5.07
5	Austria	197	9	4.57
6	Germany	5,747	254	4.42
7	Netherlands	2,238	85	3.80
8	France	25,231	652	2.58
9	Finland	2,785	52	1.87
10	Spain	21,890	395	1.80
11	Greece	2,969	52	1.75
12	Sweden	9,081	140	1.54
13	Italy	14,259	199	1.40
14	Portugal	1,523	20	1.31
15	Belgium	11,540	143	1.24
16	Poland	2,406	27	1.12
17	Denmark	1,860	20	1.08
18	Czech Republic	855	9	1.05
19	Romania	2,307	24	1.04
20	Hungary	121	1	0.83
21	Estonia	408	3	0.74
22	Slovakia	211	1	0.47
23	Norway	20,382	81	0.40
24	Ukraine	1,819	3	0.16
25	Bulgaria	1,503	1	0.07
26	Latvia	23	0	0
	Total	151,243	3,335	2.21

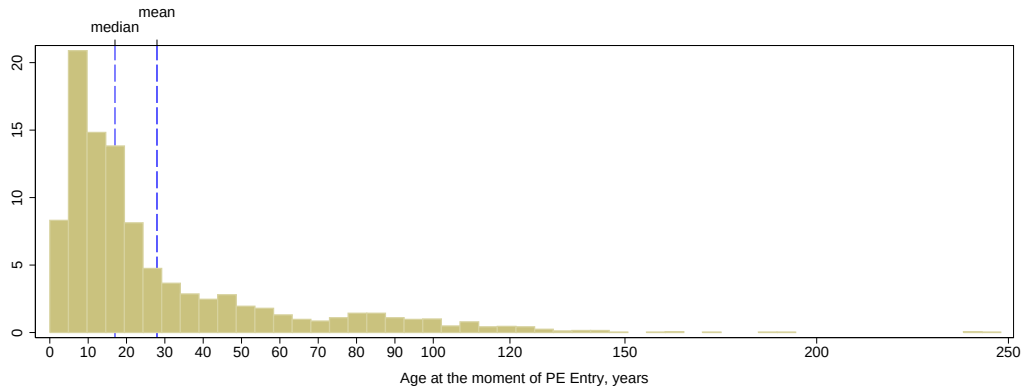

Figure 1: Distribution of age of firms that received PE investment

Specification The aim of the study is to investigate which micro characteristics of the firm in previous period attract PE investment in the current period. We thus make use of the basic binary choice model, the *logistic* regression.[5] As in many empirical applications, we write `logit` as

$$\text{Prob}(Y = 1|X) = \frac{\exp(\alpha + \beta X)}{1 + \exp(\alpha + \beta X)}, \tag{1}$$

where X is a vector of explanatory variables for firm i and α and β's are parameters to be estimated. We are primarily interested in regression coefficients. Before presenting our results, let us turn briefly to description of the vector of explanatory covariates, X.

Explanatory variables To test our hypotheses we generate the following variables. 'Ownership' is equal to one if one of the shareholders has either majority of ultimate ownership, and zero otherwise.[6] 'Financial investor' is a dummy variable indicating that non-PE financial investor was among shareholders. 'Manufacturing' variable is one if a primary or secondary NACE code implies that target firm engages in manufacturing

[5]We have chosen logistic over probit model. Greene (2003) claims that "...it is difficult to justify the choice of one distribution or another on theoretical grounds."

[6]Since we want to test the hypothesis about dispersed ownership, we also conducted the analysis with variable 'Dispersed Ownership' which is equal to one if any other type of shareholder has at least 40 percent stake, and zero otherwise. This variable shows the same effect as variable 'Ownership' but considerably reduces the sample because position 'Direct Ownership, %' in the Amadeus data base has many missing values. That is why we prefer to use variable 'Ownership' rather than 'Dispersed Ownership.'

sector of the economy.[7] The 'Financial constraint' variable is constructed along the lines of Almeida et al. (2004). More specifically, 'Financial Constraint' is equal to one if firm's total assets are below the value of the 30^{th} percentile of distribution of the total asset, and zero otherwise. 'Risk' reflects relative probability of default, that is the default probability of the firm divided by probability of default of peer group.[8] To calculate the probability of default, Bureau van Dijk uses the MORE rating,[9] which is calculated using a unique model that references the company's financial data to create an indication of the company's financial risk level. Furthermore, Bureau van Dijk claims that the ratings are comparable across countries—two companies from different countries with the same rating have the same creditworthiness. In order to account for the financial development of a country and the degree of investor protection (LaPorta et al., 2000) we also include a macro variable 'Market Capitalization' variable normalized by real GDP, which was accessed from World Bank webcite dedicated to financial structure of countries.[10] 'Labor Productivity' is a operating revenues per employee. 'Return on Capital' is return on capital employed. 'Equity' is a continuous variable representing shareholder funds. We normalize 'Equity,' 'Cash Flow' and 'Labor Productivity' by total assets to prevent size effects. 'Cash Flow Growth' is merely a ratio of current to previous value of the Cash Flow.

Table 3 presents the descriptive statistics of variables for observations without missing values. It is clear that 'Ownership' is one only in 7.6 percent of cases, while 27 percent of firms are financially constraint. In treating outliers we have winsorized variables 'Equity', 'Cash Flow', 'Cash Flow Growth', 'Risk' 0.5 percent and variables 'Labor Productivity' and 'Return on Capital' 2.5 percent. Although probability of default ranges form 0 to 1, it ranges up to 31 when adjusted for peer probability of

[7] Unfortunately, Amadeus data base gives industry affiliation only the last year, 2008. But we think it is not plausible that manufacturing firm dramatically changes its operation and quits being manufacturing either primarily or secondary.

[8] Defined in Amadeus data base.

[9] See `http://www.modefinance.com` for details.

[10] LaPorta et al. (2000) have shown that market capitalization is closely related to the applied legal system and the resulting degree of investor protection. The latest version can be downloaded at `http://siteresources.worldbank.org/INTRES/Resources/469232-1107449512766/FinStructure_2007.xls`. The values for year 2008 are not derived yet so we assume they are equal to those in 2007. It may seem quite a strong assumption given events of 2008, but since we conduct a cross-country study, we believe it is reasonable to do so because indices would not change relatively to each other.

Table 3: Descriptive Statistics

Variable	Mean	Sd	Min	Q1	Median	Q3	Max
Ownership	0.076	0.26	0	0	0	0	1
Financial investor	0.38	0.49	0	0	0	1	1
Manufacturing	0.31	0.46	0	0	0	1	1
Financial Constraint	0.27	0.44	0	0	0	1	1
Risk	2.19	4.57	0.03	0.18	0.49	1.61	31.30
Market Capitalization	0.84	0.37	0.026	0.56	0.84	1.02	3.03
Labor Productivity	462	728	0	118	219	444	3831
Cash Flow Growth	1.10	4.32	-28.0	0.58	1.01	1.44	33.40
Return on Capital	22.8	41.3	-72.7	3.77	14.3	34.2	165
Cash Flow	0.087	0.13	-0.52	0.028	0.075	0.14	0.59
Equity	0.34	0.25	-0.53	0.15	0.30	0.50	0.96

default. Such relative relationship enables to control for risk heterogeneity of the group in which firm is operating. 'Equity' is quite dispersed, but distributed symmetrically as mean and median values are almost the same.

In our analysis, we lag (one year) all the explanatory variables, since we are interested in investigating how last year firm-level characteristics influence receiving investment from a PE firm in the current year.

5 Empirical results

5.1 Private Equity entry

In this section, we provide empirical evidence on whether our company characteristics, identified as potentially influential, indeed affect the entry and exit decision of PE investors. We consider three models in the regression analysis. The first uses all available observations. It is reasonable to believe that some observations are influential and might drive all the results. Additionally, quite different financial and economical system might prevent some factors to reveal their true effect. Indeed a quick look at the Table 2 suggests that the sample of all less original $EU-15$ countries comprises mostly economies unable to attract PE investment. That

is why we also consider regression with original EU−15 countries. Finally, we analyze the group of EU−27. Table 5 provides marginal effects after `logit` estimation. The descriptive statistics of the variables in three samples employed in the regression are shown in Table 4. It turns out however that the differences are not as pronounced as one might think.

First, it is clearly seen that if in previous years a firm had been ultimately owned or owned by the majority, the PE investor is less likely to invest in such a firm. Additionally, the presence of non-PE financial investor seems to repel PE investor. Therefore, we conclude that PE firm is reluctant to invest in a firm, in which it cannot take over the control.

Second, the positive and significant coefficient at 'Equity' variable implies that PE investment is more likely the larger the equity of the firm. It is a long-standing policy debate wether or not PE investors come to a firm in order to extract something valuable for own good. Our analysis seems to provide empirical evidence that PE firms seem to target firms with low debt to profit from an increase in leverage. This may add value by disciplining managers, but also indicates a potential for reallocating existing equity funds for the benefits of the PE investor. Both entry motives are possible. However, further light on the question of whether the potential for a redistribution of wealth is indeed used on a broad scale can be expected from the analysis of the exit decision.

Third, we have seen that the age of target firm indicates that PE firm prefers relatively mature target firm. The regression analysis confirms this conjecture as the coefficient in front of variables 'Financial Constraint' and 'Risk' are negative and significant. The way we constructed the 'Financial Constraint' variable, implies that PE is cautious about smaller firms since they could be relatively young and less well known, which makes them more susceptible of capital market fluctuations. Hence, private equity firm seems to prefer a safe path. On the one hand this result is bad news for founders of new firms, on the other hand it indicates that structured finance associated with PE-activity is less risky than market participants currently assume due to the turmoil in the markets for securitized loans (EEAG, 2006).

Fourth, we looked at short– and long term indicators of management performance. Although it is reasonable to expect that the high growth firm in terms of cash flow is capital hungry and thus would attract a PE investor, our analysis does not support this hypothesis. The regression implies that PE firm makes its decision to invest in a company irrespec-

Table 4: Descriptive Statistics

Variable	Mean	Sd	Min	Q1	Median	Q3	Max
				Entire Sample			
Ownership	0.076	0.26	0	0	0	0	1
Financial investor	0.38	0.49	0	0	0	1	1
Manufacturing	0.31	0.46	0	0	0	1	1
Financial Constraint	0.27	0.44	0	0	0	1	1
Risk	2.19	4.57	0.03	0.18	0.49	1.61	31.30
Market Capitalization	0.84	0.37	0.026	0.56	0.84	1.02	3.03
Labor Productivity	462	728	0	118	219	444	3831
Cash Flow Growth	1.10	4.32	-28.0	0.58	1.01	1.44	33.40
Return on Capital	22.8	41.3	-72.7	3.77	14.3	34.2	165
Cash Flow	0.087	0.13	-0.52	0.028	0.075	0.14	0.59
Equity	0.34	0.25	-0.53	0.15	0.30	0.50	0.96
				EU−15			
Ownership	0.089	0.29	0	0	0	0	1
Financial investor	0.35	0.48	0	0	0	1	1
Manufacturing	0.31	0.46	0	0	0	1	1
Financial Constraint	0.29	0.45	0	0	0	1	1
Risk	2.34	4.79	0.03	0.18	0.56	1.74	31.30
Market Capitalization	0.91	0.32	0.240	0.66	0.88	1.20	2.69
Labor Productivity	491	747	0	129	236	475	3831
Cash Flow Growth	1.07	4.31	-28.0	0.58	1.00	1.39	33.40
Return on Capital	19.9	37.7	-72.7	3.61	13.6	31.3	165
Cash Flow	0.080	0.12	-0.52	0.026	0.070	0.13	0.59
Equity	0.34	0.25	-0.53	0.16	0.31	0.50	0.96
				EU−27			
Ownership	0.088	0.28	0	0	0	0	1
Financial investor	0.34	0.47	0	0	0	1	1
Manufacturing	0.32	0.47	0	0	0	1	1
Financial Constraint	0.29	0.45	0	0	0	1	1
Risk	2.34	4.81	0.03	0.18	0.55	1.73	31.30
Market Capitalization	0.87	0.36	0.026	0.58	0.85	1.14	2.69
Labor Productivity	473	737	0	120	225	459	3831
Cash Flow Growth	1.07	4.34	-28.0	0.57	1.00	1.41	33.40
Return on Capital	19.7	37.6	-72.7	3.48	13.4	31.1	165
Cash Flow	0.081	0.12	-0.52	0.026	0.070	0.13	0.59
Equity	0.34	0.25	-0.53	0.16	0.32	0.51	0.96

Table 5: Marginal effects after logit estimation of PE investment determinants in European Companies. The associated *t*-statistics are reported in parentheses.

Variable	ALL	EU−15	EU−27
Ownership	−.0102884***	−.0139768***	−.0131894***
	(−13.13)	(−14.84)	(−14.82)
Financial investor	−.0135132***	−.0146839***	−.0138068***
	(−21.07)	(−18.76)	(−18.78)
Manufacturing	.0034802***	.0033496***	.0028519***
	(−5.03)	(−3.82)	(−3.47)
Financial Constraint	−.005809***	−.0077625***	−.0072262***
	(−9.06)	(−9.53)	(−9.38)
Risk	−.0008154***	−.0010961***	−.001055***
	(−7.59)	(−8.09)	(−8.25)
Market Capitalization	.0159352***	.0150157***	.0170296***
	(−23.98)	(−12.8)	(−16.84)
Year	.0011275***	.0016561***	.0016025***
	(−5.76)	(−6.58)	(−6.74)
Labor Productivity	2.82E−08	−9.82E−07	−6.27E−07
	(−0.06)	(−1.64)	(−1.12)
Cash Flow Growth	0.0001133	0.0001676	0.0001466
	(−1.6)	(−1.87)	(−1.74)
Return on Capital	−.0001462***	−.0001891***	−.0001755***
	(−10.54)	(−10.35)	(−10.23)
Cash Flow	−0.0063271	−0.0069146	−0.0050691
	(−1.89)	(−1.63)	(−1.26)
Equity	.0070495***	.0066156***	.0052178**
	(−4.88)	(−3.53)	(−2.97)
N_{total}	151,243	120,396	128,230

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;

tive of this company's growth of cash flow. Additionally, our regression analysis implies that PE firm is indifferent with respect to the level of the firm's cash flow. This seems to contradict the wide-spread view that PE firms enter to nourish themselves from cash-cows. Nor PE firm is interested in labor productivity of the firm. The existing return on capital affects the entry decision in a negative way. This evidence supports the view that PE managers invest if they have identified room for economic and financial improvement.

Finally, PE investors seek to invest in countries whose relative market capitalization is bigger. Although this macro variable is used mostly as a control for unobserved heterogeneity of countries, larger capitalization implies better conditions and/or availability of financing for a PE firm. Thus, PE seems to be a complement rather than a substitute to public equity, consistent with the supply-side argument of Black and Gilson (1998).[11]

Discarding the slight changes in magnitudes of the coefficients, but taking only significance into account, the results suggest that major conclusions on tested hypotheses found for the entire sample hold for EU−15 and EU−27 groups of countries. This is expected given minor differences in descriptive statistics presented in Table 4.

We have also controlled for the year in which PE entry ensued to test the influence of a change in the financial environment over time. It seems that time has positive effect, implying that every year there more PE entries. We also confirm a view that PE firm is more likely to invest

[11]The PE investments can be hypothesized as being motivated by the aim to redistribute wealth to shareholders through increasing leverage in a period of low interest rates. We therefore have retrieved the national lending rates from International Financial Statistics-2009 data base. Because they are not available for all countries and it is missing for some years, our sample reduces to approximately 128 thousands, or by 10%. As expected, the effect of lending rate on PE entry is negative and strongly significant, while other effects do not change (see Table A.2). This speaks in favor of Axelson et al. (2008) argument that the looser the credit market conditions are the higher the probability of a deal becomes. We choose, however, not to include this variable for two reasons. First, the sample is cut subject to availability, which means we drop not the whole country from the analysis, but only some years. If we wish to drop a country when lending rate is not available at least in one year we will end up with following only 11 countries (instead of 26): Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Romania, Ukraine, and United Kingdom. Second, the main virtue of our study is that we analyze determinants of PE activity at the micro-level and include macro variables only to control for an environment. That is why we would like to concentrate on micro-level factors.

Table 6: Frequency of PE Exits by years

Year	N_{total}	$N_{\text{PE Exit}}$	PE Exit, %
2001	1,269	4	0.32
2002	2,297	13	0.57
2003	13,911	115	0.83
2004	14,049	141	1.00
2005	22,978	256	1.11
2006	30,125	325	1.08
2007	43,240	861	1.99
2008	27,304	584	2.14
Total	155,173	2,299	1.48

in manufacturing firm, although they comprise only third of our sample. Another concern is the Norway's very large number of observations, but very small number of PE entries. We have reran the regression without Norway (The Table A.1 with results appears in appendix), but this does not change our major conclusions.

5.2 Private Equity exit

We have created the variable 'PE Exit' is the same fashion we constructed variable 'PE Entry.' More specifically, 'PE Exit' is a binary variable which is equal to one if there is none PE investor among shareholder in year t and there is at least one PE investor in year $t-1$. In this section we would like to investigate the motives of exits of private equity firms within the same context as the entry decision. In other words, we employ the same firm characteristics in order to see what kind of firm investors leave behind when they quit a firm. The frequencies of 'PE Exits' by years and countries are presented in Tables 6 and 7, respectively. Figure 2 shows the age distribution of the firm at the moment of exit of PE.

Table 6 suggests much smaller activity of PE investors in terms of quitting firms during 2001−2008. Figure 2 implies that PE firms have been exiting both young and mature firms with mean and median being almost the same at those for PE Entries. Furthermore, PE turnover is again mostly take place in United Kingdom, France, and Spain. These three

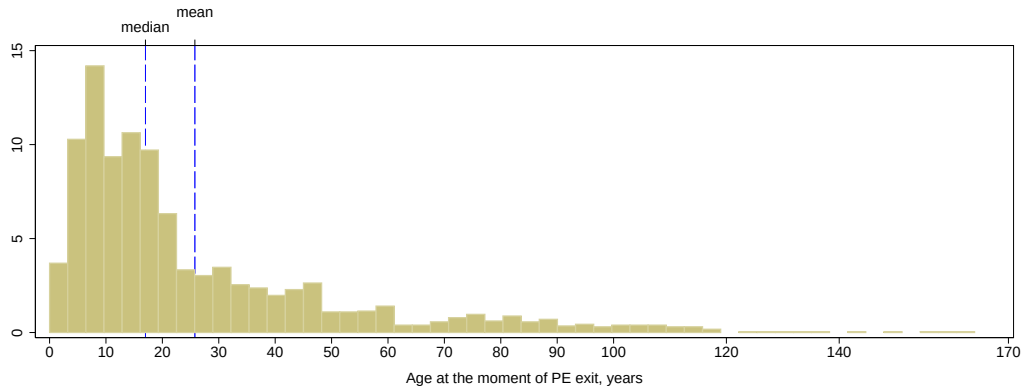

Figure 2: Distribution of age of firms that PE investor exited

facts suggest PE firms act consistently and gradually: they exit about the same firms and in about the same countries as they enter.[12]

We employ the same set of variables to investigate what drives exit of PE investor. The results of marginal effects after `logit` estimation of private equity exits appear in Table 8.

Several observations from Table 8 are worth mentioning. PE investor is likely to leave if it was not able to get majority ownership in the firm. That result (effect if significant at any conventional level) implies that getting a strong shareholders' position is a crucial motive for a PE investment.

The regression analysis suggests that PE stops caring about firm's being risky or financially constraint when it leaves. (Although marginally significant for EU−15 and EU−27 group of countries.) It implies that exposure of the firm to market fluctuations does not influence the decision of PE investors to leave, while it does a lot in case of PE Entry.

PE firm completely sells shares of a firm in a good macro environment, which speaks for public capital substitution argument. And more exits happen as time passes by, giving some support of cycle conjecture.

When leaving PE firm care that operating revenue per employee is positive, which would show off that firm is expanding. Other management indicators has either only marginally significant effect (return on

[12]We do not have enough data to prove PE firms enter and exit in cycles, but we feel it might be the case.

Table 7: Frequency of PE Exits by countries

#	Country	N_{total}	$N_{\text{PE Exit}}$	PE Exit, %
1	Germany	6,109	153	2.50
2	United Kingdom	22,876	534	2.33
3	Netherlands	2,332	48	2.06
4	Czech Republic	791	15	1.90
5	France	25,962	467	1.80
6	Switzerland	1,024	18	1.76
7	Poland	2,355	41	1.74
8	Ireland	58	1	1.72
9	Sweden	9,139	142	1.55
10	Finland	2,884	44	1.53
11	Austria	198	3	1.52
12	Belgium	11,467	163	1.42
13	Spain	22,299	312	1.40
14	Greece	3,042	40	1.31
15	Italy	14,335	186	1.30
16	Estonia	410	5	1.22
17	Denmark	1,881	17	0.90
18	Portugal	1,550	13	0.84
19	Romania	2,322	16	0.69
20	Slovakia	204	1	0.49
21	Norway	20,462	76	0.37
22	Bulgaria	1,497	4	0.27
23	Hungary	121	0	0
24	Latvia	23	0	0
25	Luxembourg	11	0	0
26	Ukraine	1,821	0	0
	Total	155,173	2,299	1.48

capital), or not significant at all, which suggests PE's exit is not influenced by the state of management of firm that it is going to leave in the next year.

Finally, the likelihood of a termination of the PE investment is higher if the firm's cash flow get scarce. However, PE investors are more prone of leaving if the firm is better capitalized. The latter clearly contradicts the hypothesis that PE investors leave their portfolio firms after they have

Table 8: Marginal effects after logit estimation of PE investor exit determinants in European Companies. The associated *t*-statistics are reported in parentheses.

Variable	ALL	EU−15	EU−27
Ownership	.0078799***	.0061153***	.0062746***
	(7.38)	(5.21)	(5.55)
Financial investor	−.0118325***	−.0122243***	−.011955***
	(−22.97)	(−19.86)	(−20.51)
Manufacturing	.0029846***	.003621***	.0033***
	(5.35)	(5.09)	(4.92)
Financial Constraint	−.000431	−.0008987	−.0007965
	(−0.80)	(−1.33)	(−1.24)
Risk	−.0001223	−.0001722*	−.0001781*
	(−1.80)	(−2.02)	(−2.19)
Market Capitalization	.0049819***	.0046496***	.0051684***
	(8.64)	(4.91)	(6.21)
Year	.0026625***	.0033938***	.0033533***
	(15.26)	(15.53)	(16.10)
Labor Productivity	1.74e−06***	1.71e−06***	1.73e−06***
	(5.82)	(4.39)	(4.67)
Cash Flow Growth	−.0000721	−.0001152	−.0001052
	(−1.28)	(−1.61)	(−1.55)
Return on Capital	−.0000243*	−.000027*	−.0000237*
	(−2.50)	(−2.14)	(−1.97)
Cash Flow	−.0097426***	−.0126697***	−.0117913***
	(−3.78)	(−3.88)	(−3.79)
Equity	.004901***	.0053861***	.0047217***
	(4.26)	(3.63)	(3.37)
N_{total}	155,173	124,143	131,866

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;

extracted shareholder funds to the detriment of the firm and replaced it with debt. Combining the findings of Tables 5 and 8 we claim that PE investor enters firm with big equity and leaves it with such, but while it seems not to be attracted by available cash, it strives to leave the firm, when cash flow reduces.

5.3 Uniqueness of PE among financial investors

PE funds are one particular class of financial investors. Financial institutions, specifically banks, are another prominent class. The role of banks as investors in corporate debt and in equity has achieved a lot of attention in the past. It has been argued that banks that invest in equity stakes often intend to control and influence the target company's management. This research implies that the whole class of financial investors could share common motives that drive both corporate investment and divestment activities. In this section we empirically compare PE and other financial investors in order to check whether the factors that influence the decision to invest pertain to PE investor or they can be generalized to other financial investors as well.

Tables 9 and 10 present the marginal effects after `logit` estimation of the determinants of entry and exit decision of non-PE financial investors. There are four essential differences between drivers of PE and non-PE financial investor's activity that are worth mentioning.

First, non-PE financial investor is likelier to invest as well as exit the company this year if at least one PE investor was present last year. Regarding investment, the banks and other financial investors might take the presence of a PE as a positive signal for the potential of the firm (Janney and Folta, 2003). However, the fact, that a non-PE financial investor is more willing to leave if a PE investor is present might indicate that sharing corporate control among strategically oriented financial investors is a rather difficult task.

Second, in contrast to PE funds, other financial investors have no particular preference for the manufacturing sector. Third, non-PE financial investors are active with larger probability in countries that have low levels of market capitalization. This observation is in line with the notion that in low market-capitalized financial systems, so-called bank based systems, banks invest in firm debt but also to a fairly large extent in firms'

Table 9: Marginal effects after logit estimation of non-PE financial investment determinants in European Companies. The associated *t*-statistics are reported in parentheses.

Variable	ALL	EU-15	EU-27
Ownership	−.0115684***	−.00943***	−.0084598***
	(−5.47)	(−4.41)	(−4.00)
PE investor	.0362341***	.0386121***	.0361408***
	(12.88)	(13.47)	(13.04)
Manufacturing	.0011547	.0013848	.001865
	(0.85)	(0.96)	(1.33)
Financial Constraint	−.0119375***	−.0102586***	−.0090236***
	(−8.90)	(−7.28)	(−6.56)
Risk	−.0022486***	−.0022204***	−.0021853***
	(−10.73)	(−10.32)	(−10.56)
Market Capitalization	−.0062282***	−.0072217***	−.0056995**
	(−3.69)	(−3.49)	(−3.12)
Year	.0037257***	.0045157***	.0042675***
	(9.05)	(10.25)	(9.97)
Labor Productivity	−3.92e−07	1.32e−06	1.16e−06
	(−0.45)	(1.50)	(1.33)
Cash Flow Growth	.0001756	.0000834	.0000728
	(1.23)	(0.55)	(0.50)
Return on Capital	−.000223***	−.000325***	−.0003144***
	(−9.13)	(−11.43)	(−11.33)
Cash Flow	.0035899	.00144	−.000198
	(0.52)	(0.20)	(−0.03)
Equity	−.0082258**	−.0034602	−.0040337
	(−2.72)	(−1.07)	(−1.30)
N_{total}	133,495	108,793	115,696

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;

Table 10: Marginal effects after logit estimation of non-PE financial investor exit determinants in European Companies. The associated *t*-statistics are reported in parentheses. Norway is excluded.

Variable	ALL	EU-15	EU-27
Ownership	.0179149***	.0094569***	.0102264***
	(8.58)	(4.84)	(5.20)
PE investor	.0105665***	.0087809***	.00713***
	(5.81)	(4.62)	(3.83)
Manufacturing	.0012935	−.0006294	.0003782
	(1.28)	(−0.55)	(0.34)
Financial Constraint	.0008688	−.0014861	−.0005935
	(0.83)	(−1.28)	(−0.52)
Risk	−.000372**	−.000387**	−.0004616**
	(−2.90)	(−2.71)	(−3.27)
Market Capitalization	−.0125643***	−.0232335***	−.0233492***
	(−9.68)	(−13.93)	(−15.70)
Year	.0047257***	.0080327***	.0075785***
	(14.87)	(22.00)	(21.14)
Labor Productivity	1.64e−06**	8.40e−07	6.99e−07
	(2.62)	(1.18)	(0.97)
Cash Flow Growth	.0000165	.0000159	9.88e−06
	(0.15)	(0.13)	(0.08)
Return on Capital	−.0001202***	−.0000952***	−.0000898***
	(−6.61)	(−4.46)	(−4.24)
Cash Flow	−.0175553***	−.0122281*	−.0169216**
	(−3.49)	(−2.12)	(−2.99)
Equity	.00672**	.0031803	.0036769
	(3.05)	(1.23)	(1.47)
N_{total}	147,202	118,020	124,999

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;

equity. Forth, if we control for the countries of the European Union, or restrict the analysis to the economies of EU−15 or EU−27 group, non-PE investors decision to either invest in the company or leave the company is independent of how big the debt capacity of this company is. When we, however, take all twenty six countries into consideration, non-PE financial investors seem to be more likely to enter if the debt capacity is low and to exit if the debt capacity is high. Such findings would be in line with the notion that shareholding of banks is often initiated by a bank's position as relationship lender (Elsas and Krahnen, 2003).

6 Concluding remarks

In the recent years the policy makers have become increasingly concerned with reconciling two contradicting views on the role of PE for the economy in general and companies in which they invest in particular. First, it is conjectured that engagement of a PE investor may and does provide the financing needed for development of the company, and thus such engagement constitutes positive effect. Second, some share a view that PE investor enters the company, that has good perspectives, in order to squeeze company's cash resources and exploit company's good standing, therefore implying negative effect. However, to the best of our knowledge, testing these conceptually opposite hypotheses with good quality data is broadly missing. This paper provides empirical evidence for better understanding what makes PE firm invest using comprehensive microdata for 28 European countries.

Our results suggest that before investing PE investors seem to care and are less willing to invest if majority or whole shareholder is present. They try however to leave the firm if they cannot take over the control of this firm. Additionally we find that a financially constrained and risky company is less successful in attracting investment from a PE firm. But this two factors do not influence the decision of PE fund manager to leave. Further, when investing the PE firm does not show more interest in firms with better management, but they do exit the firm when it exhibits a high positive labor productivity. Most remarkably, while PE tries to exit the firm when cash gets scarce it both invests and leaves the firm that has big shareholder funds.

The proposed analysis provides neither support for the "evil–" nor for the "angel"–hypothesis. We could not find strong signs that private equity investments are mainly motivated by the aim to add value. At the same time, we were unable to provide support for the view of PE investors as asset strippers. We find, however, that PE investors are quite normal investors that intend to avoid an observably high risk and shy away from vulnerable and possibly opaque firms. Furthermore, there is a clear evidence that PE capital and stock market equity capital are not substitutes but complements. Finally, PE investors opt to engage in sound companies and prefer to deal with mostly mature firms.

There are similarities but also significant differences between PE investors and non-PE financial investors. In contrast to their counterparts PE investors play a special role in providing equity capital to the capital-intensive manufacturing sector. We also found that PE serves as a complement to the public capital provided by stock exchanges whereas non-PE financial investors rather seem to substitute such public capital. However, the often observed joint presence of PE and other financial investors in the company also hints at a largely neglected phenomenon in the existing research on private equity: the "division of labor" between different types of financial investors (Neuberger, 2009).

Finally, we would like to emphasize though, that one has to be cautious when evaluating the results. First, the purpose of our analysis was a cross-country comparison and therefore we concluded for an 'average' European company. Nevertheless, including the macro control variable into regression has shown that countries are statistically significantly heterogeneous and possibly separate conclusions have to be drawn for each country. This is however possible only for a handful of countries due to data availability. Second, although we believe that our conclusions are robust, we would like to acknowledge that some countries are really badly represented and broad conclusions for such countries are separate regions might not necessarily hold.

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7 Appendix

Table A.1: Marginal effects after logit estimation of PE investment determinants in European Companies. The associated *t*-statistics are reported in parentheses. Norway is excluded.

Variable	ALL
Ownership	−.0130595***
	(−14.66)
Financial investor	−.013061***
	(−17.91)
Manufacturing	.004021***
	(−4.89)
Financial Constraint	−.0079295***
	(−10.46)
Risk	−.0010799***
	(−8.37)
Market Capitalization	.0165938***
	(−20.93)
Year	.0016521***
	(−7.04)
Labor Productivity	−6.40E−07
	(−1.15)
Cash Flow Growth	0.0001452
	(−1.73)
Return on Capital	−.0001778***
	(−10.08)
Cash Flow	−0.0039256
	(−0.99)
Equity	.0044613**
	(−2.58)
N_{total}	130,861

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;

Table A.2: Marginal effects after logit estimation of PE entry determinants in European Companies. The associated *t*-statistics are reported in parentheses.

Variable	ALL
Ownership	-.0114241***
	(-13.22)
Financial investor	-.0131283***
	(-18.64)
Manufacturing	.0041372***
	(5.34)
Financial Constraint	-.0056274***
	(-7.72)
Risk	-.0008383***
	(-6.98)
Market Capitalization	.0136878***
	(15.07)
Lending rate	-.001472***
	(-7.61)
Year	.0019187***
	(7.82)
Labor Productivity	-6.29e-07
	(-1.22)
Cash Flow Growth	.0001367
	(1.75)
Return on Capital	-.0001434***
	(-9.01)
Cash Flow	-.0073119
	(-1.96)
Equity	.0063029***
	(3.92)
N_{total}	128,681

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;