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Abstract

The paper investigates the motives of Private Equity (PE) investors to engage in European companies. Investment of a PE firm is not viewed unambiguously. First, it is claimed that PE investing is made for the sake of poor redistribution of wealth. 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. A financially constraint or risky company has lower chances to lure a PE firm to invest. On the one hand, the larger the equity of the company the larger the likelihood of receiving investment from a PE firm. On the other hand, larger cash flow is likely to repel PE investor.

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) 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 company is still at the center of the public debate. PE investors are often blamed for focussing purely on wealth redistribution that is detrimental for the rest of the company's stake holders. However, especially across countries but also at a regional level, the empirical evidence that sheds light on the motives of PE investors to engage in a company is a broadly missing. This paper aims to contribute in this respect. By analyzing the determinants of PE investment at a micro-level, we intend to address two conflicting conjectures about the motives of PE investors: (i) investing for the sake of poor 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 and 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.

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, 1998a). 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 findings suggest that the more financially constrained and risky the company the smaller is the probability of receiving PE investment. Additionally, we find that growth of the firm does not influence the decision of PE firm to invest. We show that PE firm is more likely to invest if the company has more shareholder funds. Finally, our results suggest that larger cash flows decrease the likelihood of attracting a PE investor.

The paper unfolds as follows. In Sections 2 and 3 we briefly review the literature and sketch the evolution of the PE industry in Europe in last years and develop our hypothe-

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

ses. 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.

2 PE investments in Europe in recent years: the general perspective

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(first half of 2008), international financial investors completed 1479(637) European buy-out deals worth 174(38) billion EUR (CMBOR, 2008).

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 70 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 out 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 Determinants of PE investment−the hypotheses

The reasons for PE investors to acquire stakes in companies 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. In this paper, we test seven hypotheses on the determinants of PE investment in European countries.

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. Thus, we test

Hypothesis 1 *the higher the stake of the non-PE largest shareholder the lower is the likelihood of a PE-investor.*

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 notion of debt as a controlling device and a mean or realizing higher tax savings and shareholder returns leads us to

Hypothesis 2 *if the ratio of equity to total assets increases the likelihood of a PE investment goes up.*

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 dividends to shareholders. Both would allow a quick amortization and a high return to the PE investment. Either of these conjectures gives rise to

Hypothesis 3 *the higher the cashflow of the company the higher is the likelihood of receiving a PE investment.*

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). 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 enable PE investors to activate additional debt capital. Therefore we test whether

Hypothesis 4 *more constraint company is likelier to attract a PE investor.*

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. Our measure of being financially constraint is based on (see Almeida et al., 2004).

Akin to the situation of being financially constraint, 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 bank is 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). We believe that PE firms could just be such type of investor. PE investors have also gained a reputation of being specialists to turn around a company (e.g. Thompson and Wright, 1995). Both implies

Hypothesis 5 *a higher-risk company has more chances to lure PE investor entry.*

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 apparently the control over company will be diluted and the prospects for the future might get grim when high growth disappears. We are now however care about what drives PE firm to invest, therefore we anticipate

Hypothesis 6 *the higher the growth rate of cash flows the higher is the likelihood of attracting a PE investor.*

Black and Gilson (1998b) 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. Thus, given that PE capital outside of the stock-market could in theory at least partly compensate for a lack of public equity capital, we suggest

Hypothesis 7 *the lower the market capitalization the higher is the likelihood of an PE investment in such an environment.*

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 104,052 cases, the data reveals 3,797 PE entries (3.65 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 104,052 observations fit for

[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	Frequency	Percent
2001	5	0.1
2002	29	0.8
2003	197	5.2
2004	309	8.1
2005	453	11.9
2006	975	25.7
2007	1,602	42.2
2008	227	6.0
Total	3,797	100.0

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 aggregate 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 0.43 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.

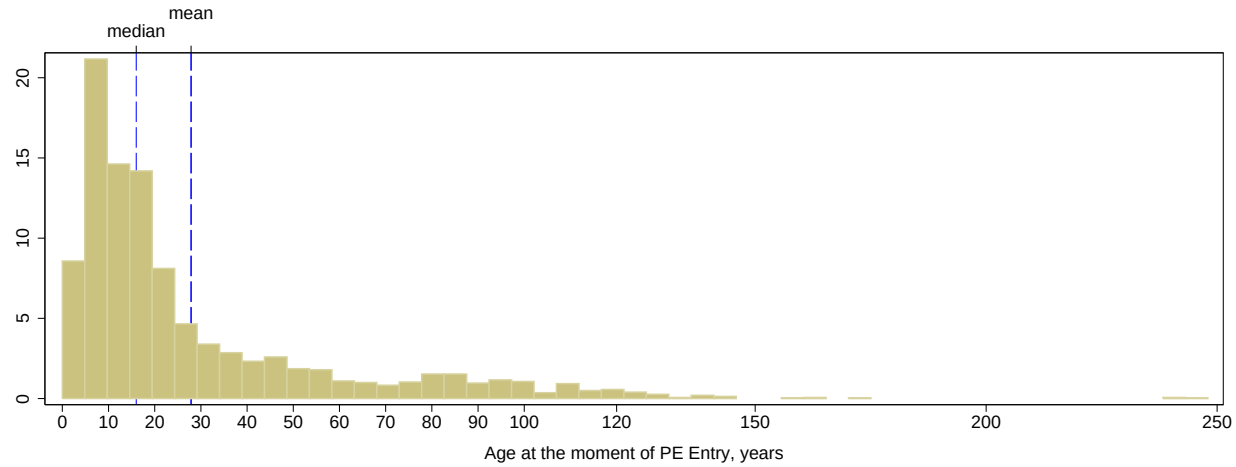

Figure 1: Distribution of age of firms that received PE investment

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. 'Majority Ownership' is equal to one if one of the shareholders has either majority of whole ownership, and zero otherwise. '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. 'Debt' is a continuous variable representing shareholder funds. We normalize 'Debt,' and 'Cash Flow' by total assets to prevent size effects. 'Cash Flow Growth' is merely a ratio of current to previous value of the Cash Flow. 'Risk' reflects rela-

[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."

Table 2: Frequency of PE Entry by countries

#	Country	N	PE Entry	PE Entry, %
1	Austria	126	9	7.14
2	Belgium	7,591	160	2.11
3	Bulgaria	1,089	1	0.09
4	Croatia	580	15	2.59
5	Czech Republic	375	9	2.4
6	Denmark	3,797	62	1.63
7	Estonia	202	6	2.97
8	Finland	1,077	51	4.74
9	France	13,353	783	5.86
10	Germany	4,565	290	6.35
11	Greece	1,947	53	2.72
12	Hungary	953	7	0.73
13	Iceland	16	0	0
14	Ireland	118	20	16.95
15	Italy	6,518	199	3.05
16	Latvia	12	0	0
17	Luxembourg	105	5	4.76
18	Netherlands	1,175	77	6.55
19	Norway	25,068	108	0.43
20	Poland	1,082	28	2.59
21	Portugal	1,405	39	2.78
22	Romania	1,021	22	2.15
23	Slovakia	58	1	1.72
24	Spain	12,888	397	3.08
25	Sweden	5,457	132	2.42
26	Switzerland	657	83	12.63
27	Ukraine	1,494	3	0.2
28	United Kingdom	11,323	1,237	10.92
	Total	104,052	3,797	3.65

tive probability of default, that is the default probability of the firm divided by probability of default of peer group. To calculate the probability of default, Bureau van Dijk uses the MORE rating,[6] 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

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

Table 3: Descriptive Statistics

Variable	Mean	Sd	Min	Q1	Median	Q3	Max
Majority Ownership	0.04	0.19	0	0	0	0	1
Financial Constraint	0.26	0.44	0	0	0	1	1
Debt	0.32	0.73	−115	0.14	0.30	0.51	8.12
Cash Flow	0.08	0.27	−16.1	0.03	0.07	0.14	32.4
Risk	2.62	6.66	0.003	0.22	0.54	1.66	294
Cash Flow Growth	1.50	68.2	−5,702	0.58	1.02	1.46	10,415
Market Capitalization	0.83	0.36	0.03	0.57	0.83	1.02	3.03

from different countries with the same rating have the same creditworthiness. We also include a macro variable 'Market Capitalization' variable normalized by real GDP, which was accessed from World Bank web-cite dedicated to financial structure of contries.[7]

Table 3 presents the descriptive statistics of variables for observations without missing values. It is clear that 'Majority Ownership' is one only 4 percent of cases, while 26 percent of firms are financially constraint. Although probability of default ranges form 0 to 1, it ranges up to 294 when adjusted for peer probability of default. Such relative relationship enables to control for risk heterogeneity of the group in which firm is operating. 'Debt' is quite dispersed, but distributed symmetrically as mean and median values are almost the same. The range of 'Cash Flow Growth' variable is huge, but we decided to keep it and reserve it for the robustness check it elimination of outliers would change our major conclusions.

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

In this section, we provide empirical evidence for our seven hypotheses by means of regression analysis. We first consider a model which uses all available observations. Table 4

[7]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.

Table 4: Logit estimation of PE investment determinants in European Companies. The dependent variable is an entry of the PE investor, 'd_P_d'. The associated *t*-statistics are reported in parentheses.

	Model 1[4a]	Model 2[4b]	Model 3[4c]	Model 4[4d]
Majority Ownership	0. 2269**	0. 0168	0. 0292	0. 0345
	(2. 95)	(0. 21)	(0. 38)	(0. 40)
Financial Constraint	−0. 2354***	−0. 3276***	−0. 3232***	−0. 2141***
	(−5. 72)	(−7. 71)	(−7. 71)	(−4. 66)
Debt	0. 3768***	0. 1439**	0. 1286**	0. 0576
	(7. 09)	(3. 07)	(2. 83)	(1. 45)
Cash Flow	−0. 6086***	−0. 4927***	−0. 4489***	−0. 3025***
	(−10. 05)	(−7. 68)	(−7. 35)	(−4. 91)
Risk	−0. 0099**	−0. 0178***	−0. 0188***	−0. 0063
	(−2. 64)	(−4. 62)	(−4. 92)	(−1. 62)
Cash Flow Growth	0. 0001	0. 0001	0. 0001	−0. 00004
	(0. 83)	(0. 67)	(0. 57)	(−0. 13)
Market Capitalization	1. 0579***	0. 7747***	0. 8790***	0. 8857***
	(28. 94)	(14. 84)	(18. 26)	(23. 32)
Constant	−4. 2506***	−3. 5949***	−3. 7100***	−3. 4415***
	(−90. 98)	(−59. 75)	(−66. 27)	(−71. 85)
Pseudo R2	0. 03	0. 01	0. 02	0. 03
N	104,052	71,445	76,237	47,628

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;
[4a] All available observations included;
[4b] Only EU−15 countries are included;
[4c] Only EU−27 countries are included;
[4d] All available observations included less those that have at least one financial investor.

presents results of the basic regression in the first column under "Model 1" marker, Table 5 provides marginal effects. We look at the extensions robustness checks then.

First, it is clearly seen that if in previous year a firm had been entirely owned or owned by the majority, the PE investor is more likely to invest in such a firm. Therefore we accept hypothesis 1. PE investor might consider that in case it wants to buy the majority stock it is going to be easier to negotiate with only one owner than with dispersed shareholders.

Second, if a firm is financially constrained the likelihood that PE investor enters next year is smaller. 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

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

	Model 1[5a]	Model 2[5b]	Model 3[5c]	Model 4[5d]
Majority Ownership	0. 0080***	0. 00075	0. 0012	0. 0019
	(2. 69)	(0. 21)	(0. 37)	(0. 39)
Financial Constraint	−0. 0071***	−0. 014***	−0. 013***	−0. 011***
	(−6. 04)	(−8. 26)	(−8. 24)	(−4. 88)
Debt	0. 012***	0. 0064***	0. 0054***	0. 0032
	(7. 13)	(3. 07)	(2. 83)	(1. 45)
Cash Flow	−0. 019***	−0. 022***	−0. 019***	−0. 017***
	(−10. 1)	(−7. 70)	(−7. 37)	(−4. 91)
Risk	−0. 00032***	−0. 00080***	−0. 00079***	−0. 00034
	(−2. 64)	(−4. 64)	(−4. 94)	(−1. 62)
Cash Flow Growth	4. 8e−06	5. 4e−06	4. 4e−06	−2. 0e−06
	(0. 83)	(0. 67)	(0. 57)	(−0. 13)
Market Capitalization	0. 034***	0. 035***	0. 037***	0. 049***
	(29. 9)	(15. 2)	(19. 0)	(24. 2)

*, **, and *** indicate statistical significance at the 5%, 1%, and 0.1% test levels, respectively;
[5a] All available observations included;
[5b] Only EU−15 countries are included;
[5c] Only EU−27 countries are included;
[5d] All available observations included less those that have at least one financial investor.

known, which makes them more susceptible of capital market fluctuations. Hypothesis 4 is thus, accepted.

Third, positive coefficient at 'Debt' variable implies that PE investment is likelier the larger the equity of the firm. It is a long-standing policy debate wether or nor PE investors come to a firm in order to extract something valuable for own good. Our analysis seems to provide empirical evidence to reject hypothesis 2 and indeed PE investors are attracted by large equity of a firm.

Fourth, our regression analysis strongly rejects the hypothesis 3 that PE firm rather comes to a firm with large cash flow. This seems to contradict the wide-spread view that PE firms enter to nourish themselves from cash-cows.

Fifth, according to our results, PE firm is rather reluctant to invest in risky company, which in turn does not support our hypothesis 5. Companies with large probability of default are very unlikely to be granted a loan at the bank, so they turn to financial investors. If it is a young and promising enterprise it will mostly probably finds a PE (such

as a venture capital) investor. Our results however can not confirm this conjecture and it is not surprising given the age of firms that receive PE investment (recall Figure 1).

Sixth, 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 irrespective of this company's growth of cash flow. We can neither accept nor reject hypothesis 6.

Finally, PE investors seek to invest in countries whose relative 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. We broadly accept the hypothesis 7.

5.1 Robustness check

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 quick look at the Table 6 suggests that the sample of all less original EU−15 countries comprises mostly economies unable to attract PE investment. Exceptions are naturally, those developed countries that do not belong to the Union, Switzerland and Norway.

Economically, original EU−15 countries might be assumed to be more or less homogeneous and performing analysis on solely this sample can therefore reveal some features that were disclosed when all 28 countries are pooled together. We reduce the entire sample by 32,324 observations (mostly due to case of Norway), but we increase the number of PE entries in the sample in relative terms from 3.91 to 5.17 percent. The results of this exercise can be found in the second column of the Tables 4 and 5 under marker 'Model 2.'

Discarding the 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 countries except for the hypothesis 1. More specifically, in the sample of EU−15 countries, when making investment decision, PE firms do not take into consideration if majority or whole ownership characterizes a target company.

Table 6: Frequency of PE Entry by countries, all less EU−15

#	Country	N	PE Entry	PE Entry, %
1	Bulgaria	1,089	1	0.09
2	Croatia	580	15	2.59
3	Czech Republic	375	9	2.40
4	Estonia	202	6	2.97
5	Hungary	953	7	0.73
6	Iceland	16	0	0.00
7	Latvia	12	0	0.00
8	Norway	25,068	108	0.43
9	Poland	1,082	28	2.59
10	Romania	1,021	22	2.15
11	Slovakia	58	1	1.72
12	Switzerland	657	83	12.63
13	Ukraine	1,494	3	0.20
	Total	32,324	283	0.88

The conclusion on rejecting or accepting of all other hypotheses still hold and are not affected by employing different sample.

Then we re-ran the regressions on a sample of the enlarged European countries, EU−27.[8] The results of this exercise appears in the third column of Tables 4 and 5. The coefficients of this regression are almost identical to those of regression on EU−15 countries despite the sample increased by roughly five thousands. This implies that the difference between two samples EU−15 and EU−27 countries does not alter the major conclusions. Unfortunately, the sample of only eight countries is too small to run separate regression on it.

Finally, one might think that presence of financial investors (other than PE) might influence the decision of PE firm to invest. Therefore for purity of the experiment, we re-ran regression on the entire sample less those firms that have at least one financial investor. The results are presented in the last column of the Tables 4 and 5. By doing so, the sample reduces more than in half, from 104 to 47 thousands. There two differences to the results of the entire sample. First, that the target company has either majority or whole owner stops to matter for PE when she chooses to invest. Thus we can neither

[8]This adds eight countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, and Slovakia. We do not have observations for Cyprus, Lithuania, Malta, and Slovenia.

reject nor accept the hypothesis 1. Second, probability of default does not determine the decision of the PE firm to invest. The rest of the conclusions made for the entire sample, hold for this sub-sample as well.

Although these checks have brought about some minor differences, we suggest that the results of this paper are robust and leave it for the future to experiment with other tests for robustness.

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 micro-data for 28 European countries.

Our results suggest that before investing PE investor seem to care and is more willing to invest if majority or whole shareholder is present. This conclusion is however not robust to sampling variation. Additionally we find that a financially constrained and risky company is less successful in attracting investment from a PE firm. Further, PE firm does not care if the target company is fast growing or not. We also find that while PE firm is more interested in investing if the company that has more shareholder funds, it is rather reluctant to invest in a company with large cash flow.

In support of our conclusions we performed a battery of robustness checks, but still 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 shows that countries are statistically significantly heterogeneous and possibly separate conclu-

sions 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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