DO FIRMS CONTROLLED BY PRIVATE EQUITY PAY HIGHER EXECUTIVE COMPENSATION?

Pedro Barros*, Andre Carvalhal**

Abstract

This study investigates executive compensation on Brazilian companies controlled by private equity funds. Although there is a vast literature on executive compensation in many countries, there are only a few studies on executive compensation in private-equity-controlled companies in Brazil. Our analysis of 657 listed companies in Brazil from 2008 to 2011 show that private-equity-backed firms have higher individual and variable compensation, and better corporate governance standards.

Keywords: Corporate Governance, Executive Compensation, Private Equity, Brazil

* Pontifical Catholic University of Rio de Janeiro
** Pontifical Catholic University of Rio de Janeiro

1 Introduction

The executive compensation has gained prominence in the academic community and in the media in general, driven by misalignment between company performance and the compensation of its executives in some cases. This pattern can be seen, for example, in the failure of Enron and Lehman Brothers, in which their top executives received bonuses for their performance, although the companies filed for bankruptcy.

The theme also called the attention of regulators. The Brazilian Securities & Exchange Commission (CVM) approved in 2009 the Instruction 480/09, which made mandatory the disclosure of detailed executive compensation by publicly-traded companies in Brazil.

The shareholder activism towards more disclosure on executive compensation also increased in Brazil, especially by private equity (PE) funds. These funds buy stakes in companies and seek to influence the company's management to improve their returns. Many PE managers create value through the implementation of better corporate governance systems that encourage executives of these companies to seek better performance.

Despite the relevance of the subject, there are only a few studies on executive compensation in PE companies in Brazil. This paper analyzes the executive compensation of Brazilian companies invested by PE funds. The central research question is: do companies invested by PE funds pay higher executive compensation?

Bebchuk and Fried (2005) argue that the compensation packages not only fail to encourage executives to increase shareholder value but also create perverse incentives for executives to make decisions contrary to the interests of shareholders. The amount of compensation to be agreed is often determined by comparing the values practiced by the market (Bebchuk and Fried, 2006; Diprete et al., 2010). Company negotiators often conduct market research to determine the average wages paid, and the literature suggests that every time some executive negotiates a higher pay, the values practiced in the market are revised upward.

Another relevant factor is the influence that executives may have in their own hiring and decision of its compensation package. This influence can vary depending on the shareholding structure of the company, which is a relevant variable to explain the compensation received by its executives (Tosi Jr and Gomez-Mejia., 1989; Lambert et al, 1993; Core et al., 1999; Hartzell and Starks, 2003). In addition, the board has no interest in bargaining executive compensation since they often are executives of other companies and such trading has a social cost to them (Bebchuk and Fried, 2006).

Empirical evidence shows that the remuneration received by the executives of a company is higher if the members of the compensation committee are nominated by their own executives. Main et al. (1995) point to the influence of these executives in the decisions of their own remuneration.

The presence of foreign shareholders may be associated with lower executive compensation and performance improvement (Lambert et al., 1993; Core et al. 1999), since it can be associated with better monitoring of executives by shareholders (Tosi Jr and Gomez-Mejia, 1989).

Moreover, the existence of institutional investors can be positively related to increased sensitivity of

executive compensation to company performance and negatively related to the value of executive compensation (Hartzell and Starks, 2003). However, empirical studies in the US market indicate that not all types of institutional investors have the same effect on executive compensation. This is because some investors are not comfortable to press the executives, while others have incentives to do so (Shin and Seo, 2011).

The shareholder activism can occur in favor of several causes and can be performed by different types of shareholders (Muller-Kahle, 2010), such as pension funds or investment funds. However, only shareholders with sufficient resources or a relevant interest in the company are engaged in monitoring the executive, as for others the cost is prohibitive (Shleifer and Vishny, 1986; Admati et al., 1994).

In general, shareholders favor proposals that set out how executive compensation is agreed and not proposals that define the amount of remuneration itself. Thus a proposal which states that shareholders must annually approve executive compensation are more likely to receive support than one that determines the variable remuneration or a ceiling for the total compensation (Ertimur et al., 2011).

The type of company that is the target of activism is also relevant. Firms whose executives seem to receive excessive compensation, or firms whose executives receive high remuneration (in excess or not), are more likely to be target of shareholder activism (Ertimur et al., 2011). Kaplan (1989) argues that PE funds create value by reducing agency costs and creating new incentives for executives of companies.

2 Data and methodology

This study analyzes 657 listed companies in Brazil from 2008 to 2011. First, we check if the company has PE investors. We look at company filings, prospectus, bylaws, and annual reports to identify the name and the stake of PEs in the firm.

Then we collect information on executive compensation on CVM's website. Fixed compensation includes wages, direct and indirect benefits, compensation for participation in committees and other fixed values. Variable remuneration covers all other types of compensation, including bonuses, profit sharing and stock-based compensation. The average individual remuneration is calculated by dividing total remuneration by the number of executives.

To investigate the relationship between executive compensation and PE investment, we estimate panel regressions in which executive compensation is a function of PE and firm characteristics, such as governance, size, leverage, profitability, and value. As proxy for corporate governance practices, we use a dummy variable (NGC) related to "Novo Mercado", a special segment created by BM&FBovespa for companies that adopt good governance practices. The information on firm characteristics comes from the Economatica database. Industry dummy variables are used to indicate whether the company is a bank, which usually pays the highest executive compensation in Brazil. Our estimated models is:

$$REMTOT_{i,t} \text{ or } REMIND_{i,t} = \beta_0 + \beta_1 PE_{i,t} + \beta_2 NGC_{i,t} \text{ or } NM_{i,t} + \beta_3 BANK_{i,t} + \beta_4 VOT_{i,t} + \beta_5 LEV_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 ROA_{i,t} + \beta_8 ROE_{i,t} + \beta_9 P/B_{i,t} + \varepsilon_{i,t}$$

Where REMTOT is the total executive remuneration; REMIND is the average individual remuneration (REMTOT/number of executives); REMVAR is the total executive variable remuneration; PE is a dummy variable that takes the value 1 when the company has private equity investment; NGC is a dummy variable that takes the value 1 when the company is listed on Novo Mercado; BANK is a dummy variable that takes the value 1 when the company is a bank; VOT is the percentage of voting capital held by the controlling shareholder; SIZE is firm size (log of equity value); LEV is leverage (non-equity liabilities/total assets); ROA is the return on assets (EBITDA divided by total assets); ROE is the return on equity (net income divided by shareholders' equity); P/B is the price-to-book (market value divided by shareholders' equity).

3 Empirical results

Table 1 presents descriptive statistics of the variables used in the study. The average annual total executive compensation is R$ 5.31 million, and the average annual individual salary is R$ 490,000, of which 30% are variable remuneration. It is important to note the dispersion of these variables. The highest total compensation is R$ 21.64 million.

We identify PE investments in only 9% of the sample. This is expected since international PE funds, which are not regulated by CVM, are often not required to publish regular information on their portfolios. In addition, local PE funds, which periodically report information to the CVM, do not have always direct participation in companies and may use different legal structures to hold indirect interest in the companies, as well as to accommodate co-investors.

With regard to corporate governance, 44% of companies are listed on Novo Mercado. On average 55% of the shares with voting rights are held by the controlling shareholder. The economic and financial variables indicate an average P/B of 1.43, ROA of 3.60% and ROE of 11.96%. These variables have huge dispersions. In particular, the minimum P/B is negative, which indicates the presence of companies with negative equity in the sample.

Table 1 Descriptive statistics

Variable	Mean	Median	Std Dev	Min	Max
REMTOT	5.31	3.60	5.01	0.00	21.64
REMIND	0.49	0.40	0.39	0.00	1.76
REMVAR	0.30	0.27	0.26	0.00	1.00
PE	0.09	0.00	0.29	0.00	1.00
P/B	1.43	1.20	1.11	-1.60	4.90
ROA	3.60	3.00	5.16	-11.00	16.00
ROE	11.96	10.70	11.98	-20.40	45.60
VOT	0.55	0.53	0.29	0.00	1.00
LEV	0.61	0.61	0.25	0.00	1.40
SIZE	6.72	6.84	2.11	1.17	12.52
NGC	0.44	0.00	0.50	0.00	1.00
BANK	0.10	0.00	0.30	0.00	1.00

Table 2 presents the correlation matrix. Our variables of interest are significantly correlated with almost all the other variables. It is important to note that PE has positive and significant correlation with REMTOT, REMIND and REMVAR. These results suggest that PE firms pay higher executive compensation (total, individual, and variable) than non-PE firms.

Further, PE has a positive correlation with P/B, but no significant correlation with ROA and ROE.

This indicates that PE firms have higher value than non-PE firms, but the performance is not significantly different between the two groups of companies.

All three compensation variables are positively correlated with P/B and ROE, suggesting a positive relation between executive compensation, firm value and performance. There is no significant correlation between ROA and executive compensation.

Table 2. Correlation matrix

Variable	REMTOT	REMIND	REMVAR	PE	P/B	ROA	ROE	VOT	LEV	SIZE	NGC	BANK
REMTOT	1.00											
REMIND	0.88***	1.00										
REMVAR	0.63***	0.62***	1.00									
PE	0.19***	0.19***	0.22***	1.00								
P/B	0.18***	0.19***	0.23***	0.10***	1.00							
ROA	0.10	0.10	-0.09	0.07	0.27**	1.00						
ROE	0.12***	0.11***	0.11***	-0.02	0.38***	0.82***	1.00					
VOT	-0.28***	-0.24***	-0.19***	-0.21***	-0.04	-0.17	-0.04	1.00				
LEV	-0.06	-0.07**	-0.12***	-0.07***	0.04	-0.41***	0.04	0.08**	1.00			
SIZE	0.53***	0.46***	0.51***	0.15***	0.51***	0.20**	0.26***	-0.12***	-0.06	1.00		
NGC	0.44***	0.38***	0.43***	0.27***	0.17***	0.02	0.00	-0.42***	-0.12***	0.54***	1.00	
BANK	0.04	-0.03	0.03	0.03	-0.03	-0.04	0.08***	0.04	0.20***	0.12***	0.08***	1.00

***, ** and * denote statistical significance at 1%, 5% amd 10%, respectively.

Table 3 compares the mean and median of selected variables for the group of companies with and without PE investment. PE firms pay higher executive compensation than non-PE firms, and the differences of mean and median of REMTOT, REMIND, and REMVAR are statistically significant at 1%. On average, PE firms pay total compensation of R$ 7.38 million (versus R$ 4.85 million of non-PE firms), average individual compensation of R$ 650,000 (versus 450,000), and 41% of variable remuneration (versus 27%).

PE firms have better governance practices, and usually tend to list on Novo Mercado (75% of PE firms versus 38% of non-PE firms). Moreover, PE firms have lower control concentration (46% versus 59% of voting capital held by controlling shareholders). Regarding financial characteristics, PE companies are larger, less leveraged (57% versus 62%), and have higher P/B (1.68 versus 1.38). There is no significant difference in the performance (ROA and ROE) of PE and non-PE companies.

Table 3. Characteristics of Firms with and without PE

Variable	With PE	No PE	P-value of test of differences in mean (median)
REMTOT	7.38	4.85	0.00
	(6.13)	(3.02)	(0.00)
REMIND	0.65	0.45	0.00
	(0.60)	(0.34)	(0.00)
REMVAR	0.41	0.27	0.00
	(0.41)	(0.22)	(0.00)
NGC	0.75	0.38	0.00
	(1.00)	(0.00)	(0.00)
P/B	1.68	1.38	0.00
	(1.40)	(1.10)	(0.00)
ROA	4.33	3.41	0.33
	(4.50)	(3.00)	(0.37)
ROE	11.57	12.05	0.59
	(11.65)	(10.60)	(0.97)
VOT	0.46	0.59	0.00
	(0.42)	(0.59)	(0.00)
LEV	0.57	0.62	0.00
	(0.58)	(0.62)	(0.00)
SIZE	7.42	6.57	0.00
	(7.37)	(6.57)	(0.00)
BANK	0.12	0.10	0.24
	(0.00)	(0.00)	(0.20)

Table 4 shows the results of panel regressions in which the total annual executive remuneration is the dependent variable. The coefficient of PE is significant in only 3 (out of 7) specifications, and the signs are positive in I and negative in IV and V. This result indicates that there is no significant relation between PE investment and total executive compensation. Table 5 shows the results of panel regressions in which the average individual executive compensation is the dependent variable. The PE

variable has positive sign in all models (except VI) and most coefficients are statistically significant at 1%. This result indicates that the PE investment increases the average individual compensation. Table 6 shows the results of panel regressions for variable executive compensation. The PE variable has positive sign in all models (except III) and the coefficients are statistically significant at 1% or 5%. This result indicates that the PE investment increases the variable compensation.

.**Table 4.** Panel regressions on total executive compensation/

	I	II	III	IV	V	VI	VII
PE	21.73***	3.14	-3.41	-19.99***	-15.31***	10.11	8.16
	(0.00)	(0.19)	(0.16)	(0.00)	(0.00)	(0.14)	(0.28)
NGC		7.49***	22.32***	2.04	15.57***	6.75	3.36
		(0.00)	(0.00)	(0.57)	(0.00)	(0.20)	(0.45)
BANK			0.82	-15.97***	18.75***	-2.18	-1.31
			(0.73)	(0.00)	(0.00)	(0.64)	(0.82)
VOT				-1.06	-1.06	-0.63	-0.50
				(0.65)	(0.65)	(0.79)	(0.85)
LEV					-0.13	0.96	-0.47
					(0.94)	(0.93)	(0.87)
SIZE						0.96	0.93
						(0.11)	(0.27)
ROE							0.00
							(0.91)
F	17.62***	21.82***	21.82***	9.56***	9.48***	9.62***	8.67***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R² adj	0.86	0.88	0.88	0.84	0.84	0.84	0.94
Obs	875	790	790	412	402	376	324

Table 5. Panel regressions on average individual compensation

	I	II	III	IV	V	VI	VII
PE	0.35*	1.59***	0.48**	1.11***	2.00***	-0.08	1.33***
	(0.10)	(0.00)	(0.01)	(0.00)	(0.00)	(0.79)	(0.00)
NGC		-0.96***	-0.13	-0.18	-0.28	-0.04	-0.26
		(0.00)	(0.49)	(0.52)	(0.33)	(0.91)	(0.29)
BANK			-0.35**	0.13	0.34	-0.45	-0.36*
			(0.04)	(0.56)	(0.20)	(0.21)	(0.06)
VOT				-0.01	0.01	0.05	0.02
				(0.97)	(0.94)	(0.79)	(0.92)
LEV					-0.18	-0.11	-0.20
					(0.23)	(0.45)	(0.35)
SIZE						0.10**	0.07
						(0.03)	(0.26)
ROE							0.00
							(0.41)
F	18.05***	20.64***	20.64***	10.85***	10.79***	11.23***	11.62***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R² adj	0.86	0.87	0.87	0.86	0.86	0.86	0.87
Obs	792	735	735	397	389	364	315

Table 6. Panel Regressions on Variable Executive Compensation

	I	II	III	IV	V	VI	VII
PE	-0.33**	0.33**	-0.12	1.01***	0.97***	0.30	0.57***
	(0.03)	(0.03)	(0.36)	(0.00)	(0.00)	(0.25)	(0.00)
NGC		-0.66***	-0.66***	0.74***	0.66***	-0.29	0.03
		(0.00)	(0.00)	(0.00)	(0.00)	(0.14)	(0.80)
BANK			0.79***	0.41***	0.42***	-0.11	0.10
			(0.00)	(0.01)	(0.01)	(0.49)	(0.37)
VOT				0.03	0.04	0.06	0.04
				(0.71)	(0.63)	(0.50)	(0.69)
LEV					-0.11	-0.13	-0.03
					(0.17)	(0.12)	(0.79)
SIZE						0.03	0.02
						(0.23)	(0.59)
ROE							0.00*
							(0.06)
F	15.37***	16.45***	16.45***	13.32***	13.22***	14.08***	12.39***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R² adj	0.83	0.84	0.84	0.88	0.88	0.88	0.87
Obs	860	798	798	443	435	410	360

4 Conclusion

There are many studies on executive compensation in developed and emerging markets, but there is only little research on executive compensation in private-equity-controlled companies in Brazil. This study analyzes the relationship between private equity (PE) and executive compensation.

We collect the information on executive remuneration for 657 publicly traded companies from 2008 to 2011. Our results show that private-equity-backed firms do not have higher total executive compensation, but have higher individual and variable compensation. Moreover, and better corporate governance standards.

This paper reinforces the need for future studies on the subject of executive compensation. The amount of public information about executive compensation will grow each year as publicly-traded Brazilian companies are required to provide such information. We suggest that future studies analyze larger samples and longer periods, and if the role of domestic and international PE funds are different with regard to executive compensation.

References

1. Admati, A. R.; Pfleiderer, P.; Zechner, J. Large Shareholder Activism, Risk Sharing, And Financial Market Equilibrium. Journal Of Political Economy, V. 102, N. 6, P. 1097, 1994.

2. Bebchuk, L.; Fried, J. Pay Without Performance: The Unfulfilled Promise Of Executive Compensation. E. 2. Harvard University Press, 2006.

3. Bebchuk, L. A.; Fried, J. M. Pay Without Performance: Overview Of The Issues. Journal Of Applied Corporate Finance, V. 17, N. 4, P. 8-23, 2005.

4. Core, J. E.; Holthausen, R. W.; Larcker, D. F. Corporate Governance, Chief Executive Officer Compensation, And Firm Performance. Journal Of Financial Economics, V. 51, N. 3, P. 371-406, 1999.

5. Diprete, T. A.; Eirich, G. M.; Pittinsky, M. Compensation Benchmarking, Leapfrogs, And The Surge In Executive Pay. American Journal Of Sociology,V. 115, N. 6, P. 1671-1712, 2010.

6. Ertimur, Y.; Ferri, F.; Muslu, V. Shareholder Activism And Ceo Pay. Review Of Financial Studies,V. 24, N. 2, P. 535-592, 2011.

7. Hartzell, J. C.; Starks, L. T. Institutional Investors And Executive Compensation. Journal Of Finance,V. 58, N. 6, P. 2351-2374, 2003.

8. Kaplan, S. The Effects Of Management Buyouts On Operating Performance And Value. Journal Of Financial Economics,V. 24, N. 2, P. 217-254, 1989.

9. Lambert, R. A.; Larcker, D. F.; Weigelt, K. The Structure Of Organizational Incentives.Administrative Science Quarterly,V. 38, N. 3, P. 438-461, 1993.

10. Muller-Kahle, M. A. J. W. Q. Y. What Is Influencing Financially-Driven Shareholder Activism In The Us And Uk---Principal-Agent Or Principal-Principal Problems? 2010. Old Dominion University M2 - Ph.D. Old Dominion Univeusity, Virginia.

11. Shleifer, A.; Vishny, R. W. Large Shareholders And Corporate Control. Journal Of Political Economy,V. 94, N. 3, P. 461-488, 1986.

12. Shin, J. Y.; Seo, J. Less Pay And More Sensitivity? Institutional Investor Heterogeneity And Ceo Pay. Journal Of Management, V. 37, N. 6, P. 1719-1746,2011.

13. Tosi Jr, H. L.; Gomez-Mejia, L. R. The Decoupling Of Ceo Pay And Performance: An Agency Theory Perspective. Administrative Science Quarterly, V. 34, N. 2, P. 169-189, 1989.