

# RELATIONSHIP BETWEEN CEO PAY AND TOTAL SHAREHOLDER RETURN: AN EMPIRICAL ANALYSIS IN THE ITALIAN CONTEXT

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## Abstract

This study examines the relationship between CEO Pay and total shareholder return, using data between 2008-2014 from Italian listed firms (FTSE MIB). We perform panel data regression analysis of CEO compensation on financial performance, and in this way we refer to research made by Gigliotti (2013), but we extend it considering the Total Shareholder Return instead of accounting based performance. TSR has become a crucial measure in a pay-for-performance approach for different reasons. Our results indicate that there is not a significant relationship between CEO compensation and corporate performance during 2008-2014. These results contribute to our understanding of the pay for performance mechanism in times of financial disturbance, highly relevant to the existing debate considering CEO compensation.

**Keywords:** Executive Compensation, Firm Performance, Pay-For-Performance, Total Shareholder Returns, CEO Pay, Italian Context

## 1. INTRODUCTION

Executive compensation is a popular topic both in the press and scholarly literature, as it is one of the most important governance mechanisms to monitor, motivate and discipline firm managers.

From the economic recession held in 2008, a recurring debate occurs regarding whether top executives are over-paid or under-paid, as well as the best approaches to align the interests of top executives with those of the firm, stakeholders and shareholders.

As emphasized by Maloa (2014, 2015), a huge part of research focuses on how executive pay varies with performance. Given the prominence of the debate on executive compensation, it is possible to distinguish between scholars in economics and finance and scholars outside of these two disciplines. The former advocate for the primacy of market-based explanations, while the latter highlight the importance of the power of social-psychological processes and the institutional environment in the creation of compensation practices. Focusing on shareholder value creation led to the development of a number of indexes to measure it (Bistrova et al., 2013; Damodaran 2012; Koller et al., 2010). However, there are ongoing debates regarding which ratio is the best in measuring shareholder value creation and which, therefore, has a strong relationship with executive compensation. The main objective of this study is to narrow the gap and to contribute to the existing body of literature by investigating the relationship between CEO compensation and company performance of Italian companies. This paper aims at extending the research made by Gigliotti (2013) in the Italian context across a wide variety of industries and in a longer time frame, investigating the relationship

between executive pay and firm performance measured only by the Total Shareholder Return (TSR).

TSR is a financial index that represents the rate of returns that shareholders receive, calculated as the sum of dividend yield plus the percent change in share price over a holding period<sup>1</sup>. In fact, it is a measure of shareholder value creation and can be viewed as an ultimate criterion that investors can use to evaluate the success or failure of own investment. That is why many authors agree that the maximization of TSR should be taken into account by every company, especially concerning long-term investments and incentives related to them.

We chose not to use traditional performance accounting measures such as Return on Asset, Return on Equity and Return on Investment for many reasons. Above all, as Equilar's latest Equity Trends Report shows, almost 50% of S&P 1500 companies use TSR as a metric for performance equity<sup>2</sup>. This is probably due to the fact that the famous proxy advisor agency ISS (Institutional Shareholder Services) recently announced that it is using TSR "to test the adequacy of links between incentive pay and company performance". According to ISS, companies may use many financial, operational or qualitative metrics to design their incentive plans, but any improvement "in companies' incentive metrics should ultimately translate into improvements in total shareholder returns" (Stewart, 2013). For this reason, TSR becomes a crucial measure in a pay-for-performance approach, especially when the target is ensuring long-term alignment.

<sup>1</sup>  $TSR = \frac{Price_{end} - Price_{begin} + Dividends}{Price_{begin}}$

<sup>2</sup> <http://www.equilar.com/blogs/72-tsr-modifiers.html>.

This need is being acknowledged also by American law, since in April 2015 SEC released a rule proposal on "pay-versus-performance" disclosure<sup>3</sup>. The proposal tries to "establish observable and measurable links between executive pay and firm performance" by requiring companies to show the historical relationship between Compensation Actually Paid (CAP, measure of executive pay) to the CEO and other executives, on one hand, and TSR (measure of corporate performance) on the other, and asking firms to compare their TSR with that of a peer group (Bank and Georgiev, 2015).

Given these premises, we aim at answering the following research question: "Does a significant relationship between CEO compensation and Total Shareholder Return exist?"

This paper is related to other recent studies that seek to examine the relationship between CEO pay and corporate performance and would contribute to literature in two ways. First, we contribute to Italian debate on executive compensation through an empirical evidence of the relationship between CEO pay and corporate performance of Italian listed firms. Second, we contribute to literature on pay-performance sensitivity in a period characterized by economic disturbances (post crisis) where they can have effects on corporate performance and remuneration.

The remainder of this paper is organized as follows. Section 2 discusses a brief of literature review about relationship between the executive compensation and the corporate performance. Section 3 presents the research design. Section 4 discusses the empirical results. Section 5 presents the conclusions and contribution of the paper.

## 2. LITERATURE REVIEW

The relationship between CEO compensation and the firm's performance has always attracted an increasing interest. It has been analyzed in literature from two different fronts (Devers et al., 2007): the first believes that compensation is a result of performance, while the second supports the opposite relation. Empirical results on this topic are considerable and various. The literature indicates that research on executive pay-performance, especially for CEOs, has yielded mixed and inconclusive results due to the principal-agent problem and managerial power approach. There is not a general agreement on what measures to use for performance, i.e. if the measures should be stock market-based or accounting based performance. Anyway, each of these measures has disadvantage of its own (Canarella, Nourayi, 2008). Nevertheless, in order to evaluate and compensate top managers, several studies have found evidence that executive compensation responds more to market-based financial performance. In fact, it is usually considered more related to strategic decisions and managerial initiatives, as well as representative of all the activities of the company.

As we already said before, Total Shareholder Return (TSR) has always been important as a

measure for corporate performance, but in the last years it has achieved much greater significance.

One reason is that Institutional Shareholder Services (ISS), the largest proxy adviser, has announced that it is using TSR alone, in order to test the adequacy of links between the incentive pay and the company performance (Stewart, 2014). According to Burgman and Van Clieaf (2012), TSR primarily measures a shift in shareholder expectations about future cash flows. In this regard, TSR does not measure only a change in the actual economic profit of the underlying business, but it measures a change in expectations about the retention and changes to existing economic performance.

Gregory-Smith et al. (2014) show a high positive correlation between CEO pay and total shareholder return, suggesting a strong link between pay and performance for chief executives.

Canarella and Nourayi (2008), demonstrating that the relationship between executive compensation and firm performance is non-linear and asymmetric, find that the structure of this asymmetry is dependent on the measure of performance, with convexity characterizing the asymmetry of the correlation between pay and market returns (measured by TSR); this means that total shareholder returns truly affect executive compensation.

On the contrary, other studies have argued that TSR does not accurately measure performance, since it can be influenced by economic factors outside the control of the organization. Bank and Georgiev (2016) state that "these metrics can be easily distorted by one-off events and that they incorporate decisions from different time periods", so that historical and peer group comparison become useless or even misleading; moreover, it is important to consider that TSR is a backwards-looking measure, thus "not useful in assessing how well a company is performing in areas that will determine its long-term value and success". According to Reda and Schmidt (2014), TSR is the worst measure of performance, while the best performance measure is Earnings per Share ("EPS"), followed by Capital Efficiency.

In this context, also the results of researchers are discordant. Just think that Tosi et al. (2000) reveal that the performance of a firm can justify only 4% of the pay of top manager. Although it is possible to identify a lot of studies that have tried to investigate the relationship between executive pay and firm performance, the majority of them find only a weak relationship, for a number of reasons (Ntim et al., 2015): first, the executive remuneration is just one of the possible governance mechanisms that companies can use to minimize the agency conflict, so that its effectiveness can depend also on the simultaneous use of other mechanisms; second, the weak link can derive from the tendency of researchers not to focus on equity-based pay, which is generally more related to performance. The mixed results of previous studies may indicate that the relationship not only differs because of the specific features of the company, but also because of the institutional and cultural characteristics at national level. In fact, Ntim et al., (2015) point out that the link between executive pay and corporate performance in developing countries could be

3 Pay Versus Performance, SEC Release No. 34-74835; File No. S7-07-15 (April 29, 2015), 80 Fed. Reg. 26330 (May 7, 2015) ("Pay-Versus-Performance Release")

expected to differ from what has been found in industrialized countries.

In this regard, for example, using a sample of 601 Chinese firms from 2000 to 2003, Buck et al. (2008) report a positive and higher sensitivity between the CEO pay and the total shareholder return (TSR).

Jeppson et al., 2009, used a database of CEO compensation for 200 large public companies which filed proxy statements with the SEC for 2007, find a no significant relation between the pay (base salary, cash bonuses, perks, stock awards, option awards) and the performance (company revenue, year-to-year change in net income, year-to-year change in total shareholder return). Rapp and Wolff (2008) show that ROE and TSR indicate a significant positive impact on management board remuneration in the German context. While Andreas et al. (2012), only for the German context, show a significant positive impact of all key performance characteristics, expect of the total shareholder returns. Ntim et al. (2015) find a positive and significant (at least at the 5% level) association between corporate performance (TSR) and executive pay in South Africa.

With specific reference to the Italian context, although the issue of the executive compensation is discussed (a non-exhaustive list includes: Camuffo 2009; Zattoni, Minichilli, 2009; Barontini, Bozzi, 2011; Melis et al., 2012; Pittino et al., 2013; Menozzi et al., 2014; Brogi, 2014; Esposito De Falco, 2014; Cutillo, Fontana, 2015) there are a very few empirical studies that analyze the relationship between CEO pay and corporate performance. One of the main study is by Brunello et al. (2001), where the authors examine the determinants of executive pay in Italian firms using real accounting profits after taxes as a measure of corporate performance. The results, as hypothesized, show that "the specific economic environment in Italy affects the design of managerial pay", since although there is a positive relationship between performance and pay, the pay-performance sensitivity is proved stronger in firms "where profits are declining and profit variability is relatively low", than in domestic-owned firms.

An interesting study in this field, as said above, is by Gigliotti (2013). She analyzed a sample of Italian listed firms, in the period 2004-2009, in order to investigate the relationship between remuneration and corporate performance. With reference to the performance of firms, Gigliotti used ROE, ROA, ROI, market value of the shares and turnover. The author found no significant correlation between the company performance and the pay of top managers, concluding that "the pay-for-performance mechanism does not appear to be an instrument favored to motivate managers and improve performance".

To the best of our knowledge, this is the first study on the relationship between the CEO pay and the total shareholder return in the Italian context, and based on the literature reported, our further research hypotheses are:

*H1:* There is a significant correlation between CEO Pay and performance, measured as Total Shareholder Return.

In particular:

*H1a:* There is a significant correlation between fixed remuneration and TSR;

*H1b:* There is a significant correlation between variable remuneration and TSR;

*H1c:* There is a significant correlation between total remuneration and TSR.

### 3. RESEARCH DESIGN AND METHODOLOGY

The object of the analysis is to verify a possible significant relationship between CEO pay and Total Shareholder Return.

#### 3.1. Sampling and data collection

The study sample is composed of 40 companies listed in the Milan Stock Exchange from FTSE MIB in the period 2008-2014. The FTSE MIB is the primary benchmark Index for the Italian equity markets; it approximately represents about 80% of the domestic market capitalization and it consists of highly liquid, leading companies across Industry Classification Benchmark (ICB) sectors in Italy.

Companies were selected according to the following criteria:

- Companies were listed on FTSE MIB during the period of analysis;
- Availability of data for the period of analysis.

Secondary data used in the empirical study was obtained from two sources. The data on executive compensation was obtained from firm annual reports while TSR data was obtained from Bloomberg terminal. Executive compensation was measured by two components: fixed (base salary, benefits) and variable (STI and LTI Bonuses).

The sample includes firms from 10 different industries; those with the largest representations were Financials (13) and Consumer Discretionary (10) (Table 1).

Table 1. Sample characteristics

Sector	Number	%
Utilities	5	12,50%
Industrials	4	10,00%
Consumer Discretionary	10	25,00%
Financials	13	32,50%
Materials	2	5,00%
Health Care	0	0,00%
Consumer Staples	1	2,50%
Energy	2	5,00%
Communications	2	5,00%
Technology	1	2,50%
Total	40	100,00%

#### 3.2. Research methods

In order to verify the existence of a significant relationship between CEO pay and Total Shareholder Return, we set up three regression analyses with the components of TSR variation as independent variable and variations in fixed, variables and total CEO's remuneration as dependent variable for a period between 2008 and 2014. The comparison

<sup>4</sup> We use the random effect model because the country is perceived as a random variable being part of a larger population of countries (Menegaki,

between changes in TSR and changes in remuneration is made with a "time lag" of 1 year, like in Gigliotti (2013). The reason of this choice comes from a simple assumption: if the pay of the Chief Executive Officer is linked to the Total Shareholder Return, it is correct to assume that the amount of the compensation granted for any given year takes into account the results obtained during the previous period, and not the results for the same year, which will in fact only be made available at the end of the period. Thus, for example, changes in remuneration in 2013 with respect to 2012 were compared, in a regression analysis, with the variation in TSR in the year 2012 as compared with 2011.

#### 4. RESULTS AND DISCUSSION

Table 2, 3 and 4 show the relationship between TSR and fixed, variable and total remuneration of CEO during the period under study.

As the evidence of the tables show, it is not possible to observe a significant correlation between CEO pay and Total Shareholder Return. Indeed, there are not significant variables and these results are not consistent with the hypotheses described in section 2. Specifically, in all the regression analyses made, the p value of the independent variables has a value less than 0.1.

Thus, we can infer that, in the Italian context, the pay-for-performance mechanism does not apply neither when the performance measure is accounting-based (Gigliotti, 2013), nor when it is based on market measures such as TSR.

This result is consistent with that part of the literature (Bebchuk, 2009; Core et al., 2005) that disapproves the link between firm performance and amount of compensation granted to CEOs or, more generally, to executives and it is consistent with studies that reflect a lack of consensus on the pay-performance relationship (Abraham et al., 2014; Bruce et al., 2005). There is conflicting evidence as to whether the pay-performance relationship has weakened or strengthened over time and the evidence from other context (for example UK, USA o Australia) is mixed (Arthur, O'Neill, 2011; Smit, 2013; Merhebi et al., 2006). According to some studies, relationship between CEO pay and performance is in decline because of the recent global financial crisis (Van Blerck, 2012) although the pay arrangements were in some cases blamed for being a contributory factor to the financial crisis, because they created incentives for the managers encouraging them to take unnecessary risks beyond optimal limits (Gregg et al., 2012). This stimulates legislature and literature to revise the mechanisms of CEO compensation, also in order to prevent future financial scandals. Moreover, understanding how compensation is reflected on firm performance is not a simple task but also one that might be misleading. The market based performance may depend on the market forces rather than the executive efforts. Bonuses tied to accounting based performance encourage executives to manipulate the balance sheet (e.g. earnings management). In this context, the European Union has engaged through

reform on pay structures, with particular emphasis on the financial sector (Barontini et al., 2013). In this regard, mandatory disclosure and "say on pay" finalized to promote the role of governance and disclosure in the remuneration process are admired. Similarly, in Italy the Securities Commission (CONSOB) adopted in 2011 new rules on transparency of remuneration and on shareholder vote on remuneration's policy (Belcredi et al., 2014; Belcredi, Enriques, 2013). In conclusion, our results may also be understood considering that only 25% of the companies belonging to FTSE MIB declared a link between performance and variable compensation for 2014 (Report Ambrosetti 2015). For this reason, our findings suggest that the way in which CEOs grant their compensation shall be taken into account. Moreover, it is necessary to identify a valid pay-for-performance model able to ensure that top executives are rewarded for increases in shareholder wealth (according to the agency theory).

2011) and because the random effect model is further strengthened after passing two tests (Breush-Pagan LM, and Hausmann chi square).

5 The goal of the Observatory on Corporate Governance Excellence in Italy is to provide concrete information and proposals to promote the attainment of excellence in the corporate governance of Italian companies. In the last report 2015 emerged that the health status of the governance of leading quoted Italian companies is improving, although margin for improvement remains regarding remuneration and incentive mechanisms. <http://www.ambrosetti.eu/en/research-and-presentations/observatory-on-corporate-governance-excellence-in-italy-final-report-2015/>

**Table 2.** Regression analysis. Dependent Variable Fixed Remuneration

	Coefficient	Std. Error	t-ratio	p-value	sign
const	0.962604	0.597456	1.6112	0.1086	
$\Delta$ TSR	-0.0673331	0.300518	-0.2241	0.8229	

**Table 3.** Regression analysis. Dependent Variable Variable Remuneration

	Coefficient	Std. Error	t-ratio	p-value	sign
const	3.57646e+06	922014	3.8790	0.0001	***
$\Delta$ TSR	-188131	377817	-0.4979	0.6191	

**Table 4.** Regression analysis. Dependent Variable Total Remuneration

	Coefficient	Std. Error	t-ratio	p-value	sign
const	2.0386	1.31288	1.5528	0.1220	
$\Delta$ TSR	-0.240351	0.660378	-0.3640	0.7162	

## 5. CONCLUSION

The main objective of this paper was to examine empirically the relationship between CEO remuneration and Total Shareholder Return. This study, conducted on Italian companies listed on the Milan Stock Exchange (FTSE MIB), for a period 2008-2014, does not recognize a link between company performance (TSR) and the CEO' pay. In this regard, the pay for performance mechanism, in Italy, does not appear to be a right instrument to improve performance and wealth of shareholders. Therefore, we can definitely assert that in order to align shareholder interests with those of managers, companies, in the Italian context, should use a different measure in bonus plans that provide all right incentives. Some authors state that the solution could be the use of proxy measures strongly linked to TSR and that managers can actually manage, as the Economic Value Added or simply EVA (Stewart, 2013; Bussin, Modau, 2015). Given the preponderance of studies regarding the US firms, we ascertained that the behavior of Italian firms, in terms of CEO pay and corporate performance, corresponds with the main findings of the literature on the topic. This research contributes to the literature on CEO remuneration by providing an evidence-based understanding of the nature of the CEO pay-performance relationship in Italy. Understanding this relationship is critical for different reasons. First, it is important to find a suitable model to structure executive remuneration that will protect either shareholders from over-remunerating executives and executives from being underpaid. Second, the relationship between executive remuneration, especially that of CEOs, and corporate performance continues to be an important issue in financial debate (e.g. executive remuneration has been widely regarded as one of the key contributors to the recent financial crisis). Following the adoption of a series of corporate governance reforms throughout recent years, we expected to find a significant correlation in this pay-for-performance mechanism over time, since a common theme in these reforms was that executive pay should be related to company performance. But this is not true in our research and for this reason, future researches could focus on other variables that influence the relationship between CEO pay and company performance considering older and newer corporate governance rules, in different contexts, as

emphasized by Barontini et al. (2013). In conclusion, our study contains a number of potential limitations. Specifically, it only investigated the specific relationship between performance and pay and did not include information on the causal factors influencing CEO remuneration and the financial performance of the companies. Moreover, the analyzed sample is not very large.

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