DO THE HIGHEST-PAID CEOS AFFECT THE ACCOUNTING CONSERVATISM? AN EMPIRICAL INVESTIGATION IN FRANCE

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Abstract

Based on 1575 firms-year observations from French companies listed on the Paris stock exchange from 2009 to 2017, this research study investigates the linkage between accounting conservatism and highest-paid chief executive officers (CEOs) and if this linkage increases as executive remuneration-performance sensitivity increases. The study's findings show that there is a negative association between accounting conservatism and highest-paid CEOs. These findings suggest that the highest-paid CEOs can manage and restrict managerial accounting choices for their own gains, and, in turn, this has a negative effect on accounting performance. Firstly, in order to achieve generally discretionary goals, they distort the accounting figures by overvaluing their companies' gains. Secondly, the negative linkage between accounting conservatism and highest-paid CEOs increases when they receive greater remuneration incentives for accounting performance. These findings indicate that powerful CEOs are incentivized to adjust earnings since the greater incentives help them to inflate their companies' accounting results; to distort accounting performance, and provide investors with misleading information. In turn, such actions generate the ex-post settling up problems and end, unfortunately, in fraudulent behaviors. This study contributes to the literature that studies the relationship between accounting conservatism and the highest-paid senior executives in order to identify accounting conservatism (Iwasaki, Otomasa, Shiiba, & Shuto, 2018; Li, Henry, & Wu, 2019; Haider, Singh, & Sultana, 2021).

Keywords: Accounting Conservatism, Highest-Paid Chief Executive Officers, Ex-Post Settling-Up Problems, Executive Remuneration, Performance Sensitivity, Rent-Seeking

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1. INTRODUCTION

Over the last two decades, critics of corporate governance in the US have claimed that CEOs in public companies are overpaid (Martin, Wiseman, & Gomez-Mejia, 2019). Moreover, the claim extends to indicate that CEOs are not paid for performance and that boards are ineffective at compensating and monitoring CEO performance (Kaplan, 2008; Posner, 2008). By contrast, other researchers posit that CEO pay is largely determined by market forces, including the forces influencing income inequality (Kaplan, 2008). According to Kaplan (2008), CEO performance is more closely tied to stock performance than it has been since the 1970s. Furthermore, the SEC has required greater CEO transparency, increased the prevalence of majority voting in key management decisions, and supported increased shareholder activism, thereby curtailing the powers of the CEO (Kaplan, 2008). The controversy becomes more apparent because a significant amount of research disagrees with Kaplan’s (2008) perspective. Some studies have reported CEOs’ tendencies to use their power to increase their salaries and those of their subordinates in middle management. Consequently, this behavior implies a cost factor for organizations. In other scenarios, some senior executives focus only on achieving short-term returns that can be damaging to their companies’ profitability (Tripathi, Kashiramka, & Jain, 2019). More particularly, Al-Najjar’s (2017) findings show that the policy of current short-term incentives can often lead to a company experiencing serious problems. Besides, to attract incentives like performance bonuses, stock options, and cash bonuses, senior executives can engage in unethical practices and questionable business activities that focus on the short-term gain over long-term sustainability. In effect, a conflict of interest emerges in their role as agents of shareholders by exposing firms to greater-than-necessary risks and potential downside (Fondas, Mahadwarta, & Herlambang, 2017).

The agency theory can be used to describe the conflict of interest experienced here. On the one hand, the CEO and other key executives are interested in the short-term profitability of the firm whereas shareholders are keen on both the short-term profitability and the long-term sustainability of the firm (Sadig, Mohamad, & Kwong, 2019). Besides, shareholders don’t have complete information regarding all the investment decisions and business activities and they don’t understand all business transactions. The CEO is thus the agent because he knows what decisions will be taken to improve the performance of the firm and increase the shareholder’s wealth. The CEO’s incentive scheme is usually attached to the firm’s performance. Due to the CEO’s limited tenure, they make short-term decisions that enhance the firm’s performance and focus on short-term growth, sometimes at the expense of long-term performance sustainability. The disconnect between control and ownership causes conflicts of interest between the company’s shareholders and the senior executives. As much as senior executives are mindful of the shareholder’s interests, they are also keen on their performance which should improve their performance packages (Watts, 2003; Mukherjee, 2018). Consequently, the agency theory can explain the agency problem presented in the matter of CEO pay by exploring the control versus ownership dilemma.

Accounting conservatism has been suggested as one of the approaches that could be taken to resolve this principal-agent problem. Accounting conservatism describes a principle where the company is required to report financials with high degrees of verification and while exercising caution. Under this principle, gains are only registered when they are fully realized while probable losses are reported upon discovery (LaFond & Roychowdhury, 2008). Accounting conservatism has been found to predict corporate governance and is, therefore, effective in minimizing the deleterious effects of agency problems associated with CEO pay (Lara, Osma, & Penalva, 2016). In several countries, accounting performance has been employed as a yardstick in the remuneration contracts of senior executives. Accounting conservatism applied to this yardstick ensures that senior executives are remunerated according to the value of net earnings and assets as opposed to overstating the value of these metrics to expand their benefits (Sun, 2014). In this sense, accounting conservatism may reduce the senior executives’ fraudulent behaviors by moderating the choices on accounting methods. This may be explained as a reduction in extra payments to senior executives. Using a sample data of 1575 company-year observations over 9 years from 2009 to 2017, this study seeks to explore whether accounting conservatism (which flows from stronger corporate governance) has an effect on senior executives’ compensation.

This study provides originality to the literature because it explores the effects of accounting conservatism on CEO compensation, particularly within France. While other studies have explored this relationship in other countries and for specific compensation types (Li et al., 2019), this is the first study that investigates the linkage between accounting conservatism and senior executives’ compensation to identify the accounting conservatism’s impact on the overpayment of the companies’ CEOs. The study hopes to contribute to the literature on the positive effects of strong corporate governance mechanisms and their effect in alleviating the conflicts of interests between senior executives and shareholders.

The remainder of this article is structured as follows. The second section details the literature review and explains the development of the study’s hypotheses. The third section explains the design of our research study in the context of French companies. In this section, we present our sample, the adopted methodology, and the procedure of data collection. The fourth section sets out the analysis and discusses the study’s results. Finally, the fifth section concludes the paper.

2. LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

2.1. Accounting conservatism and CEO compensation

There is some empirical research exploring the relationship between CEO compensation and firm performance. The majority of this research is based on the agency theory, which presents
the relationship between CEO compensation and firm performance (Smirnoff & Zavartkaeva, 2017; Alqatan, Chhib, & Hussainey, 2019; Alqatan, Chhib, & Hussainey, 2021). Studies have reported that accounting conservatism had a negative effect on excessive CEO compensation (van Essen, Otten, & Carberry, 2015). In the same vein, the desire to camouflage rent-seeking can lead to the use of inefficient pay arrangements that provide suboptimal incentives to self-enrichment and, thereby, hurt shareholder value (van Essen et al., 2015). Some researchers foresee that these large compensation packages will result in powerful managers, setting up their remuneration packages and extracting money from firms (Jindal & Seth, 2019). This is because managerial talent and skill have increased very rapidly in recent decades. Moreover, economic liberalization has improved the compensation policies and empowered managers to fight for their rights (Jindal & Seth, 2019). Consequently, the first batch of evidence demonstrates that accounting conservatism is called for and beneficial for management scenarios.

More particularly, Friedman's (2014) theoretical model of inter-executive influence between the CEO and the chief financial officer (CFO) may lead to bias in financial reporting. The author documents that a powerful CEO can induce the CFO to bias financial reporting attempts to extract more compensation from the firm. In other words, Friedman (2014) suggests that powerful CEOs are more likely to force their CFOs to commit an upward bias in financial reporting and to enhance information asymmetry. This can affect accounting conservatism. On the other hand, accounting conservatism can reduce agency problems arising from senior executives' opportunistic use of accounting discretion (Sun & Liu, 2011). Likewise, LaFond and Watts's (2008) findings show that accounting conservatism may reduce the senior executives' incentives and abilities to manage the accounting numbers and, therefore, mitigate the asymmetric information problem.

In addition, by referring to the "shareholder demand" perspective, Chen, Ni, and Zhang (2017) state that accounting conservatism can generate efficient contracting between these different parties within the company. In fact, due to the increased severity of conflicts of interests between senior executives and their homologs, shareholders would require a high level of accounting conservatism. High levels of accounting conservatism demonstrate strong corporate governance, which in turn curbs senior executives' opportunistic behaviors such as over-compensation and inefficient investments. By the same token, these authors demonstrate that accounting conservatism may reduce the noise of accounting data and, then, constrain the senior executives' selfish and myopic behaviors. Besides, Hsu, Novoselov, and Wang (2017) affirm that accounting conservatism may alleviate the drawbacks of CEO overconfidence.

Similarly, agency cost theory (Jensen & Meckling, 1976) asserts that the problem of modern business structures is due to the agency conflicts between either senior executives or with agents and shareholders. The theory explains that senior executives may make decisions that maximize their capabilities but fail to maximize shareholder value. Therefore, without strict and efficient corporate governance and, also, better-quality internal control policies, the senior executives tend to maximize their compensation as much as they can. Furthermore, the agency cost theory argues that the extra compensation ex-post can be costly if the senior executives have limited liability and tenure. In general, this is usually referred to in previous literature as the "ex-post settling-up problem" (Watts, 2003; Leone, Wu, & Zimmerman, 2006).

Several studies conclude that accounting conservatism may reduce the problem of asymmetric information; limit senior managers' fraudulent behaviors, and reduce the transaction costs between external stakeholders. Ultimately, due to the reduction in the equity financing and the cost of debt, the agency cost theory promotes the efficiency of investments (Callen, Segal, & Hope, 2010; Caskey & Laux, 2017) and starts the enrichment of the company's value (Goergen & Renneboog, 2011). Besides, accounting conservatism may reduce the shareholders' information risk; control agency conflicts; and increase the company's value to shareholders. Therefore, it is largely perceived to be an efficient governance mechanism (Caskey & Laux, 2017; Chen et al., 2017). Consequently, this study's first hypothesis is as follows:

H1: Accounting conservatism has a negative effect on CEO compensation.

2.2. The relationship between accounting conservatism and CEO compensation according to higher executive compensation-performance sensitivity

The relevance of the negative influence between accounting conservatism and CEO compensation is more severe for a firm that has a serious ex-post settling-up problem. More specifically, it is expected that this problem increases with higher levels of management incentives for accounting performance. The sensitivity of performance-related pay is defined as the degree of change in the wealth of shareholders and the CEO. According to Melson (2016), the CEO compensation-performance sensitivity is defined as the degree of change in the CEO's wealth and that of the shareholders. Therefore, it may be identified by detecting the change in CEO remuneration in relation to the change in the return to shareholders. The main purpose is to motivate CEOs to work in the shareholders' best interests. This relationship is tested because it contrasts the previous relationship, where controls for CEO compensation are not necessarily in place. In this case, the CEO's compensation increased in a similar proportion to the change in return offered to shareholders implies that the CEO's agency actions directly influence their performance-related income as well as that of shareholders.

The findings of some recent studies indicate that firm performance can be associated directly with the senior executives' compensation (Al Shammari, 2018; Nelson & Rahim, 2018). Similarly, other studies mention that the highest-paid senior executives may affect the company's operating performance and stock return (Al-Najjar, 2017). More recently, some studies have become interested in the incentive compatibility constraint form (Xu, Zhang, Zhang, & Zheng, 2018; Kaveh Birjandi &
Miri, 2020). For instance, Kaveh Birjandi and Miri (2020) report that the sensitivity of executive compensation-performance (earnings-based compensation plans) is the main key to aligning the shareholders' interests with those of the senior executives. Therefore, to reach this outcome, Watts and Zimmerman (1999) argue that compensation contracts usually depend on accounting data. The challenge with this approach is that accounting conservatism is required. Otherwise, senior executives' incentive compensation systems can induce them to pursue opportunistic behaviors in order to maximize their compensation (Watts, 2003; Barclay, Gode, & Kothari, 2005; Leone et al., 2006). For instance, if senior executives' compensation is linked to accounting performance, they may make profit adjustments to maximize their remuneration (Healy, 1985). Bushman, Engel, and Smith's (2006) model suggested the compensation earnings coefficient (CEC) = a measurement through which incentivized compensation for accounting performance can be done for company executives. Shuto (2007) equally dismisses this approach because senior executives who have a great CEC can obtain extra remuneration through reporting temporarily inflated earnings. In addition, in the case of a retiring CEO, the senior executives can inflate net assets and earnings temporarily in their final years to receive a large amount of compensation. Consequently, the need for better corporate governance systems is still recommended even in cases where the CEC is applied to determine CEO compensation.

Be it as it may, the literature shows that as the sensitivity of senior executive compensation-performance increases, it is expected that there will be a corresponding increase in their fraudulent behaviors. Consequently, due to the senior executives' overcompensation, there will also be a serious ex-post settling problem. In this respect, as the intensity of senior executives' incentives for accounting performance increases, there is expected to be an increase in the negative relationship between accounting conservatism and excessive CEO compensation. Based on the above arguments, this study's second hypothesis is as follows:

H2: Accounting conservatism has a negative effect on CEO compensation, which increases with higher senior executive compensation-performance sensitivity.

3. RESEARCH DESIGN

3.1. Sample selection

Table 1 summarizes our sample selection procedure. Our study investigates French firms listed especially on the stock market’sCAC All-Tradable index. We obtained our initial sample of 270 largest French firms in terms of market capitalization. The final sample includes 175 companies, over a period of 9 years, i.e., 1,575 observations. We hand-collected the accounting data from the “Thomson ONE banker” database. We extracted data compensation from the reference documents and annuals reports downloaded from the Financial Market Authority (FMA) website. Finally, we used a final sample of 175 French firms for the period from 2009 to 2017. Table 1 presents the sectorial distribution of these firms.

Table 1. Sample selection procedures and sectoral distribution of firms

| Sample | French firms |
|--------|--------------|
| Initial sample | 270 |
| - Financial firms | 38 |
| - Firms whose data is unavailable | 37 |
| = Final selected firms | 175 |

Table 1 presents statistics on the selected sample of French firms which are divided into five sectors (industry, technology and telecommunication, consumer goods, services, health).

3.2. Definition and measurement of variables

3.2.1. Accounting conservatism

As shown in equation (1) below, we used Basu’s (1997) basic model. Many papers are used this model in the case of accounting conservatism like (Lara et al., 2016; Ball, Kothari, & Nikolaev, 2013) to determine the degree of accounting conservatism:

$$ E_{it} = \mu_0 + \mu_1 DR_{it} + \mu_2 R_{it} + \mu_3 DR_{it} \cdot R_{it} + \mu_{it} $$

where,

- $E_{it}$ is net earnings divided by market value, which means the future operating earnings. Kolev, Marquardt, and McVay (2008) used future operating earnings as a proxy for permanent earnings;
- $R_{it}$ is stock returns, calculated by cumulating monthly returns (Kim & Kim, 2014);
- $DR_{it}$ is a binary variable taking a value of 1 if the company’s results are negative (bad news) and zero otherwise;
- $DR_{it} \cdot R_{it}$ is the earnings asymmetric timeliness. It is a coefficient that shows the divergence between the earnings vulnerability to good news against bad news;
- $t$ and $i$ represent the year and company, respectively.

3.2.2. Highest-paid CEOs: Excess CEO compensation

We opted to use Core, Holthausen, and Larcker’s (1999) model and Cooper, Gulen, and Rau’s (2016) model. These models are constructed to measure excessive CEO compensation. These models' specific measurement methods are as follows.

1. Generally, the timeliness of these earnings asymmetric timeliness is referred to as “conditional conservatism” (Ball & Shivasukumar, 2005). More specifically, these authors focused on conditional conservatism to examine our hypotheses and they confirmed that conditional conservatism could strengthen contracting efficiency. On the other hand, they argued that, while unconditional conservatism was not efficient for contracting, it was easy to observe and that stakeholders could adjust it for ex ante. In such cases, it is likely that unconditional conservatism reduces the effectiveness of contracts.
First, another measure of excess compensation is determined by a broad spectrum of variables called the economic determinants of pay. In Core et al.’s (1999) model, these are called \( EXCOMP_{\text{Core}(1999)} \).

It is obtained by regressing the natural logarithm (Log) of compensation on proxies for the economic determinants of CEO compensation such as firm size (\( LNASSET \)), research and development (\( RD \)) expenditure, income growth rate (\( SALEG \)), firm accounting performance (\( ROA \)) and shares’ performance (\( RET \)). Equation (2) below presents the model compensation based on economic factors:

\[
\text{LNCOMP}_{it} = \mu_0 + \mu_1 \text{LNASET}_{it-1} + \mu_2 \text{RD}_{it-1} + \mu_3 \text{SALEG}_{it-1} + \mu_4 \text{ROA}_{it-1} + \mu_5 \text{RET}_{it-1} + \epsilon_{it}
\]

where,
- \( \text{LNCOMP} \) is in (CEO compensation);
- \( \text{LNASET} \) is firm size in terms of total assets;
- \( \text{RD} \) is R&D expenditure (R&D/total assets);
- \( \text{SALEG} \) is sales growth rate (increased sales/basic sales);
- \( \text{ROA} \) is accounting performance (income before income tax/total assets);
- \( \text{RET} \) is stock performance (cumulative stock returns);
- \( t \) is year;
- \( i \) is industry.

Accordingly, excess compensation \( (EXCOMP_{\text{Core}(1999)} \) is the residual from an expected compensation model that controls standard economic determinants. \( EXCOMP_{\text{Cooper}(2014)} \)

Second, Cooper et al. (2016) measured overcompensation by considering that the level of managers’ compensation was identical to the average compensation level in the same industry. By using Cooper et al.’s (2016) model, equation (3) below provides a detailed operational definition of the measurement of overcompensation.

\[
EXCOMP_{\text{Cooper}(2014)} = \frac{\text{actual com}_{it} - \text{expect com}_{it}}{\text{asset}_{it-1}}
\]

where,
- \( \text{EXCOMP}_{\text{Cooper}(2016)} \) is excess compensation as measured by Cooper et al.’s (2016) model;
- \( \text{actual com} \) is the actual level of compensation level in the current year;
- \( \text{asset} \) is the total assets of the last year;
- \( \text{expect com} \) is the expected compensation (we divided the database into two groups, the first group overpayment is negative and the second group overpayment is positive.)

The CEC model is used to measure the sensitivity of executive pay to accounting performance. More especially, we estimate the firm-specific CECs with a time-series regression of compensation changes in relation to changes in earnings and, also, changes in stock returns. Equation (4) below presents Bushman et al.’s (2006) CEC model.

\[
\Delta \text{COMP}_{it} = \mu_0 + \mu_1 \Delta \text{ROA}_{it} + \mu_2 \text{RET}_{it} + \epsilon_{it}
\]

where,
- \( \Delta \text{COMP} \) is the change in the CEO compensation;
- \( \Delta \text{ROA} \) is the change accounting performance (total asset return);
- \( \text{RET} \) is cumulative stock returns/performance.

The coefficient \( \mu_1 \) is an indicator of the sensitivity of compensation to the accounting performance. In this case, if \( \mu_1 > 0 \), then the sub-sample of firms is characterized by a high level of executive compensation-performance sensitivity.

However, if \( \mu_1 \leq 0 \), the sub-sample has a low level of remuneration sensitivity to firms’ accounting performance.

Therefore, in order to analyze this study’s \( H2 \), we compared and analyzed for each group the negative relationship between accounting conservatism and overcompensation. We did so after dividing our sample into two sub-samples (high or low sensitivity).

### 3.2.3. Compensation earnings coefficients (CEC)

The CEC model is used to measure the sensitivity of executive pay to accounting performance. More especially, we estimate the firm-specific CECs with a time-series regression of compensation changes in relation to changes in earnings and, also, changes in stock returns. Equation (4) below presents Bushman et al.’s (2006) CEC model.

- \( \Delta \text{COMP} \) is the change in the CEO compensation;
- \( \Delta \text{ROA} \) is the change accounting performance (total asset return);
- \( \text{RET} \) is cumulative stock returns/performance.

The coefficient \( \mu_1 \) is an indicator of the sensitivity of compensation to the accounting performance. In this case, if \( \mu_1 > 0 \), then the sub-sample of firms is characterized by a high level of executive compensation-performance sensitivity.

### 3.3. Research model

The purpose of this study is to analyze 1) the relationship between accounting conservatism and highest-paid CEOs, and 2) to analyze if this relationship increases with the increase in managerial incentives for accounting performance. This study used Basu’s (1997) model to examine this study’s results. Equation (5) below shows the specific research model.

### Table 2. A summary of variables and models measurement

| Variables | Measurement models |
|-----------|--------------------|
| **Dependent variable** | Accounting conservatism | Core et al. (1999), Cooper et al. (2016) |
| **Independent variables** | Excess CEO compensation | Bushman et al. (2006) |
| **Control variables** | Firm size | Natural logarithm of total assets |
| | Leverage | Total debts/Total assets |
| | Market to book | Book value/Market value |
where, $E_{it-1}$ is net earnings (equities) divided by market value; $R^*$ is stock returns; $DR_{it-1}$ is the binary variable taking a value of 1 if the company’s results are negative (bad news) and 0 otherwise; $EXCOMP_{it}$ is excessive CEO compensation as measured used by Core et al.’s (1999) and Cooper et al.’s (2016) models; $MTBR_{it}$ is market-to-book ratio (book value/market value); $LEV_{it}$ is debt ratio (total debt/total assets); $SIZE_{it}$ is the firm size (natural logarithm of total assets); INDUS is the industries variable; YEAR is years variable.

According to Basu (1997), the interpretation of this model follows the third coefficient of estimation for each variable. If we consider the estimation coefficient to be positive and significant, there is a high degree of accounting conservatism for this independent variable and, therefore, the accounting results are of high quality.

4. EMPIRICAL RESULTS

4.1. Descriptive statistics and correlation analysis

Table 3 summarizes the results of the descriptive statistical analysis of the main variables used in this study. In relation to Basu’s (1997) conservatism model, the net income ($E$) mean (median) and stock returns ($R$) are 0.0110 (0.013) and 0.025 (0.175), respectively.

In addition, the mean of the negative stock return, which is a dummy variable ($DR$), is 0.453. This indicates that about 45% of our sample shows a negative stock return. Generally, this result is identical to the outputs of previous research studies (Shuto & Takada, 2010).

In addition, the median (mean) of the $EXCOMP_{it}$ model and the $EXCOMP_{it}$ model are (-0.013) (0.000) and (0.000) (0.000), respectively. These results show that there is a low number of highest-paid CEOs in France.

Turning to the control variables, the mean and median growth potential ($MTBR$) are 1.262 and 0.943, respectively. This suggests that some samples include companies with extremely high growth potential. The mean (median) of debt ratio ($LEV$) and firm size ($SIZE$) are 0.403 (0.407) and 19.824 (19.737), respectively.

| Variables | Mean | Median | Min | Max |
|-----------|------|--------|-----|-----|
| $E$       | 0.013 | 0.011  | -0.065 | 0.021 |
| $R$       | 0.175 | 0.025  | -0.492 | 24.62 |
| $DR$      | 0.453 | 0.000  | 0.000 | 1.000 |
| $EXCOMP_{it}$ | 0.000 | 0.000  | -0.027 | 0.015 |
| $MTBR$    | 1.262 | 0.943  | -32.392 | 14.011 |
| $LEV$     | 0.403 | 0.407  | 0.001 | 0.983 |
| $SIZE$    | 19.824 | 19.737 | 16.173 | 24.114 |

Note: Table 3 displays the descriptive statistics for a sample of 1,575 firm-year observations. $E_{it}$ is net income divided by equities market value; $R_{it}$ is the stock returns; $DR_{it}$ is the dummy variable which takes a value of 1 if the stock return is negative, and 0 otherwise; $EXCOMP_{it}$ is excessive CEO compensation as measured by Core et al.’s (1999) model; $EXCOMP_{it}$ is excessive CEO compensation as measured by Cooper et al.’s (2016) model; $MTBR_{it}$ is market-to-book ratio (book value/market value); $LEV_{it}$ is debt ratio (total debt/total assets); and $SIZE_{it}$ is the firm size (natural logarithm of total assets).

4.2. Correlation matrix

Table 4 shows the results of Pearson’s correlation analysis of the main variables. The correlation matrix shows that there is a positive association between $E$ and $R$ whereas there is a negative association between $E$ and $DR$. This result, which is consistent with the outputs of previous research studies, indicates that reported incomes reflect at least a part of the information contained in the returns (Basu, 1997; Shuto & Takada, 2010). In the case of measuring overcompensation, both the $EXCOMP_{it}$ and $EXCOMP_{it}$ models display a significant positive relationship with accounting profit at the 5% and 10% levels, respectively. The overstatement of accounting profits can explain the negative correlation between accounting conservatism and excess compensation. Table 3 shows, also, that accounting profit has a significant negative correlation with the growth potential ($MTBR$) at the 5% level. However, the debt ratio ($LEV$) indicates a significant positive correlation at the 1% level. The findings of previous research studies show that the higher the debt ratio, the greater the demand for accounting conservatism (Ahmed, Billings, Morton, & Stanford-Harris, 2002; Beatty, Webber, & Yu, 2008; Ball, Bushman, & Vassari, 2008; Zhang, 2008).
4.3. Multivariate analysis

4.3.1. Regression results of the linkage among accounting conservatism and high-paid CEOs

In order to examine our H1, we tested the linkage between accounting conservatism and highest-paid CEOs. Accordingly, it would be reasonable to define excessive CEO compensation as overpaid compensation rather than expected compensation. Therefore, through these two tables, the empirical results show that, for both Core et al.’s (1999) and Cooper et al.’s (2016) excessive compensation measures, actual compensation is greater than expected compensation. More particularly, by using the excess CEO compensation measure (EXCOMP), we first divided our sample firms into two sub-samples: EXCOMP > 0, and EXCOMP ≤ 0. The EXCOMP ≤ 0 (EXCOMP > 0) sub-sample contains observations whose excess CEO compensation values are less or equal (more) than zero. Next, we re-estimated the regression model for each sub-sample. Table 5 summarizes the results.

The results, shown in Table 5, are consistent with our H1. First, these results indicate that the coefficient of DR*R*EXCOMP (Core (1999) and DR*R*EXCOMP (Cooper (2016)) are, as expected, significantly negative at the 1% level for the EXCOMP > 0. On the other hand, the coefficients in respect of DR*R*EXCOMP (Core (1999)) and DR*R*EXCOMP (Cooper (2016)) for EXCOMP ≤ 0 are positive but not significant.

These current results indicate that the significantly negative linkage between accounting conservatism and excessive CEO compensation is due to the senior executives’ role in extracting rents to maximize their own compensation packages. Therefore, in order to achieve generally discretionary goals, such as excessive compensation, powerful senior executives can easily distort the accounting figures by overvaluing the gains. This fraudulent behavior can be explained, also, by the fact that senior executives focus usually on the current incentives that result from the firm securing significant profits in the short term.

On the other hand, accounting conservatism is perceived widely as an efficient governance mechanism that seeks to align the agents’ and the shareholders’ interests. Absolutely, accounting conservatism is an effective measure of earnings that prohibits illegal rents by opportunistic senior executives. Similarly, it can protect shareholders’ interests against overcompensating senior executives since it increases the verifiability of reporting information by alleviating the information asymmetry between managers and their homologues. This situation may strengthen confidence within different parts of the firm and, thus, reinforce investors’ confidence in making investments. In addition, this situation may ensure the continuity of the company’s long-term business and preserve its reputation. In summary, these results show accounting conservatism’s usefulness in managerial compensation contracts and demonstrate, also, that accounting conservatism’s usefulness as a tool for an investment decision. These results are consistent with the H1 and therefore, it is accepted.

Turning to the results for the control variables, Table 5 shows that only two control variables have significant effects on accounting conservatism. These are the growth opportunity (MTBR) and debts (LEV). However, at conventional levels, the coefficient of DR*R*SIZE is insignificant. As for the other control variables, the coefficients of DR*R*MTB, DR*R*MTBR, and DR*R*LEV have the expected signs.

This behavior can be explained by agency theory. Shareholders’ interest would be in the long-term of the firm with significant profits whereas the CEO’s usually focus on the current incentive can be explained by agency theory. Conservatism may help to control conflicts of interest, reduce the risk of shareholder information and increase so the value of shareholders.

For the coefficient of the MTBR variable, which is represented by R*DR*MTBR, it is negative and significant only at the 1% level for the EXCOMP > 0 sub-sample. These results indicate that companies with higher-growth opportunities can reduce costs early; be more conservative; and, consequently, reduce CEO overcompensation. This is in line with the findings of previous researches such as Roychowdhury and Martin (2013).

In the case of debt ratio (LEV), Table 5 shows that the coefficient R*DR*LEV has a positive and significant effect on excess CEO compensation only at the 1% level for the EXCOMP > 0 sub-sample. These results indicate that the greater the agency problem between shareholders and creditors the greater the increase in extra compensation. In this case, more accounting conservatism is required to prevent myopic senior executives from seeking rent and extra compensation from managers. These results are in line with the results of previous studies analyzing the relationship between debt ratio and accounting conservatism. As higher debt ratio increases, the need for conservatism as the proxy problem between shareholders and creditors increases (Ahmed et al., 2002; Zhang, 2008; Ball et al., 2008; Beatty et al., 2008).

| Variables         | (1) E   | (2) R   | (3) DR  | (4) EXCOMP (Core (1999)) | (5) EXCOMP (Cooper (2016)) | (6) MTBR | (7) LEV | (8) SIZE |
|-------------------|--------|--------|--------|--------------------------|-----------------------------|---------|--------|---------|
|                   | 1.000  | 0.043**| -0.332*** | -0.396*** | 1.000                      | 0.052*** | -0.031* | 1.000   |
|                   | 0.001  | -0.054** | -0.054*** | 0.042*** | 1.000                      | 0.001   | 0.111  | 0.142***|
|                   | -0.068*** | -0.068*** | 0.161**   | -0.004  | -0.093*** | -0.031  | 1.000   |
|                   | 0.002  | -0.132*** | 0.116    | 0.284*** | 0.000                      | -0.013  | 0.201***| 1.000   |

Notes: Table 4 displays the Pearson correlation matrix of our variables. E is net income divided by equities’ market value; R is stock returns; DR is the dummy variable which takes a value of 1 if the stock return is negative, and 0 otherwise; EXCOMP is excessive CEO compensation, measured by Core et al.’s (1999) model; EXCOMP (Cooper (2016)) is measured by Cooper et al. (2016) model; MTBR is market-to-book ratio (book value/the market value); LEV is debt ratio (total debt/total assets); and SIZE is the firm size (natural logarithm of total assets) significant at the 10%, 5%, and 1%*** levels, respectively.
Table 5. Regression results among accounting conservatism and high-paid CEOs (EXCOMPCore (1999) and EXCOMPCooper (2016))

| Variables | Core et al. (1999) | Cooper et al. (2016) |
|-----------|-------------------|---------------------|
|           | EXCOMP = 0        | EXCOMP ≤ 0          | EXCOMP > 0        | EXCOMP = 0        |
|           | Coefficient (t-value) | Coefficient (t-value) | Coefficient (t-value) | Coefficient (t-value) |
| Constant  | 0.033 (0.103)    | 0.041 (0.102)    | 0.072 (4.153)**   |
| R         | -0.010 (-1.077)  | -0.023 (-0.458)  | 0.092 (1.143)     |
| DR        | -0.125 (-1.043)  | 0.017 (-0.621)  | 0.064 (-0.903)    |
| R*DR      | 0.0088 (2.899)**  | 0.005 (2.049)**  | 0.166 (2.254)**   |
| R*EXCOMP  | -0.029 (-7.844)** | 0.018 (3.936)**  | -0.132 (-7.925)**  |
| R*DR*EXCOMP | -0.158 (-2.577)** | 0.010 (0.943)   | -0.192 (-3.264)**  |
| R*MTBR    | -0.002 (-5.735)** | 0.002 (4.327)**  | 0.001 (-0.494)    |
| R*DR*MTBR | 0.0080 (2.987)**  | 0.000 (3.428)**  | -0.001 (-5.734)**  |
| R*LEV     | -0.002 (-22.004)** | -0.001 (-25.823)** | 0.000 (25.521)** |
| R*DR*LEV  | 0.0100 (10.375)** | 0.011 (5.934)**  | -5.394**          |
| R*SIZE    | 0.125 (7.824)*   | 0.280 (1.643)*   | 0.110 (1.735)*    |
| F-value   | 15.736           | 13.213           | 16.782           |
| Adjusted R² | 14.6%           | 18.3%           | 14.8%            |

Notes: Table 5 displays regression results between accounting conservatism and the highest-paid senior executives (EXCOMP). R*, is stock returns; DR*, is the dummy variable which takes a value of 1 if the stock return is negative, and 0 otherwise; EXCOMP-excessive CEO compensation is measured by Core et al.'s (1999) and Cooper et al.'s (2016) models; MTBR*, is market-to-book ratio (book value/the market value); LEV*, is debt ratio (total debt/total assets); and, employing a two-tailed t-test, SIZE*, is the size of the company (total assets natural logarithm) are significant at the 10%, 5%, and 1%* levels, respectively.

4.3.2. Regression results of the CEC effect on the linkage between accounting conservatism and highest-paid CEOs

The H2 of this study is to analyze whether the negative association between accounting conservatism and highest-paid CEOs increases in companies with higher post-setting problems. More particularly, this problem is expected to increase as the senior executive compensation-performance sensitivity increases.

Therefore, in this study, the strength of the senior executive's incentivized compensation for accounting performance is estimated by using Bushman et al.'s (2006) performance-compensation sensitivity model. This is called the CEC.

Using the CEC measure, we divided the current sample into two sub-samples: CEC > 0 against CEC ≤ 0. Furthermore, with reference to the CEC, we divided the sampled firms. More specifically, the CEC > 0 (CEC ≤ 0) sub-sample combines observations whose values of compensation earning coefficient are more (less or equal) than zero. Then, we classified each sub-sample into a group with high (low) pay-for-performance sensitivity.

Table 6 presents the following results of the H2.

More specifically, it shows the analysis results from using Core et al.'s (1999) and Cooper et al.’s (2016) models to measure excess CEO compensation. In addition, we confirm that companies, which have an earnings-based bonus plan, are characterized by a positive CEC while companies, which do not have an earnings-based bonus plan, are characterized by a negative CEC.

Our findings show that with a positive CEC sub-sample, the coefficients of R*DR*EXCOMPCore (1999) and R*DR*EXCOMPCooper (2016) are statistically negative and significant at the 5% level, while, it is positive and insignificant with a negative CEC sub-sample. The above findings show that most French companies do not have earnings-based bonus plans and that earnings, based on accounting conservatism, have lower explanatory power in relation to the senior executives' bonuses. This result supports this study's H2 that the negative linkage between accounting conservatism and the highest-paid CEOs is greater in the group (sub-sample) with higher managerial incentive compensation for accounting performance than in the lower group. In fact, the greater the incentivized compensation of senior executives the greater the intensity of accounting performance. In such circumstances, it is more likely that the senior executive is incentivized to make selfish earnings adjustments.

As the CEO's incentive schemes are usually dependent on a firm's performance. On the same basis, since the senior executives' incentive schemes are dependent on a company's performance, they try to inflate the accounting results; provide distorted accounting performance, and mislead investors. All these actions generate the ex-post settling-up problem. Consequently, a company’s performance is a crucial tool that enhances senior executives' incentive schemes to determine their pay packages and to seek rents through accounting conservatism.

Therefore, the high level of incentivized compensation for accounting performance means that, due to extra compensation, the ex-post settling-up can become a serious problem. In this case, the greater the intensity of senior executives' incentivized compensation for accounting performance, the greater the role and usefulness of accounting conservatism in managing senior executives' compensation contracts.
Table 6. Regression results of the effect of CEC on the linkage among accounting conservatism and high-paid CEOs

| Variables | Expected sign | Core et al. (1999) | Cooper et al. (2010) |
|-----------|---------------|-------------------|---------------------|
|            | CEC > 0       | CEC ≤ 0            | CEC ≥ 0             | CEC ≤ 0             |
| Constant  | (0.013)       | (0.009)            | (0.012)             | (0.025)             |
| R         | (0.004)       | (0.001)            | (-0.006)            | 0.001               |
| DR        | (0.001)       | (0.000)            | (-0.015)            | 0.017               |
| R*DR      | (2.523)**     | (2.524)            | (-3.868)            | (3.862)             |
| R*EXCOM   | (0.0647)      | (0.0265)           | (-0.113)            | 0.012               |
| R*DR*EXCOM| (0.587)       | (0.143)            | (-0.231)            | 0.538               |
| R*MTBR    | (2.132)**     | (0.545)            | (-0.324)            | 0.103               |
| R*DR*MTBR | (3.346)**     | (1.049)            | (-0.004)            | 0.009               |
| R*LEV     | (0.000)       | (0.000)            | (0.000)             | (0.000)             |
| R*DR*LEV  | (2.527)**     | (0.265)            | (-4.24)**           | (2.045)**           |
| R*SIZE    | (0.000)       | (0.000)            | (-0.004)            | 0.004               |
| R*DR*SIZE | (4.001)       | (0.000)            | (-0.004)            | (1.143)**           |
| F-value   | 7.021         | 7.021              | 10.274              | 10.387              |

Notes: Table 6 presents the regression results of the CEC on the relationship between accounting conservatism and CEO overcompensation as measured by Cooper et al.’s (2016) model; R is stock returns; DR is the dummy variable which takes a value of 1 if the stock return is negative, and 0 otherwise; CEC is the compensation earning coefficient; EXCOMP is excessive CEO compensation as measured by Core et al.’s (1999) and Cooper et al.’s (2016) models; MTBR is market-to-book ratio (book value/market value); LEV is debt ratio (total debt/total assets); by employing a two-tailed t-test. SIZE is firm size (natural logarithm of total assets) significant at the 10%, 5%**, and 1%*** levels, respectively.

5. CONCLUSION

The purpose of this study was to shed light on the linkage between accounting conservatism and the highest-paid CEOs and to investigate whether their linkage increased as the intensity of the senior executives; incentivized compensation increased. First, this study’s outputs validated the negative impact of the highest-paid senior executives on accounting conservatism. This suggested that the highest-paid senior executives could manage and restrict managerial accounting choices for their own interests which, in turn, had a negative effect on accounting conservatism. In fact, powerful senior executives could easily distort the accounting figures through overvaluing the gains in order to achieve generally discretionary goals such as excessive compensation. On the other hand, accounting conservatism is considered to be an effective measure of earnings that prohibits opportunistic senior executives from extracting illegal rents. Similarly, accounting conservatism can protect shareholders’ interests against overcompensating managers since it increases the verifiability of reporting information through alleviating the information asymmetry between managers and their homologues.

Second, our findings show that a higher incentivized remuneration for accounting performance increases the negative linkage between accounting conservatism and the highest-paid CEOs. These outputs indicate that higher incentives help the senior executives to inflate the accounting results; to provide distorted accounting performance; and to mislead investors. In turn, such actions generate the ex-post settling-up problem. Consequently, a company’s performance is a crucial tool that encourages the senior executives to determine their pay packages and to seek rents through accounting conservatism.

The limitation of this research paper: the data and the period were based on the first author’s thesis, so it’s limited, because of the data availability. Future recommendations: use earnings management, real earnings management, and classification shifting when the CEO highest-paid (Zalata & Roberts, 2016; Boujelben, Khemakhem-Feki, & Alqatan, 2020). Also, use more up-to-date data that cover 2020 and COVID-19. Use more theories to support the paper’s hypotheses. Also, use several analyses to confirm and support the main analysis. Lastly, study a cross-country instead of one country, so the sample will be wider.
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