Corporate governance mechanisms and earnings management after and before the adoption of IFRS

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Keywords
Earning management, Corporate Governance, IAS / IFRS Standards.

Abstract

The cascade of financiers and accountants scandals that marked the beginning of this decade has shed light on the quality of accounting and financial reporting published by companies. Faced with this dramatic situation, the European Union has sought to restore confidence between the different actors in the scene through the introduction of a new international accounting standard: IAS / IFRS. This study mainly aimed at verifying the impact of good governance mechanisms on earning management after the adoption of these new standards.

Thus, using a sample of 145 French listed companies, the results affirm in part the theoretical findings. The implementation of good governance mechanisms has really narrowed the level of earning management after January 2005.

Introduction

The question of the convergence of corporate governance raises a particular interest and forms a major issue in financial news. This theme is the center of the evolution of the global economy; it was the direct result of pressure from international investors (Real and Bernard, 2000) and recent scandals that have shaken financial markets (Gordon, 2011). Reflections on corporate governance are diverse and often linked to its characteristics and also to its impact on compliance with contractual clauses, the value of the firm and transparency of financial reporting. In this context and following numerous financial scandals, the quality of financial reporting has attracted the interest of many researchers. Despite this large volume of knowledge, the debate remains theoretically and empirically open. This debate concerns in the one hand, the usefulness of the convergence of governance systems, and in the other hand, the impact on the quality of corporate financial reporting.

Recently, the implementation of the law of July 3, 2008, constrained French listed companies to apply a code of governance. Thus, the AFEP-MEDEF code is an important legislative support to claim the implementation of all its recommendations, which is ideal to achieve. Corporate governance forms, therefore, a topical issue attracting increasingly the public. This interest is correlated with an increased focus on the issue of quality information. However, the question of the quality of financial statements is not entirely resolved as a result of significant developments and efforts by the country's corporate governance and financial transparency.

In illustrative title, a recent study led by the ACFE in 2012 highlights the figures of different types of embezzlement in the world. The measured impact shows that fraud in financial statements isn't the cause of massive loss of earnings in businesses. The experts of the ACFE believe that companies lost an average of 7% of their annual revenues due to accounting manipulations. Therefore, the study of the quality of financial statements appears to us a subject which justifies a current events strained by the existence of several informative failures. The means of the optimization of this quality depend strongly on the governance system (Bushman et Smith , 2001); Rezaee, 2005); Lo et al. 2010; Haw et al. 2011; Sun et Yong-Shik, 2011).

The main objective of this research is to provide answers to the following question: **What are the governance practices of French companies that ensure a better quality of financial statements?**

If there is many Prior research about governance in Anglo-Saxon companies (Beasley, 1996; Dechow et al. 1996; Abbott et al. (2004); Farber, 2005; Gavious, 2006; Bozec, 2007; Chang ,2008; Sun et Yong-Shik , 2011), there are very few works which were dedicated until now to the impact of the governance on the quality of financial statements in the context of French companies.

This is a very interesting context because since the introduction of IAS/IFRS, the presentation of financial statements has known major mutations despite the efforts maintained by European and French accounting authorities. Indeed, the EU has ordered the adoption of international accounting standards IAS/IFRS since 2005. This choice is consistent with the global situation, as these promote financialized economy without borders (Hoarau and Teller (2007)).

The remainder of the paper is organized as follows. The next section reviews relevant literature and develops hypotheses. The third section describes our methodology. The fourth section discusses the empirical results and the fifth section concludes.

1. Literature and hypotheses development

Corporate governance is a subject of increasing importance for shareholders and generally for all the stakeholders. Due to the numerous financial scandals and the economic crisis, the importance of this topic has increased significantly during the past two decades. The worldwide failure in financial reporting has largely denounced weak internal controls of companies. Then the accounting problems are vastly cited as the main reason in the loss of confidence of the investors who followed these scandals (Chang and Sun, 2009; Machuga and Teitel, 2009).

The main explanation for this interest is the consequence of the increase of agency costs. In fact, this is the direct result of the separation of ownership and control (Berle and Means, 1932; Coase, 1937; Jensen and Meckling, 1976; Holmstrom, 1979; Fama and Jensen, 1983). The appearance of this problem is obvious in the managers' incentives to take actions that maximize their utility in detriment of the shareholders wealth. The existence of such incentives in the financial reporting process reduces the credibility of the reported earnings numbers.

In reality, shareholders are not the only ones hurt by this kind of opportunism. The stakeholders also undergo this treatment. Therefore, Donaldson and Preston (1995) argue that the stakeholder theory ensures a more descriptive accuracy, instrumental power, and normative validity in the explanation of corporate governance bounds and effects. Although, it's often admitted that the main function of financial statements is to reduce the information asymmetry problem between stakeholders and managers. Despite, this relation is not the only contract that

induces firms to manage accounting reports. For example, debt contracts also provide managers with such incentives, thus possibly reducing the reliability of reported accounting numbers (Watts and Zimmerman, 1986). Equity incentives may also motivate managers to manipulate earnings. Unlike theoretical anticipation, the recent studies find empirical evidence on the association between equity incentives and earnings management (Gao and Shrieves, 2002; Cheng and Warfield, 2005; Bergstresser and Philippon, 2006; Cornett et al., 2007). All of these practices are described by Healy and Wahlen (1999) as a phenomenon of earning management. It occurred when the managers used their consideration in the financial report which can cause a deception to the company's stakeholder over the basic condition of the company. On the one hand, the opportunity to manage earnings arises because reported income includes both cash flows and changes in firm value that are not reflected in current cash flows (Dechow and Skinner, 2000). On the other hand, managers have the ability to make interventions in the process of financial report, as faster selling, slowing research and development's expenses and maintenance's expenses change product shipping schedule, (Fudenberg and Tirole, 1995; Stolowly and Breton, 2004).

As a result, the demand for stronger governance mechanisms is a response to prevent from the different incentives of managers to manipulate reported numbers (Bushman and Smith, 2001). The emergence of a number of codes of best practice, targets to improve the legal, institutional and regulatory framework for good governance in corporate sector. It also aims to provide more transparent governance structures and improve relations within the market.
Several codes of best corporate governance practices have been established in France since the mid-1990s to enforce minority shareholder rights and improve market transparency. These codes, including the Viénot reports (1995, 1998) and the Bouton report (2002), draw the outline of corporate governance. They have encouraged French firms to appoint independent directors, separate the functions of chief executive officer (CEO) and chair of the board, create board committees, and voluntarily disclose more information to improve market transparency and attract shareholders back to the financial markets. In 2003, the French Parliament adopted the Financial Security Law to uphold and strengthen the legal provisions related to corporate governance. This law—in the spirit of the Sarbanes–Oxley Act—aims to increase CEO responsibilities, promote internal control, and reduce or eliminate sources of conflict of interests. Notwithstanding the newly enacted laws and recently adopted governance codes, businesses failures and accounting scandals continue to surface, which has shaken up the confidence of French corporate environment (Vivendi Universal and the Sentier II financial scandals in 2001 and the Autorité des Marchés Financiers (AMF) penalties against BNP Paribas and Société Générale in 2007). Examining the financial reporting practices of CAC 40 firms in 2004, Fitch Ratings (2004) concludes that these firms can do better in terms of financial disclosure and accountability. It also observes significant differences in the content of annual reports across these firms without explaining the reasons for these disparities.

1.1. Characteristics of the board of directors

The effectiveness of a board depends on various characteristics. The main ones are:
The size: The number of directors comprising the board has advantages and disadvantages. Many studies have investigated the relationship between the size of the board and earnings management and found mixed results. Kao and Chen (2004), and Abbott et *al*. (2004) show that the level of earnings management is positively related to the size of the board. However, Chtourou et *al*. (2001) and Xie et *al*. (2003) have shown that a large board size helps to control the

discretion of management. Indeed, a large board can contain a large number of experienced administrators who can mitigate attempts to manage earnings. Their results are also confirmed by Davidson et *al*. (2005) and Bradbury et *al*. (2006) studies. However, with a sample of French firms, Jeanjean (2002) find no significant relationship between the number of directors constituting the board and earnings management. This divergence of results leads to the conclusion that there is no consensus on the impact of the board size on the oversight capacity of directors. Hence our hypothesis stipulates that:
H1: The size of the board has a negative impact on the level of earnings management.

Independence of board members: Previous research suggests that the presence of independent outside directors increases the effectiveness of the board. Using a sample of British firms, Peasnell et *al*. (2000) show that when the percentage of outside directors is higher, the earnings management practices are weaker. This result is also supported in the American context with Jiraporn and Gleason (2007) study and in the French context with Jeanjean (2002) study. In addition, Peasnell et *al*. (2005) find that the independence of board members limit performance management upward rather than downward. Moreover, Xie et *al*. (2003), Zhang et *al*. (2004) and Cornett et *al*. (2006) distinguish between outside directors (directors not shareholders) and independent outside directors (directors not shareholders who have no business relationship with the firm that serve). Their tests show that only the presence of the second type of directors is negatively associated with discretionary accruals. However, some studies (Larcker et *al*., 2004; Bradbury et *al*. 2006) show that the presence of outside directors has no effect on earnings management. In the French context, the Viénot II (July, 1999) recommends the presence of at least one-third independent directors on the board. For this, we claim that as the percentage of independent outside directors increases the extent of earnings management decreases, hence our hypothesis assumes that:
H2: The presence of independent directors on the board has a negative impact on the level of earnings management.

Separation of roles of CEO and Chairman: Some support the dual structure in the board (clear separation of powers), while others defend the monistic structure in the board (confusion of powers). Boyd (1995), Godard (1998) and Godard and Schatt (2000) show that the combination of the functions of CEO and chairman of the board improves the performance of firms. Brickley et al. (1997) added that the combination of the two positions has real benefits for shareholders. By cons, many studies have shown that the unitary structure cannot be an obstacle to have good governance. Dechow et *al*. (1996), Beasley (1996) and Klein (2002) find a positive relationship between the violation of generally recognized accounting principles and the duality of chairman of the board. Chtourou et al. (2001) and Peasnell et al. (2005) show that the combination of roles is positively related to earnings management. Although the new conception of corporate governance adopted in 1999 in France leaves the choice to the board between the two forms monistic and dualistic. In our study, we will assume that the dual structure is the most appropriate:
H3: There is a negative relationship between the presence of a monistic structure and the level of earnings management.

The existence of an audit committee: Several studies have examined the relationship between the audit committee or some of its characteristics (size, independence, competence, frequency of meetings) and earnings management. Peasnell et al. (2005) find no link between the

presence of an audit committee and the earnings management and attribute this result to the existence of this committee in the majority of firms in their sample. Piot and Janin (2007) show that the existence of an audit committee in the board has a reducing effect on discretionary accruals. They add that the independence and competence of the members of this committee have no impact on the various components of the accounting profit. In the French context, although the new law on financial security (L. 2003-706 of 1 August 2003) contains no disposition requiring the establishment of audit committees, we assume that the existence of such committee limit the practice of earnings management. Hence our fourth hypothesis assumes that:
H4: the existence of an internal audit committee negatively influences the level of earnings management.

1.2. Ownership structure

The ownership structure is apprehended through the concentration of capital and the nature of the shareholders:

Concentration of ownership: It has been demonstrated by a plethora of research that ownership concentration can curb discretionary behavior of managers in terms of earnings management. Core (2000) finds that managers are more inclined to act for the benefit of owners and reduce their fraudulent practices, when ownership is concentrated in the hands of a few shareholders. Similarly, in the American context, Chtourou (2000) show that there is a negative relationship between earnings management and the cumulative percentage of blocks of shares held by investors holding more than 5% and with no relationship with management. She He conclude that the existence of block shareholders, help to control properly the development process of financial reporting and can limit any discretion behavior. More recently, Lopez Iturriaga and Hoffmann (2005) argue the hypothesis that the level of earnings management decreases when ownership is concentrated. Empirically they find a negative relationship between the proportion of property owned by the majority shareholder and discretionary accruals. Therefore, we expect that the existence of block shareholders exercise extensive surveillance at the preparation of financial statements and consequently reducing the extent of earnings management. Hence our fifth hypothesis runs as follows:
H 5: Concentration of ownership has a negative impact on the level of earnings management.

Managerial ownership: Several studies have examined the impact of a management structure on the level of earnings management. Warfield et al. (1995) show that in companies run by shareholders owners, the magnitude of abnormal accruals is greater than in those held by shareholders-managers. For Peasnell et al. (2000, 2005), there is a negative association between abnormal accruals and the proportion of outside directors, this association is more important for companies that reduces the separation between ownership and management. Thus, the managerial ownership limits the practice of earnings management and strengthens the role the board of directors. Given these results, we assume that the presence of shareholder-managers within a firm limit management practices result. Hence our hypothesis assumes that:
H6: the managerial ownership has a negative impact on the level of earnings management.

Institutional ownership: The presence of institutional investors with a significant stake in the capital may also have a reducing effect of deception leaders. Jiambalvo et al. (1999) show that managers do not manipulate the results, given the pressure from institutional investors who

are more interested in the long-term profitability. Shang (2003) show that firms with less discretionary accruals are those whose institutional ownership is high. In addition, he find that institutional investors sell their shares when there is manipulation of results. In the same vein, Chung et al. (2002, 2005) suggest that institutional ownership reduces earnings management upward or downward through the manipulation of discretionary accruals. Finally, Cornett et al. (2006) confirm the hypothesis that institutional ownership does limit earnings management motivated by compensation in the form of stock options. So, we assume that institutional investors exercise effective oversight on directors. Thus, our hypothesis assumes that:
H 7: institutional ownership has a negative impact on the level of earnings management.

The family ownership structure: Several studies have shown empirically that the family ownership structure have a negative impact on corporate transparency. Indeed, family firms have more reasons to publish the financial statements of a lower quality than non-family businesses. In the French context, Boubaker (2006b) show that family businesses have less interest in publishing voluntary information comparing to non-family business. This same conclusion has been proved by Morck et al. (2000) on the Canadian market and Claessens et al. (2002) in the East Asia market. Ashiq et al. (2006) explain this result by the willingness of the family to use inside information to enhance decision-making power and generate private benefits at the expense of uninformed shareholders. Setia-Atmaja et al. (2008) study the case of all firms listed on the Australian Securities Exchange and conclude that family ownership is associated with a higher level of discretionary accruals. Therefore, our hypothesis supposes that:
H8: Family owner ship has a positive effect on the level of earnings management.

1.3. External audit quality:

The external audit is another control mechanism for managers to limit their opportunistic behavior. A number of studies have tried to understand the audit quality through the quality of the auditor. This must be competent and independent. The satisfaction of these criteria is the only guarantee of the relevance of the certification process. The ability of an auditor to show his competence and independence is related to the size of the audit company in which he works. Indeed, it has been shown by several authors (DeAngelo, 1981; Palmrose, 1988; Teoh and Wong, 1993; Graswell et al., 1995) that the large audit firms (the "Big Eight" in the eighties twenty, recently the "Big Four") provide a high quality audit of the financial statements and are thus able to reveal the discretionary accounting practices. Therefore, the level of earnings management decreases in the presence of an audit quality within the firm. Similarly, Krishnan (2003) emphasizes the important role of an auditor in the large restriction opportunistic behavior. Empirically it has been shown that firms audited by "Big Six" have a low level of discretionary accruals compared to firms audited by "Non Big". In addition, Chen et al. (2005a) find in the context of the IPO, the quality auditors 'Big Five' practices hinder earnings management and issue accounting and financial information more accurate. Hence, our last hypothesis stipulates that:
H9: The level of earnings management is reduced when the company is audited by a big 4 audit firm.

2. Sample and Methodology

2.1. Data collection

In this research, we focus exclusively on French listed companies. From the initial sample, we eliminated the financial and real estate companies and insurance companies. Indeed,

the rules of accounting and financial information published in these areas are very specific and quite different from other sectors. In addition, we excluded companies whose data are not available and those with outliers. The final sample regrouped 146 French companies over 4 years (2003-2006) whether 584 firm-year observations. It is presented in Table (1) depending on the type of industry.

Table 1: Distribution of sample by industry types

Sectors of activity		Number
1-	**Consumer goods**	23
2-	**Communication**	2
3-	**Industry**	37
4-	**Basic materials**	6
5-	**Oil and gas**	5
6-	**Health**	10
7-	**Services to communities**	4
8-	**Consumer services**	26
9-	**Technology**	33
Total		146

2.2. Variable measurement and presentation of the model

2.2.1. Earnings management by accruals

To measure the level of earnings management, we will use the discretionary accruals estimated by using the model of Kothari et al. (2005). Measuring the level of earnings management involves three steps:

<u>Calculation of total accruals</u>: According to Healy (1985), the earnings are defined as follows:

ROA= CF + TACC (1)

Where:

ROA is return on assets, CF is cash flow and TACC is the total accruals.

The total accruals are thus calculated by subtracting the CF from the ROA:

TACC= ROA - CF (2)

*Estimation of non-discretionary accruals: **We will first present the model estimation (Kothari et al. 2005), then we show how we can determine the non-discretionary accruals from this model:***

$$TA_{it} = a_0 + a_1 [(\Delta REV_{it} - \Delta AR_{it})] + a_2 (PPE_{it}) + a_3 (ROA_{it-1}) + \varepsilon_{it} \quad (3)$$

With:

- **TA_{it}** : is the total accruals for company i in year t, computed as the difference between net income before extraordinary items and cash flow from operations;
- **REV_{it}**: is the change in revenues for company i between year t and t-1;
- **AR_{it}**: is the change in accounts receivable for company i between year t and t-1;
- **PPE_{it}** : is the gross property, plant, and equipment for company i in year t;
- **ROA_{it}**: is the returns on assets for company i in year t;
- **ε_{it}**: error term of the model.

All variables are deflated by lagged total assets.

Non-discretionary accruals (NDA) are determined by estimating the model defined above:
NDAit = â0 + â1 [(ΔREVit - ΔARit)] + â2 (PPEit) + â3 (ROAit-1) (4)

- ***â0, â1, â2, â3 and â4 are respectively the estimated coefficients of the equation (3).***

Estimation of discretionary accruals: The discretionary accruals (DA) are determined as follow:
DA = TA - NDA (5)
Substituting the relationship (4) into (5), we get:
$$DA_{it} = TA_{it} - [\hat{a}_0 + \hat{a}_1 [(REVi_t - ARi_t)] + \hat{a}_2 (PPE_{it}) + \hat{a}_3 (ROA_{it-1})] \quad (6)$$

2.2.2. Corporate governance

There are three groups of explanatory variables that must go through a phase of measurement and coding, namely the characteristics of the board of directors, ownership structure and external audit.

The characteristics of a Board of Directors: A review of studies has allowed us to identify several criteria related to the effectiveness of this control mechanism. This is mainly due to:

***The size of the Board (SIZ)**: Referring to previous work, notably those of Xie et al. (2003), Bédard et al. (2004), Fernández and Arrondo (2005) and Zéghal et al. (2011) the variable size of the Board (SIZ) is measured by the total number of directors serving in the Board.

***Independence of board members (IND):** This variable can be measured in several ways. For Beasley (1996); Xie et *al*. (2003); Abbott et *al*. (2004) ; Bédard et *al*. (2004) ; Peasnell et *al*. (2005) et Zéghal et *al.* (2011), it measured by the following ratio: number of independent outside directors / total number of directors.

We will use this measure because it has been used by almost majority of recent research.
***Separation of roles of CEO and Chairman of the Board (SEP):** This variable is measured by a dichotomous variable that takes the value 1 if the two functions are not occupied by the same person and 0 otherwise. This measure was adopted by Beasley (1996), Xie et *al*. (2003), Bédard et *al*. (2004), Peasnell et *al*. (2005), and Zéghal et *al*. (2011).

***Existence of an audit committee (AUD):** The existence of an audit committee within the board, regardless of its characteristics was measured by Xie et *al*. (2003), Peasnell et *al*. (2005) and Zéghal et *al*. (2011) by a dichotomous variable that takes the value 1 if the firm has established an audit committee within the board of directors, and 0 otherwise. We will also adopt this measure.

The ownership structure: The ownership structure was apprehended by previous work mainly by two indicators, the concentration of ownership and the nature of the shareholders (managerial ownership, institutional ownership, family ownership). **Concentration of *ownership (CONC-OWN)**: In this paper the concentration of ownership is measured by the percentage of equity held by the largest shareholder. This measure is also used by Godard (2001) and Fernández and Arrondo (2005).

***Managerial ownership (MNG-OWN)**: the managerial ownership is measured by the participation of the CEO in capital. This is a variable that is equal to the percentage of equity held by the CEO, the number of shares held by the CEO reported on the number of shares total. This measure has been used by several previous studies (Klein, 2002; Koh, 2003; Peasnell et al., 2005; Davies et al., 2005).

***Institutional ownership (INS-OWN)**: For Chung et al. (2002, 2005), institutional ownership is a dichotomous variable that takes the value 1 if the percentage of capital held by institutional investors exceeds the median of the whole sample and 0 otherwise. Whereas for Pincus and Rajgopal (2002), Shang (2003), Koh (2003) and Peasnell et al. (2005), this variable was

measured by the percentage of shares held by institutional investors in the capital of the firm. In our paper we measure the institutional ownership variable by a dichotomous variable that takes the value 1 if institutional investors have shares in the firm and 0 otherwise.

***Family ownership (FAM-OWN)**: The literature presents two main measures for this variable. The first was proposed by La Porta et al. (1999) who consider a business as a family business where one (or more) member (s) of the family own 20% or more of the capital and that (s) is (are) involved in the general direction of the company. Anderson and Reeb (2003a) propose a second measure determined in two ways: the homestead is either a binary variable taking the value 1 if family members are present at the Board of Directors or direction principally of the company and 0 otherwise, a variable metric measured by the percentage of shares held by family members. Based on these measurements, we suggest that family ownership is a dichotomous variable taking the value 1 if the firm is run by a family and 0 otherwise.

External audit quality (AUD-EXT): We measure the quality of external audit (AUD-EXT) by a dichotomous variable that equals 1 when the auditor of the company belongs to the "Big4" and 0 if not. This measure was also used by many authors (Koh 2003, Van Tendeloo and Vanstraelen 2005, Zéghal et *al*., 2011).

Control variables: There are other factors that also affect the level of earnings management as the size of the firm, its debt level and its quotation on a foreign market.

***The firm size (SIZ-FIRM)**: The size of the company is measured by the logarithm base 10 of total assets. The use of the logarithm has the advantage of circumventing the problem of scale arising from the small measurements of other variables in the model. This measure was used by Ben Othman et Zéghal (2006), Bozec (2008) and Zéghal et *al*. (2011).

***The level of debt (DEBT)**: Debt is also an embarrassment to earnings management practices. According to Jensen and Meckling (1976), debt plays a disciplinary role to address the discretionary behavior of managers. The debt level of the company (END) is measured by the ratio of total debt to total assets. This measure was also adopted by DeFond and Jiambalvo (1994), Ben Othman and Zéghal (2006) and Zéghal et al. (2011).

***Quotation on a foreign market (QUOT)**: quotation on foreign places is a key variable in the choice of accounting policy. Indeed, several empirical studies have shown that quotation on foreign places has a positive impact on the quality of the publications listed companies. According to Van Tendeloo and Vanstraelen (2005), companies with a quotation on another foreign market are presumed to have more incentives to report transparently information because they are subject to restrictions imposed by different countries and are exposed a higher risk of litigation. Therefore, we can expect that the quality of financial reporting will be improved when a company is listed on the international capital market (Ball et al., 2003). The quotation is a dichotomous variable taking the value 1 if the firm is listed on a foreign market and 0 otherwise.

2.2.3. Presentation of the study model

The following logistic regression model is tested in our study:

$$P\,(\text{belonging to group} \mid AD \mid \text{lowest}) = \beta_0 + \beta_1\,(SIZE) + \beta_2\,(IND) + \beta_3\,(SEP) + \beta_4\,(AUD) + \beta_5\,(CONC\text{-}PROP.SP) + \beta_6\,(MNG\text{-}OWN) + \beta_7\,(INST\text{-}OWN) + \beta_8\,(FAM\text{-}OWN) + \beta_9\,(AUD\text{-}EXT) + \beta_{10}\,(SIZ\text{-}FIRM) + \beta_{11}\,(DEBT) + \beta_{12}\,(QUOT) + \varepsilon$$

With:

- **P (belonging to group | AD | lowest)**: group of companies with the lowest discretionary accruals following the mandatory adoption of IAS / IFRS. P (belonging to group |

DA lowest) is the dependent variable of our research. This is a binary variable that takes the value 1 if the firm belongs to the group that manages the least results and 0 otherwise;

- **SIZE**: the total number of directors serving on the Board.
- **IND:** the percentage of independent outside directors present at the board
- **SEP**: a dichotomous variable that takes the value 1 if the two functions are not occupied by the same person and 0 otherwise ;
- **AUD**: a dichotomous variable that takes the value 1 if the firm has established an audit committee within the board of directors, and 0 otherwise;
- **CONC-OWN** : the percentage of equity held by the largest shareholder;
- **MNG-OWN** the percentage of equity held by the CEO;
- **INS-OWN**: a dichotomous variable that takes the value 1 if institutional investors have a shares on the capital of the firm and 0 otherwise;
- **FAM-OWN**: a dichotomous variable taking the value 1 if the firm is run by a family and 0 otherwise;
- **AUD-EXT**: a dichotomous variable that equals 1 when the auditor of the company belongs to the "Big4" and 0 if not;
- **SIZ-FIRM**: the logarithm base 10 of total assets;
- **DEBT**: the ratio of total debt over total assets;
- **QUOT**: a dichotomous variable taking the value 1 if the firm is listed on a foreign market and 0 otherwise

3. RESULTS

3.1. Comparison of discretionary accruals before and after the adoption of IAS / IFRS

We will try in what follows to mesure the level of earnings management, before and after the adoption of IAS/IFRS. We will use in this paragraph, not only simple statistical description, but also analysis various comparison tests.

Table 2: Descriptive statistics for the Accruals and its components

Variables	Mean	Stand. deviat	Min	Max
TA	-0,132506151	0,552909106	-9,940070957	0,904277415
DA	-3,69817E-19	0,01265193	-0,088766349	0,262223644
|DA|	0,001570958	0,012553852	6,6331E-07	0,262223644
DA (N-IFRS)	0,000333596	0,016353211	-0,088726574	0,262223644
DA (IFRS)	-0,000333596	0,007282987	-0,088766349	0,008708659
DA<0	-0,001680292	0,009243102	-0,088766349	-6,6331E-07
DA ≥0	0,001474983	0,014879722	3,57631E-06	0,262223644

TA: total accruals; DA: discretionary accruals; DA (N-IFRS): discretionary accruals before the adoption of IAS / IFRS; DA (IFRS): discretionary accruals after the adoption of IAS / IFRS.

Table 2 provides descriptive statistics for the accruals and its components. The mean value of discretionary accruals (DA) approaches zero (-3.69 10-19) for the entire study period (2003-2006). This result shows that on average French listed companies do not manage excessively their results. However, most companies tend to manage their results down. In

addition, the level of discretionary accruals after the adoption of IAS / IFRS is negative (-0.000333596) and before the adoption of these standards is positive (0.000333596). The introduction of IAS / IFRS has, a priori, decreased the level of earnings management in French listed companies. In order to deepen our analysis and further affirm these findings from a single statistical calculation, we perform comparison tests for the variable "discretionary accruals", in order to compare the levels of earnings management between the pre-adoption (2003-2004) and post-adoption period (2005-2006) of IAS / IFRS. But before starting the analysis, it is essential to check the normality of the variables through the Kolmogorov-Simirnov test to decide which comparison test used. Indeed, for the variables obeying the normal distribution, we use the t-test for comparison of means, while for the other non-parametric variables we use the nonparametric Wilcoxon test. The test results are summarized in Table 3:

Table 3: Test of difference between the two groups (IFRS Group (05–06) and non-IFRS Group (03–04)

Variables	N-IFRS (03-04)	IFRS (05-06)	Kolmogorov-Smirnov test	Wilcoxon test
|AD|	0,001956038	0,001185878	4,634	-1,281
	(0,016353211)	(0,007193221)	[0,000]	[0,200]
AD	0,000333596	-0,000333596	2,737	-4,488
	(0,016238841)	(0,007282987)	[0,000]	[0,000]
AD≥0	0,002785721	0,000651483	3,534	-0,991
	(0,023908714)	(0,001206657)	[0,000]	[0,321]
AD<0	-0,001377189	-0,002196467	2,824	-1,278
	(0,007080525)	0,012092438	[0,000]	[0,201]

(*): standard deviation ;
[*]: statistical probability test;

AD: discretionary accruals; AD (N-IFRS): discretionary accruals before the adoption of IAS / IFRS; AD (IFRS): discretionary accruals after the adoption of IAS / IFRS.

Table 3 reports the results for the Kolmogorov-Simirnov test. The results show that none of the studied variables follows a normal distribution and the assumption of normality of the variables is always rejected. That said the most appropriate comparison test of means to consider the difference between the level of discretionary accruals between the two periods before and after adoption of IAS / IFRS will be the Wilcoxon test. Table 3 also shows that all variables calculated during the period (2005-2006) are lower than those calculated for the period (2003-2004). In particular, it shows that discretionary accruals variable (DA) is significantly lower during the post-IFRS (2005-2006). Therefore, the level of earnings management after the mandatory adoption of IAS / IFRS is less important than before adoption.

3.2. Influence of good governance mechanisms on the level of earnings management after the introduction of IAS / IFRS:

The method used for the regression of our model is the final binary logistic regression, since the dependent variable in our model is a binary variable: P (belonging to group | AD | lowest). In fact, this method allows us to estimate the parameters β through an iterative

algorithm using maximum likelihood modeling. The results of the logistic regression are presented in the following Table 4.

Table 4: Results of logistic regression

Variables	Coefficient	probability
SIZE	0,021	0,700
IND	0,010	0,039
SEP	0,562	0,143
AUD	1,719	0,010
CON-OWN	0,016	0,100
MNG-OWN	0,019	0,100
INS-OWN	0,597	0,252
FAM-OWN	-0,814	0,056
AUD-EXT	1,197	0,062
SIE-FIRM	0,506	0,035
DEBT	0,002	0,913
QUOT	1,256	0,021

The results of logistic regression presented in Table 4 show that the size of the board (SIZE) has no effect on reducing the level of earnings management. Indeed, its coefficient is not statistically significant. This result invalidates the hypothesis H_1 that the size of the board has a negative impact on the level of earnings management. The coefficient of variable Independence of board members (IND) is statistically positive. This result confirms the hypothesis H_2 that the presence of independent directors on the board has a negative impact on the level of earnings management. The variable "Separation of Chair and CEO Roles, SEP" has no effect on the reduction of earnings management. Indeed, its coefficient (0.562) is statistically insignificant. This result invalidates the hypothesis H_3 that there is a negative relationship between the presence of a monistic structure and the level of earnings management. The coefficient of the variable Existence of an audit committee (AUD) is positive (1.719) and significant at the 1% level. This result confirms the hypothesis H_4 that the the existence of an internal audit committee negatively influences the level of earnings management. The variable "Concentration of ownership, CON- OWN" has a significant impact on reducing the level of earnings management. Its coefficient is positive (0.016) and statistically significant. This result confirms the hypothesis H_5 that Concentration of ownership has a negative impact on the level of earnings management.

The variable Managerial ownership (MNG-OWN) has an impact on reducing the level of earnings management. Indeed, its coefficient is statistically significant. This result confirms the hypothesis H_6 that the managerial ownership has a negative impact on the level of earnings management. The variable "institutional ownership, INS-OWN" has no significant impact on reducing the level of earnings management. Although its coefficient is positive (0.597), it is not significant. This result invalidates the hypothesis H_7 that institutional ownership has a negative impact on the level of earnings management. The variable Family ownership (FAMI-OWN) is negative and significant at the level of 10%. This result confirms the hypothesis that mandatory adoption of IAS / IFRS has a smaller effect on reducing the level of earnings management in the presence of family ownership structure. The variable "Big 4 External Auditor, AUD-EXT" has an impact on reducing the level of earnings management. Indeed, its coefficient is statistically significant. This result confirms the hypothesis H_9 that the level of earnings management is

reduced when the company is audited by a big 4 audit firm. Two control variables firm size (SIZ-FIRM) and listing on a foreign market (QUOT), have an effect on reducing the level of earnings management. Indeed, their coefficients are positive (respectively, 0.506 and 1.256) statistically significant at the level of 5 %. In contrast, the control variable level of debt (DEBT) has no effect on reducing the level of earnings management.

4. Conclusion

Based on the results obtained, we arrived to respond to questions posed in our empirical investigation by showing that only independence of the Board of Directors, the presence of an internal audit committee, the concentration of ownership, managerial ownership, the quality of the external audit have a significant impact on the reduction of management practices in the period of adoption of IAS / IFRS, and instead the family ownership structure contributes only to increase these practices. In addition to these revelations, we also proved that the size of the firm and its listing abroad are all effective control mechanisms, insofar as they can adjust the flexibility exercised at the discretionary accruals. However, we have reversed the idea that the level of fraudulent practices decreases with the presence of a board of a certain size, when there is separation of functions of CEO and chairman and when the capital is held by institutional investors. We also reversed the idea that the level of debt helps to reduce earnings management. We are also confirming that the level of discretionary accruals decreases significantly after the application of IAS / IFRS.

However, our research has some limitations. First, the choice of measurement model of earnings management could be criticized. Many estimation models exist to calculate discretionary accruals; we chose the model of Kothari et al. (2005) because it was the most appropriate one theoretically and contextually but also because of the opportunities offered by the French accounting data available. Then, the explanatory power of our model remains modest. This indicates the existence of omitted variables that could be explored in future research. As for the explanatory variables representing incentives of earnings management, they can sometimes provide only imperfect representation of the underlying constructs. This is particularly the case of the variable quality of the external audit. Indeed, to be a membership of an international audit firm is not necessarily a guarantee of high quality external audit as could reveal financial scandals following the collapse of the giant Enron. In addition, although the existence of various characteristics of board and ownership structure are potentially important factors, it is not clear that these mechanisms limit the practices of earnings management, because accounting policy is not always opportunistic (Holthausen, 1990; Aria et al. 1999). Finally, due to the non-international nature of our study, we were unable to analyze the impact of institutional factors on the mandatory adoption of IAS / IFRS. In fact, in future research it would be interesting to analyze the impact of the mandatory adoption of IAS / IFRS in several countries and to test the impact of institutional variables (such as the tax system, legal system and culture) on the implementation of these standards. At the conclusion of this research, several further developments can be envisaged. One possibility would be to integrate other governance mechanisms to better assess the possible influence of these on the level of earnings management after the introduction of IAS / IFRS (such as the characteristics of the internal audit committee, business performance ...). Another track would be to examine these relationships over a wider geographical horizon and identify the impact of the institutional environment on the good application of these standards and therefore the practices of earnings management.

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