European Journal of Economics, Finance and Administrative Sciences
ISSN 1450-2275 Issue 35 (2011)

http://www.eurojournals.com

Does Corporate Governance Constrain Earnings Management? Evidence from U.S. Firms

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Abstract

The purpose of this paper is to examine the influence of corporate governance mechanisms on earnings management for a panel of 171 U.S firms from 1998 to 2005. Consistent with earlier work, we find that auditing committee independency, the separation between chairman and CEO and manager as a membership to nominating committee are the most significant constraints to earnings management. These results recommend us to deduce that Governance instruments affect earnings management decision and control efficiency depends on: (1) Board size that should be neither too large nor too small in order to avoid diverting opinions that profit the manager and allow earnings management. (2) Auditing committee independency is necessary to deal with manager's opportunistic behavior and earnings manipulation. (3) A separation function, which means that manager should not be at the same time Chairman, is also necessary to have an optimal governance system and to avoid earnings management. (4) Nominating committee independency and non manager membership are required to succeed corporate governance mechanisms.

Keywords: Earnings management, CEO, Board of directors, auditing committee, nominating committee, and ownership structure.

1. Introduction

The last few years witnessed a series of accounting and financial scandals[1] leading investors to discredit financial information. In fact, sudden firms' bankruptcies led investors to devote more interest

[1] Enron, WorldCom, Xerox…

to earnings management policy phenomenon. The earnings management[2] studies state that insiders select accounting techniques and accruals in order to modify reported earnings, misinform investors, cause overvaluation, influence contractual outcomes (Healy and Wahlen 1999, Schipper 2007, Lo 2008, Kim et al. 2010, Nwaeze 2011). This practice tends to mislead financial market and to hide serious risk perception and firm valuation. Thus wrong firm communication considerably reduces analysts' and investors' valuation precision (Guimard, 2008). SEC[3] president intensively denounces earnings management practice and emphasizes its harmful consequences on the confidence relationship between the firm and its partners. Thereby, financial statements quality is being nowadays questioned and accounting practice is facing a real legitimacy crisis.

Hence, an interesting academic line of research focused on earnings management constraints. Most results converge toward the conclusion that governance mechanism is the most suitable solution to control manager's opportunistic behavior. However, we note a real ambiguity concerning the concept of governance mechanism and researches are far away from reaching an absolute consensus about the most significant elements of governance mechanisms. In this study we will try to examine the most significant aspects of governance mechanisms that affect earnings management in the context of U.S firms.

Then, our paper will be organized as follows: the second section provides a brief review of the literature related to the interaction between corporate governance and earnings management. The third section discusses methodology, data and descriptive statistics. Section 4 presents our main empirical results. Finally section five will conclude.

2. A Brief Review of the Literature

The literature on earnings management is abundant. In fact, the growing debate in this field suggests factors and constraints related to governance mechanisms to explain firms' earnings management behavior.

2.1. Board Size and Earnings Management

Board size[4] is an important factor of board efficiency. However, there is not yet any consensus about the optimal size composing Board structure. Most researches reached contradictory theoretical and empirical results in at least three ways. Some researchers maintain that a large size of the Board reinforces information management and improve informational sources. In this context, *Charreaux and Pitol-Belin (1997)* consider that board size reflect the weight of administrators' practiced control. Thus, a large board size structure means opinion diversity and so a better control. While a weak board can easily be dominated by the manager.

However, other researchers defend the opposite opinion and think that a small board size provides a better control of the firm. According to *Zahra and Pearce (1989)*, marginal cost tends to rise when Board members grow, while gain in terms of control declines. Furthermore, *Yermack (1996)* suggests that the more board size is high, the more it will be inefficient. He explains this result by problems of communication and coordination between board members, making difficult the decision process and giving more freedom to the manager to have an opportunistic behavior. *Campos and Wilson (2002)* retain that board size mustn't be neither too big nor too small and suggest that the optimal size is between five and nine members. Basing on agency theory*, Holthausen and Larker (1999)* and *Eisenberg et al (1998),* suggest that a small board size can impose a better control than a large one that serves managers' domination and creates eventually interest conflicts between members.

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[2] Graham et al 2005, Roychowdhury(2006) classify two categories of Earnings management:(i)Real earnings management through changing in cash flows ,(ii) Accruals management through changing in accounting policies

[3] The US Securities and Exchange Commission is responsible for regulation and supervision of Financial Markets.

[4] It refers to number of administrators.

Consequently, Board will be fragmented, inefficient and unable to get consensus about important and strategic firm decisions.

Moreover, the Board's capacity increases by size. This advantage could be neutralized by additional costs. This was confirmed by *Vafeas (1999)* who found that firms with limited Board size are the most informative and then the well valued by the market. *Beasley (1996)* shows an increasing relationship between fraudulent information communication and board size. However, *Beasley and Saltario (2001)* didn't find any significant relationship based on a sample of 200 American firms. *Evans (2004)* reports a positive and significant relationship between board size and financial communication quality. *Coulton and Taylor (2001)* have verified the hypothesis of negative relationship between board size and possible earnings management opportunity. *Souid and Stépanewiski (2010)* have shown that high proportion of administrators in the board structure limits manager's decision to practice earnings management. This result confirms for the role of administrators in reducing conflicts between managers and stockholders, by providing an efficient control on manager's behavior *vis-a-vis* financial statements. This control mechanism tends to reduce manager's opportunistic behavior. Using a structural equation model, the authors have concluded that a high number of administrators is clearly efficient in reducing manager opportunistic behavior. However, *Mahfoudh and Mattoussi (2010)* provide evidence that a high board size is not sufficient to increase financial statements reliability[5].

2.2. Earnings Management and Separation between CEO and Chairman of the Board

Corporate governance literature about separation between executive chairman and CEO stills debatable and out of consensus. In fact, *Godard and Shatt (2000)* maintain that functions accumulation leads to a more efficient Board. They provide a justification that separation dilutes leadership and increases disagreements between administrators and manager. Another point of view considers the function of CEO and chairman of the Board simplifies leadership, and facilitates decision taking, strategies formulation and implementation, that lead to firm performance.

Nevertheless, agency theory considers that functions accumulation as an obstacle to control efficiency. *Jensen and Meckling (1976)* and *Jensen (1993)* emphasize that functions separation considerably reduces agency cost and improves firm performance. *Forker (1992)* considers that functions separation could increase control quality and reduce the probability of a condition of asymmetric information. *Fama and Jensen (1983),* Patton and Baker (1987), Jensen (1993), Godard and Schatt (2000) insist on functions separation utility (management and control), firstly, because stockholders have better to avoid any duality between management and control and then because the non separation induces a high management entrenchment that negatively influences the board control function. In this line of thinking, *Bartov et al. (2001)* argue that functions accumulation of CEO-Chair positions is associated with poor corporate governance.

However, *Coulton, and Taylor (2001),* didn't find any significant negative relationship between functions accumulation and financial communication quality. However, Dechow et al.(1996) show significant positive relationship between functions accumulation and financial communication transparency. Mahfoudh and Mattoussi (2010) find that separation really constraints manager's earnings management.

[5] Qualitative characteristics of financial statements contain: (a) Reliability (b) Understandability, (c) Comparability, (d) relevance.

2.3. Relationship between Auditing Committee Independency and Earnings Management

In order to improve auditing committee missions, the SEC has adopted many rules (*Schipper 2007*). Accordingly, administrators operating in the firm, ex-employees having operated in the firm during the three previous years or with a family tie with the manager are excluded from the committee[6].

In France, Sarbanes-Oxley's law requires that all members of auditing committee are members of Board. Furthermore, it requires that those members must be independent[7]. The NYSE, the NASDAQ and Viénot report in France, insist that auditing committee must contain at least three administrators (they must not have any manager or employee functions in the firm. At least, one of them must be independent[8]). Likewise, in Great Britain, the Cadbury report (1992) supposed that the auditing committee must be composed of three members chosen from external administrators, and they should be independent. The question of administrator's independency and their presence in the auditing committee is still a debatable subject and has led to contradictory results.

Beasley (1996) argues that the probability of detecting fraudulent behavior is important with a small number of external administrators'. In fact, Abbott et al. (2000) have concluded that firms with independent auditing committees are hardly sanctioned by the SEC. They have also found out that an independent auditing committee is inversely linked to earnings manipulation. However, *Klein (2002)* reports that firms with an independent auditing committee can poorly manage earnings than firms with auditing committees dominated by internal administrators. Furthermore, *Chtourou et al (2001)* postulate that earnings management practice decreases according to the number of external auditing committee members. *Xie et al (2003)* considering a sample of firms belonging to S&P500 during 1992-1996, have found no effect of independent administrators auditing committee members on discretional accruals related to working capital. *Agrawal and Chadha (2005)* have shown that auditing committee member's independency has no effect on the probability of having a second earnings declaration. *Souid and Stepanewiski (2010)* present evidence that auditing committee existence prevent manager from operating an earnings management and limits his discretional behavior. *Skinner and Srinivasan (2010)* also document similar evidence that auditing committee independency negatively affects earnings management.

2.4. Nominating Committee and Earnings Management

Nominating committee (composed from inside the membership of the firm) suggests nominations and substitutions candidates for office in order to improve managers and administrator's selection process and corporate governance system.

Several reports such as *Cadbury report (1992)* and *Hampel report (1998)* recommended establishing a nominating committee totally composed of external administrators. *Toronto stock exchange report (2006)* recommends similarly a nominating committee composed of external administrators and a majority of independent external administrators. In this context, several studies have examined the role of internal government mechanisms in constraining earnings management practices (*Park and Shin, 2004 Davidson et al. 2005).*

2.5. Manager Ownership and Earnings Management

Manager ownership can positively affect financial statements process establishment. *Warfield et al. (1995)* have shown that accounting choices are related to the percentage of shares held by the managers. Specifically, they found that extent of discretional accruals (like accounting choice proxy) is

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[6] This has obviously some exceptions. In fact, both NYSE and NASDAQ provide firms with the possibility of choosing an employee or a family-tied member as administrator, if the board of directors considers that this person nomination could be useful to the firm.

[7] Independent auditing committee member mustn't receive any form of remuneration as a consultant, or other form of remuneration and mustn't have any linkage with an affiliate of the firm.

[8] An independent administrator is defined as: " A person with no direct or indirect interest linkage with the firm or the group to which the firm belongs"(Viénot report)

more when manager's participation is low. Hence, manager ownership estimated coefficient is significantly negative, which confirms researchers' hypothesis of negative relationship between manager's participation and earnings management.

However, *Klein (2002)* provides a positive relationship between manager's participation and earnings management. This means that managers tend to commit an earnings management for other reasons like increasing temporary dividends (*Aboody and Kasznik, 2000; Berger et al.1997).*

3. Data, Methodology and Descriptive Statistics

3.1. Hypothesis Formulation

Following the literature review dedicated to earnings management constraints; we can formulate the following hypotheses

H1: *Large Board size contributes to limit the practice of earnings management;*

H2: *Firms with separated CEO/Chairman positions (non Dual functions) affect negatively earnings management;*

H3: *There is a negative relationship between earnings management and presence of a qualified auditing committee*[9].

H4: *There is a negative relationship between earnings management and absence of the CEO in nominating committee;*

H5: *Manager Ownership is negatively correlated with earnings management.*

3.2. Model Presentation and Variables Construction

We use a panel regression to study the role of governance mechanisms on earnings management. Our model can be presented as follows:

$$EM_{it} = \alpha_0 + \alpha_1 Fsize_{it} + \alpha_2 Bsize_{it} + \alpha_3 Dual_{it} + \alpha_4 ADCI_{it} + \alpha_5 MNC_{it} + \alpha_6 MOW_{it} + \varepsilon_{it} \quad (1)$$

Variables of the model are defined as: EM is Earnings Management, Fsize is the firm size, Bsize is Board size, Dual is Dual functions of both CEO and Chairman of the Board, ADCI is Auditing Committee Independency, MNC is CEO as a membership to nominating committee, and MOW is Manager Ownership.

3.2.1. The Dependent Variables

This variable is measured by two criteria:

- *Earnings Management nature*[10]: it is approximated by total discretional accrual which is the residual term (error term) of earnings management detection model. This proxy expresses firm's accounting prudence.

  EM1 = Discretional Accruals (DACC)

  Where TACC (Total Accruals) = NDACC(Non Discretional Accruals) (NDACC) + DACC (Discretional Accruals)

However, the literature review pointed to the major problem of measuring earnings management and the suitable choice of the related model. In order to solve this problem, we'll use at once the four available models reported in the following table:

Table 1: The dependent variable: Earnings Management available measures (DACC)

Model	Related equations
Model 1: *Dechow et al(1995) : (modified Jones'model)*	**(1)** $TACC_{it} = \alpha_1 + \alpha_2 (\Delta CA_{it} - \Delta VCit) + \alpha_3 (IMMO_{it}) + \varepsilon_{it}$ **(2)** $DACC_{it} = \varepsilon_{it}$

[9] Competent and independent.

[10] Earnings management can be operated upwards or downwards.

Model 2 *Rees et al(1996): Jones cash flows*	**(1)** $TACC_{it} = \alpha_1 + \alpha_2 (\Delta CA_{it} - \Delta VC_{it}) + \alpha_3 (IMMO_t) + \alpha_4 (CFO_t) + \varepsilon_{it}$ **(2)** $DACC_{it} = \varepsilon_{it}$
Model 3 *Dichow and Dichev (2002) (modified Jones cash flow's model)*	**(1)** $TACC_{it} = \alpha + \alpha_2 [(\Delta CAit - \Delta VCi_t] + \alpha_3 [IMMO_{it}] + \beta 3i [CFO_{it}] + \alpha_4 [CFO_{it}-1] + \alpha_5 [CFO_{it}+1] + \varepsilon_{it}$ **(2)** $DACC_{it} = \varepsilon_{it}$
Model 4 *Kothari et al. (2005)*	**(1)** $TACC_{it} = \alpha_1 + \alpha_2 (\Delta CA_{it} - \Delta VC_{it}) + \alpha_3 (IMMO_{it}) + \alpha_4 (ROA_{it}) + \varepsilon_{it}$ **(2)** $DACC_{it} = \varepsilon_{it}$

TACC is total accruals (difference between income before extraordinary items and cash flow from operations), DACC is discretional accruals, ΔCA is change in revenues from t-1 to year t, ΔVC is change in net receivables, IMMO is gross property, plan and equipment at the end of year t, CFO cash flow, and ROA is return on assets. In order to avoid Heteroscedasticity effect(White 1980), all the variables (excluding ROA) of the previous models should be scaled by lagged total assets A_{t-1}.This hypothesis is relaxed in our estimations in order to examine the Discretionary Accruals behavior on both a relative and Absolute basis.

- *Earnings Management amplitude:* it is approximated by the absolute value of discretional accruals generated from the previous models. The aim is to study the relationship between earnings management amplitude and governance regardless of whether the change is upward or downward. This measure gives the global propensity of earnings management whatever its nature *(Klein, 2002, Bartov et al. 2001).*
  EM2 = |DACC|= absolute value of discretional accruals

3.2.2. Explanatory Variables

Board Size(Bsize)

We use the same criterion of *Zhara and Pearce (1989), Beasley (1996), Dechow et al (1996), Yermack (1996), Chtourou et al (2001), Coulton and Taylor (2001), Beasley and Salterio (2001), Vafeas (1999) and Abbott et al (2000).* Those authors measure Board size by number of administrators.

Bsize= total number of administrators

Dual Functions of Both CEO and Chairman of the Board(Dual)

To measure this variable, we follow *Forker (1992), Beasley (1996), Dechow et al (1996), Godard and Schatt (2000), Beasley et al (2000), Chtourou at al (2001), Abbott et al(2000), Bartov and Tsui (2001),Xie et al (2003), Beasley and Salterio (2001), Labelle (2002), Evans (2004) , Labelle and Schatt (2005).* We use a dummy variable that takes one if the CEO is also chairman and zero otherwise.

DUAL = 1, if the CEO is also Chairman of the Board
DUAL =0, otherwise.

Auditing Committee Independency(ADCI)

Beasley and Salterio (2000), Xie et al (2003), Klein (2002) and Evans (2004) use a dummy variable to measure this variable. We define it as follows:

ADCI = 1, if committee is totally composed of independent administrators
ADCI =0, otherwise.

CEO as a Membership to Nominating Committee (MNC)

We use a dummy variable defined as follows:

MNC= 1, if CEO is member of nominating committee.
MNC=0, otherwise.

Manager Ownership (MOW)

It represents the percentage of shares owned by the manager. This variable assimilates the manager to a shareholder, such position is supposed to positively affect financial statements publication. This variable is calculated as follows:

MOW = manager ownership = shares owned by the manager /total number of shares

All explanatory variables are reported in the following table. However, there is no consensus about the sign of each variable. Some authors pretend a variable to be positively related with earnings management, while others have exactly the opposite opinion.

3.2.3. Control Variables: Firm Size (Fsize)

The effect of **firm size** on earnings management is controversial. We have two opposite point of view: (i) the first defended by *Gore et al 2001, Lennox (1999),* advanced **a negative** relationship; larger firms with sophisticated internal control systems, more competent auditors(Big5) and have better reputation; are more able to avoid earnings management.(ii) the opposite view suggests **a positive** relation between size and earnings management; larger companies with more capital market pressure, more bargaining power; are more likely to manage earnings than are their counterparts of small firms(*Myers and Skinner 2000, Nelson et al.2002).*

Table 2: The explanatory variables measures as earnings management constraints.

Variables	Abbreviation	Expected Sign	Governance Constraints	Studies
Board Size	Bsize	(-)	*Board Size*	*Coulton and Taylor (2001), Beasley and Salterio (2001), Chtourou et al (2001), Vafeas (1999).*
Functions accumulation	DUAL	(+)	*Non Dual functions*	*Forker (1992), Beasley (1996), Dechow et al (1996), Beasley et al (2000), Chtourou et al (2001), Abbott et al(2001).*
Auditing Committee Independency	ADCI	(-)	*ADCI*	*Xie et al (2001), Beasley and Salterio (2001), Abbott et al (2000), Klein (2002), Evans (2004).*
COE as a membership Nominating Committee	MNC	(+)	*Non MNC*	*Park and Shin (2004); Davidson et al., (2005).*
Manager's ownership	MOW	(-)	*MOW*	*Park and Shin (2004), Warfield et al (1995),Aboody and Kasznik (2000); Yermack(1996),Klein (2002).*
Firm size (as easured by Log(total assets)).	Fsize	(-/+)	*Control variable*	*Gore et al 2001, Lennox 1999, Myers and Skinner 2000, Nelson et al 2002.*

3.3. Sample and Data Collection

The needed financial data are collected from SEC database, available at http// www.edgarscan.com. Our initial sample was composed of 302 American firms studied from 1994 to 2004. Due to deficiency of some variables our sample has been reduced to only 171 firms for the period of 1998-2005. Our sample is composed of firms from different industries: 45 are industrial, 42 trading, 32 technologies & communication, 28 health and safety, 13 manufacturing and 11 of energy. According to the probability of Hausman test[11] which is less than 10% for all regressions, we prefer using a fixed effect model as panel specification. Tests are conducted using STATA9 software.

[11] Tests are conducted using STATA9 software.

3.4. Descriptive Analysis

Table 3 shows that discretional Accruals Absolute Values are different from zero, which proves the existence of earnings management in American firms. Earnings management aims to hide firm deficiency and "glamorize" the financial situation.

We also note that discretional accruals are mainly negative and excessively volatile. This result leads us to deduce that the American firms of our sample tend to downward their earnings. This can be explained by the fact that those firms achieve enormous benefits that expose them to regulatory rules imposed by government. Other explanations could be supported: every variation in a year must be adjusted for differently in the next years. Furthermore, American firms prefer using accounting methods that delay result formation to later periods.

Table 3: Descriptive statistics of Discretional Accruals for 1368 observations

	Accruals measurements	Mean	Standard-deviation	Min	Max
Model 1	DACC1	-25,66392	1008,655	-33692,66	3224,766
	|DACC1|	48,89403	1007,795	0,0065322	33692,66
Model 2	DACC2	-25,66392	1019,255	-34492,32	369,2974
	|DACC2|	36,88612	1018,911	0,0347125	34492,32
Model 3	DACC3	-25,686	1088,891	-34506,79	12872,24
	|DACC3|	53,02278	1087,902	0,2240714	34506,79
Model 4	DACC4	-28,703	1076,756	-33734,11	3229,01
	|DACC4|	52,76159	1075,844	0,0327113	33734,11

DACC: Discretional Accruals; |DACC|: Absolute Discretional accruals.

We use five explanatory variables related to governance mechanisms; two are quantitative and three are qualitative.

3.4.1. Quantitative Variables Descriptive Analysis

Board size (Bsize) varies between a minimum of three administrator and a maximum of 21 administrators, with a mean of 9 administrators and a standard deviation of 2,77. We note that the size of Board of our sample is considerably large (almost 10) compared to *Abbott et al (2000)* that is 6.0988. Such result raises doubt concerning Board's efficiency according to *Yermack (1996).* However, *Campos et al (2002)* noted that Board's size must not be too large or too small and suggested an optimal number of 5 to 9 members. Hence, we expect to have an optimal size for our sample.

Table 4: Quantitative explanatory variables descriptive statistics.

Variables	Mean	Standard-deviation	Min	Max
Bsize	9,411674	2,77289	3	21
MOW	0.125616	0.1702348	0	0.97

Concerning manager's shares ownership, we note that managers hold approximately 12,56% of total shares. This leads us to conclude that firms are controlled by non-manager shareholders.

3.4.2. Qualitative Variables Descriptive Analysis

Table 5 shows that 74.11% of managers are both managers and Chairman of the board. This might explain the occurrence of several financial and accounting scandals in the USA during this period. We might implicitly deduce that managers are proceeding to earnings management in order to satisfy their own interests.

We also note that 98.71% of committees are independent; this might reassure shareholders about quality of internal control, auditing and management. It is interesting to note that for 4,26% of cases, managers are members of nominating committees.

Table 5: Qualitative explanatory variables descriptive statistics.

Variable	Modality	Frequency	Percentage
DUAL	0	336	25,89%
	1	962	74,11%
ADCI	0	17	1,29%
	1	1297	98,71%
MNC	0	1235	95,74%
	1	55	4,26%

4. Main Empirical Results

4.1. Discretional Accruals as Proxy of Earnings Management

Table 6 provides main results of the relationship between earnings management and governance mechanisms. Results show that explanatory variables are almost significant.

First, we consider discretional accruals as attribute of earnings management; we note that for all tested models, firm size is positively and significantly correlated with earnings management. Then, we can conclude that size forms a motivation for manager to upward earnings. We can explain this result as follows: the more the firm size is large, the more managers are determined to show firm performance and opt for earnings management to avoid market negative reaction. Those results corroborate those of *Mahfoudh, and Matoussi(2010),* but they are inconsistent with those of *Souid and Stepniewski (2010).*

In the case of auditing committee independency (ADCI), the coefficient is significantly negative, which confirms hypothesis H3; presence of independent auditing committee limits earnings management behavior and improves control mechanism. We conclude that presence of independent auditing committee limits manager's opportunistic behavior, bad accounting manipulations and fraudulent behavior. Finally independent auditing committee is undoubtedly an efficient mechanism to limit earnings management. This result is consistent with *Souid and Stépanewiski (2010), Skinner and Srinivasan (2010).*

Table 6: Panel regression of governance mechanisms impact on Earnings management

(discretional accruals as proxy of earnings management)

DACC	Model 1			Model2		Model3		Model4
	Coef	$\Pr ob \succ \lvert t \rvert$	***Coef***	$\Pr ob \succ \lvert t \rvert$	***Coef***	$\Pr ob \succ \lvert t \rvert$	***Coef***	$\Pr ob \succ \lvert t \rvert$
Const	**-1526,4**	**(0,000)*** **	**-1748,6**	**(0,000)*** **	**-1324,3**	**(0,000)*** **	**-1720,0**	**(0,000)*** **
FSize	**72,89**	**(0,000)*** **	**84,59**	**(0,000)*** **	**58,232**	**(0,000)*** **	**82,37**	**(0,000)*** **
Bsize	-12,82	(0,322)	-14,92	(0,255)	-2,072	(0,883)	-12,42	(0,384)
ADCI	**-169,33**	**(0,029)** **	**-196,15**	**(0,012)** **	**-141,6**	**(0,092)***	**-194,57**	**(0,023)***
DUAL	104,61	(0,144)	117,84	(0,104)	121,31	(0,120)	105,44	(0,176)
MNC	**120,22**	**(0,090)***	**119,05**	**(0,097)***	**134,99**	**(0,080)***	**137,20**	**(0,082)***
MOW	284,02	(0,160)	329,4	(0,108)	393,21	(0,073)*	324,6	(0,157)
Fixed Effect?	Yes		Yes		Yes		Yes	
R^2*within*	9,97%		11,38%		5,88%		11,34%	
Prob > F	(0,0000)***		(0,0000)***		(0,0018)***		(0,0000)***	
N	1368		1368		1368		1368	

Model 1 = Dechow et al. (1995); Model 2 = Rees et al. (1996); Model 3 = Dichow and Dichev (2002); Model 4= Kothari, Leone and Wasley (2005); TA: Total Accruals. DA: Discretional Accruals \DA\ : Absolute value of Discretional Accruals. .*, ** and *** statistically significant at 10%, 5% and 1% respectively.

We note that high values of estimated coefficients are due to the use of Earnings management's models without total Assets as a deflator.

Therefore, auditing committee independency seems to be interesting to limit opportunistic practices. This corroborates the results of *Klein (2002), Abbott et al (2000), Chtourou et al (2001) and Janin and Piot (2008).*

Moreover, we note an expected positive but not statistically significant relationship of the variable Functions Accumulation (DUAL). i.e. accumulating functions of both manager and Chairman leads to a strong individual manager power and compromises independency statute of the board and its capacity to play efficiently its controlling role. Moreover, the manager is joining two incompatible functions of executive manager and controlling authority, which contradicts corporate governance principles. This result joins *Mahfoudh and Mattoussi(2010)'s*. In the same way, *Bartov et al (2001)* have demonstrated that functions accumulation is associated with poor corporate governance. The same results were advanced by *Fama and Jensen (1983), Jensen (1993),* Godard and Schatt (2000) and Bartov et al (2001), although the opposite holds true for Donaldson and Davis (1991), Alexander et al (1993) and *Boyd (1995).* We can finally say that functions separation could limit earnings management practice and manager's opportunistic behavior, which confirm hypothesis H2.

Concerning the variable Nominating Committee COE's president membership (CFNC), the coefficients are positive as expected and statistically significant for the four models. This means that president membership in nominating committee provides possibility to choose members that accept earnings management and make possible all managers' opportunistic behavior. Alternatively, functions separation will be a real constraint to such behavior. We can then, confirm hypothesis H4.

4.2. Absolute Value of Discretional Accruals as Proxy of Earnings Management

Table 7 provides main results of the four models. In this second step, we consider absolute value of discretional accruals as proxy of earning management. We note that most of the explanatory variables are statistically significant.

Table 7: Panel regression of governance mechanisms impact on earnings management

(Absolute Value of Discretional Accruals as proxy of earnings management)

DACC	**Model 1**		**Model 2**		**Model 3**		**Model 4**	
	Coef	$\Pr ob \succ \lvert t \rvert$	**Coef**	$\Pr ob \succ \lvert t \rvert$	**Coef**	$\Pr ob \succ \lvert t \rvert$	**Coef**	$\Pr ob \succ \lvert t \rvert$
Const	**2052,7**	**(0,000)*** **	**1811,0**	**(0,000)*** **	**2238,1**	**(0,000)*** **	**2183,8**	**(0,000)*** **
FSize	**-100,04**	**(0,000)*** **	**-87,39**	**(0,000)*** **	**-112,72**	**(0,000)*** **	**-106,97**	**(0,000)*** **
Bsize	16,20	(0,208)	15,37	(0,240)	28,15	(0,044)**	15,95	(0,258)
ADCI	**238,13**	**(0,002)*** **	**203,42**	**(0,009)*** **	250,28	(0,003)***	263,38	(0,002)***
DUAL	**-123,2**	**(0,082)***	**-119,67**	**(0,098)***	-114,97	(0,135)	-125,87	(0,102)
MNC	**-119,4**	**(0,090)***	**-119,03**	**(0,097)***	-106,55	(0,165)	-124,3	(0,111)
MOW	**-340,1**	**(0,092)***	-335,04	(0,102)	-273,87	(0,213)	-351,57	(0,121)
R^2within	0,1304		0,1170		0,1518		0,1418	
Prob > F	(0,0000)***		(0,0000)***		(0,0000)***		(0,0000)***	

Model 1 = Dechow et al. (1995); Model 2 = Rees et al. (1996); Model 3 = Dichow and Dichev (2002); Model 4= Kothari, Leone and Wasley (2005); TA: Total Accruals. DA: Discretional Accruals \DA\ : Absolute value of Discretional Accruals. .*, ** and *** statistically significant at 10%, 5% and 1% respectively.
We note that high values of estimated coefficients are due to the use of Earnings management's models without total Assets as a deflator.

Table 7 shows that using absolute value of discretional accruals as proxy of earnings management, the global model quality is clearly improved. The coefficient R^2 ranges from 11,70% to 15,18%, which means that the explanatory variables explain about 15,18% of the dependent variable (earnings management). We also note a sign inversion compared to the previous table. Coefficients of (FSize), (ADCI) and (DUAL) variables still significant, but with different signs.

The main contribution of this second approach is the negative and significant relationship between manager's ownership and earnings management amplitude. In fact manger's share holding could positively affect financial statements process quality. This explains that the manager will act as a shareholder and seek for well established financial statements. Hence, this result confirms our hypothesis H5; the more important is the manager's shares ownership, the more earnings management is reduced. This same result was confirmed *Warfield et al. (1995)* but infirmed by *Klein (2002).*

Furthermore, we note a relationship between Board size (Bsize) and earnings management amplitude. In fact, coefficient of (Bsize) is positive but not significant (except for model 3), then we can say that the more board's size is large, the more earnings management increases. Hence, large size of the board threatens efficient manager's control and increases manager's opportunistic behavior and accounting and financial information is destroyed. This is absolutely evident, because board's large size induces opinion diversity, slowness of decision taking that benefits the manager. We join, in this case *Beasley et al (2001) and Evans (2004*) results.

5. Concluding Remarks

None could ignore the devastating consequences of earnings management in terms of market sanctions, government penalties and shareholders reactions. Financial history provides several examples; Enron, Worldcom; A common point between all those examples is earnings management. In order to prevent future deficiencies, corporate governance theory provided different mechanisms constraining fraudulent behavior and earnings management. However, many of them have been compromised and we are forced to adjust them and to look for other forms of more efficient mechanisms. In order to solve this problem, our study tried to assess the impact of those mechanisms on earnings management and manager's opportunistic behavior.

We found that auditing committee independency seems to be efficient in constraining earnings management and manager's opportunistic behavior. Furthermore, separating functions of managing and controlling is essential to guarantee well established financial statements and to avoid accounting manipulation. Moreover, we found that large board size favors earnings management by dispersing efforts, spreading ambiguity and benefiting manager's self interest. Finally, a strong and independent nomination committee is a must to constraint and even stop earnings management.

In order to improve corporate governance quality, we recommend the following: (i) Board size must not be neither too large nor too small (a number of 10 administrators seems to be optimal) in order to avoid diverting opinions that profit the manager and allow earnings management, (ii) Auditing committee independency is needed to deal with manager's opportunistic behavior and earnings management; (iii) Function separation, which means that manager must not be at the same time Board's president, is also necessary to have an optimal governance system and to avoid earnings management; (iv) Nominating committee independency and non-manager's membership are required to achieve corporate governance mechanisms.

We should finally say that the subject of corporate governance is still a fertile ground and requires more and more reflections. Our study was conducted with a limited sample of 171 American firms. Better results could be extracted with a larger sample. Furthermore, our study focused on five different variables of governance mechanism. Furthermore, introducing variable related to manager's sentiment and entrenchment could provide more interesting explanations on the firm's earnings behavior. This new research direction will open horizon to future resolution of earnings management puzzle.

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