

# Audit Quality and Earnings Management to Avoid Losses and Earnings Decreases. The French Case

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**Abstract** Burgstahler and Dichev's (1997) show that companies willingly manage their earnings with the aim of meeting or exceeding the two earnings targets: zero earnings and last period's earnings. In this paper, we focus on the impact of audit quality on the distributions of earnings and distributions of earnings changes among a sample of SBF 250 listed firms from 2001 to 2007. The results obtained confirm prior findings in Burgstahler and Dichev of discontinuities around zero and prior year earnings in histograms of earnings. We also do not find evidence supportive that high-quality audits provide a constraint on earnings management to avoid losses and earnings decreases.

**Key words** Earnings management thresholds, audit quality, distributions of earnings

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## 1. Introduction

For several years, the questions relative to the accounts manipulation and the transparency of the accounting information hold the attention of researchers and practitioners in accounting (Amara *et al.*, 2013). The accounting texts make appear a set of techniques, options and spaces of freedom left to the discretionary appreciation of managers (Healy and Wahlen, 1999). In order to maximize this well-being (Jensen and Meckling, 1976), the manager can engage in earnings management.

Numerous researchers turned towards the strategy of earnings management in order to reach some earnings thresholds (Ben Amar and Abaoub, 2010). For example, the managers have tried to manage the earnings to reach the following two thresholds: earnings around zero and prior year's earnings (Burgstahler and Dichev, 1997).

Besides, the presence of governance mechanism of external types is supposed to have an effect on the nature of the published financial information (Ben Amar, 2014a; Ben Amar, 2014b). Indeed, several researches (Chen *et al.*, 2011, DeFond and Zhang, 2014) show the role of the audit quality in the prevention against earnings management. Examining the set of these works allows us to notice that the empirical tests realized essentially at the level of the American context did not lead to similar results. Indeed, by measuring the earnings management by means of discretionary accruals models, some works confirmed the hypothesis that audit quality allows to reduce the earnings management, while some others invalidated it. So, within the framework of our study, we test the hypothesis on a French sample by measuring earnings management through the use of the distribution of earnings after management (Burgstahler and Dichev, 1997; Degeorge *et al.*, 1999; Holland and Ramsay, 2003).

Our results are important for several reasons. First, previous research on the determinants of earnings management thresholds is inconclusive. Second, we extend the literature on the impact of audit quality on earnings management by showing that high-quality audits do not provide a constraint on earnings management to avoid losses and earnings decreases.

## 2. Audit quality and earnings management

Examining the specialized literature in accounting theory allows us to notice the existence of an important mass of work having handled the impact of the audit quality on earnings management.

Becker *et al.* (1998) conducted an empirical dealing with the effect of the audit quality on earnings management. The authors put a hypothesis by referring to the previous literature which suggests that the auditors have interest in mastering the accounting choices. Indeed, these auditors can be prosecuted in justice when firms present financial states exaggerating the accounting earnings. The results of the study confirm the hypothesis that companies having external auditors not belonging to "Big six" manage more increasingly their earnings than those having external auditors belonging to "Big six" (on average between 0,015 and 0,021 of the total assets). The authors conclude that a bad audit quality is in a significant relation with the accounting flexibility.

Francis *et al.* (1999) tried to examine the relation between discretionary accruals and the external auditors belonging to the "Big six". The authors show that firms audited by auditors belonging to "Big six" present discretionary accruals (in terms of absolute value) less important than the other companies.

Krishnan (2003) has relied on the results of several studies which highlight that the specialist auditors possess the resources, the industrial expertise and motivations to detect and constrain the earnings management and then put forward the following question research: the absolute value of discretionary accruals of firms controlled by specialist auditors is lower than the absolute value of discretionary accruals of firms controlled by non-specialist auditors. From the empirical analysis, it seems that the expertise in industry influences negatively the discretionary accruals. In the same context, the controlled firms by non-specialists present successively more levels of discretionary accruals than the other audited companies. The author concludes that the specialist auditors who have the expertise, the resources and motivations play a major role in the credibility of the accounting information.

Balsam *et al.* (2003) studied, empirically, the relation between the measures of the earnings quality and the industrial specialization of the auditor. The authors find that the customers controlled by specialists in the industry have low levels of absolute values of discretionary accruals and higher coefficients of earnings reaction than the customers controlled by non-specialists. The results show clearly that the customers of specialist auditors in the industry present better qualities of earnings compared with the customers audited by non-specialists.

Petroni and Beasley (1996) examined the accuracy of the accounting estimate of reserves relative to the losses of demands (that affects results) for a sample of 197 insurers against the risks of property accident over a period of 5 years (a total of 985 observations). The authors tested whether the accounting estimate of reserves relative to the losses of demands is more accrued for the customers audited by auditors belonging to the "Big Eight". Empirical results indicate that differences in quality of audit have no impact on the exactness of the discretionary accounting.

Gaver and Paterson (2001) tried to examine the relation which between the audit quality and the earnings management. More precisely, the authors clarify whether the audit quality is associated negatively with reserves relative to losses for a sample of 624 insurers against the risks of property accidents. The empirical results show that firms audited by the "Big six" cannot limit the tendency of the managers to underestimate the reserves.

Van Caneghem (2006) determined if the audit quality affects negatively the practices of earnings management thresholds. The audit quality has been measured by the traditional variable brand name (belonging or non-belonging to the "Big Five" and by the industrial expertise (firms of auditors belonging to the "Big Five" and that are specialists and non-specialists). The investigation was carried out on a sample of 2468 observation company-year. The firms are observed for a period from 1975 to 2001. The results of the study revealed that audits of better qualities serve as a constraint of the threshold "avoid losses". However, there is no proof that the audit quality allows to limit the will to avoid the earnings decreases. The author explained the obtained results by the fact that the last type of rise of profits is not often quantitatively significant (i.e. by opposition at the threshold "avoid losses") and that the auditors (the auditors of better and lower qualities) neglect qualitative criteria in the evaluation of the significant character.

As already mentioned, the set of works having handled the impact of the audit on the earnings management allows us to notice that empirical results did not lead to similar results. So, it must be clear that the questions of the researches dealing with the impact of audit quality on the earnings management require new investigations. Indeed, by measuring the earnings management by means of discretionary accruals models, some works confirmed the hypothesis that audit quality allows to reduce the earnings management, while some others invalidated it. So, within the framework of our study, we test our hypotheses by measuring earnings management through the use of the distribution of earnings after management.

Based on these considerations, the following hypotheses are proposed:

*H<sub>1</sub>: The differences in audit quality negatively affect the will to avoid losses.*

*H<sub>2</sub>: The differences in audit quality negatively affect affect the will to avoid earnings decreases.*

### 3. Methodology of research

#### 3.1. Research sample and data

The data of the study have been collected from the “Thomson One Banker” and “Worldscope” data bases over the period 2001-2007 for the French listed firms belonging to SBF 250 companies. However, according to the rule CE n° 1606/2002 of July 19, 2002, France obliged the companies quoted to Paris Stock Exchange to apply the International Accounting Standards: IAS/IFRS for their consolidated accounts from 2005. Contrary to several other European countries, the voluntary adoption of international standards before 2005 had not been authorized in France. So, to determine the variation of 2005 earnings, we need the 2004 net earnings such as the ones prepared according to international standards. However, the earnings of this year are only available in the aforesaid data bases according to the French System. This led us to collect manually this information from the financial states compared with the year 2005. Besides, we made the same reprocessing realized by the data base of “Thomson One Banker” to homogenize the method of presenting data.

Our sample from the start consists of 250 listed companies belonging to the SBF 250 over the period of study from 2001 to 2007. The financial institutes and companies belonging to industries having particular regulations were excluded because of the specificity of their accounting rules (Burgstahler and Dichev, on 1997). Considering the missing data, our final sample consists of 1250 firm-years to test the hypothesis H1, and 1238 firm-year to test hypothesis H2 over the period 2001-2007.

In the frame of this present paper, we test empirically the impact of differences in the audit quality on the earnings management thresholds. More precisely, we examine the empirical distributions of earnings as well as the earnings variations of SBF 250 French companies the over the period from 2001 to 2007. To test statistically the significance of discontinuities observed close to zero, we relied on the statistical test developed by Burgstahler and Dichev (1997) that indicates, under the hypothesis of no earnings management, that the empirical distributions of the levels of earnings and earnings variations are relatively smooth. This statistical test is formulated as follows:

DS (standardised difference) =  $(n_i - n_i^*) / \text{standard deviation of the difference}$ ,

Where:

$n_i$ : the number of observations falling in interval  $i$ ,

$n_i^*$ : the expected number of observations in interval  $i$ , which equals the average of observations noticed in the intervals  $i-1$  and  $i+1$ ,

Standard deviation of the difference =  $[N p_i (1 - p_i) + \frac{1}{4} N (p_{i-1} + p_{i+1}) (1 - p_{i-1} - p_{i+1})]^{1/2}$ ,

Where  $N$  is the total number of observations in the sample and  $p_i$  is the probability that an observation is likely to fall into in interval  $i$ . The negative values of DS, which are equal or superior in absolute value to 2.33, indicate the evidence of earnings management to achieve thresholds ( $p$ -value = 0.01 in a normalised distribution) (Brown and Caylor, 2005).

The Discontinuities in the distributions are then compared between two groups of companies (Those having external auditors not belonging to "Big" auditors: group 1 and those controlled by "Big" auditors: group 2).

**3.2. Definition of the variables**

As in Burgstahler and Dichev (1997), we define our interest variables as follows:

We define earnings levels as annual net earnings to measure the threshold "avoiding losses". Annual net earnings changes are defined as net earnings in N minus net earnings in N-1 to measure the threshold: "avoiding earnings decreases". According to the works of Francis *et al.* (1999), Gul *et al.* (2010) and Chen *et al.* (2011), we use the auditor size, measured as BIGN, as a proxy for audit quality because BigN auditors provide high audit quality than non-BigN auditors (DeAngelo, 1981). DeFond and Zhang, 2014 define higher audit quality as greater assurance of high financial reporting quality. In this respect, DeAngelo (1981) state that "the quality of audit services is defined to be the market-assessed joint probability that a given auditor will both (a) discover a breach in the client's accounting system, and (b) report the breach".

**4. The empirical research results**

In what follows, we examine briefly, further to univariate analyses, the relation between the audit quality and the wish to reach the following thresholds: "to avoid losses "and" to avoid earnings decreases".

**4.1. The empirical distribution of results and variations of results: for the whole sample**

Figures 1 and 2 present respectively the distribution of the net annual earnings and the net annual earnings variations for the whole sample (without distinguishing between the two groups of the sample already clarified). Each sticks of histograms are has a width of 0,01 for both distributions.

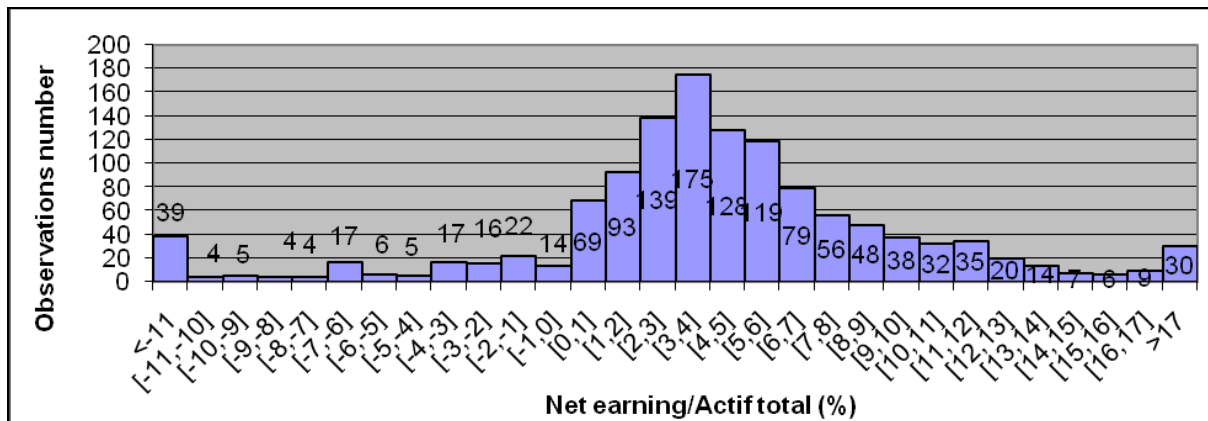


Figure 1. Empirical Distribution of the Annual Net Earnings (Scaled by Total Assets).

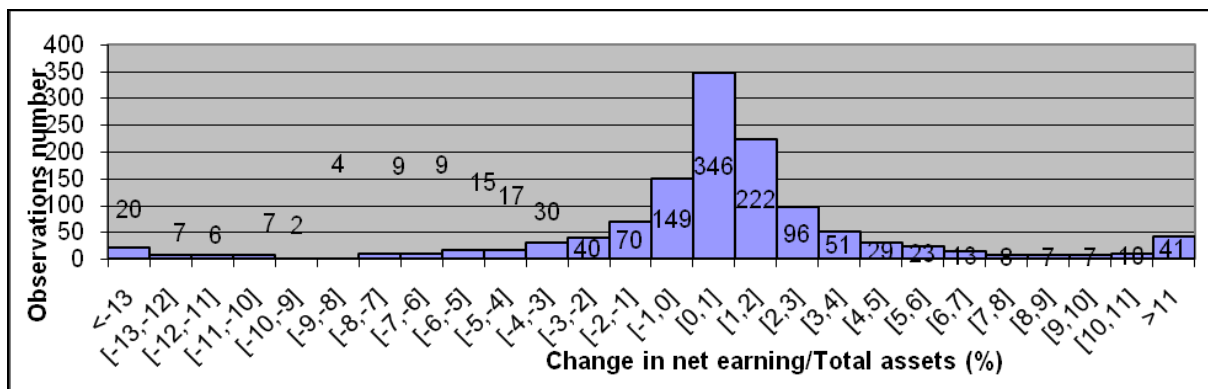


Figure 2. Empirical Distribution of Changes in Annual Net Earnings (Scaled by Total Assets).

Table 1 (table 2) presents the number of observations which led to a light profit and a light loss (A light increase of earnings and a light decrease of earnings) and the corresponding value of SP/SL (SI/SD) for the complete sample. The value of SP/SL (SI/SD) being the number of observations which realized a light profit (A light increase of earnings) divided by the number of observations which caused a light loss (a light decrease of earnings) (Leuz, Nanda and Wysocki, 2003 and Van Caneghem, 2006).

Our results confirm those of the previous works (Burgstahler and Dichev, 1997; Degeorge, Patel and Zeckhauser, 1999; Gore, Pope and Singh, 2001; Holland and Ramsay, 2003). Indeed, the results show statistically significant discontinuities close to zero for the two empirical distributions (Test of Burgstahler and Dichev, 1997, is significant for both cases).

In the light of what is mentioned, we notice that the companies (controlled by "Big" and not "Big" auditors) are engaged in earnings management to avoid losses and the earnings decreases.

Table 1. Earnings management to avoid losses

Observations number (N)	Small Profits	Small losses	SP/SL
	SP	SL	
1250	69	14	4,93

\* Test of earnings distribution (Burgstahler and Dichev, 1997):

The value of the standardised difference equals - 5.329 (IDSI > 2,33).

Table 2. Earnings management to avoid earnings decreases

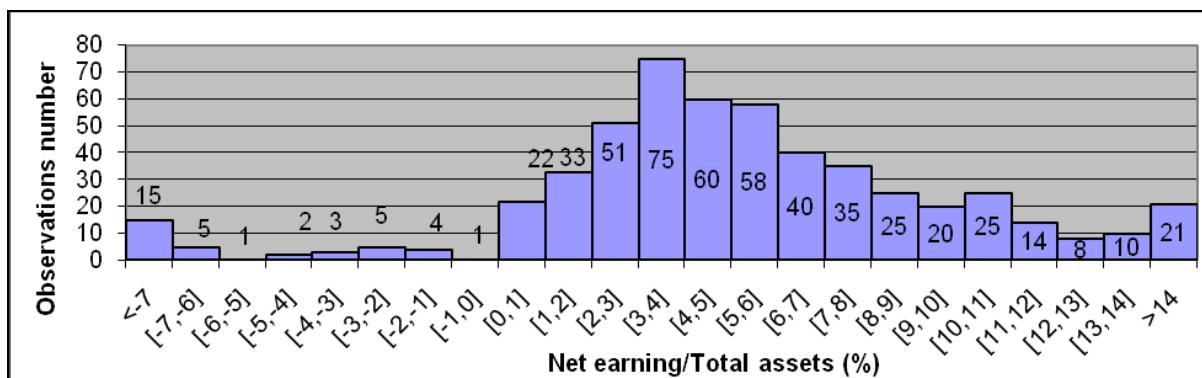
Observations number (N)	Small Increases	Small Decreases	SI/SD
	SI	SD	
1238	346	149	2,32

\* Test of earnings distribution (Burgstahler and Dichev, 1997):

The value of the standardised difference equals - 4,17 (IDSI > 2,33).

#### 4.2. The Univariate analyses of the two groups for the sample

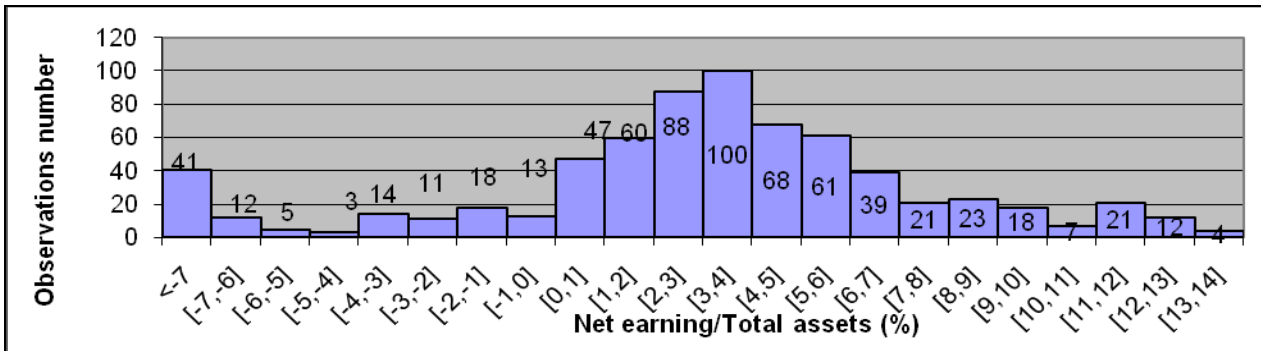
Figures 3 and 4 present respectively the distribution of the annual net earnings for the first group of the sample (companies having external auditors do not belong to "Big" auditors) and the second group (companies controlled by "Big" auditors) whose sticks of histograms are of width 0,01 each.



\* Test of earnings distribution (Burgstahler and Dichev, 1997):

Figure 3. Empirical Distribution of the Annual Net Earnings (Scaled by Total Assets)

The value of the standardised difference equals - 4,48 (IDSI > 2,33).

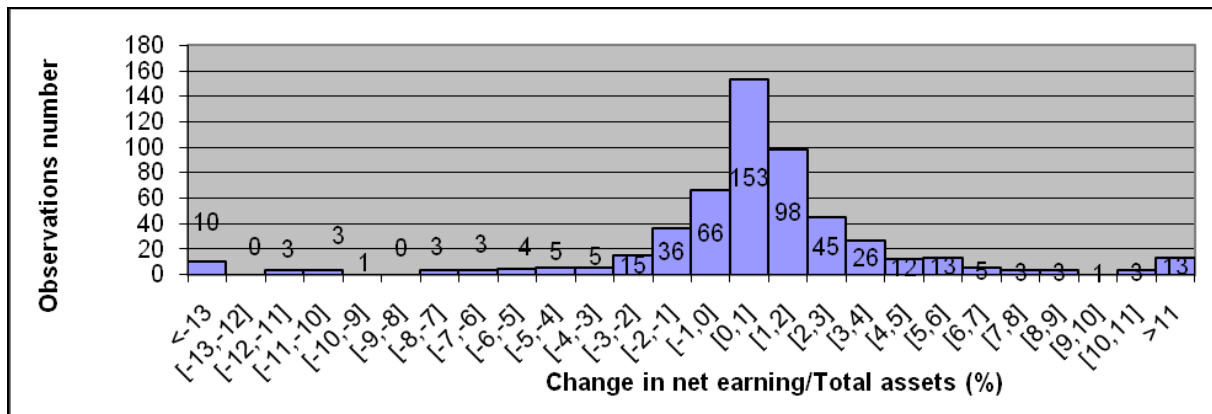


\* Test of earnings distribution (Burgstahler and Dichev, 1997):

Figure 4. Empirical Distribution of the Annual Net Earnings (Scaled by Total Assets).

The value of the standardised difference equals - 3,71 (IDSI > 2,33).

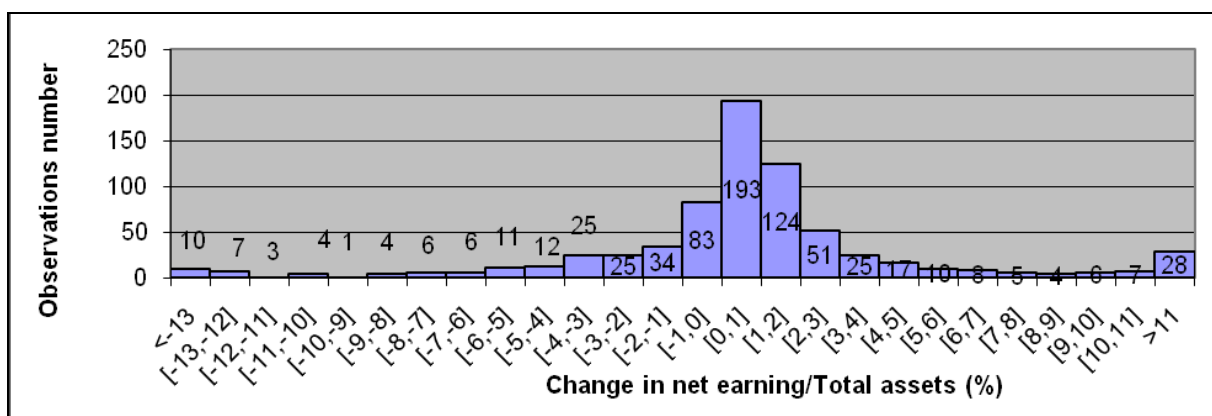
Figures 5 and 6 present respectively the distribution of the annual net earnings variation for the first group of the sample (companies having no external "Big" auditors) and the second group (companies controlled by "Big" auditors) whose sticks of histograms are of width 0,01 each.



\* Test of earnings distribution (Burgstahler and Dichev, 1997):

Figure 5. Empirical Distribution of Changes in Annual Net Earnings (Scaled by Total Assets)

The value of the standardised difference equals - 3,03 (IDSI > 2,33).



\* Test of earnings distribution (Burgstahler and Dichev, 1997):

Figure 6. Empirical Distribution of Changes in Annual Net Earnings (Scaled by Total Assets)

The value of the standardised difference equals - 2,88 (IDSI > 2,33).

Table 3 (table 4) presents the number of observations led to a light profit and a light loss (A light increase and a light decrease of earnings) for the two groups of the sample.

The results show clearly that the audited firms by “big” auditors are engaged in earnings management to avoid the losses and the earnings decreases (Test of Burgstahler and Dichev, 1997, is significant for both cases). In the same very idea, we can confirm the hypothesis of earnings management to reach zero earnings and last period’s earnings for the audited companies by firms “Big” auditors. This result allows us to notice that the nature of the auditor has no influence on the earnings management to avoid the losses and the earnings decreases. Overall, these results do not support H1 and H2 and do not confirm perfectly those of Van Caneghem (2006) which revealed that audits of better qualities serve as a constraint of the threshold “to avoid the losses”. However, there is no proof that an audit of better quality permits to limit the will to avoid “earnings decreases”.

Table 3. Earnings management to avoid losses

Sample	(N)	Small Profits	Small losses	DS	SB/SL
		SB	SL		
* Non-Big	533	22	1	-4.47	22
* Big	717	47	13	-3.71	3.62

Table 4. Earnings management to avoid earnings decreases

Sample	(N)	Small Increases	Small Decreases	DS	SI/SD
		SI	SD		
* Non-Big	529	153	66	-3.03	2.32
* Big	709	193	83	-2.88	2.32

## 5. Conclusions

Our paper seeks to examine the impact of differences in terms of audit quality on the wish to avoid losses and earnings decreases. The quality of the external auditor does not seem to influence the earnings management thresholds. These results do not confirm those of Van Caneghem (2006) which revealed that audits of better quality affect negatively the will to avoid the losses. In addition, there is no evidence that an audit of better quality allows to limit the will to avoid earnings decreases. As a result to the scandals and more precisely in December, 2001 occurring in companies such as Enron and the disappearance of one of the first five world groups of audit notably the Andersen network, the "BIG" auditors have to improve services offered to their customers. It seems to us that the legislators of some countries have to adopt new laws on the financial security to reduce at most these financial scandals in the future. Further to promulgated laws, we expect that they contribute to the improvement of financial transparency and the intensification of legal control of companies.

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