Abstract

This study analyzes the occurrence of financial statement frauds regarding Italian listed companies during the period 2001-2011 and intends to investigate whether certain governance characteristics may have favored the commission of accounting irregularities. The analysis identifies 26 listed companies involved in alleged instances of accounting frauds during the ten-years period and the firm's representatives who are more frequently charged for the accounting frauds are the CEO and the Chairman. Results from logit regression analysis of 26 fraud and 26 no-fraud firm show that the existence of an audit committee that is compliant with the requirements of Italian corporate governance code reduces the likelihood of frauds. Moreover, the likelihood of financial statements frauds decrease when the number of the audit committee meeting increases.

Keywords: corporate governance, audit committee, financial statement frauds, "red flag" fraud indicators.
1. Introduction

The purpose of this study concerns the analysis of the alleged financial statement frauds occurred in Italian listed companies during the period 2001-2011. Particularly, the paper examine the governance characteristics of 26 firms that have been put under investigation for accounting frauds in the ten-years period.

Several studies have analyzed the impact that certain governance characteristics may have on the accounting practices. These practices cover a wide range of elements such as earning management and smoothing, restatement and fraudulent financial reports. The general idea that inspires these studies is that the weaknesses of the corporate governance system provide an incentive for accounting frauds. These weaknesses may refer to the composition of the board of directors, to the effectiveness of the monitoring action exercised by the audit committee as well as other matters like incentive-based executives compensation or the controls made by the external auditors.

The major part of these studies have been conducted in the Anglo-saxon countries while in other contexts a very limited number of empirical investigations could be found (e.g. Sitorous, Scott, 2008). This create a call for empirical studies in other countries (Carcello et al., 2011) motivate by the circumstance that corporate governance structures vary noticeable between countries due to many different factors like legal requirements, ownership concentrations and others.

At the moment not any study has investigated the relation between the corporate governance characteristics and the cases of fraudulent financial reporting regarding Italian companies. The only study regards the Parmalat's bankruptcy (Melis, 2005) and points out that the scandals has been favored by some weaknesses of the governance model that could be defined as "country-specific". Particularly the study refers to the concentration of power in the family owner and to the inefficiency of a specific control body the board of statutory auditors named by the shareholders to exercise the control over the board of directors.

During the past decade the number of Italian listed companies suspected (or already condemned) for financial reporting frauds has grown up. Moreover since the late years of the previous millennium, Italy has experienced lots of changes in the normative requirements regarding corporate governance characteristics and the debate about the mechanism that could enhance the effectiveness of corporate governance system is still continuing.

Considering these recent tendencies, it's interesting to analyze if the accounting frauds occurred in Italian listed companies have been influenced by certain corporate governance characteristics.
To explore this aspect, the researchers examine whether firms that commit frauds differ from comparable no-fraud firms, regarding a selected number of governance characteristics. Particularly, the characteristics analyzed regard: 1) the presence in the board of a Chairman and a CEO who are both shareholders; 2) the existence of an audit committee that formally comply with corporate governance requirements; 3) the number of meetings held by the audit committee.

The study continues as follows. Section II develops the underlying theory to motivate the hypothesized predictions about the corporate governance characteristics and the occurrence of financial statement frauds. Section III describes the methodology adopted to conduct the empirical analysis. Section IV contains the empirical results of the study and Section VI provides conclusions about the study.

2. Theory and hypothesis development

Several previous studies have analyzed the cases of fraudulent financial reporting and the variables that may have fostered the commission of the accounting irregularities. In the U.S. the Committee of Sponsoring Organizations of the Treadway Commission (CoSo) launched three research projects to provide an extensive analysis of financial statement frauds. The studies have been released during three different periods: in the mid–1980s, through the late 1990s and the last during the period 1998-2007.

In the first research project the CoSo sponsored the National Commission of Fraudulent Financial Reporting in order to identify numerous causal factors believed to contribute to financial statement fraud. The second research “Fraudulent Financial reporting: 1987-1997, An analysis of U.S. Public Companies” released in 1999 “provided a comprehensive analysis of fraudulent financial reporting through the late 1990s.

The CoSo, considering that less is known about the profile of fraudulent financial reporting since 1997, commissioned a new research project to provide itself and others with recent information and to what extent the typical fraud profile has changed in the past decade. Moreover, in the last years, several auditing standards (ISA no.240; SAS no. 99; IIA Standards no. 2210.2, PCAOB No.5) have underlined the importance that the analysis of corporate governance variables assumes for the identification of fraud risk factors during the financial audit engagement. Several studies have analyzed the linkage between corporate governance characteristics and the likelihood of financial statement frauds (DeZoort et al., 2002; Cohen et al., 2004; Farber, 2005;
The corporate governance aspects examined involved a wide range of matters. The common motivation behind these studies is that the deficiencies of corporate governance systems determine (or co-determine) fraudulent financial reporting. Generally, the empirical results confirm the hypothesis that corporate governance quality and frauds are negatively related. Empirical studies and documents issued by the professional association show that fraud firms have weaknesses in several key governance mechanisms. The weaknesses include: board with lower percentage of outside directors, fewer audit committee meetings, the percentage of independent directors and financial expertise in the audit committee, fewer financial experts on the audit committee, the quality of the external audit firm and when the CEO is also chairman, the presence of a rapid company growth, poor financial performances; age of the companies; common stock held by managers.

Consistent with the extant literature, this paper is based on the assumption that an ineffective corporate governance system increases the likelihood of financial statements frauds.

Many studies focus on the board of directors characteristics in fraud companies (Cohen et al., 2004).

Regarding board composition, different aspects have been examined in financial statement fraud literature. In particular, these studies document a relation between board of director composition and the occurrence of financial statement fraud, and their findings suggest that the board composition and their structure are significantly associated with the incidence of corporate frauds. A number of researchers focus on the distinction between inside and outside directors (Fama, 1980; Fama and Jensen, 1983; Beasley, 1996; Reitenga & Tearney, 2003; Uzun et al. 2004), and report that a large portion of outside members on the board of directors increases the board’s effectiveness and reduces the likelihood of frauds.

Considering the classification of outside directors as independent and grey, other researchers (Beasley, 1996; Dechow, 1996, Uzun, 2004; Jaggi and Tsui, 2007; Lin and Hwang, 2010) analyze the percentage of the independent members and suggest that a higher number of independent directors do not reduce the occurrence of fraud. By contrary the existence of grey directors seems to favor the accounting irregularities (Zhao and Chan, 2008).

Recent studies analyze whether certain characteristics of the Chairman and the Chief Executive Officer (CEO) may create an environment ripe for fraud.

Regarding CEO the main aspects examined refer to: compensation and incentive structures (Dechow et al., 1996; Burns and Kendia, 2006; Efendi et al. 2007; Hogan et al., 2008), turnover
(Reitenga and Tearney, 2003), the case in which the CEO is also the firm’s founders (Dechow, 1996), the number of the year that the CEO has served as a director in their respective board (Beasley, 1996).

While the first factors seem to affect the likelihood of fraudulent financial reporting, Beasley reveals that the year that the CEO has served as a director in their respective board do not influence the likelihood of frauds.

Concerning the chairman, prior researches consider two main features: the independence from the CEO and the ownership of transactional and transformational leadership attributes.

The most analyzed aspect regards the separation between the position of the Chairman and the CEO. According to Jensen's theory (Jensen, 1993), the effectiveness of the corporate governance system decreases when the CEO and the chairman are the same person. Starting from this theory, a growing number of studies (Cohen et al., 2004; Farber, 2005; Crutchley et al., 2007; Efendi et al., 2007; Lin and Hwang, 2010) find that the frauds are more likely when the position of the CEO is not separated from the position of chairman. However other research do not support this result (Beasley, 1996).

The second variable regards whether the chairman posses transactional and transformational leadership attributes (Splanger and Braiotta, 1990). The transactional leadership attribute pertain to the ability of the chair to help provide opportunities and rewards and thus motivate management to act in the best shareholder’s interest. The transformational leadership attribute refers to the ability of the chair to provide a vision for management to follow. Splanger and Braiotta (1990) found a positive association between the chairman effectiveness to manage fraud and these attributes.

Concerning the board of director composition, other researches focus on the relation between the occurrence of financial statement frauds and the presence of insider ownership (ownership in the hands of executive and no-executive directors). Most of these studies examine the effect of insider ownership on the effectiveness of the board in monitoring management (Sanchez and Ballesta, 2007). A clear theoretical prediction on this issue does not exist. For example a few studies (Peasnell et al., 2005; Booth et al., 2002) report a positive association. In contrast, many authors (Brickley, 1988; Warfield et al., 1995; Gul et al., 2002; Both et al., 2002) argue that higher stock ownership can be seen as a mechanism to constrain the opportunistic behavior and, consequently, the occurrence of frauds is predicted to be negatively associated with the directors’ stock ownership.
Coherent with these last findings, we assume that when Chairman and CEO are separated and both owners they have a strong motivation to ensure that the firms is run efficiently and avoid financial statements that could reduce their own wealth on a long-term period. This study intends to test empirically the following hypothesis:

**H1: the possibility that the Chairman and the CEO are insider owners is higher in no-fraud than in fraud companies**

Many studies emphasize that an important role to prevent frauds is played by the audit committee, the external auditors and other actors (e.g. internal auditors).

Regarding the audit committee, academic and professional literature argues that it has an important role for the control over the financial reporting. A well structured and functioning audit committee is expected to reduce financial reporting frauds.

A growing number of researches have examined the effects of an audit committee’s characteristics on the financial reporting frauds and have reported different results (Dezoort et al., 2002; Turley and Zaman, 2004; Bédard and Gendron, 2010).

The first studies on the relation between audit committee and frauds analyze whether the existence of audit committee reduces the likelihood of fraudulent financial reporting.

The existence of an audit committee is perceived as indicating a higher effectiveness in the control process and it should reduce the occurrence of financial statement fraud. Empirical studies, however, reported different results. While Beasley et al. (Beasley, 1996; Beasley et al., 2010) reveal that the presence of the audit committee has not significant effect for the prevention of the frauds; other existing studies (Pincus, 1989) report a negative relationship.

Regarding Italy, the audit committee is a quite new board introduced in 1999 by Italian Corporate Governance Code. This Code recommends that the board of directors shall establish an audit committee, made up of non-executive directors, and the majority should be independent.

The effect of the audit committee independence on financial reporting quality is not always supported in prior studies. For example, while Uzun et al. (2004) document that the level of audit committee independence is negatively associated with the financial reporting frauds; Lin et al. (2006), Reitenga and Tearney (2003) do not find such a significant relationship.

Therefore, this study empirically tests the following hypothesis:
H2: the presence of an audit committee that is compliant with Italian corporate governance code is lower in fraud than in no-fraud firm

According to Sommer (1991) we suggest that having an audit committee in the governance structure and having effective audit committees are two different matters. His research supports the opinion that there is a positive relation between the number of meetings that an audit committee hold and its effectiveness.

The audit committee needs to meet on a regular basis in order to achieve their objectives. In our analysis, as in prior researches (Menon and Williams, 1994), the variable used to measure the audit committee effectiveness is the number of meetings. An inactive audit committee is unlikely to perform their responsibilities of monitoring their financial reporting process.

The prior researches provide inconsistent evidence on this issue. For example Beasley (1996) and Uzun et al. (2004) also finds no significant differences between frauds and non frauds firms in the number of audit committee meetings during the year prior to the fraud detection.

In contrast other empirical researches (Abbott et al., 2002; Farber, 2005; Beasley et. al., 2009) reports that audit committees of frauds firms meet less regularly.

We expected that if having a higher number of audit committee meetings during the year decrease the likelihood of financial reporting fraud. The following hypothesis would be true:

H3: the number of the audit committee meetings is lower in fraud than in no-fraud companies

3. Research methodology

The empirical analysis involves four main steps.

The first regards the identification of all alleged instances of fraudulent financial reporting, regarding Italian companies listed to Milan Stock Exchange, during the period 2001-2011.

The definition of fraudulent financial reporting adopted in this study is limited to the intentional material misstatements of reports. The concept of misstatement adopted corresponds to that provided by the ISA no. 450 "Evaluation of Misstatements identified during the audit".

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1 According to the ISA no. 450, the financial misstatement is "A difference between the amount, classification, presentation, or disclosure of a reported financial statement item and the amount, classification, presentation, or disclosure that is required for the item to be in accordance with the applicable financial reporting framework".
This imply that to be included in the "fraud firms" group the accounting irregularities should satisfy two criteria. The first refers to the intentionality of the fraudulent behavior. Managers deliberately: 1) issue material misleading financial statements or 2) manipulate financial disclosures included in the narrative part of the annual reports. The latter regards the materiality of the fraud that produce a material effect on financial statements or on financial disclosures.

By contrary, the company in which misstatements arise from unintentionally errors are excluded as well as those firms in which improprieties have not caused material inaccuracies in financial reports.

The second step involves the creation of a comparison group composed of "no-fraud" firms. For each of the "fraud firms" identified in the step no.1, we identify a similar firm without an occurrence of financial statements frauds during the period investigated. The sources and the procedure used to identify the "fraud" and "no-fraud" companies are detailed below.

Once that the companies have been identified, the third step concerns the collection of data regarding the following main aspects: (1) company characteristics; (2) fraud's financial information; (3) profile of the alleged fraud perpetrators; (4) nature of frauds and (5) corporate governance characteristics. Data are obtained from four main sources:

- the annual report issued by the Consob (Italian supervisory authority on listed companies) during the period 2001-2011. Particularly, the researchers analyze the section of the report where are reported the investigations taken by the Consob for accounting irregularities made by listed companies;
- the annual financial statements for the three fiscal years preceding the first occurrence of financial statements frauds;
- the annual corporate governance report issued by the 52 companies in the year before the first occurrence of misstatement.
- whereas publicly available, the documents produced during the legal process for the part regarding the accounting fraud or to corporate governance characteristics;

The fourth step involves the data analysis. The descriptive statistics are shown in the next paragraph. Moreover the researchers development a logit cross-sectional regression analysis to investigate the relations between corporate governance characteristics and financial statements frauds and to test the research hypothesis.

**Sample selection and definition**
The sample used to test the hypothesis consists of 52 listed companies. It includes 26 "fraud firms" accused to issue fraudulent financial statements during the period 2001-2011. Each of the fraud firm is matched with a similar "no-fraud firms".

To identify companies that intentionally manipulate financial statements the researchers have used two different sources: the annual reports issued by the Consob and the database of an Italian economic newspaper.

The first sources enable us to identify 21 cases of fraud firms.

As shown by Table 1, not all the 25 listed companies accused by the Consob of fraudulent financial reporting during the period 2001-2010 have included in the sample. Four companies have been excluded since data on corporate governance were not available or because the enforcement actions regards two or more annual reports.

The second source is the "Sole 24 Ore"(SOL) an economic newspapers. The researchers have scrutinized the articles published by the SOL in the period 2001-2011 by using keywords to query an on-line database. In most cases, the firms identified are the same of those reported by the Consob's annual reports. However, this source permits to pinpoint other 5 cases of alleged financial reporting cases not reported by Italian Supervisory Authority.

A total of 26 companies have been identified.

Table 1- Fraud companies

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of enforcement actions by Consob</td>
<td>25</td>
</tr>
<tr>
<td><strong>Less:</strong></td>
<td></td>
</tr>
<tr>
<td>1)Firm with no available data</td>
<td>1</td>
</tr>
<tr>
<td>2) Firm where action continue for more than 1 year</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal of fraud firm identified by reviewing Consob's reports</td>
<td>21</td>
</tr>
<tr>
<td>Allegation of frauds report by Sole 24 Ore</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>26</td>
</tr>
</tbody>
</table>

Table 2 shows a summary of the 26 financial statements fraud by year. The years reported in the table refer to the time when the scandal becomes public (or the Consob initiates its investigation), even though there is the possibilities that irregularities several years before.

Table 2- Scandal frequency

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1</td>
</tr>
<tr>
<td>2002</td>
<td>6</td>
</tr>
<tr>
<td>2003</td>
<td>2</td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
</tr>
</tbody>
</table>
For each of the 26 fraud firms, we identify a similar "no-fraud" firm by using the following criteria:

1. **Industry.** To this aim, we adopt the classification made by BorsaItaliana\(^2\) (Table 3), to identify all the company that operates in the same industry of the fraud firm and then select those with similar size;

2. **Firm size.** The no-fraud firm selected is similar to the fraud firm for the total asset and revenue. For the comparison we use the data referring to the year-end prior to the first year of the manipulation period;

3. **Time period.** The companies chosen in steps 1 and 2 are included in the final sample if corporate governance and financial statement data are available for the three year before the accounting scandal;

4. **Stock exchange.** A no-fraud identified by performing the step 1 through 3 is included in the final sample if its common stocks are traded on the same national stock exchange of the fraud firm.

Furthermore, to reduce the risk that a company classified as a no-fraud companies had an occurrence of fraudulent financial reporting, the researchers use the SOR on-line database to verify if no suspects of a false financial statement were reported from 2000 to 2012.

Table 2 provides the industry classification of the 26 fraud companies. The industry with the highest number is “Personal & household goods” with 10 observations; followed by “Construction & materials” with 4 observations; and “Travel & Leisure” with 3 observations.

<table>
<thead>
<tr>
<th>Year</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1</td>
</tr>
<tr>
<td>2006</td>
<td>3</td>
</tr>
<tr>
<td>2007</td>
<td>2</td>
</tr>
<tr>
<td>2008</td>
<td>4</td>
</tr>
<tr>
<td>2009</td>
<td>3</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>

**Table 3- Industry classification of 26 fraud companies**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction &amp; materials</td>
<td>2</td>
</tr>
<tr>
<td>Industrial goods &amp; services</td>
<td>4</td>
</tr>
<tr>
<td>Foods &amp; Beverage</td>
<td>2</td>
</tr>
<tr>
<td>Personal &amp; household goods</td>
<td>10</td>
</tr>
<tr>
<td>Travel &amp; Leisure</td>
<td>3</td>
</tr>
</tbody>
</table>

\(^2\) BorsaItaliana is the company that manages Italian Stock Exchange
To identify company that are similar in size we use two indicators: the total asset and net sales. These variables refers to the end of the year before the occurrences of accounting irregularities. Table 4 reports descriptive statistics of 26 fraud firms and 26 industry matched firms and test of means and medians indicate that there's not significant differences.

### Table 4 - Matching of fraud firms and no-fraud firm (Euro in thousands)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>t-test</th>
<th>FRAUD firm</th>
<th>No-fraud firm</th>
<th>Wilk. Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fraud firm</td>
<td>No-fraud firm</td>
<td>t-test</td>
<td>Fraud firm</td>
<td>No-fraud firm</td>
<td>Wilk. Test</td>
</tr>
<tr>
<td>Total assets</td>
<td>2.578.062</td>
<td>2.148.253</td>
<td>1.17 (0.25)</td>
<td>237.945</td>
<td>191.522</td>
<td>-0.063 (0.94)</td>
</tr>
<tr>
<td>Revenue</td>
<td>473.712</td>
<td>346.652</td>
<td>0.3962 (0.6953)</td>
<td>75.952</td>
<td>120.077</td>
<td>-0.851 (0.39)</td>
</tr>
</tbody>
</table>

**Regression model**

Previous studies (Bell, 1991; Beasley, 1996) regarding the relationship between financial statements fraud and corporate governance systems have widely adopted a logit cross-sectional regression analysis to test the hypothesized relations.

In this study, the model used to test the H1 *(the possibility that the Chairman and the CEO are both owners is higher in no-fraud than in fraud companies)* has been defined as follow:

\[
FRAUD_i = \alpha + \beta_1 \text{CHCEOWN} + \beta_2 \text{GROWTH} + \beta_3 \%\text{INDDIR} + \beta_4 \%\text{GREYDIR} + \beta_5 \%\text{MAJORSHAR}
\]

*i* = firm 1 to 52;
FRAUD = a dummy variable with value=1 for fraud firm and =0 for no-fraud firm
CHCEOWN= a dummy variable with a value of 1 when the Chairman and the CEO are both shareholders and a value of zero otherwise;
GROWTH= the average percentage change in total asset over three-years before the first occurrence of the financial statements fraud;
%INDDIR= the percentage of board members that are independent directors;
% GREYDIR= the percentage of board members that are independent directors;
% MAJORSHAR= the percentage of common shares held by the major shareholder who is not affiliate with management. Share held by directors directly or indirectly (family trust or family companies) are excluded.

ε= the residual.

To verify the hypothesis H1 the variable of interest is CHCEOWN that regards the possibility that Chairman and CEO are not the same person but both shareholders of the company. Previous studies on financial reporting frauds have analyzed the relations between the presence of directors who are shareholders and the likelihood of misstatements. Regarding this relation the assumptions made are quite different. Some author (Jensens, 1993) believe that an outside directors who held significant shares of the company has a strong incentive to monitor top managers and this can reduce the probability of the fraud occurrence. By the contrary, some scholars (Loebbecke et al., 1989, Beasley, 1996) consider ownership in the firm as a key fraud motivational factor. When directors held shares one can argue that they could have stronger motivation to manipulate financial results to inflate stock value artificially. In our study we assume that the condition of shareholders may reduce irregularities that risk to reduce the personal health and create the environment favorable for monitoring the CEO and the managers' actions. Therefore we decide to analyze whether the Chairman and the CEO are insider owners and assigned a value equal to one to the variable CHCEOWN in presence of such a condition (and a value of zero otherwise)

To test the H2 (the presence of an audit committee that is compliant with Italian corporate governance code is lower in fraud than in no-fraud firm) the researchers use the same logit model except for the independent variable CHCEOWN. This variable is replaced with the ACCOMPLY that refers to the existence of an audit committee complying with the requirements of Italian corporate governance code.

Finally, to test the hypothesis H3 (the number of the audit committee meetings is lower in fraud than in no-fraud companies) the variable ACCOMPLY is replaced with NUMACMEET. This explanatory variable indicates the number of the audit committee meetings held in the fiscal year prior to the year of the fraud occurrence.

Four control variables have been included in the model. These variables are related to those factors that could have an influence on the likelihood of the financial statement frauds, according to the extant literature. Particularly we refer to:
1. **GROWTH.** Prior researchers have highlighted that a rapid company growth could be assumed as "a red flag" fraud indicator. Many authors assume that if the firms has been experiencing a rapid growth, management may be motivated to falsify financial statements when the growth slows or during a downturn (Loebbecke et al., 1989; Bell, 1991; Beasley, 1996). Summers (1998) indicates that rapid growth is often associated with structural change that creates uncertainty in role and responsibilities and reduces the effectiveness of internal control system. We decide to use as measure of growth, the change in the total asset over a three-years period before the year of fraud occurrence. We expect that fraud firms have experienced a high growth than no-fraud in the years before the occurrence of irregularities;

2. **% INDDIR.** Since the Fama and Jensen's study (1983) the studies on corporate governance recognize the role that independent directors could play for monitoring the management's action and reducing the agency problem. Beasley (1996) demonstrates the presence of a negative relationship between the likelihood of financial frauds and the percentage of independent directors. Consistent with these results, the researchers predict that the percentages of independent directors is lower in fraud companies than in no-fraud companies.

3. **%GREYDIR.** The studies on board composition recognize the figure of grey directors as an intermediate category between inside and outside directors. Grey directors are outside directors that could not be defined as independent from management because they are consultants/suppliers of the companies, familiars of executive directors/managers or have other kind of relationships with the company. The existence of a relationship tends to reduce the effectiveness of the monitoring action on management behavior (CoSo, 2010; Carcello, 2011) so that we can expect that the percentage of grey director is higher in fraud companies than in no-fraud firms.

4. **%MAJORSHAR.** The effectiveness of the monitoring on management decisions also depends on the characteristics of shareholders. Jensen (1993) argues that large block holders have incentives to monitor managers. When a high percentage of common shares are held by shareholders who are not affiliated with managers, one could assume that the supervision on management is more effective and this reduce the likelihood of financial frauds.

**4- Empirical results**
This paragraph presents the results of the empirical analysis and is structured in two sections. The first contains information regarding fraud firms that refer to the financial statements fraud techniques, the fraud perpetrators, the company's ownership structures and the board of directors composition. The latter shows the results of the logit regression analysis performed to test the research hypothesis.

**Fraud techniques and governance structures**

Based on the data gathered, we attempt to identify the methods used to fraudulently report the financial statement information. As noted in graph 1, the three most common techniques used to fraudulently misstate financial statement information involved: 1) overstatement of fixed asset (73%), obtained by capitalizing items that should be expensed or avoiding depreciation, 2) failing to record credit depreciation (62%) and 3) understatements liabilities (62%).

Graph 1 - *Financial Statements Fraud Techniques*

Graph 2 reports the frequency of corporate representative involved in financial reporting frauds. The total adds up more than 100% because more than one representatives participate to the commission of frauds. As expected the individual most frequently charged with frauds is the Chief Executive Officer (CEO) (75%). The second most frequently identified perpetrator of fraud is the Chairman (69%), while CFO is involved less than 40% of the companies belong to the fraud sample. It's interesting to notice that the results of our analysis differ to those of similar studies.
conducting in the U.S. which highlight that CFO has been charged for fraud irregularities more than 80% (Beasley et al., 2010).

Graph 2 - Profile of fraud perpetrators

Table 5 reports the combination between the ownership structure and the nature of the largest shareholders for the 26 fraud firms. It's worth to point out that the majority of listed fraud firms (65%) are controlled by family (or an individual) who held more than 50% of common stocks. Moreover the second highest percentage concern those companies controlled by a family coalition (19%). This result seems to confirm an intuitive opinion that in family based companies, specific factors increase the possibility of fraud financial statements. Particularly these factors refer to the presence of "family" directors who may have incentive to manipulate financial information in order to inflate artificially the value of their shares; the degree of independency of outside directors (like other control bodies) who are appointed by the major block holders (family).

Table 5 - Ownership structure/nature of largest shareholders of fraud firms

<table>
<thead>
<tr>
<th>Ownership structure</th>
<th>First shareholder &gt;50%</th>
<th>Less than 3 shareholders &gt; 50%</th>
<th>Dispersed ownership</th>
<th>Government companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of shareholders</td>
<td>Individual or family</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Banks (or Institutional investors)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multinational company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Families (or individual)</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Test of hypothesis

Table 6 reports the results of the logit cross-sectional regression analysis for the 26 fraud and the 26 no-fraud firms. As we can notice, the chi-square test of the model's fit is not significant (p>.05), so that the H1, referring to the fact that fraud firms and no-fraud firms significantly differ regarding the possibility that the CEO and the Chairman are both owners, is not verified.

The results show that the coefficient for CHCEOOWN is positive even though statistically not significant. The coefficients of the control variables are not significant too.

Table 6: Chairman and CEO owners Logit Regression Results

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Independent variables</th>
<th>Predicted relations</th>
<th>Coefficient</th>
<th>Stand. Er</th>
<th>z-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>None</td>
<td></td>
<td>-1.3188</td>
<td>1.5568</td>
<td>-0.85</td>
<td>0.397</td>
</tr>
<tr>
<td>( p_1 )</td>
<td>CHCEOOWN</td>
<td>+</td>
<td>0.1781</td>
<td>0.6566</td>
<td>0.27</td>
<td>0.786</td>
</tr>
<tr>
<td>( p_2 )</td>
<td>GROWTAS</td>
<td>+</td>
<td>1.0365</td>
<td>0.6483</td>
<td>1.6</td>
<td>0.110</td>
</tr>
<tr>
<td>( p_3 )</td>
<td>%INDIR</td>
<td>-</td>
<td>-0.1604</td>
<td>2.37</td>
<td>0.07</td>
<td>0.947</td>
</tr>
<tr>
<td>( p_4 )</td>
<td>%GREYDIR</td>
<td>+</td>
<td>1.2661</td>
<td>2.3775</td>
<td>0.53</td>
<td>0.594</td>
</tr>
<tr>
<td>( p_5 )</td>
<td>MAJORSH</td>
<td>-</td>
<td>1.2876</td>
<td>1.55</td>
<td>0.39</td>
<td>0.397</td>
</tr>
</tbody>
</table>

Pseudo R2= 0.0457
Chi square Test of Model's Fit = 3,30 (p-value= 0.654)

The result of the logit regression analysis (Table 6) shows that the degree of compliance with Italian corporate governance code for the Auditing committee significantly differ from fraud and no-fraud firms. The Chi square test of the model's fit is 19.28 and it is significant at the 0.05 level, rejecting the null hypothesis.

The results of the regression analysis are consistent with the H2. The coefficient for ACCOMP is negative and statistically significant (p<0.01). The presence of an Audit Committee that comply with Italian corporate governance rules is higher in no-fraud than in fraud companies. Regarding the control variables, it's worth to point out that the results are significant for GROWTH (p<0.05) and %GREYDR (p<0.1). The companies have experiencing financial statement frauds have a
higher growth and a higher percentage of grey directors than no fraud companies. The table 7 highlights the presence of a negative relationship between the presence of independent directors and the likelihood of fraud (with a p-value of .11).

Table 7: Audit committee compliance Logit Regression Results

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Independent variables</th>
<th>Predicted relations</th>
<th>Coefficient.</th>
<th>Stand. Er.</th>
<th>z-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT</td>
<td>None</td>
<td>-</td>
<td>-1.1746</td>
<td>1.5194</td>
<td>-0.77</td>
<td>0.439</td>
</tr>
<tr>
<td>$\beta_1$</td>
<td>ACCOMP</td>
<td>-</td>
<td>-3.4128</td>
<td>1.0377</td>
<td>-3.29</td>
<td>0.001</td>
</tr>
<tr>
<td>$\beta_2$</td>
<td>GROWTS</td>
<td>+</td>
<td>1.965</td>
<td>0.7964</td>
<td>2.47</td>
<td>0.014</td>
</tr>
<tr>
<td>$\beta_3$</td>
<td>INDDIR</td>
<td>-</td>
<td>4.4317</td>
<td>0.7964</td>
<td>2.47</td>
<td>0.116</td>
</tr>
<tr>
<td>$\beta_4$</td>
<td>GREYDIR</td>
<td>+</td>
<td>5.8079</td>
<td>3.1726</td>
<td>1.83</td>
<td>0.067</td>
</tr>
<tr>
<td>$\beta_5$</td>
<td>MAJORSH</td>
<td>-</td>
<td>0.8306</td>
<td>1.7895</td>
<td>0.46</td>
<td>0.643</td>
</tr>
</tbody>
</table>

Pseudo R² = 0.0457
Chi square Test of Model's Fit = 19.28 (p-value = 0.001)

To test the H3, whether the number of audit committee meetings is higher in no-fraud than in fraud companies, the logit regression models has been changed by adopting as explanatory variable the number of the audit committee meetings. The results of the model indicate that the number of meetings held by the audit committee are negatively associated with the likelihood of financial statements frauds and that this relation is statistically significant (p-value<0.05). Therefore the H3 is verified.

Table 8: Number of audit committee compliance Logit Regression Results

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Independent variables</th>
<th>Predicted relations</th>
<th>Coefficient.</th>
<th>Stand. Er.</th>
<th>z-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT</td>
<td>None</td>
<td>-</td>
<td>1.8953</td>
<td>1.9889</td>
<td>0.95</td>
<td>0.341</td>
</tr>
<tr>
<td>$\beta_1$</td>
<td>NUMACMEET</td>
<td>-</td>
<td>-0.4679</td>
<td>0.2228</td>
<td>-2.11</td>
<td>0.035</td>
</tr>
<tr>
<td>$\beta_2$</td>
<td>GROWTAS</td>
<td>+</td>
<td>1.1915</td>
<td>0.8225</td>
<td>1.45</td>
<td>0.146</td>
</tr>
<tr>
<td>$\beta_3$</td>
<td>INDDIR</td>
<td>-</td>
<td>-3.1378</td>
<td>3.5368</td>
<td>-0.89</td>
<td>0.375</td>
</tr>
<tr>
<td>$\beta_4$</td>
<td>GREYDIR</td>
<td>+</td>
<td>-0.9957</td>
<td>2.8072</td>
<td>-0.35</td>
<td>0.723</td>
</tr>
<tr>
<td>$\beta_5$</td>
<td>MAJORSH</td>
<td>-</td>
<td>2.0467</td>
<td>2.2838</td>
<td>0.9</td>
<td>0.341</td>
</tr>
</tbody>
</table>

Pseudo R² = 0.1697
Chi square Test of Model's Fit = 10.02 (p-value = 0.0747)

5. Discussion and conclusions
The empirical results of our studies show that there is not a significant difference between no-fraud and fraud firms regarding the presence of insider owners. The findings reveal that a well established and functioning audit committee may have for reducing the likelihood of accounting fraud. We believe that this governance mechanism is fundamental especially in those companies where the CEO/Chairman duality does not exist like some of public companies controlled by family.

The results confirm that the compliance with corporate governance code may help to improve the quality of financial reporting processes. While the results reported in this research confirm some of the hypotheses developed regarding the relations between a good corporate governance structure and the prevention of accounting fraud, additional research is warranted.

Our research is the first analysis that provides evidence regarding the relation between governance characteristics and financial reporting fraud in Italian context. We hope that the insights presented in this paper will encourage future researches to examine other critical variables for the fraud prevention like how the governance processes actually work, the interactions among the control bodies (e.g. audit committee, external and internal auditors) and other external factors that could influence governance characteristics and accounting outcomes (e.g. incentive based-executive compensation).

References


PricewaterhouseCoopers (2005), Global economic Crime Survey, Available at: [http://pwc.com](http://pwc.com).


