CORPORATE GOVERNANCE AND INCOME SMOOTHING
“CASE OF THE EGYPTIAN LISTED COMPANIES”

Dr. Nagwa Abdullah Samak**
Professor of Economics, Faculty of Economics and Political Science - Cairo University - Egypt

Dr. Hala Helmy El Said*
Professor of Economics and Dean of Faculty of Economics and Political Science - Cairo University - Egypt

Dr. Gamal Abd El Latif***
Faculty of Economics and Political Science - Cairo University - Egypt

ABSTRACT

The main goal of this study is to investigate the relationship between income smoothing and corporate governance. Using the financial information of listed companies in EGX100 in the Egyptian stock exchange. The paper first distinguishes between false financial statements and non-false financial statements based on Eckel index. The paper then builds a corporate governance index based on corporate responsibility index after required modifications, of 57 companies listed in the Egyptian stock exchange. The financial information of the companies was examined during the period 2007 to 2012. Univariate and Multivariate analyses were applied to the collected information. For the univariate tests the researchers compare the (CGI) and control variables (Size, ROE, and Sales) across the false financial statement and the non-false financial statement. The results show a significant difference between the means of the two panel sets. In addition to the univariate tests the researchers also use a multivariate logit model to test the hypotheses. The results proved to be inconsistent with the univariate analysis results, reflecting insignificant negative relationship between Eckel index and all other control variables.

Keywords: corporate governance, corporate responsibility, income smoothing, financial fraud, financial statement.
INTRODUCTION

The recent successive financial crises and the resulting confidence crisis in financial reporting within an information and economic framework have drawn the world attention to the role of corporate governance in ensuring the quality of the financial reporting processes, reducing fraud and false statements. This is especially after the scandal of big companies such as Enron in United Kingdom and the collapse of WorldCom in United States in 2001 and 2002 respectively.

Countries all around the world are putting together corporate governance best practices guidelines. Some examples are; Cadbury Report was produced in the United Kingdom, Sarbanes Oxley in United States, The Dey Report in Canada, the Vienot Report in France, the Olivencia Report in Spain, the King’s Report in South Africa, Principles and Guidelines of Corporate Governance in New Zealand and the Cromme Code in Germany. The goal of most of these regulations was to improve firms’ corporate governance environments (Bhagat and Bolton, 2009). This is attributed to the fact that recent financial crises are mostly attributed to the failures and weaknesses of corporate governance arrangements, to face the real life stress. Corporate governance regulations did not help in avoiding excessive risk taking and bad practices.

Thus, the core research question addressed in this paper is “How confident should economies be, that corporate governance regulations can ensure the quality of the financial reporting and reduce the probability of false statements and artificial income smoothing?”

Income smoothing is a measure of the accounts manipulation theme that has been attracting a great attention in the recent accounting literature. Gordon (1964) observed that corporate managers may be motivated to smooth their own income (or security), assuming that income stability and growth rates are preferred than higher average income streams with greater variability.

There are two types of income smoothing: intentional, which is based on a real intention, and artificial income smoothing. Real (intentional) income smoothing indicates management actions that seek to control economic conditions that directly affect corporate earnings in the future. This kind of income smoothing affects cash flow. On the contrary, artificial income smoothing can show manipulation which is undertaken by management to smooth the earning. Thus, the action of this manipulation results in a fundamental or economic condition that can affect cash flow, but also shifts the cost and/or income from one period to another. (Eckel, 1981)

In Egypt - as an emerging market - a lot of efforts have been exerted in order to enhance corporate governance. The Ministry of Investment (MoI) founded the Egyptian Institute of Directors (EIoD), the region’s first Corporate Governance Institute. Codes of corporate governance have also been launched in 2006, and are continuously revised, for both private and state-owned companies. A number of changes (reforms) have been introduced to the legal and regulatory framework, aiming to: tighten insider trading related provisions; strengthen disclosure rules; require companies to institute board-level audit committees; and modernize the accounting and auditing framework in-line with international standards. (world bank, 2009)

Thus, the principal purpose of this paper is to empirically test the hypothesis that best practices of corporate governance reduce the likelihood of false financial statements of the listed companies in the Egyptian stock exchange. The research contributes to the extant literature in three ways. First, the paper discusses the relationship between corporate
governance and financial information quality in Egypt as an emerging market, while the discussion of this topic in the literature has been limited to developed countries rather than emerging markets. **Second**, the paper does not rely on a specific mechanism / measure of corporate governance, but rather builds a composite index for corporate governance rules imposed on listed companies, which is the first in Egypt. **Third**, this is considered the first empirical study in Egypt that assesses the quality of financial information and financial reporting and corporate governance rules (regulations).

The rest of the paper is organized as follows. The first section is the introduction and background about the topic under discussion. The second section presents the importance of corporate governance in financial reporting. The third section evaluates corporate governance in Egypt. The fourth section outlines the methodologies used in the analysis, the used variables, the method of analysis and the data sample used. Finally, the fifth section analyzes the results and presents the conclusions and policy recommendations drawn from the analysis.

2- CORPORATE GOVERNANCE AND FINANCIAL REPORTING

2 – 1 - Principals of Corporate Governance

Corporate governance refers to the structures and processes for the management and control of companies. It involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders, in a way that provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. It helps to increase investor confidence which leads to reduced cost of capital and hence firms are encouraged to use resources more efficiently. Effective corporate governance systems within an individual company and across an economy as a whole, enhances confidence that is necessary for the proper functioning of a market economy (Organisation for economic co-operation and development(OECD),2004)

The **OECD Principles of Corporate Governance** have gained worldwide recognition as an international benchmark for sound corporate governance. They cover six key areas of corporate governance:

a) **Ensuring the basis for an effective corporate governance framework:** The corporate governance framework should promote transparent and efficient markets, be consistent with the rule of law and clearly articulate the division of responsibilities among different supervisory, regulatory and enforcement authorities.

b) **The rights of shareholders and key ownership functions:** The corporate governance framework should protect and facilitate the exercise of shareholders’ rights.

c) **The equitable treatment of shareholders:** The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.

d) **The role of stakeholders in corporate governance:** The corporate governance framework should recognize the rights of stakeholders established by law or through agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.

e) **Disclosure and transparency:** The corporate governance framework should ensure that timely and accurate disclosure of information is made on all material matters regarding
the corporation, including the financial situation, performance, ownership, and governance of the company.

f) **The responsibilities of the board:** An independent, competent and engaged board, capable of exercising its strategic and monitoring functions is a must. The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board’s accountability to the company and the shareholders.

These six areas show that Corporate Governance is a key element in improving the performance of both the enterprise (on the micro level) as well as the whole economy (on the macro level).

The Financial and economic crisis of 2008 highlighted the systematic failures in the checks and balances in the system, by boards of directors, by credit rating agencies, and by government regulators. The financial system operated with large gaps in the meaningful oversight, and without sufficient constraints to limit risk (Nestor, 2009).

In the aftermath of the financial and economic crisis the OECD steering group (committee) revised the core principles of corporate governance and recommended that corporate governance weaknesses in the areas of remuneration, risk management, board practices and the exercise of shareholder rights had played an important role in the development of the financial crisis. Nevertheless, the group (committee) found that the OECD Principles of Corporate Governance provided a good basis to adequately address the key concerns that have been raised, and that there was no urgent need for them to be revised. Rather, a more urgent challenge for the Steering Group (committee) was to encourage and support the implementation of already agreed upon international and national standards, including the OECD Principles of Corporate Governance (OECD, 2010).

### 2 - 2 The Relationship Between Corporate Governance and Financial Reporting

Financial reporting is considered the main link between the company and its external parties, as it provides information about a company’s economic situation and performance. From an economic perspective information enables more efficient allocation of capital, while misleading information might channel funds into inefficient allocations. Financial reporting reduces information asymmetry between company internal parties /insiders (such as the management including the board of directors, auditors, and information providers) on one side, and external parties / outsiders (such as Investors, creditor, and analyst) on the other side. It is also used as a measurement to determine the performance of the company. (Leibfried, P. & Bernd.T., 2007; Norwani, N. et al., 2011)

The integrity of financial reporting is highly dependent on the performance and conduct of those involved in the financial reporting process, particularly directors, management and auditors. Financial information is considered the first source of independent and true communication about the performance of company managers. This relevance makes financial reporting a main attraction to management influence (Sloan, 2001). That is why corporate governance principles give a lot of attention to the rules for Disclosure and Transparency and emphasize that Disclosure should include - but not be limited to - material information about:

- The financial and operating results of the company.
Disclosure of Information should be of high quality standards of accounting and should include financial and non-financial disclosure.

An annual audit should be conducted by an independent, competent and qualified auditor, in order to provide an external and objective assurance to the board and shareholders that the financial statements fairly represent the financial position and performance of the company in all material respect.

External auditors should be accountable to the shareholders and owe a duty to the company to exercise due professional care in the conduct of the audit.

Channels for disseminating information should provide equal, timely and cost efficient access to relevant information by users.

According to (McBarnett and Whelan, 1999), “Financial reporting is a key aspect of corporate governance”. This makes it obvious that enhancing corporate governance can improve quality of financial statement and reduce the probability of accounting fraud or accounting misstatements. Academic literature reflects concerns about financial reporting integrity, effective corporate governance, and the relationship between them. This relationship has been strongly discussed in developed countries and recently in emerging markets. The emphasis of most of the studies was placed on specific governance mechanisms: board size and independence, audit committee existence, audit committee independence, size and frequency of meetings and financial literacy of its members. A number of recent studies highlight the role of non-executive and independent directors in improving the quality of information. Beasley.( 1996) proved that the financial statement fraud in the American firms decreased with the percentage of outside directors. Similarly Bushman et al.(2004) Vafeas,( 2005) and Karamanou and Vafeas .(2005) conclude that the information quality increases with the percentage of outside directors. Jaggi et al.(2007) found significant negative relationship between earnings management and the presence of higher proportion of external directors, especially in Taiwan and Hong Kong companies. (Byard et al.,( 2006) proved that the high number of directors ensures the value relevance of financial statements. In addition to the board independence, the separation between the positions of CEO (chief executive officer) and board chairman was investigated and resulted in positive outcomes by ( Dechow et al.,1996 : Byard et al.,2006), indicating that the presence of a CEO who serves also as the board chairman is associated with poor quality of financial information. Similarly, Beekes et al., (2004) highlights that financial reporting is more relevant, in the case of separating the positions of the CEO and the board chairman. Firth et al.,( 2007) indicate that the presence of independent directors improves the earnings quality of Chinese firms.( Smaili, 2009) tested the hypothesis that the seriousness or level of non-compliance of irregularities detected by market authorities is negatively associated with the quality of governance. For, a sample of 107 firms in The Canadian Securities Market, the results of univariate and multivariate analyses indicated that issuers in default have less effective boards mainly composed of internal and affiliated directors, and where the CEO is also the president of the board. Dimitropoulos and Asteriou (2010) confirm this finding for a sample of Greek firms. Klaï.N and Omri .A.(2011) also examined the effect of governance mechanisms on the quality of financial reporting for a sample of Tunisian firms listed on the Tunis Stock Exchange during the period 1997–2007. The study focused on the characteristics of the board of directors, and the results showed that Tunisian firms are characterized by a lack of board independence, which reduced the quality of reporting. Fodio M, Ibikunle,J.&Oba ,V.( 2013) also found that
board size and board independence are negatively and significantly associated with earnings management for listed Insurance companies in Nigeria.

In contrast, other studies suggest that independent directors are not enough competent to control the managers and their presence in the board has no effect on the quality of reporting. Reference can be made to (Beasley, 1996; Agrawal and Chadra, 2005; Petra, 2007) for American firms, Bradbury et al. (2006) for Singapore and Malaysian firms, Abdulrahman, R, and Ali, F.H (2006) for Malaysian firms and Ahmed et al., (2006) for New Zealand firms. In order for the board to exercise proper control, there should be an independent internal audit function that adds value and improves the organization’s operations. This involves an independent and efficient internal audit unit, an independent audit committee and a regular consultation between external and internal auditors. This coordination enables a more effective external audit and avoids duplication of audit work. The activities of the internal audit department should also include drawing up a risk based audit plan, examining and assessing the available information, communicating the results, and following up on recommendations (El-Said, H. 2007). The role of audit committees, their financial knowledge and experience, play a role in guaranteeing the integrity of financial reports. Several studies demonstrate that the presence of audit committees is effective in reducing the occurrence of misleading financial statements Adeyem and Fagbemi, 2010; Baxter and Cotter, 2009; Deborah and Archambeault, 2002; Deborah S. Archambeault, 2002 also examined the level of financial literacy of audit committee and the quality of financial reporting, and concluded that the audit committees of fraud companies are generally less financially literate than their non-fraud counterparts. This is consistent with the findings of Abbott et al., (2000), Beasley et al., (2000), Felo & Krishnamurthy and Solieri, (2003), Smaili, N. (2009), Teoh and Wong, (1993) Becker et al., (1998),. Brown et al., (2010) proved that the financial information is more reliable for BIG 4 auditors clients in comparison with other companies. (Yang and Krishnan, J. 2005; Ismail, et.al.2009; Lin, and Yang, 2006 and Fodio, Ibikunle, 2013) found a negative relationship between the size of an audit committee and earnings manipulations. Inconsistent with Beasley (1996) Abdulrahman, and Ali, (2006) found no significant results with respect to audit committee size.

(Bedard, 2004; Klein, 2002) observed that earnings management is negatively related to fully independent audit committees. Contrarily ( Xie et al, 2001, Abdulrahman, and Ali, 2006) found an insignificant relationship between independent audit committees and earnings management. Fodio, Ibikunle and Oba, (2013) found positive relationship between audit committee independence and discretionary accruals. The external auditor and the quality and reputation of the auditor play a major role in the integrity of financial reports. The relation between ownership structure and financial reports quality have also been examined by many studies which proved that concentrated ownership reduced the relevance of the financial information (Donnelly and Lynch, 2002) (Fan and Wong, 2002), (Bradbury et al., 2006), (Smaili, 2009), (Khal. and Omri, 2011) and (Firth et al., 2007) proved by the results of univariate analyses that ownership and board characteristics are important in explaining fraud. However, using a bivariate probit model they demonstrated that the type of ownership is less relevant. These results are inconsistent with Klein (2002) and De Bos and Donker (2004) who reported that ownership concentration reduces the earnings management which improves financial disclosure quality.
3 - EVALUATION OF CORPORATE GOVERNANCE IN EGYPT

3 – 1 - Legislative and Institutional Framework

The Egyptian government has fostered the revitalization of its capital market since the issuance of the Capital Markets Law no. 95 of 1992, which came into force on April 7th 1993 to cope with the processes of economic liberalization, increasing the role of the private sector and attracting foreign investors. The main components of the regulatory and legal framework that impacts the concepts of corporate governance in Egypt, can be summarized in two main groups: First Laws governing incorporation of companies: Companies’ Law (CL 159/1981), Investment Law (IL 8/1997), Public Business Sector Law (PBLS 203/1991). Second Laws governing public and private sector companies listed on Egyptian Stock Exchange (EGX): Capital Market Law (CML 95/1992), which is the main law regulating the Egyptian financial market in terms of monitoring the market status in general and maintaining steadiness and growth and the Central Depository Law (CDL 93/2000), which aims at reducing risks associated with trading physical securities, enhancing market liquidity, in addition to assuring fast securities exchange. In other words, the law maintains all registration, clearance and settlement procedures associated with trading transactions. (Unctad, 2007). New listing rules were issued in 2002 including comprehensive corporate governance disclosure requirements. The Egyptian Stock Exchange (EGX) has also issued strict delisting rules (Article 34-35) which forced the publicly listed companies to make a commitment to corporate governance requirements, or become delisted. Applying the governance rules contributed to decreasing the number of companies listed on the Stock Exchange from 1148 companies at the beginning of 2002 to 333 companies by mid-2009, to 240 companies in April 2010, to less than 150 companies by mid-2013 (Shehata and Dahawy, 2013).

The Government of Egypt established the Egyptian Institute of Directors (EIOD) in 2003 to spread awareness and improve corporate governance practices in Egypt. The Ministry of Investment and the Egyptian General Authority for Investment and Free Zones (GAFI) introduced the first Egyptian Code of Corporate Governance (ECCG) in 2005, which is one of the region’s first codes, and which constituted a major step towards improving corporate governance in Egypt. However, it would have been more effective if these guidelines were mandatory. These guidelines are to be primarily implemented in joint-stock companies listed on the stock exchange, especially those undergoing active trading operations, and financial institutions in the form of joint stock companies. The ECCG is also applicable to companies that use the banking system as a major source of financing. The ECCG is divided into nine related chapters that introduce the rules and procedures related to the following subjects: Scope, General Assembly, Board of directors, Internal audit department, External auditor, Audit committee, Disclosure of social policies, Avoiding conflict of interest, and Corporate governance rules for other corporations. (General authority for infestent and free zones (GAFI), 2005). The (EIOD) in cooperation with different entities is also continuously reviewing the ECCG and updating it based on latest Egyptian and International experiences. (The Egyptian Institute of Directors (EIoD), 2011). The Egyptian Financial Supervisory Authority (EFSA) is the Governmental Authority, established in accordance to law 10 of the year 2009. The Authority is responsible for supervising and regulating the non-banking financial sector, including the Capital Market (Stock Exchange), stock exchange, leasing, factoring, mortgage and micro finance institutions.. In an effort aiming to strengthen corporate governance practices, the former Capital Market Authority issued a new code of ethics for auditors in Egypt in 2007. The code explains the rules and
regulations for important issues such as independence of auditors, objectivity, competence, confidentiality and professional conduct. In addition, it presents conditions and rules for important topics, including hiring auditors, conflict of interest, fees, marketing of services, and gifts. (The Egyptian Financial Supervisory Authority, 2010)

On the other hand, banks in Egypt are supervised and regulated by the Central Bank of Egypt (CBE). They are the main financial intermediary as Egypt is a bank-based country. For banks the Egyptian Banking Institute (training arm affiliated to the Central Bank of Egypt) issued corporate governance guidelines for the banking sector in 2005. In 2009 corporate governance was included as a main pillar of the second phase of banking sector reform program adopted by the CBE. The Central Bank of Egypt issued the corporate governance code, which was a very effective tool to enhance governance practices in the banking sector, as it was mandatory. CBE also issued mandatory guidelines concerning audit committees in banks (El-Said, H. 2009).

3 – 2 - Progress in Corporate Governance

The World Bank conducted the Report on the Observance of Standards and Codes (ROSC) three times in 10 years (2001- 2004 - 2009). The codes are used as an assessment benchmarks for Egypt’s legal and regulatory framework, practices, and enforcement framework against the OECD Principles of Corporate Governance (OECD Principles), the international reference point for good corporate governance. ROSC, (2009) showed that that Egyptian government has achieved a comprehensive amount of changes on the legal, regulatory, and institutional framework for corporate governance, and has implemented many of the key recommendations of the 2001 and 2004 ROSC. However, there are still some concerns on the level of implementation of listed companies, especially companies outside EGX30. For Example, a number of boards do not guide or supervise management by helping them develop and hold them accountable to a set of key performance indicators. Non-financial disclosure also still remains underdeveloped. Few companies publicly disclose their ownership and governance structures, remuneration policies, or foreseeable risk factors online or in their annual report, and shareholders are - in practice - unable to hold directors and officers accountable for a breach of their duties.

A recent study by Shehata.and Dahawy.(2013 ) evaluated corporate governance disclosure in Egypt. The study employed the benchmark of good practices in corporate governance disclosure developed by UNCTAD’s Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). This benchmark consisted of fifty two disclosure items covering five subject areas. The study was applied to a sample of the top 29 listed companies in Egypt. The study proved that the average disclosure level is less than half of the items in the ISAR benchmark. While nine items in the ISAR benchmark were disclosed by more than two-thirds of the companies in the study, forty items were disclosed by less than half of the companies. The absolute number of disclosure items found for each company ranged from 5 to 43, indicating a high level of variability between ‘best practice’ companies and companies with minimal disclosure practices. The study concluded that although the sample had relatively high rates of disclosure for few items, and the average disclosures in 2010 almost doubled compared to the 2005 average disclosures, but it is still considered low compared to the average emerging markets levels.

The worldwide governance indicators (WGI) reports aggregate and individual governance indicators for 215 economies over the period 1996–2012, for six dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence,
Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. These aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. They are based on 31 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. Figure 1 represents Egypt’s rank.

![Egypt rank* in Worldwide Governance Indicators, 2005-2012](image)

*Percentile rank among all countries (ranges from 0 (lowest) to 100 (highest) rank

Source: World Bank 2013

Figure 1

The data presented in figure (1) above, reflects that Egypt’s performance on the six dimensions is moderate, especially through the period 2007-2010. The performance has then taken a deteriorating trend due to the recent political situation and the Egyptian revolution since 2011.

3 – 3 - The Egyptian Corporate Responsibility Index

The Egyptian Institute of Directors (EIOD), Egyptian Corporate Responsibility Center, ECRC, Standard & Poor’s (S&P) and Crisil, created an Environmental, Social and Governance (ESG) Index for Egypt. The S&P/EGX ESG Index that was launched on March 22nd 2010 is the first of its kind in the MENA region and the 2nd in the world. The first one was launched in India in 2008 and was created by Standard & Poor’s (S&P) in collaboration with a local company, CRISIL. The Index was named “The Egyptian Corporate Responsibility Index” and measures the volume of information companies make available concerning their corporate governance, environmental and social responsibility. It also ensures a selection of securities which are well representing the Egyptian equity market based on size and liquidity. All of the EGX 100 listed companies are evaluated on an annual basis, in order to select the top 30 that can be listed on the ESG30 index. In order to reach the index composition, two screening processes take place, one focusing on environment & social indicators and the other one focusing on corporate governance indicators. The index evaluates the companies’ disclosure practices based on the information they provide to the public through their annual reports, websites, press releases or disclosure made to the Egyptian Stock Exchange. A double check is also done by contacting the regulatory agencies, ministries and NGOs to know if there is any adverse information or violation made by the company covering the following key areas: Ownership Structure and Shareholder Rights,
Financial and Operational Information, the ownership structures of affiliates, Corporate Governance & corruption, Business Ethics and Corporate Responsibility, Environment, Employee, Community and Customers/Product. Each of the companies traded on the Egyptian Stock Exchange is assigned a **Quantitative Ranking** based on the three factors; transparency and disclosure of corporate governance, environmental practices, and social practices, in order to evaluate the performance of the company on a normalized score on 100 point scale. In addition, a **Qualitative Score** – based on independent sources of information, news stories, and websites and CSR filings - is used to evaluate the actual performance of the company on a scale of 5 to 1. Then a **Composite Score** is calculated for each company based on the qualitative score and the quantitative score. (http://www.eiod.org)

4 - DATA AND METHODOLOGY

Most of the previous studies emphasis was placed on specific governance mechanisms to investigate the impact of these mechanisms on the quality of financial reporting and fraud only (Smaili, 2009). They usually consider governance as a system by combining these governance mechanisms into scores and interaction terms in the empirical model. Concerning the data they rely on the public disclosed data from the stock exchange commission to differentiate between fraud or non-fraud statement. (Klai, and Omri, 2011) used McNichols (2002) model which considers the standard deviation of the residuals or the error terms as a measure of reporting quality. Large values of the model residuals mean a considerable level of discretionary accruals and so a poor quality of the financial information. Another model captures the information content of earnings (Ball and Brown, 1968; Collins and Kothari, 1989) assume that if the accounting incomes are informative, the stock returns will incorporate all the available information, which indicates a good quality of financial reporting (Ashbaugh et al., 2006). Hence, a high level of the standard deviation of the residuals entails a poor quality of information.

In the Egyptian case, there was a lack of public data such as the information published by capital market authority (CMA) or Egyptian stock exchange (EGX) about restatements or fraudulent statements, in order to be able to classify the companies and obtain any exercise to income smoothing behavior. Therefore this research will depend on one coefficient of variation model proposed by Eckel (1981) and used later by (Booth et al., 1996), (Michelson et al. 1995, 2001), (Bin et al. 2000), (Bao and bao 2004), (Martinez. Rivera,2011), and (Saeidi,.2012) to determine the presence of income smoothing practices and the quality of financial reporting. Eckel (1981) distinguishes between two kinds of income smoothing, namely; natural smoothing and artificial smoothing.

**Natural smoothing** results from transactions that inherently produce a smoothed earning, while **Artificial smoothing** is achieved through accounting practices which are undertaken by management to smooth earnings. Income is a key variable in accounting. And according to corporate governance, users assess the efficiency of management based on this financial information. And thus, they become aware of the company’s present situation versus the past, and can forecast for the future.

On the other hand, artificial income smoothing is a dimension of the accounts manipulation to reduce the possible income fluctuations. Iniguez & Poveda,( 2004) provide empirical support toward the statement that management reduces the variability of cash flows and earnings for the purpose of minimizing the risk of the company. Income smoothing is
also intended to increase the value of the firm (Gordon, 1964; Trueman & Titman, 1988; Gibbins et al., 1990; and Chaney & Lewis, 1995; 1998.)

The Eckle Model of the Income Smoothing is based on the following:

- Income is a linear function of the sales = sales - variable cost - fixed cost.
- The ratio of variable costs to sales is in constant currency units.
- Fixed costs are constant or increasing from period to period, but not likely to decline.
- Gross sales can only be smoothed by real smoothing; gross sales cannot be artificially smoothed.

Therefore, the variation coefficient of sales should be smaller than the variation coefficient of net income. If this does not happen, Eckel showed that the company is artificially smoothing its net income. Eckel model take the following formula IA:

\[ CV\frac{\Delta\%NetIncome}{\Delta\%Sales} \leq 1 \]

\[ CV\Delta I = \frac{\sqrt{\sum (\Delta I_i - \Delta I)^2} / n - 1}{\Delta I} \]

\[ CV\Delta S = \frac{\sqrt{\sum (\Delta S_i - \Delta S)^2} / n - 1}{\Delta S} \]

The companies with absolute value of less than one on the index are categorized as companies that do practice income smoothing. Companies with an index value equal to or greater than 1 are not considered practicing income smoothing. Eckel considered that the main weakness of this methodology is the failure to recognize the companies, which have reduced the variability of their net income, as smoothers (this reduction in net income should not be greater than their reduction in sales variability). (Chalayer, 1994) and (Martinez and Rivera, 2011) explained the importance of using a smoothing index (SI) between 0.90 and 1.10 as the gray area as it is necessary to reduce the classification error.

\[ 0.9 \leq CV\frac{\Delta\%NetIncome}{\Delta\%Sales} \leq 1.10 \]

**Smoothing \leq |Gray Area| \leq Non Smoothing**

The result of this SI will give the basis to discriminate between smoothers and non-smoothers. Several studies rely on SI index for several reasons. According to (Bao and Bao, 2004) the index takes into consideration the aggregated effect of all the accounting variables.
that smooth-out net income. Albrecht and Richardson (1990) concluded that it provides a measurement of the variability of the sample and therefore, permits the comparison between different groups. Besides this, it provides the ability to compare data that has a different standard deviation and mean. Meanwhile, Kustono (2011) focused more on the constancy of results, concluded that the classification based on the Eckel index for one company may fluctuate because of changes in the period used to determine the coefficient of variation. Kustono supposed that companies can be classified as either non-smoothing or smoothing, by looking at the ratio of consolidated earnings changes in successive periods. Companies are classified as smoothing based on the rate of change of income over successive periods. If this rate decreases during a specific period compared to other periods, then the company is classified as having false financial statements.

Data Sample

Egyptian Corporate Responsibility index issued by (EGX) on a sample of 100 companies listed on the EGX100 which measures the performance of the most active companies (which may change from one year to another). It is also a derived index of corporate governance for companies that have sustained being on the index during the study period (2007-2012). Those reached 61 and four financial companies were excluded because they have distinctive features compared to non-financial companies. Thus, the index developed by this research consists of 57 companies. The companies considered always publish financial statements periodically. They have not conducted any mergers and acquisitions transactions, and their business groups remained unchanged during the period 2007-2012. They have not be delisted during the period 2007-2012.

Used Variables

The independent variable is the corporate governance index (CGI). The research relies on the Egyptian CGI index, after adapting it according to the research interest to measure corporate governance only as follows:

- Egyptian corporate responsibility index consisted of 197 criteria has been written in the form of questions "yes" or "no" and covers three key aspects: corporate governance, the environment, and social responsibility. Only 127 criteria cover corporate governance representing 64% of the total index criteria, including 100 basic criteria and 27 additional criteria.
- The research derived special index of corporate governance that measures only the quantitative aspects (see appendix No. 1 for more details about the 127 criteria which relied upon to build the research corporate governance index).
- Taking accumulated points for each company for the 127 criteria from the Egyptian Corporate Responsibility index.
- Normalized CGI Score (on 100 point scale).

Univariate & Multivariate Tests (Analysis)

To test the relation between fraud and governance structures we use both univariate comparisons and a multivariate analysis. For the univariate tests we compare the (CGI) and control variables (Size, ROE, Sales) across the False financial statement and the non-false financial statement, in the sample companies, to test if there are significant differences in means depend on t-tests.
In addition to the univariate tests we also use a multivariate logit model to test the hypotheses, because the dependent variable (Eckle index) is an ordered categorical variable that takes the value of 0 for matching firms with false financial statements, and 1 for firms with non-false financial statement. Maddala (1991) states that logit regression analysis is the appropriate procedure for disproportionate sampling from two populations (i.e., false and non-false firm populations).

Research Hypotheses

- $H_0$ there is no significant relation between CGI index and financial smoothing for the companies.
- $H_0$ there is no significant relation between size and financial smoothing for the companies
- $H_0$ there is no significant relation between ROA and financial smoothing for the companies
- $H_0$ there is no significant relation between sales and financial smoothing for the companies

The general model which has been applied to test the hypotheses is:

$$ ECKLE_i = \alpha + \beta_1(CG_I) + \beta_2(ROA_i) + \beta_3(Size_i) + \beta_4(RSales_i) + \epsilon_i $$

$ECKLE_i$ Where the dependent variable is equal to one if the company has been identified by the index as non-false financial reporting, and zero otherwise.

$CG_I$: The average of CGI index for the period 2007-2012 for company i to n.
$ROA_i$: The average of ROA for the period 2007-2012 for company i to n.
$Size_i$: The average of total assets for the period 2007-2012 for company i to n.
$Sales_i$: The average of total assets for the period 2007-2012 for company i to n.
$\epsilon_i$: Error term.

5- RESULTS & CONCLUSIONS

Univariate Analysis

The computation of the Eckle index for the 57 sample companies over a time period 2007-2012, allowed isolating two panels:

- Panel One - the false financial statement: 29 companies (51%) with Eckle index below 1, so net income is less volatile than the sales, thus there is evidence that these items are used to smooth the reported income

- Panel Two - the non-false financial statement: 28 companies (49%) with a smoothing index above 1. This reflects that there is no evidence that they resort to discretionary accounting items to assure income normalization. The following tables represent the Descriptive Statistics for the two panels.
The mean of CGI index reflects that the practices of corporate governance - in general - is lower medium and unexpected for non-false firms in panel (A), and the implementation is less than the firms with false statement in panel (B). Concerning other control variables, we found that the performance is more efficient in the non-false financial statements companies, and that the size of it is less than the companies with false financial statement. The results also prove that there is a gap in the two panels between the minimum and maximum level of CGI, which means that there is big variance in their performance.

The differences in the means of the two panels was confirmed when subjected to T test, indicating there is a statistically significant difference in both corporate governance practice and other control variables. The results are summarized in Table 3 below.

### Table 3: T Test

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGI</td>
<td>48.700</td>
<td>56</td>
<td>.000</td>
<td>39.3654</td>
<td>37.7462 - 40.9847</td>
</tr>
<tr>
<td>ROA</td>
<td>8.253</td>
<td>56</td>
<td>.000</td>
<td>4597677201.2</td>
<td>1648168720.89 - 7547185681.57</td>
</tr>
<tr>
<td>SIZE</td>
<td>3.123</td>
<td>56</td>
<td>.003</td>
<td>2282869915.4</td>
<td>874377377.603 - 3691362453.31</td>
</tr>
<tr>
<td>SALES</td>
<td>3.247</td>
<td>56</td>
<td>.002</td>
<td>586</td>
<td></td>
</tr>
</tbody>
</table>

* *, ** Statistically significant at less than the .05, .01 level, based on two-sided tests.

Source: Authors calculations with (SPSS)
Multivariate Tests

Univariate test does not allow the detection of interaction effects. So the goal of the model is to evaluate whether the research variables provide an explanation for the probability of a given company to engage in smoothing behavior, as individually or jointly considered. The results are presented in the following tables.

### Table 4: Likelihood Ratio Tests

<table>
<thead>
<tr>
<th>Effect</th>
<th>-2 Log Likelihood of Reduced Model</th>
<th>Chi-Square</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>69.249</td>
<td>.648</td>
<td>1</td>
<td>.421</td>
</tr>
<tr>
<td>CGI</td>
<td>69.297</td>
<td>.696</td>
<td>1</td>
<td>.404</td>
</tr>
</tbody>
</table>

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

**Source:** Authors calculations with (SPSS)

### Parameter Estimates

<table>
<thead>
<tr>
<th>PKCLE</th>
<th>B</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.427</td>
<td>1.797</td>
<td>.631</td>
<td>1</td>
<td>.427</td>
</tr>
<tr>
<td>CGI</td>
<td>.037</td>
<td>.045</td>
<td>.674</td>
<td>1</td>
<td>.412</td>
</tr>
</tbody>
</table>

**Source:** Authors calculations with (SPSS)

### Parameter Estimates

<table>
<thead>
<tr>
<th>Effect</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.412</td>
<td>2.476</td>
<td>.028</td>
<td>1</td>
<td>.868</td>
</tr>
<tr>
<td>CGI</td>
<td>-.007</td>
<td>.065</td>
<td>.013</td>
<td>1</td>
<td>.911</td>
</tr>
<tr>
<td>ROA</td>
<td>-3.422</td>
<td>4.892</td>
<td>.489</td>
<td>1</td>
<td>.484</td>
</tr>
<tr>
<td>SIZE</td>
<td>.000</td>
<td>.000</td>
<td>.725</td>
<td>1</td>
<td>.394</td>
</tr>
</tbody>
</table>

**Source:** Authors calculations with (SPSS)

The results of using this methodology are surprising, as they do not show any significant relation between CGI index on individual level or jointly with other control variables. Although the sign (direction of the relationship) is consistent with other studies for CGI, where ROA has a negative relation, but the relationship is not significant. This means that it needs time for corporate governance to reflect a significant effect on the quality of financial reporting. This may also be attributed to the weak performance for most of the companies. Hence the index ranged between 32-60 out of 100.
Conclusions and Policy Implications

Financial reporting is considered the main link between the company and its external parties, through which it provides information about a company’s economic situation and performance that is useful for a wide range of users. Corporate governance principles – especially the fifth - give a lot of attention to the rules for Disclosure and transparency, and emphasize that Disclosure should include, financial and operational results of the company and that Information should be prepared and disclosed in accordance with high quality standards of accounting and financial and non-financial disclosure.

Egypt as an emerging market has exerted a lot of efforts in order to enhance corporate governance. The study investigated the relationship between income smoothing and corporate governance. Using the information of listed companies in EGX100, financial information of 57 companies listed on the Egyptian stock exchange, was examined during the period 2007 to 2012. Based on ECKle index we concluded that 51% of the companies in the sample were classified as false financial statement (index was below 1), and 49% were non-false (index was above 1). The mean of CGI index reflected that the practices of corporate governance in general is lower medium about 40 out of 100 and unexpected the practices level of CG in the companies with false financial statement were (40 /100) which was higher than the companies with non-false financial statement (39/100).

Univariate and Multivariate analyses were applied. For the univariate tests we compare the (CGI) and control variables (Size, ROE, Sales) across the False financial statement and the non-false financial statement. And the results showed a significant difference between means of the two panels. In addition to the univariate tests we also used a multivariate logit model to test our hypotheses. However, the results were inconsistent with the univariate results, reflecting insignificant negative relationship between ECKle index and all other control variables.

These findings have a number of implications from a policy perspective:

- The EGX and EFSA should better enforce material and timely disclosure of financial and non-financial information and penalize companies for undisclosed items.
- The EGX and EFSA should disclosed all information about default of financial statement and identify different levels of non-compliance by firms according to the level of sanction imposed, such as , Re-filing and errors list or cited for fraudulent financial statements.
- The ElO/D should provide education and training for executives and directors on how to develop annual reports.
- ElO/D should also enhance the awareness of the importance of corporate governance disclosure.
- The EGX and EFSA need to force corporate boards to alter / reform the composition of their audit committees.
- Audit committee members must have at least one financial management and accounting expertise to be beneficial to firms.
- Additional study is needed to provide increased understanding of issues related to the nature and processes unique to audit committees.
- We highly recommend additional studies to focus on financial sector and banking sector governance, due to their special nature and impact on the governance practices in the entire economy.
Additional studies are also needed in the area of governance in the companies which are not listed on the Stock Exchange and/or not included in EGX100.

REFERENCE


40


