

**CORPORATE  
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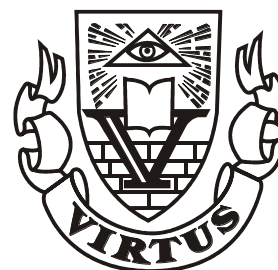
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# CORPORATE OWNERSHIP & CONTROL

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# **LESSONS LEARNED FROM CEO PAY AND MARKET CAP PERFORMANCE IN THE MINING AND METALS INDUSTRIES: IMPLICATIONS FOR THE BOARD OF DIRECTORS AND FOR CORPORATE GOVERNANCE**

*Hugh Grove\*, Mac Clouse\*\*, Sharon Lassar*

## **Abstract**

CEO pay was correlated with market capitalization performance. Three simple correlation tests of 2013 total CEO pay with market capitalization destruction over the approximate three and one-half year period, January 2011 through July 2014, yielded a 66% weighted average moderate correlation for thirty-four companies. The total market cap destruction for these companies was an estimated \$120.1 billion with total CEO pay of \$224.6 million. Thus, total market cap destruction was approximately 535 times greater than total CEO pay. During this approximate three and one-half year time period, the S&P 500 Index increased 51.8%. Our simple correlation tests do not imply any causality. However, some corporate governance researchers (Kostyuk, 2014 and Hilb, 2008) have advocated: "Pay for Performance, not Presence" which could include such correlations as part of executive compensation packages from Board of Directors' compensation committees. Claw-back provisions could be used for market capitalization destruction in evolving executive compensation packages.

**Keywords:** CEO Pay, Market Capitalization, Corporate Governance, Board of Directors

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## **1 Introduction**

One of the major responsibilities of a company's Board of Directors is to determine the compensation of the company's CEO. The recommendation usually comes from the Board's compensation committee. The compensation package for a CEO can consist of a base salary, incentive pay frequently in the form of shares of stock and stock options, and a severance package that may include a golden parachute. We have seen many examples of CEO compensation levels that have called into question why the Board chose to give these amounts. This was especially evident in two time periods. During the stock market decline of the early 2000s, the CEOs of Merrill Lynch and Citigroup were fired because their companies were posting losses in the billions of dollars. However, both were given golden parachutes of over \$100 million each. During the financial crisis of 2008-2009, many U.S. financial services companies lost billions of dollars, and some had to be bailed out by the U.S. government. However, there were many examples of these companies' CEOs still receiving high levels of compensation, including bonuses. These examples, as well as many others, have resulted in many stockholders, regulators, and legislators questioning

whether Boards of Directors are acting in the best interest of shareholders when they are making the CEO compensation decision.

A recent research study (Cooper, Gulen, and Rau, 2013) challenged the past two decades of academic research that argued chief executive officer (CEO) compensation should be aligned to firm performance. Such previous studies used small sample sizes in comparison to this new study. The authors of this new study also challenged recent regulatory proposals that have argued for more long-term compensation which implies a positive relation between incentive pay and future stock returns. Their paper abstract summarized their research findings:

"We find evidence that CEO pay is negatively related to future stock returns for periods up to three years after sorting on pay. For example, firms that pay their CEOs in the top ten percent of excess pay earn negative abnormal returns over the next three years of approximately 8%. The effect is stronger for CEOs who receive higher incentive pay relative to their peers. Our results appear to be driven by high-pay induced CEO overconfidence that leads to shareholder wealth losses from activities such as overinvestment and value-destroying mergers and acquisitions."

This study also found that CEO pay in the top ten percent of excess pay earned negative abnormal returns over the next five years of approximately 13%. The authors further elaborated their findings:

"In this paper, we present new evidence on the relationship between CEO pay, CEO overconfidence, and future stock returns using a much broader data set than previous studies. We show that highly paid CEOs exhibit firm investment and personal portfolio choice behavior that is consistent with being overconfident and that firms with the highest paid and most overconfident CEOs earn lower future returns relative to other CEOs. Specifically, we analyze the relation between CEO compensation and future returns using the entire Execucomp database (largely the S&P 1500 firms) over the 1994-2011 period, a much longer period than previous studies. We sort firms annually into industry and size benchmark adjusted CEO compensation (we deem this excess pay) deciles. We find a strong negative relation between annual excess pay and future abnormal returns. In the year after the firms are classified into the lowest and highest excess compensation deciles respectively, firms in the lowest total excess compensation decile earn insignificant abnormal returns."

They have defined excess pay as incentive compensation which includes restricted stock grants, option grants, long-term incentive payouts, and other annual noncash compensation. The companies in their study were the S&P 1500 firms or all NYSE, AMEX, and NASDAQ firms jointly listed on the Compustat Execucomp Database from 1994 to 2010 and on the CRSP files of stock returns from 1994 to 2011. Total median CEO pay consisted of 48% cash compensation (salary and bonus) and 52% incentive compensation for these companies.

They defined an overconfident CEO "as one who maintains a large proportion of unexercised exercisable in-the-money options relative to their total compensation, measured in the year after firms are allocated into pay deciles...Thus, according to this measure, the highest paid CEOs do in fact appear to be more overconfident than their lower paid peers." They found that high paid CEOs engaged in greater investment activities (capital expenditures and mergers) than low paid CEOs and that the stock market reacted more negatively to the merger announcements of the high paid CEOs. Their results "suggested that firms with highly paid CEOs earn significantly lower stock returns when the CEO is also overconfident." They also found "that the level of the industry and size adjusted incentive compensation is significantly negatively related to the forward one-year return of assets." Such poor company performance would be impounded in the negative stock returns by an efficient stock market which could give CEOs an incentive to manage accounting earnings.

In financial press interviews, the authors made further observations. These CEOs tend to think that they can do no wrong or they would not be entrusted

with their position and their pay. One of the authors commented: "They ignore dis-confirming information and just think that they are right. That tends to result in over-investing—investing too much and investing in bad projects that don't yield positive returns for investors" (Adams, 2014). This author also commented: "For the high-pay CEOs, with high overconfidence and high tenure, the effects are just crazy. They return 22% worse in shareholder value over three years as compared to their peers" (Morgan, 2014).

In summary, this research found that "firms in the lowest CEO pay decile earn insignificant industry and momentum adjusted returns. In contrast, the firms in the highest CEO pay decile earn significant negative abnormal returns. The performance worsens significantly over time." The authors concluded "that our results seem most consistent with the hypothesis that overconfident CEOs accept large amounts of incentive pay and consequently engage in value destroying activities that translate into future reductions in returns and firm performance. Our results are inconsistent with managerial risk-shifting. Our results imply that managerial compensation components such as restricted stock, options and long-term incentives payouts, that are meant to align managerial interest with shareholder value, do not necessarily translate into higher future returns for shareholders."

## **2 Application to mining and metals industries**

We did simplistic empirical tests of these authors' findings for CEO pay in three mining and metals industries (Grove and Clouse, 2015). Then, we extended these results for lessons learned concerning corporate governance implications. We chose these industries because some of their companies have recently experienced very dramatic market capitalization changes. We correlated total CEO pay in 2013 with market capitalization changes over a three and one-half year period from approximately January 2011 through July 2014 for three mining and metals industries: metal mining, primary metal industries, and coal mining. The total CEO pay data was provided by an AFL/CIO study on CEO-Pay-by-Industry (AFL/CIO, 2014). Our empirical tests used the following reported total CEO pay data for 2013: all thirteen CEOs in the metal mining industry; of the thirty-one CEOs in the primary metal industries, we just used the top thirteen to match the first industry; and all eight CEOs in the coal mining industry. We reasoned that the reported total CEO pay would include a significant portion of incentive pay since the prior cited study found that total CEO pay included 52% median CEO incentive compensation. Also, the average pay for the thirty-four CEOs in our study was \$6.6 million (with median pay of \$4.6 million) which implied a significant amount of incentive compensation.

By using this three and one-half year period, we looked both back and forward for changes in market cap versus total CEO pay. The market cap changes were estimated from approximately January 1, 2011 for the metal mining industry and February 1, 2011 for the primary metals and coal mining industries as these dates seemed to reflect stock price peaks for companies in these industries. For the thirty-four companies in our study, the ten negative numbers in the following three tables reflected market cap improvements versus the twenty-four positive

numbers reflecting market cap destructions over this three and one-half year period.

In Table 1, CEO pay for the thirteen metal mining companies was correlated with market capitalization change from January 2013 through July 2014. The total CEO pay was \$97.1 million. All the market cap changes were reductions for a total of \$68.4 billion in market cap destruction. The correlation of CEO pay with market cap destruction was 76.1% which indicated a strong positive correlation. Total market cap destruction was approximately 704 times greater than total CEO pay.

**Table 1.** CEO pay and market cap destruction (metal mining industry)

Company	CEO Pay	Market Cap Destruction
Freeport-McMoran Copper & Gold	\$ 55,260,539	\$ 21,000,000,000
Cliffs Natural Resources Inc.	\$ 10,744,662	\$ 11,100,000,000
Newmont Mining Corp.	\$ 8,763,222	\$ 17,400,000,000
Stillwater Mining	\$ 4,783,367	\$ 500,000,000
Hecla Mining Co.	\$ 3,854,679	\$ 2,000,000,000
Coeur Mining Inc.	\$ 3,602,873	\$ 1,700,000,000
Allied Nevada Gold Corp.	\$ 3,550,155	\$ 2,600,000,000
Gold Resource	\$ 2,334,252	\$ 960,000,000
Southern Copper Corp.	\$ 1,603,307	\$ 9,900,000,000
General Moly Inc.	\$ 1,052,775	\$ 360,000,000
Uranium Energy Corp.	\$ 567,251	\$ 360,000,000
Paramount Gold & Silver	\$ 517,624	\$ 390,000,000
Midway Gold Corp.	\$ 484,104	\$ 120,000,000
Totals	\$ 97,118,810	\$ 68,390,000,000
Pearson Correlation Coefficient	0.761	

In Table 2, CEO pay for the top thirteen primary metal companies was correlated with market capitalization change from February 2013 through July 2014. The total CEO pay was \$80.1 million. Although eight of the thirteen market cap changes were increases, the net change was \$5.6 billion in market cap destruction. This net destruction was caused significantly by the first two companies, Alcoa

and United States Steel, with the highest CEO pay, \$14.8 million and \$12.5 million, respectively, having the largest market cap destructions of \$3.5 billion and \$3.6 billion, respectively. The correlation of CEO pay with market cap destruction was 68.5% which indicated a moderate positive correlation. Total market cap destruction was approximately 70 times greater than total CEO pay.

**Table 2.** CEO pay and market cap destruction (primary metal industry)

Company	CEO Pay	Market Cap Destruction
Alcoa Inc.	\$ 14,825,806	\$ 3,500,000,000
United States Steel Corp.	\$ 12,477,409	\$ 3,600,000,000
Nucor Corp.	\$ 8,139,044	\$ (700,000,000)
Belden Inc.	\$ 5,803,483	\$ (1,400,000,000)
General Cable Corp.	\$ 4,966,123	\$ 900,000,000
Allegheny Technologies Inc.	\$ 4,663,181	\$ 3,200,000,000
Worthington Industries	\$ 4,586,568	\$ (1,300,000,000)
Kaiser Aluminum Corp	\$ 4,561,710	\$ (500,000,000)
Mueller Industries	\$ 4,557,968	\$ (600,000,000)
Carpenter Technology Corp.	\$ 4,440,845	\$ (600,000,000)
OM Group Inc.	\$ 4,301,928	\$ 300,000,000
Mueller Water Products Inc.	\$ 3,432,284	\$ (600,000,000)
Matthews Intl. Corp.	\$ 3,365,057	\$ (200,000,000)
Totals	\$ 80,121,406	\$ 5,600,000,000
Pearson Correlation Coefficient	0.685	

In Table 3, CEO pay for eight coal mining companies was correlated with market capitalization change from February 2013 through July 2014. The total CEO pay was \$47.3 million. Six of the eight market cap changes were reductions for a net total of

\$46.1 billion in market cap destruction. The correlation of CEO pay with market cap destruction was 45.7% which indicated a weak positive correlation. Total market cap destruction was approximately 975 times greater than total CEO pay.

**Table 3.** CEO pay and market cap destruction (coal mining industry)

<b>Company</b>	<b>CEO Pay</b>	<b>Market Cap Destruction</b>
Consolidated Energy Inc.	\$ 15,170,492	\$ 3,400,000,000
Peabody Energy Corp.	\$ 10,789,389	\$ 14,900,000,000
Alpha Natural Resources Inc.	\$ 7,955,008	\$ 12,600,000,000
Arch Coal Inc.	\$ 4,348,086	\$ 6,800,000,000
Cloud Peak Energy Inc.	\$ 4,098,089	\$ 400,000,000
Walter Energy Inc.	\$ 2,941,211	\$ 8,500,000,000
Westmoreland Coal Co.	\$ 1,670,898	\$ (400,000,000)
Hallador Energy Co.	\$ 343,777	\$ (67,500,000)
Totals	\$ 47,316,950	\$ 46,132,500,000
Pearson Correlation Coefficient	0.457	

In Table 4, CEO pay for top ten, highest paid CEOs in the three mining and metals industry companies was correlated with market capitalization change from January 2013 through July 2014. Three were from metal mining, four were from primary metals, and three were from coal mining. The total CEO pay was \$149.9 million. Eight of the ten market

cap changes were reductions for a net total of \$85.4 billion in market cap destruction. The correlation of CEO pay with market cap destruction was 53.5% which indicated a moderate positive correlation. Total market cap destruction was approximately 570 times greater than total CEO pay.

**Table 4.** CEO pay and market cap destruction (top 10 CEO pay in these three industries)

<b>Company</b>	<b>CEO Pay</b>	<b>Market Cap Destruction</b>
Freeport-McMoran C&G	\$ 55,260,539	\$ 21,000,000,000
Consolidated Energy Inc.	\$ 15,170,492	\$ 3,400,000,000
Alcoa Inc.	\$ 14,825,806	\$ 3,500,000,000
United States Steel Corp.	\$ 12,477,409	\$ 3,600,000,000
Peabody Energy Corp.	\$ 10,789,389	\$ 14,900,000,000
Cliffs Natural Resources Inc.	\$ 10,744,662	\$ 11,100,000,000
Newmont Mining Corp.	\$ 8,763,222	\$ 17,400,000,000
Nucor Corp.	\$ 8,139,044	\$ (700,000,000)
Alpha Natural Resources Inc.	\$ 7,955,008	\$ 12,600,000,000
Belden Inc.	\$ 5,803,483	\$ (1,400,000,000)
Totals	\$ 149,929,054	\$ 85,400,000,000
Pearson Correlation Coefficient	0.535	

### 3 Conclusions

The first three simple correlation tests of 2013 total CEO pay with market capitalization destruction over the approximate three and one-half year period, January 2011 through July 2014, yielded a 66% weighted average moderate correlation for these thirty-four companies: 76.1% (strong) for the thirteen metal mining companies, 68.5% (moderate) for the thirteen primary metal companies, 45.7% (weak) for the eight coal mining companies. Also, there was a fourth correlation test which yielded a 53.5% (moderate) correlation for the top ten highest paid CEOs from these three industries. The total market cap destruction for these three industries was an

estimated \$120.1 billion with total CEO pay of \$224.6 million. Total market cap destruction was approximately 535 times greater than total CEO pay. During this approximate three and one-half year time period, the S&P 500 Index increased 51.8% with the following annual changes: -1.2% in 2011; +16.7% in 2012; +24.8% in 2013; and +5.5% for first seven months of 2014.

The tests in this research paper were just simple correlations with no causality implied from any of these correlation tests. However, some corporate governance researchers (Kostyuk, 2014 and Hilb, 2008 and 2006) have advocated: "Pay for Performance, not Presence" which could include such correlations as part of top executive compensation

packages from Board of Directors' compensation committees. Claw-back provisions, similar to the requirements of the U.S. Dodd-Frank Act and the U.S. Sarbanes-Oxley Act for accounting restatements, could be expanded to include market capitalization destruction in evolving compensation packages. Claw-backs could also be used when a firm does poorly in relation to its peers. Compensation committees could also re-consider the conventional wisdom that CEOs make their best decisions when they have the most incentive-based compensation which is contrary to both the results of the 2013 research study cited here and our correlation tests in this research paper.

More innovative types of executive compensation were also supported by the findings of this 2013 research study where the more the CEO was paid, the worse his/her company did and this effect was the largest in the 150 firms with the highest paid CEOs (Adams 2014). The companies run by the highest 10% paid CEOs returned 10% less to their shareholders than their peers did and the companies with the top 5% paid CEOs returned 15% less to their shareholders.

This 2013 research study also found that the longer CEOs were in their jobs, the worse was their firms' poor performance. One of the co-authors said this finding was due to these CEOs being able to appoint more allies to their boards and such board members are more likely to go along with the CEO's bad decisions. He said in an interview: "For the high-pay CEOs, with high overconfidence and high tenure, the effects are just crazy. They return 22% worse in shareholder value over three years as compared to their peers" (Adams 2014). Similarly, Warren Buffett observed that often board members find it hard to disagree with a major investment project recommendation that has been backed by the CEO and top management, based upon his experience in serving on more than forty boards (Buffett 2009).

These research findings have reinforced the argument by various economists, lawmakers, and activists that the U.S. corporate compensation systems which link CEO pay to company performance are badly broken. They have noted that U.S. CEOs make almost 300 times more than their workers (versus Ben & Jerry's CEO compensation guideline for themselves of 10 to 1 in the early 1990's). These critics have observed that often CEOs get performance-based bonuses even when their performance failed to meet targets, like many bank CEOs who walked away with millions of dollars during the recent financial crisis. Also, over one-third of the highest paid CEOs over the past 20 years have been bailed out by taxpayers, fired from their jobs by their boards, or busted for fraud (Pyke 2014).

In a previous period when the airline industry was going through significant market cap destruction, Sam Addoms, the CEO of Frontier Airlines, was asked about the very high levels of compensation for this industry's CEOs. He said "The common argument

that you hear is that if you don't pay the CEOs at this high level, they might leave. My response is: Based on their performance, what is wrong with that?" Perhaps the boards and shareholders in the three industries used in our study should be asking what would be wrong if some of their highly paid CEOs left.

All these conclusions have implications for corporate governance by Boards of Directors. The Board compensation committees could revise their compensation packages with claw-backs for market cap destruction and poor performance versus competitors. Similarly, Board nominating committees could try to institute term limits for CEOs and separate the CEO position from the Chairman of the Board position to help limit the CEO's power. Also, they could try to make Board members more independent by instituting Board term limits which would reduce the CEO's influence on such members.

Warren Buffett's mentor, Benjamin Graham, made observations about such corporate governance behavior over 60 years ago in 1951 (Zweig 2009):

"Directors shouldn't merely be independent but also businesslike. They must have an arm's-length relationship with management; they also should combine good character and general business ability with substantial stock ownerships (purchased by them, not through option grants). The independent directors should publish a separate annual report analyzing whether the business is showing the results for the outside stockholder which could be expected of it under proper management."

Annual proxy statements reporting on executive pay still do not comply with Graham's 1951 recommendations: "A kind of interrogation in which directors are called upon to justify the generous treatment they are asking the stockholders to approve. The stockholders are entitled to be told just what are the excellent results for which these arrangements constitute a reward and by what analogies or other reasoning the board determined that the amounts accorded are appropriate." As another executive pay researcher observed in 2009: "It's high time for corporate compensation committees—and investors—to start doubting whether the lavish pay packages they endorse actually work" (Zweig 2009).

For example, one starting point for boards and investors could be an analysis of the results in the four tables in this paper, especially the Freeport-McMoran CEO pay situation. He was ranked number nine in a list of the 100 Highest Paid U.S. CEOs in 2013 (AFL/CIO, 2014). He received total CEO compensation of \$55,260,539 in 2013 while the company's market cap destruction from 2011 through the middle of 2014 was approximately \$21,000,000,000. At the other end of the spectrum would be an analysis of the CEO pay situations of Belden Inc., Worthington Industries, and Hallador Energy. All three of these companies saw a positive return from their "investment" in their CEOs. Belden's CEO compensation of \$5,803,463 went with

a market cap increase of \$1,400,000,000. Worthington's CEO compensation of \$4,586,568 went with a market cap increase of \$1,300,000,000. Hallador had a market cap increase of \$67,500,000 while its CEO received a relatively small pay of \$343,777. Maybe these three companies have Boards that are doing what they should be doing. It is worth investigating.

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# PERSPECTIVES ON EFFECTIVE COMMUNICATION OF CORPORATE SUSTAINABILITY REPORTING

Christo Cronjé\*, Pieter Buys\*\*

## Abstract

In striving for sustainability, contemporary corporations are faced with a multitude of stakeholders, all vying for their piece of the corporate sustainability pie. In adhering to such diverse demands, the effective communication of corporate sustainability information becomes crucial. This paper reflects on key metaphysical principles in respect of aspects that can contribute, or perhaps detract, from effective corporate communication, and then especially within the context of contemporary corporate sustainability reporting. The paper concludes that the primary modal aspects as per the Dutch philosopher, Dooyeweerd, can play a very important role in effecting corporate sustainability reporting. As such, this will not only contribute to appeasing diverse stakeholder requirements, but will also indirectly support corporate sustainability initiatives.

**Keywords:** Dooyeweerd, Corporate Governance, Sustainability Reporting, Social Responsibility Reporting

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## 1 Background

Contemporary corporations are under continuous pressure to optimise – albeit in terms of productivity, financial performance and corporate social responsibility or even the *reporting* of its productivity, financial performance and corporate social responsibility. Long-term corporate sustainability has become a crucial foundation for contemporary investment decisions, and many stakeholders are becoming more conscious of corporate social and environmental performances in addition to the conventional financial performances (Ho & Taylor, 2007). Amidst this thirst for information, Eccles and Krzus (2010) stated that corporate reporting is a crucial *communication* vehicle of *historic* corporate performances together with its *future-orientated* plans and objectives. Lev and Zarowin (1999) however is of the opinion that the utility of conventional financial information to the corporate stakeholders have been abating due to the growing demand for relevant information. Effective corporate reporting is therefore not only essential to internally orientated governance functions, but also to external stakeholder decision-making practises. Considering the aforementioned, it may be argued that the reporting of stakeholder relevant corporate information comes down to a singular central principle, namely the *continuous search for effective communication*. What is required is a corporate report that provides effective, integrated and relevant information about a diverse range of performance categories to a broad stakeholder base. It

is not surprising that companies that were successful in the past are continuously exploring *new* initiatives to maintain its sustainability, which include adopting alternate management tools and techniques to be able to build on its historic sustainability successes. More effective ways of relaying corporate performance information to stakeholders would definitely constitute such initiatives.

The Global Reporting Initiative (GRI) uses the philosophies of economic, social and environmental impacts in their approach to create a framework for reporting on corporate sustainability. In response to the mounting significance of such sustainability reporting, the Johannesburg Stock Exchange Ltd (JSE) requires all JSE listed companies to comply with the *King III Code of Governance*, which necessitated an Integrated Report (IR) as from March 2010 (SAICA, 2011). IRs that are founded on the GRI's Sustainability Framework, point to a corporate commitment to long-term sustainable development and facilitates the *comparison* of corporate performances (GRI, 2011a). In essence an IR encompasses a corporate sustainability (responsibility) report in addition to its conventional International Financial Reporting Standards (IFRS). However, according to Pounder (2011) a proper understanding of how to ensure *effective* corporate responsibility reporting (and integrated reporting) still has to be obtained.

It could be argued that effective communication in the contemporary corporate environment is one of the most prized tools to create corporate value and to

promote corporate sustainability and progress. Colletto (2008:446) is of the opinion that effective communication is a key element that grants both credibility and legitimacy to such objectives.

## 2 Research problem, objective and method

Considering the above, the question may be asked as to whether there is room to increase the commonality between the *preparer* (as the information generating stakeholder) and the *user* (as the information consuming stakeholder) as a prerequisite for conveying meaning in corporate social responsibility and sustainability reports?

As alluded to above, a key corporate challenge is the difficulty in realizing a proficient and robust manner to relay relevant and reliable corporate sustainability performance information to diverse stakeholders. In light hereof, the **primary research problem** to be considered here is whether there are foundational, meta-physical principles that contribute to alleviating the dilemma of communicating the very complex performance aspects in the contemporary corporate arena to a diverse range of stakeholders. The **primary research objective** is therefore to evaluate the philosophical foundations of effective (scientific) communication primarily based on the modal aspects as set out by the Dutch philosopher Dooyeweerd. In achieving this objective, a historical survey research approach was followed, exploring the difficulties of scientific communication in contemporary philosophies of science, which is compared to contemporary corporate sustainability reporting, thereby emphasising the potential implementation of more effective communication concepts within a real life corporate context.

In order to achieve the above objectives, the remainder of the paper is set out as follows: A theoretical framework is provided considering key foundational aspects, namely i) the fundamental concepts of corporate sustainability together with the reporting expectations thereof, ii) how contemporary humanist philosophy of science got caught up in a gradual loss of confidence concerning the possibility of sound (scientific) communication and iii) the modal aspects of effective communication (set against a corporate performance reporting backdrop) per Dooyeweerd are considered. This is then followed by highlighting the interconnectedness of sustainability reporting and finally by some concluding remarks.

## 3 Corporate sustainability reporting

The Corporate Social Responsibility (CSR) concept is about aligning corporate principles, ideals and activities with broad stakeholder expectations (Two Tomorrows, 2009). Adams *et al* (1998) studied European CSR practices and established that they archetypically classify their disclosures into environmental aspects, employee aspects and ethical

aspects, indicating a broad commitment of accountability to all stakeholders. Thus, whereas conventional annual financial reports are centred on financial indicators, CSR reporting offers a wider view of the corporate interactions with its stakeholders. According to Pounder (2011) and Borkowski *et al.* (2010) the concepts of corporate *social responsibility* and corporate *sustainability* are often used transposable in the contemporary business environment. However, whereas the former typically focuses more on shorter-term inclinations such as philanthropy and adherence to regulations and legalities, the latter describes a broader concept that seeks long-term economic, natural and social sustainability. The context of this paper therefore leans more towards the corporate sustainability concept.

In a South African governance environment, the KING Committee on Corporate Governance was formed in 1992, resulting in the first King Report (*King I*), marking the institutionalization of corporate governance in South Africa (SAICA, 2011). Subsequent hereto, the *King II Code on Governance* of 2002 high-lighted corporate citizenship and integrated sustainability (Deloitte, 2009), i.e. requiring corporate disclosures of environmental and social issues in addition to economic performances. The latest revision, the *King III Code on Governance* of 2009, emphasizes the corporate sustainability concept, including the aspect of director accountability, and specifically embraces the principle of social responsibility reporting (Deloitte, 2009; King III, 2009). Considering the above objectives of IR and CSR, and its integration between a multitude of internal and external stakeholders, is it surprising that effective corporate performance *communication* is still a pipe dream and a continuously moving target. In reflecting hereon, let us consider the difficulties in scientific communication.

## 4 Difficulties in effective communication

According to Cronjé (2013:4), confidence concerning the possibility of sound scientific communication seems to have gradually diminished. Scientific methods and thinking since the 1850's hint at a migration from positivism with verification as method (Comte), to the concept of falsification (Popper), to puzzle solving (Kuhn), to a more liberalist trend (Feyerabend and other contemporary thinkers). In brief the following are noted:

- **Positivism:** Positivism is concerned with verification methods such as touch, measure, the senses and objects. Colletto (2008:447) is of the opinion that *verifiability* makes communication meaningful for the positivists, while Cronjé (2013:4) states that the person of the scientist (the subject of knowledge) becomes almost irrelevant. As such induction is considered as the primary means to discover (communicate) scientific reality.

• **Popper:** For Popper, known as a critical rationalist, a deductive method is important to uncover truth. To distinguish between science and non-science, Popper uses an approach called falsification and recognizes that although scientific communication is hindered by many problems, it can be overcome (Cronjé, 2013:4). Where different languages are spoken, translation is always an outcome (Popper, 1970:56) and therefore a critical approach will not be blocked by elementary communication obstacles.

• **Kuhn:** Kuhn is often considered as the father of the paradigm-concept, which is formed when a scientific association allows and accepts such a paradigm. According to Kuhn (1970:63) the concept of reality is not established solely by objective criteria, but is defined by the accord or consent of a scientific association. He also claims that competing paradigms are incommensurable, in that they are competing accounts of reality (Cronjé, 2013:5), and therefore, no scientific discipline can rely on objectivity alone without taking subjective perspectives into account.

• **Feyerabend:** Feyerabend was prominent for his *anarchistic* view of science in which he denounced worldwide universal technical rules embedded in a positivistic approach. Feyerabend (1975:211) suggests a combination of critical discussion, proliferation and tenacity, moving towards a postmodern approach in which science becomes more life-like and relativistic.

• **Other contemporary thinkers:** Lyotard (1984:65) claims that postmodern science (communication) should not be overly concerned with a desire of a collective meaning all the time, because it is rather disagreement that allows for freedom and debate, while Baudrillard (1984:129) asserts that communication becomes impossible and results in mis-information as through its reproductions it develops into the "hyper-real".

Considering the above, the possibility of *effective* (scientific) communication is being threatened by different attitudes of postmodern thinkers. Furthermore, contemporary CSR thinking seems to be *locked up* within a certain framework (e.g. the financial reporting framework on the one hand, and a social responsibility reporting framework on the other). Scenarios such as this may lead to supporters of a certain framework not being understood by supporters of another, because *they must learn a new language* (Polanyi, 1958:151), which means that formal corporate operations relying on one framework of interpretation cannot demonstrate a proposition to a stakeholder who relies on another framework.

## 5 Application of modal aspects

In the contemporary business environment, accounting has evolved from a *practical skill* into a sophisticated *governance tool*. As a discipline it became essential not only for wealth creation, management and distribution, but also for the communication of corporate performance information. The broader

accounting sciences are often regarded as the language of business, which the preparers of corporate reports utilize to encode the corporate message, and are then later decoded by the stakeholders for their own specific purposes. For the optimum conveyance of the corporate message however, there needs to be some commonality of the language used between the parties (Cronjé & Gouws, 2011:43). For Dooyeweerd, communication between stakeholders of different persuasions is indeed possible and he uses the concept of modal aspects to understand the interconnected and interwoven reality (Basden, 2011:1). Dooyeweerd (1984, 2:1-318) argues that reality (such as corporate performance reporting in its various guises) can be observed through 15 aspects. According to Strauss (2009:76) the true meaning of each one of these aspects only comes to full expression in the coherence with the other aspects. Although the economic, lingual and aesthetic aspects would entail the qualifying aspects for *accounting disclosures*, the other (non-financial) aspects would also be sources of important considerations when deciding on how the corporate information is to be reported and disclosed.

As alluded to earlier, contemporary corporate reporting typically employs two types reporting practices namely i) the statutory financial reporting practices and ii) the contextual reporting practices. Although the former has a strong *positivistic* emphasis, many corporate reporting phenomena are difficult to quantify, measure and report upon, resulting in corporate disclosures migrating towards *relativism*. The latter however, could result in a loss of meaning and intent in the communication process. In response hereto, the application of Dooyeweerd's modal aspects may assist in enhancing the commonality between the various stakeholder groups of the corporate reports. These modal aspects are now briefly considered in the context of corporate sustainability reporting.

### 5.1 Quantitative modal aspect

Basden (2011:5) explains that the quantitative aspect deals with "one, several and many" (cf. Strauss, 2009:82) as well as "comparisons of less and more" (Cronjé, 2013:18). In a contemporary corporate environment, numbers are used as an important aspect in which to reflect on the economic corporate reality. With corporate performance numbers, comparisons within an economic entity can be made from one year to another as well as across industries. However, if only numbers are used to reflect on corporate reality, then only one aspect has been referred to. Strauss (2009:95-96) refers to the entire modal structure of this aspect as the sign mode. In a corporate sustainability reporting context, a combination of numbers and narrative disclosures will enhance understandability and thus effective communication of corporate performance phenomena.

## 5.2 Spatial modal aspect

According to Basden (2011:6) the spatial aspect include among other things; shapes, sizes, angles, orientation and so on. Simultaneity and continuity are two things that are introduced into temporal reality by the spatial modal aspect. Seerveld (1979:284ff.) refers to *allusivity* and *imaginativity* to explain the meaning of the aesthetic aspect, as anticipated by the spatial modal aspect (see below). For purposes of corporate sustainability disclosures, the use of graphs, illustrations, colour (an anticipation of the aesthetic aspect) and photographs will enhance the *meaning* of corporate performances, which in turn will enhance the effectiveness of such communication initiatives.

## 5.3 Kinematic modal aspect

The kinematic aspect is described by Basden (2011:7) as an intuitive experience of going and continuous flowing, including expanding, morphing, rotation, route, path and speed. Strauss (2009:88-89) argues that constancy or uniform motion best describe the kinematic aspect. Constancy or consistency of financial disclosures is therefore necessary for comparative purposes (Cronjé, 2013:17); while unstable and inconsistent financial disclosures should be avoided (Buys, 2008:504). Building hereon, rubrics (or reporting frameworks) must also be developed to enhance the comparability of contemporary business reporting. Comparativeness of information is not only essential from a longitudinal perspective to enable stakeholders to gauge the evaluation of corporate sustainability, but also across entities and even industries to allow stakeholders to understand the relative sustainability impact on a broader scale.

## 5.4 Physical modal aspect

Basden (2011:8) argues that the physical modal aspect is intuitively experienced in terms of forces, energy and matter. Within this aspect, the temporal reality is continuously transformed from one state into the next. Contemporary corporate reports are inherently complex, and the different media available to meaningfully express such reports need to be considered. Corporate sustainability reporting practices therefore need to undergo dynamic variation and change in order to remain relevant in the contemporary corporate environment. Supporting this notion is the variety of technologies (such as the Internet and even the Social Media) that can be used to make such practices more relevant and timely to stakeholders, and thus more effective.

## 5.5 Organic modal aspect

The organic aspect is intuitively experienced as living organisms in an environment (Basden, 2011:10), and introduces the possibility of discrete self-sustaining objects, which although dependent on its environment, are not wholly controlled by it. Many organic concepts

find analogy in aspects where distinct entities are important. In terms of corporate reporting practices, this analogy is found in reporting practices' need to be in transition (evolving) all the time in order to meet the ever evolving requirements, such as sustainability reporting, of the contemporary business environment.

## 5.6 Sensitive modal aspect

The sensitive aspect is intuitively experienced as feeling, sensing and responding (Basden, 2011:10), which include the five conventional senses of sight, sound, smell, feel and taste as well as non-physical senses such as emotion, mental activity and instinct. In this context, corporate reporting needs to enable an interactive and sensitive stakeholder engagement. This aspect introduces to temporal reality *interactive engagement* with the world as it can be sensed (Basden, 2011:11). Corporate reporting therefor needs to be done in such a way as to ensure an interactive engagement with stakeholders, taking into account their special needs for meaningful information through proper feedback systems. Entities must know who their user groups are and this can be established through interactive engagement with all the various role players. Integrated reporting could play a major role in achieving an interactive engagement with stakeholders.

## 5.7 Analytical modal aspect

Dooyeweerd (1984, 2:39) explains that analytic thought entails the setting apart what is given together, while Basden (2011:11) suggests that the analytical aspect is intuitively experienced as conceptualisation, clarification, categorisation and cogitating. This introduces the ability to think independently and to undertake theoretical thinking. In the context hereof, effective corporate sustainability reporting practices make extensive use of the analytical modal aspect to provide meaningful and relevant stakeholder information. Not only should proper contextualised performance information be provided on the one hand, but on the other hand it should also guard against providing too much cluttered information that could be considered irrelevant and confusing to stakeholders.

## 5.8 Formative modal aspect

Basden (2011:12) contends that the formative aspect is intuitively experienced as deliberate creative shaping, typically with a specific purpose in mind, while Strauss (2009:95) explains that the meaning-nucleus of the formative aspect is designated as "formative control" or "power". The deliberate creative shaping of corporate reporting practices serves to enhance decision usefulness. The introduction of CSR and sustainability reporting is a case in point for making broader stakeholder information available.

### **5.9 Lingual modal aspect**

The lingual aspect is intuitively experienced in expressing, recording and interpreting (Basden, 2011:13), and introduces the externalisation of envisioned meaning. Corporate reporting practices therefore make use of narrative disclosures in order to augment understandability in order to support stakeholders' decision-making. Words that expresses something meaningful from the perspective of the lingual aspect include (Basden, 2011:13): 'write', 'read', 'gesture', 'signal', 'record', 'quote', 'understandable', 'expressive', 'sign', 'symbol', 'sentence', 'information', 'meaning' and so on. However, according to Basden (2011:14), negative in the lingual aspect is anything that prevents adequate expression and understanding of what was meant, which includes unintentional problems like the inability to express oneself and lying, obfuscation and equivocation for example if only good news about an entity is reported, but bad news is avoided.

### **5.10 Social modal aspect**

The social aspect is according to both Basden (2011:15) and Strauss (2009:97) experienced as togetherness, respect and courtesy. The social functioning of a corporate entity is led by its economic aspect, which in turn embodies a social contract with different stakeholder groups. Linkin to especially the analytical modal aspect above, corporate sustainability reporting practices must therefore evolve to ensure that relevant information disclosures are provided to heterogeneous stakeholders, ensuring effective communication.

### **5.11 Economic modal aspect**

The economic aspect is intuitively experienced as the frugal management of limited resources (Basden, 2011:11) and introduces the concept of sustainable viability and prosperity. In the context of long term corporate sustainability the economic modal aspect include both the *financial* aspects as well as the *non-financial* aspects, within which timeliness and cost effectiveness are also aspects to consider.

### **5.12 Aesthetic modal aspect**

According to Basden (2011:17) the aesthetic aspect is experienced intuitively in the concepts of harmonising, enjoying, playing and beautifying. Cronjé (2008:249) is of the opinion that the art of graphic design is to provide the best possible of any subject matter. In the context of this paper, in order to make the corporate sustainability report interesting, use can be made of graphic designers. In this way information can be provided succinctly and interestingly to ensure that all information hangs together in the quest for effective communication.

### **5.13 Legal modal aspect**

This aspect is experienced as appropriateness and due (Basden, 2011:18), and according to Dooyeweerd (1984, 2:135) is largely dependent on the earlier aspects as mentioned. For example on the aesthetic aspect insofar as there must be a *well-balanced harmony of a multiplicity of interests*. In the contemporary corporate environment the corporate stakeholders have a right to relevant information, faithfully represented that would be reported on time, taking into account factors such as materiality and the cost of providing such information.

### **5.14 Ethical modal aspect**

This aspect is experienced intuitively as attitude (Basden, 2011:18); going beyond what is merely due by giving more than necessary and to permeate reality with extra goodness, and a generous attitude. The preparers of corporate sustainability reports need an ethical state of mind in order to faithfully represent credible information through the use of the various corporate reporting practices for the benefit of diverse stakeholder classes.

### **5.15 Pistic modal aspect**

The pistic (or faith) aspect is experienced intuitively in vision, commitment, certainty and belief (Basden, 2011:20) and as such it motivates commitment and certainty that manifests itself in practical life. In the context of the corporate reports, the vision and mission statements are typically embodied in the Chairman's statement, while other supportive disclosures include aspects such as strategy, forward looking information and the assurance relating to the future going concern of the entity.

## **6 Interconnectedness of effective sustainability reporting**

As eluded to above, corporations indicate their commitment to social responsibility and sustainable development through *non-financial reporting*. According to Shrivastava and Paquin (2011:48), there are various avenues that may be pursued in developing robust impact measures, including concepts such as CSR and reporting frameworks such as the GRI and IR. Each of these approaches aims towards moving business towards sustainable corporate performances. Buys (2012a) is of the opinion that this is such an important aspect that an entity that fails to account for its sustainability performances, run the risk of losing its market relevance, its customers and ultimately the support of its stakeholders. However, it goes deeper than just *accounting* for its sustainability performances, and incorporates the effectiveness in *communication* of its sustainability performances.

In the same manner in which the key sustainability aspects of economic, social and environmental performances are integrally part of the overall corporate performance, so are the effective communication modal aspects as high-lighted above, interwoven as a result of their multi-aspectual functioning and interaction. In the context of this paper aspectual functioning means different ways of looking at corporate sustainability performance reporting practices. According to Basden (2011:24), absolutisation, or undue elevation, of any one or more aspects, is detrimental to effective reporting because it breaks inter-aspect coherence and leads to other aspects being either ignored (e.g. positivism) or explained away in terms of the favoured one (e.g. subjectivism).

A key legitimacy issue to be considered in corporate reporting is that of the decision-usefulness of corporate reports. In conventional corporate annual financial statements such usefulness is typically geared towards investors and credit providers as put forward by key accounting regulators. Even though such providers of capital are being bestowed much importance by the accounting regulators, an emphasis on contemporary corporate sustainability reporting requires also answering *to whom* the information is to be useful for, and *for what* purpose it is supposed to be useful for. This multi-dimensional and cross-dimensional stakeholder reporting requirement place even more importance on the essentiality of the effective communication of sustainability performance reporting.

## 7 Concluding remarks

At the early stages of the 21<sup>st</sup> century, the world is facing a sustainability crisis. Certain predictions are made about the world's population doubling in the next two decades, which in turn would result in a radical increase in production demand and delivery of goods and energy just to provide in the basic amenity requirements of all the people. This is expected to place further strain on the already stretched natural and social resources that are available. Therefore, in order to work towards sustainability, multiple and diverse stakeholders need to be cognisant of aspects and events that will have an impact on continued access to, and availability of, such resources.

In answering the research question as defined earlier, it is clear that sustainability reporting has become a useful tool to communicate to stakeholders who challenge business entities on issues regarding the creation and fair distribution of wealth together with broader social and environmental matters. By reporting to all stakeholders annually or on a timelier basis, companies can demonstrate that its governance policies, procedures and systems are in place to assist in managing various internal and external challenges. An effective IR should define and communicate the entity's most key issues and provide a comparable

dialogue about its ability to deal with such issues. It should also provide the stakeholders with a meaningful interpretation of the entity's financial performance within the context of how well broader social and environmental matters were controlled.

The development of the discussion concerning the increasing pessimism about the effectiveness of corporate communication among various corporate stakeholders to different "paradigms" has been explored. The possibilities to compare certain standpoints or to entertain a dialogue between academic schools holding to different presuppositions have also been explored, together with a Dooyeweerdian response in order to provide an alternative to the communication dilemmas encountered within recent humanist philosophy of science, including the broader management sciences.

As far as the corporate governance and reporting aspects are concerned, applying the modal aspects of Dooyeweerd, with its attributes of multiplicity and interconnectedness should definitely make room to increase the commonality between the preparer and the various user classes as a prerequisite for conveying meaning in corporate social responsibility reporting.

## 8 Limitations and future research

A typical limitation of philosophical and reflective studies is the element that a positive answer to the problem under consideration is often not found, or even suggested. Notwithstanding, studies such as this serves to contextualise contemporary issues and to get a constructive debate going, which in turn may lead to better informed business decisions. Furthermore, reflective studies in a typically quantified discipline such as corporate performance are often hindered due to the loss of objectivity of the disclosed corporate performance and the quantitative techniques and analysis, and personal bias and subjectivity may become apparent. The reader of such studies should therefore take cognisance of such possibilities.

With regard to future research opportunities, the diverse corporate sustainability reporting arena is rife with reflective and philosophical opportunities to reflect on foundational aspects, including ethical and morality issues in corporate actions and initiatives towards not only the corporate shareholders who may have a primary financial stake, but then especially non-financially motivated stakeholders.

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## **DEVELOPING GUIDELINES FOR INDEPENDENT AND COMPETENT DIRECTORS USING WHAT WE HAVE LEARNED FROM RESEARCH AND COMPANY EXAMPLES**

*Hugh Grove\*, Mac Clouse\*\**

### **Abstract**

These guidelines are developed for independent and competent Board Directors:

- Directors must have no material relationships with the company over the past year.
- Directors should have business savvy, a shareholder orientation, and a genuine interest in the company.
- Pay for performance, not presence, and use a mix of short and long-term performance measures for Directors' compensation.
- Evaluate Directors' performance over a three year period, using both stock price and accounting performance. Use claw-back provisions for Board members' compensation if the firm does poorly, compared to its peers over this period.
- There should be a mix of skills for Board members, such as industry knowledge, experience, and expertise in financial accounting, risk management, and cyber security.
- There should be term and age limits for Board members.
- There should be women on Boards.

**Keywords:** Board Directors, Pay for Performance, Compensation, Risk Management

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There are many issues regarding the independence of Board of Director members. Three key related issues have been found to occur in many of the large frauds of the 21st Century: all-powerful Chief Executive Officer (CEO), weak system of internal control, and focus on short-term performance goals (Basilico and Grove, 2008). The New York Stock Exchange (NYSE) established a Commission on Corporate Governance as an independent advisory commission to examine U.S. corporate governance and the overall proxy process (2010). This advisory commission took a comprehensive look at strengthening U.S. best practices for corporate governance and the proxy process and it also cited these three issues in developing key corporate governance principles.

These three issues are all related to Board of Directors' independence. If the CEO is also the Chairperson of the Board (COB), then how can he/she evaluate his/her own performance since there is no lead director as an independent COB? Furthermore, this situation may allow the CEO to pack the Board with his/her own insiders or friends and to obtain possible majority control of the Board, due to an inadequate number of independent directors. As a result, there may be an inadequate number of independent directors to challenge a weak system of internal controls which allows the company to "make the numbers" and enhance short-term compensation. Without an adequate number and/or mindset of

independent directors, such compensation policies may go unchallenged.

Accordingly, major global stock exchanges have listing requirements concerning this issue of independent Board of Directors' members (Aljifri et. al., 2014). For example, in the United States, both the New York Stock Exchange and the NASDAQ (2003) have now required that the majority of board members be independent which is defined as no material relationships over the past year with the company itself. The Sarbanes-Oxley Act (SOX, 2002) has prohibited corporate loans to directors and corporate officers. This Act also gave the Securities and Exchange Commission (SEC) the power to ban, temporarily or permanently, officers or directors who have committed securities fraud.

In the United Kingdom, the London Stock Exchange has a rule that the board include a balance of executive and non-executive (independent) directors such that no individual or group of individuals can dominate the decision-making. Another rule requires a clear division of responsibilities at the head of the company between running the board and the executive responsibility for the running of the company's business and stated that no one individual should have unfettered powers of decision. In Asia, the Singapore Stock Exchange has a rule that there must be an independent board comprised of at least one-third independent directors.



Another rule requires a clear division of responsibilities at the top of the company (the board) and executive responsibility for a balance of power, such that no one individual represents a considerable concentration of power.

These three independence issues for Board members are elaborated in the next three sections. They are followed by sections discussing executive and board compensation, the effectiveness of executives and directors, and the behavior of boards during the 2007-2010 financial crisis. Finally, we present guidelines to develop independent and competent directors.

### **1 All-Powerful CEO**

An all-powerful CEO can exist when the CEO is also the Chairperson of the Board of Directors (COB), and insiders (senior company managers) on the Board have majority control. Cullinan and Sutton (2002) found that the CEO and other senior managers were involved in 90% of the 276 companies cited by the SEC for earnings management or fraud in its Accounting and Auditing Enforcement Releases (AAERs) from 1987-1999. Beasley et al. (1999) found similar results in their study of AAERs from 1987-1997. Basilico et al. (2005) also found significant statistical differences for insider majority control of over 100 fraud companies in AAERs from 1986-2001 versus matched non-fraud companies.

For example, the original CEO, usually the company founder, was also the Chairman of the Board at Enron, WorldCom, and Global Crossing. The Qwest Chairman of the Board, who was the largest single Qwest shareholder, hand-picked the CEO. In Europe, Parmalat (nicknamed "Europe's Enron") began as a family-owned meat company that grew into a global food giant. The CEO, who was the company founder, the Chief Financial Officer (CFO), and the company lawyer continued to run the corporation together as insiders controlled the Board of Directors even after it went public.

Satyam (nicknamed "Asia's Enron") was an Indian technology outsourcing company. Satyam had listed on the NYSE to raise capital at a lower cost partially because the NYSE has higher standards of corporate governance than many other stock exchanges. Satyam was not a case of pure CEO duality since Ramalinga Raju, the COB, was not the CEO. However, his brother, Rama Raju, was the CEO. Therefore, there was a lack of independence between the CEO and the COB, and, thus, the presence of an All-Powerful CEO.

Concerning corporate governance for an effective board structure, Buffett (2005) observed: "true independence - meaning the willingness to challenge a forceful CEO when something is wrong or foolish - is an enormously valuable trait in a director. It is also rare." He looked for people whose interests are in line with shareholders in a very big way. All

eleven of his directors each own more than \$4 million of Berkshire stock. They are paid nominal director fees. No directors and officers liability insurance is carried, not wanting them to be insulated from any corporate disaster that might occur.

All the major stock exchange listing requirements for corporate governance have emphasized an independent Board of Directors to help counter-balance an all-powerful CEO in order to help protect investors. For example, the NYSE requires that its listed companies have a majority of independent directors and has defined independence as directors having no material relationships with the company over the past year. One such material relationship was a Director on the Board of Anheuser Busch (AB). He appeared to be independent as the CEO of a Brazilian company, but AB owned almost 50% of that company!

To help promote more independent Boards, SOX prohibits corporate loans to company officers and directors and also gives the SEC the power to ban, temporarily or permanently, individuals from serving as officers or directors of public companies if the individuals have committed securities fraud, like Enron's Jeff Skilling and WorldCom's Bernie Ebbers. Only 22% of U.S. S&P 500 companies have separated the two jobs of CEO and COB (Bussey, 2012). However, JPMorgan Chase shareholders rejected such a separation in May, 2014 and the Board's Compensation committee awarded the CEO with a 70% pay raise since he had helped limit the company's fines paid to U.S. federal authorities in 2013 to \$20 billion (Silver-Greenberg and Craig, 2014).

### **2 Weak System of Management Control**

This issue can exist when the system of internal control (checks and balances, separation of duties, internal audit etc.) is so weak that senior management can override it anytime it wants. A weak system of internal controls was almost always present in major fraudulent financial reporting cases, both in current and past frauds (Grove and Basilico, 2011). Senior management encourages such a weak control system so that it can be easily overridden to make the desired financial targets, preferably by subordinates without the specific knowledge of top management. For example, although Parmalat had reported profits each year, a report prepared by an independent auditor for prosecutors in Milan said that Parmalat only had one profitable year between 1990 and 2002. Also, Parmalat's CEO admitted to shifting over EUR 500 million cash from the company to other businesses. However, the independent Parmalat report put that number closer to EUR 1 billion cash and blamed the CEO. A Milan Magistrate close to the Parmalat case observed: "We need individuals and a culture that exercise controls" (Barber, 2004).

Similarly, Satyam's two co-founders, the Raju brothers, admitted to shifting over \$1 billion of cash to family-related, "sister" companies and overstating Satyam's financial statements to cover up this theft. Concerning Satyam's weak system of management control, investors were explicitly warned in Satyam's SEC Form 20-F: "We do not have an individual serving on our Audit Committee as an 'Audit Committee Financial Expert' as defined in applicable rules of the SEC. This is because our Board of Directors has determined that no individual audit committee member possesses all the attributes required by the definition 'Audit Committee Financial Expert'" (Basilico, et.al, 2012). Thus, Audit Committee expertise was inadequate to analyze Satyam's internal controls and financial reporting.

Another example concerning the competence of Board of Directors was the Swiss company Adecco, the world's largest temporary employee agency. It had a Board of Directors and a three-person Audit Committee composed of only Europeans. Meanwhile, 20% of total revenues were in the U.S. where the fraud occurred from overstated revenues, billing errors, lack of internal controls, and poor information technology security. Adecco and its Board failed to exert proper control over its foreign subsidiaries, primarily due to lack of competence in controlling its U.S. operations.

This control problem has appeared to be timeless as the 2007 KPMG survey of 138 top corporate executives found that inadequate internal control was the primary contributor in the previous year to a fraud incident against their company. The survey found that a major contributor to fraud was management's override of internal controls. The lead partner for KPMG's Forensic practice concluded: "Applying lessons learned from their efforts to implement controls over fraud risk could help boards, senior executives and others who have responsibility to manage the risk of fraud with early detection and prevention" (KPMG, 2008).

Concerning corporate governance for management controls, Buffett (2004) observed that many intelligent and decent directors failed miserably due to a "boardroom atmosphere." He elaborated: "It's almost impossible, for example, in a boardroom populated by well-mannered people, to raise the question of whether the CEO should be replaced. It's equally awkward to question a proposed acquisition that has been endorsed by the CEO, particularly when his advisors are present and support his decision." To avoid these "social" difficulties, Buffett has enthusiastically endorsed the NYSE requirement that outside directors regularly meet without the CEO. Also, the NYSE requires that every publicly listed company have an Audit Committee of at least three members composed entirely of independent directors who must be financially literate. Furthermore, it requires that every listed company have an internal audit function.

All the major stock exchange listing requirements now emphasize a strong system of internal controls to help protect investors. Various exchanges, like the NYSE, have specifically cited the need for independent Audit Committees and internal audit functions. Since a strong internal control environment is critical to preventing fraud, SOX requires that both the CEO and the CFO discuss their firm's internal controls. Firms must also report on the policies and procedures in place to prevent fraud in their annual reports. CEOs and CFOs are required to state that establishing and maintaining the internal control structure is their responsibility and to provide an annual assessment of the effectiveness of those policies and procedures. Also, the U.S. Public Companies Accounting Oversight Board (PCAOB), created by SOX, requires that the external auditor give an opinion on the effectiveness of a firm's internal controls in addition to the required opinion on the fairness of the firm's financial statements.

### **3 Focus on Short-Term Performance Goals**

Too much focus on short-term performance goals can occur when the overriding performance goal is to "make the numbers," for each quarter and each year. Emphasis is given to both revenue, or 'top-line' growth, and earnings, or 'bottom-line' growth, since Wall Street financial analysts focus on both numbers as their key performance metrics. For example, Qwest's CEO was criticized by his own board for having a short-term focus on making the numbers, particularly double-digit revenue growth. Qwest did quarter-end swaps of its fiber optic networks with other companies, such as Global Crossing and Enron, to make its quarterly double-digit revenue targets. None of these swaps were disclosed to investors. Qwest also recorded thirteen months of advertising revenues from its telephone directories, instead of the normal twelve months, to make its annual revenue growth target one year. To make its own revenue goals, the Dutch company Ahold recorded supplier rebates as revenues. Two German firms rejected proposed mergers with Enron and Qwest, similarly citing aggressive revenue and earnings management accounting practices and huge off-balance sheet debt of these companies.

IBM is currently being investigated in 2014 by the SEC for its aggressive revenue recognition in its cloud computing business. Enron used the gross, not net, revenue method up until its demise in 2000. Groupon attempted to use this same gross revenue method in its 2012 IPO prospectus, but it was rejected by the SEC which had essentially banned that method since 2002. WorldCom hid \$4 billion of expenses in long-term assets before its demise in 2002.

SOX has required CEOs and CFOs to certify, in a written report, that they have reviewed all quarterly and annual reports filed with the SEC. They must state that, to the best of their knowledge, the reports present

fairly the financial condition and operations of the firm and do not omit material information. Individuals can be fined up to \$5 million and be sentenced to up to 20 years in prison for violating this requirement. This regulation has helped prevent earnings manipulation by companies to meet, or beat, the quarterly and annual earnings targets of financial analysts.

SOX also enabled the SEC to adopt Regulation G for the required disclosure and reconciliation of pro-forma financial measures to generally accepted accounting principles (GAAP). U.S. companies, especially technology companies, had been using pro-forma (non-GAAP) accounting to make short term revenue and earnings targets in their quarterly and annual press releases and conference calls. They are now required to reconcile any such pro-forma numbers to GAAP financial statement numbers in an 8-K report to the SEC. For example, in 2013, Facebook eliminated \$295 million of executive stock option compensation in its first public reporting quarter after its IPO in order to turn an operating loss into an operating profit. However, Facebook had to file an 8-K report with the SEC, reconciling its own numbers to GAAP, which had prohibited such practices since 2006.

Buffett (2007) has argued that a red flag should exist if a company always does meet its quarterly and annual goals, like Enron did for twenty quarters in a row, since such performance ignores the reality of competitive environments and business cycles. Buffett further commented in his CEO Letter (2010): "Charlie (his longtime number-two executive) and I believe that those entrusted with handling the funds of others should establish performance goals at the onset of their stewardship. Lacking such standards, managements are tempted to shoot the arrow of performance and then paint the bull's-eye around wherever it lands. If we really thought net income important, we could regularly feed realized gains into it simply because we have a huge amount of unrealized gains upon which to draw. Rest assured, though, that Charlie and I have never sold a security because of the effect a sale would have on the net income we were soon to report. We both have a deep disgust for "game playing" with numbers, a practice that was rampant throughout corporate America in the 1990s and still persists, though it occurs less frequently and less blatantly than it used to."

#### **4 Executive and Board Compensation**

To guard against an undue focus on short-term financial performance for compensation packages, a total compensation package could be divided into fixed and variable components for both executive and Board members' compensation. For example, the variable component could be made up of several performance measures (Hilb, 2008):

- long-term financial performance over three years,

- comparative value indices (e.g. 50% Economic Value Added, 20% customer loyalty, 20% employee satisfaction, and 10% public image), and
- functional performance assessments (20% board committee performance, 30% individual board member performance, and 50% corporate performance).

Concerning guidelines for executive compensation, Buffett (2006) stated: "In judging whether Corporate America is serious about reforming itself, CEO pay remains the acid test. To date, the results aren't encouraging." He noted that when CEOs meet with boards' compensation committees, too often one side (the CEO) has cared much more than the other side about the pay package. The difference often had seemed unimportant to the board's compensation committee, particularly when stock option grants had no effect on earnings prior to 2006 under U.S. accounting rules. He observed that such negotiations often had a 'play-money' quality and said that directors should not serve on compensation committees unless they are capable of negotiating on behalf of the shareholders. Buffett noted that "CEOs have often amassed riches while their shareholders have experienced financial disasters. Directors should stop such piracy. It would be a travesty if the bloated pay of recent years became a baseline for future compensation."

The 2008 financial crisis with the bloated severance packages for fired and continuing CEOs reinforced this observation. However, the median CEO pay package has increased more than 50% since the great recession, and the median CEO compensation in 2013 was \$10.5 million. The female CEOs' median pay package was higher than the male CEOs' pay package for all 12 females versus 325 males (Associated Press, 2014). Concerning adding new investment managers at Berkshire Hathaway to assist Charlie and him, Buffett (2010) said: "We will probably have 80% of each manager's performance compensation be dependent on his or her own portfolio and 20% on that of the other manager(s). We want a compensation system that pays off big for individual success but that also fosters cooperation, not competition."

All the major stock exchanges have independent compensation committee requirements to help protect investors concerning these types of compensation problems. For example, the NYSE requires that all listed companies have a compensation committee comprised solely of independent directors. This committee must have a written charter which includes objectives for CEO compensation and performance evaluation. Annual performance evaluations of the board and its committees are required. Also, the SEC requires an annual compensation committee report with specific disclosures from the board in proxy statements to shareholders.

Why haven't these independent compensation committees been evaluating CEOs' performance in

terms of stock price performance and accounting performance? A new study (Cooper, Gulen and Rau, 2013) reported that the more CEOs get paid, the worse their companies do over the next three years in terms of both stock price and accounting performances. The conventional wisdom among executive pay consultants, board of directors' compensation committees, and investors is that CEOs make the best decisions when they have more stock and stock options in their compensation packages. This new study by professors at the University of Utah, Purdue University, and the University of Cambridge studied 1,500 U.S. companies with the biggest market capitalizations. They analyzed pay and company performance from 1994-2013 and compared these companies' revenues and net income with industry competitors. They found that the more CEOs got paid, the worse their companies did, and this negative effect was the strongest in the 150 firms with the highest-paid CEOs. The companies run by CEOs in the top 10% of CEO compensation had the worst overall performance, returning 10% less to their shareholders than their industry peers, but the companies of CEOs in the top 5% were even worse, returning 15% less than their peers.

These results have significant implications for independent and competent board members. The authors summarize these astonishing results as indications of CEO overconfidence and explain that CEOs with huge compensation amounts tend to think less critically about their decisions. These CEOs tend to think that they can do no wrong or they would not be entrusted with their position and their pay. One of the authors commented: "They ignore dis-confirming information and just think that they are right. That tends to result in over-investing—investing too much and investing in bad projects that don't yield positive returns for investors" (Adams, 2014). For example, the study found that among the 150 top-paid CEOs, 19% did mergers which resulted in negative performance of 1.4% over the following three years which was almost three times lower than mergers done by firms with low-paying CEOs.

Furthermore, this study found that the longer CEOs were in charge, the worse was the firm's poor performance. The authors explained that since these CEOs were able to appoint more allies to their boards, these allies were likely to go along with these CEOs' bad decisions. The authors summarized their findings: "For the high-pay CEOs, with high overconfidence and high tenure, the effects are just crazy. They return 22% worse in shareholder value over three years as compared to their peers" (Morgan, 2014). The authors and other finance experts recommend claw-back provisions in CEO compensation packages for board compensation committees to implement; if the firm does poorly compared to its peers, the CEO would lose a share of his/her compensation. Thus, the focus would be on "Pay for Performance, not Presence", as advocated by Kostyuk (2014), for top executives and

board members. Both the Sarbanes-Oxley Act and the Dodd-Frank Act have such claw-back provisions when financial statements are restated. Some boards have advocated say-on-pay provisions that would allow shareholders to vote on executive compensation while various investors and others have pushed companies to disclose more information on pay ratios. For example, the CEO-to-worker compensation ratio in the U.S. was 20-to-1 in 1965 but is 296-to-1 in 2013.

Buffett (2007) also commented on independence and competence issues concerning Board members' performance and compensation: "board members must be truly independent because many directors, who are now deemed independent by various authorities and observers, are far from that, relying heavily as they do, on directors' fees, often ranging between \$150,000 to \$250,000 annually, to maintain their standard of living." Buffett wanted his directors' behavior to be driven by the effect of their decisions on their net worth, not by their compensation. He called this approach 'owner-capitalism' and said that he knows of no better way to create true independence for board directors as well as facilitating competent performance. In contrast, Lehman Brothers' Board of Directors averaged \$350,000 in compensation in 2007, the last year of its existence before its bankruptcy, as opposed to U.S. Board members' average compensation of \$239,000. Also, Enron's Directors' average compensation was in the top ten of all U.S. Boards in 2000, its last year of existence before its bankruptcy.

## **5 Effective Executives and Directors**

Concerning guidelines for an effective Board, Buffett (2006) commented: "When the CEO cares deeply and the directors don't, a necessary and powerful countervailing force in corporate governance is missing. Getting rid of mediocre CEOs and eliminating overreaching by the able ones requires action by owners - big owners. Twenty, or even fewer, of the largest institutions, acting together, could effectively reform corporate governance at a given company, simply by withholding their votes for directors who were tolerating odious behavior." However, this is probably not likely to happen. Fidelity Mutual Funds have never voted against Board directors, possibly due to a conflict of interest in running the pension plans of many companies. Also, a lesson that should be learned from the Satyam fraud is that a strategy to reduce fraudulent financial reporting is to have strong corporate governance with an effective, independent, and competent Board of Directors (Basilico et. al., 2012). However, the Satyam Board's successful 2014 defense in a class action lawsuit was that they knew nothing about this massive Satyam fraud!

To help supervise senior management and director effectiveness, a competent, independent

nominating committee of the Board of Directors could select senior managers and directors who are interested in the long-term success of the company and its shareholders. Buffett (2005) commented: "In addition to being independent, directors should have business savvy, a shareholder orientation, and a genuine interest in the company. In my 40 years of board experience, the great majority of these directors lacked at least one of these three qualities. As a result, their contribution to shareholder well-being was minimal at best and too often negative. They simply did not know enough about business and/or care enough about shareholders to question foolish acquisitions or egregious compensation." Buffett (2011) further stated: "The primary job of a Board of Directors is to see that the right people are running the business and to be sure that the next generation of leaders is identified and ready to take over tomorrow. I have been on 19 corporate boards, and Berkshire's directors are at the top of the list in the time and diligence they have devoted to succession planning. What's more, their efforts have paid off." Berkshire Hathaway recently had the fifth highest market capitalization of any American company at \$314 billion, and Warren Buffett was the third richest person in the world at \$65 billion (The Economist, 2014).

Concerning poor company performance, Buffett (2009) said: "CEOs and directors of the failed companies, however, have largely gone unscathed. Their fortunes may have been diminished by the disasters they oversaw, but they still live in grand style. It is the behavior of these CEOs and directors that needs to be changed. If their institutions and the country are harmed by their recklessness, they should pay a heavy price – one not reimbursable by the companies they've damaged nor by insurance. CEOs and, in many cases, directors have long benefitted from oversized financial carrots; some meaningful sticks now need to be part of their employment picture as well."

Concerning effective Board members, Buffett (2009) commented: "When stock is the currency being contemplated in an acquisition and when directors are hearing from an advisor, it appears to me that there is only one way to get a rational and balanced discussion. Directors should hire a second advisor to make the case against the proposed acquisition, with its fee contingent on the deal not going through. Absent this drastic remedy, our recommendation in respect to the use of advisors remains: Don't ask the barber whether you need a haircut." This same advice pertains to the use of consultants for executive pay packages—would any of them ever say executives are currently being overpaid at the risk of never being hired again by that company?!

In an attempt to protect investors, there are several requirements that focus on a Board's nominating committee. The NYSE has a requirement

that each listed company have a nominating/corporate governance committee comprised solely of independent directors. This committee must have a written charter which includes the criteria and responsibilities used to identify individuals qualified to become board members. Also, a version of the UAE requirement for directors could be used which states that a director shall stay in office until he is succeeded, becomes deceased, resigns, or is dismissed via a Board of Directors' decision. A statutory requirement, similar to the SOX requirement on insider trading, could be used to increase investor protection. Senior management turnover would have to be disclosed on a company's website within two days and simultaneously reported to the SEC.

## **6 Board Problems in the Financial Crisis**

The Financial Crisis Inquiry Commission (Commission) was a ten-member commission appointed by the U.S. government with the goal of investigating the causes of the financial crisis of 2007-2010. Citing dramatic breakdowns in corporate governance including taking on too much risk, the Commission portrayed Board of Directors' and management incompetence with the following examples. Citigroup executives conceded that they paid little attention to mortgage-related risks. Executives at American International Group were blind to its \$79 billion exposure to credit-default swaps. Merrill Lynch managers were surprised when seemingly secure mortgage investments suddenly suffered huge losses. The banks hid their excessive leverage with derivatives, off-balance-sheet entities, and other accounting tricks. Their speculations were aided by a giant "shadow banking system" in which banks relied heavily on short-term debt. The Commission concluded: "when the housing and mortgage markets cratered, the lack of transparency, the extraordinary debt loads, the short-term loans, and the risky assets all came home to roost" (Chan, 2011). For example, Lehman Brothers hid \$50 billion of short-term loans off its books before its demise in 2007 (Dutta et.al., 2010).

For corporate governance guidelines to help foster independent and competent Board members, the New York Stock Exchange (NYSE) Commission on Corporate Governance issued the following key corporate governance principles (2010):

The Board of Directors' fundamental objective should be to build long-term sustainable growth in shareholder value. Thus, policies that promote excessive risk-taking for short-term stock price increases, and compensation policies that do not encourage long-term value creation, are inconsistent with good corporate practices.

Management has the primary responsibility for creating a culture of performance with integrity. Management's role in corporate governance includes establishing risk management processes and proper

internal controls, insisting on high ethical standards, ensuring open internal communications about potential problems, and providing accurate information both to the Board and to shareholders.

Good corporate governance should be integrated as a core element of a company's business strategy and not be simply viewed as a compliance obligation with a "check the box" mentality for mandates and best practices.

Transparency in disclosures is an essential element of corporate governance.

Independence and objectivity are necessary attributes of a Board of Directors. However, subject to the NYSE's requirement for a majority of independent directors, there should be a sufficient number of non-independent directors so that there is an appropriate range and mix of expertise, diversity and knowledge on the Board.

Shareholders have the right, a responsibility and a long-term economic interest to vote their shares in a thoughtful manner. Institutional investors should disclose their corporate governance guidelines and general voting policies (and any potential conflicts of interests, such as managing a company's retirement plans).

Various empirical studies have investigated impacts of corporate governance upon banks' risk taking (stock market based measures) and financial performance (return on assets, non-performing assets, etc.). The following corporate governance variables have been found to have a significant, negative impact on risk taking and financial performance (Allemand et. al. 2013, Grove et. al., 2011, Victoravich et. al., 2011):

- CEO duality (the CEO is also the Chairman of the Board of Directors)
- Board of Directors and CEO entrenchment (25% of U.S. S&P 500 companies have staggered re-elections of the Board versus all Board members re-elected every year, Bussey, 2012, and CEOs being in the job for more than a decade)
- Older Directors (over 70 years of age; only 4% of U.S. S&P 500 companies have term limits, Bussey, 2012)
- Short-term compensation mix (cash bonuses and stock options versus long-term stock awards and restricted stock)
- Non-independent and affiliated Directors (larger percentages of such directors versus independent directors)
- Ineffective risk management committees (few or no meetings)
- Also, high leverage (debt to equity) levels were associated with high levels of banks' risk taking and poor financial performance in these studies. When implementing the \$700 billion bailout of major U.S. banks, the U.S. Treasury did not replace any existing bank Board members but added new Directors to represent taxpayer interests. Many of these original Directors

oversaw the big banks and brokerage firms when they were taking huge risks during the real estate boom. A corporate government specialist concluded: "these boards had no idea about the risks these firms were taking on and relied on management to tell them" (Barr, 2008). A senior corporate governance analyst said: "this financial crisis is a direct result of the compensation practices at these Wall Street firms" (Lohr, 2008).

The tipping point for the financial crisis was generally acknowledged to be the bankruptcy of Lehman Brothers in the Fall of 2008. Corporate governance for risk management and company oversight was very weak at both Lehman Brothers and Bear Stearns, which was bailed out from going into bankruptcy in the Spring of 2008. Independence and competence issues for both Boards were raised by the following red flags cited in the empirical research on corporate governance in banks (Grove and Patelli, 2013):

### **Independence Issues:**

- CEO Duality: At Bear Stearns, the CEO, James Cayne, had also been the Chairman of the Board (COB) for the last seven years. At Lehman Brothers, the CEO, Richard Fuld, had also been the COB for the last seventeen years.
- Board Entrenchment: At both banks, there were no staggered board elections as all members were re-elected annually. However, both CEOs had been in their jobs for more than a decade: 26 years for the Bear Stearns CEO and 17 years for the Lehman Brothers CEO. Also, there was a majority of older and long-serving Directors as noted below.
- Short-term Compensation Mix: Both companies had large portions of their compensation packages for their top executives in short-term cash (bonus) and stock options.
- Non-independent and affiliated directors: Long-serving Directors may lose or reduce their independent perspective. For Bear Stearns and Lehman Brothers, respectively, the number of Directors serving since the 1980's were 38% and 9% and since the 1990's were 31% and 55% for totals from the 1980's and 1990's of 69% and 64%.

### **Competence Issues:**

- Older Directors: For Bear Stearns and Lehman Brothers, respectively, the majority of the Directors were over age 60: 85% and 91%, over age 70: 23% and 55%, and over age 80: 15% and 18%. Also, 54% of the Bear Stearns Directors were retired or just "private investors" or in academia. 91% of the Lehman Brothers Directors were retired or "private investors."
- Ineffective Risk Management Committee: Bear Stearns' risk committee only started in January

2007, just 14 months before JP Morgan Chase bailed out the company by taking it over in March 2008. Three of the four members were 64 years old and the other was 60 years old. Lehman Brothers' risk committee had only two meetings in 2006 and 2007 before the company went bankrupt in 2008. The chairman of the risk management committee was 80 and a retired Salomon Brothers investment banker. The other members were 73 years old (retired chairman of IBM), 77 years old ("private investor" and retired Broadway producer), 60 years old (retired rear admiral of the Navy), and 50 years old (former CEO of a Spanish language TV station).

- **Opaque Disclosures:** There was an inability for investors to get sound financial information necessary for making sound investment decisions. This meant resisting any calls to repeal the current mark-to-market standards and also meant expanding the requirement to disclose the securities positions and loan commitments of all financial institutions. There was no fair value reporting at either bank which would have provided the information investors needed to make informed decisions, and bring much needed transparency to the market.

## **7 Summary of Board Performance in the Financial Crisis**

Both Bear Stearns and Lehman Brothers had weak risk management and weak corporate governance practices, indicating both independence and competence problems with their Boards. They seemed to be in similar, very weak financial positions. Bear Stearns' bailout may have been helped by Wall Street connections, like Henry Paulsen, the U.S. Treasury Secretary and former CEO of Goldman Sachs. However, possibly the federal government later thought that Lehman Brothers was "too big to save" since it was twice the size of Bear Stearns. Then, after the Lehman Brothers bankruptcy ignited the world financial crisis, the federal government reversed its thinking and bailed out the largest 19 U.S. banks since they were now "too big to fail." This bailout occurred despite the fact that all these banks had received unqualified audit opinions on their financial statements and internal controls in their last annual reports before the bailout. No "going concern" qualified audit opinions were issued for possible bankruptcies in these banks and audit opinions appear not to be a tool for assessing the risk management of such banks. Thus, it appeared that there was inconsistent and unjustified treatment by the U.S. federal government in helping bail out Bear Stearns but letting Lehman Brothers go into bankruptcy.

Another Board competence problem was the lack of disclosure transparency by these banks in not using fair value reporting for their assets as both Arthur Levitt and Lynn Turner, former SEC chairman and

former SEC chief accountant, respectively, observed (Levitt and Turner, 2008):

"There is a direct line from the implosion of Enron to the fall of Lehman Brothers—and that's an inability for investors to get sound financial information necessary for making sound investment decisions. The only way we can bring sanity back to the credit and stock markets is by restoring public trust. And to do that, we must improve the quality, accuracy, and relevance of our financial reporting. This means resisting any calls to repeal the current mark-to-market standards. And it also means expanding the requirement to disclose the securities positions and loan commitments of all financial institutions. Fair value reporting, when properly complied with and enforced, will simplify the information investors need to make informed decisions, and bring much needed transparency to the market. By reporting assets at what they are worth, not what someone wishes they were worth, investors and regulators can tell how management is performing. This knowledge in turn is fundamental to determining whether or not an institution has sufficient capital and liquidity to justify receiving loans and capital. We should be pointing fingers at those at Lehman Brothers, AIG, Fannie Mae, Freddie Mac, and other institutions who made poor investment and strategic decisions and took on dangerous risks."

At a Town Hall meeting, entitled *Does Wall Street Really Run the World?*, Lynn Turner (2011) made the following comments. "There was greater attention to risk management when Wall Street firms were partnerships with individual partner liability twenty years ago versus today as corporations (similar to the evolution of the Big 4 Accounting firms). Wall Street firms changed from raising money for corporations and being investment brokerage firms to a new emphasis on trading for their own sake and their own shareholders. An eleven trillion market cap destruction occurred from the economic crisis of 2008. These firms were not really creating value but were selling toxic investments such that a Rolling Stone reporter nicknamed Goldman Sachs the Vampire Squid. Paul Volcker has commented that the last real innovation of Wall Street banks was the ATM thirty years ago, actually by a Nebraska bank."

The chairman of the International Accounting Standards Board had commented that the fraudulent financial reporting problems of this century were really failures in corporate governance (Tweedie, 2007). There may have been audit problems, not noted by the Board Audit Committees of both Lehman Brothers and Bear Stearns, since both companies received unqualified or "clean" opinions on their 2007 financial statements and internal controls even though both companies had solvency and "going concern" issues.

Since risk management at the major U.S. (bailout) banks appeared to be very poor and contributed significantly to the U.S. financial crisis, in

March 2010 the SEC started requiring all publicly traded companies in the U.S. to provide disclosures that describe the Board's role in risk oversight. Such disclosures are required in the annual proxy statements. In July 2010, the Federal Financial Reform (Dodd-Frank) Act was signed into law. It mandates risk committees for Boards of financial institutions and other entities that the Federal Reserve System oversees.

The following interview with Satyajit Das, an international respected expert on finance with over 30 years of working experience in the industry, provided comments on risk management, corporate governance, Board independence and competence in the banking industry (Das, 2011):

"As banks expanded, you exhausted the pool of people who you could lend to and then moved onto the others - until you came to people who couldn't ever really pay you back. So the trick was to hide or get rid of the risk of non-payment---it became a case of NMP (not my problem) or risk transfer. So you made loans that you shouldn't and then transferred them to people who probably didn't quite grasp the risk fully or were incentivized to look the other way. It was a culture of fraud and self-delusion. It's amazing how much money you can make just shuffling paper backwards and forwards. Paul Volcker, the former chairman of the Federal Reserve Bank, argued: I wish someone would give me one shred of neutral evidence that financial innovation has led to economic growth - one shred of evidence.

Management and directors of financial institutions cannot really understand what is going on - it's simply not practical. They cannot be across all the products. Non-executives are even further removed. Upon joining the Salomon Brothers Board, Henry Kaufman found that most non-executive directors had little experience or understanding of banking. They relied on Board reports that were neither comprehensive nor detailed enough about the diversity and complexity of our operations. They were reliant on the veracity and competency of senior managers, who in turn were beholden to the veracity of middle managers, who are themselves motivated to take risks through a variety of profits compensation formulas". Such poor risk management at banks has recently occurred again as UBS lost over \$2 billion through the manipulations of a UBS rogue trader, just like the Barings Bank episode several years ago which bankrupted that bank. Un-hedged trades by this rogue trader had been going on since the 2008 financial crisis, despite the clean opinions given by a Big 4 auditor on the internal controls of UBS (Craig et al., 2011).

"Henry Kaufman later joined the Board of Lehman Brothers. At that time, nine out of ten members of the Lehman Board were retired, four were 75 years or more in age, and only two had banking experience, but it was from a different era. The octogenarian Kaufman sat on the Lehman Risk

Committee with the former chairman of IBM, a Broadway show producer, a former CEO of a Spanish-language TV station, and a former Navy admiral, The Committee had only two meetings in 2006 and 2007. The last two Risk Committee members were the only minority and female members, respectively, on Lehman Brothers' Board, perhaps to try to mitigate the criticism that companies are not well served by Boards that are too often "male, pale, and stale" (Cohen, 2014).

A similar competence issue was raised about AIG's Board which included several heavyweight diplomats and admirals even though Richard Breeden, former head of the SEC told a reporter: 'AIG, as far as I know, didn't own any aircraft carriers and didn't have a seat in the United Nations.' It's silly to think that everybody in finance is evil or engaged in fraud. Most people involved are very smart, diligent, hard-working and passionate about what they do. It's groupthink. They have ways of thinking about the world. They think it's the right way so they keep trying it again and again. At least until there is a horrendous disruption and then they go: "Oh dear? There's a problem." Take Alan Greenspan. He thought deregulated markets were the solution. He thought that any problem could be fixed by flooding the system with money. He was wrong, but even today he doesn't really see that his world view is erroneous. They are very good at rationalization and don't tolerate dissent. As for responsibility, they are doing what is accepted practice - they think they are doing the best for their stakeholders. As long as you follow convention, you are unlikely to be successfully prosecuted or made liable. Ultimately that's the only purpose of corporate governance - to ensure that by following a set of accepted practices, you make yourself and your organization litigation proof" (Das, 2011).

Few bank officers and Directors from the financial crisis have been found liable under either state or federal law. The Lehman Brothers CEO and top executives did owe \$90 million in fines, but they were covered by insurance. Also, many directors from Bear Stearns (six), Lehman Brothers (six), and Enron (seven) continue to serve on other Boards. The "old boy" network is emphasized here as is the decline in importance of reputation on Wall Street. Prior bad conduct simply is not viewed as a problem (Davidoff, 2011). In fact, the lack of independence and competence of such Board members may be an advantage if a company is engaging in inappropriate behavior!

In response to an email about this issue of why Bear Stearns was saved and Lehman Brothers let go into bankruptcy, Lynn Turner (2012) replied: "Both were highly risky with very, very arrogant CEOs and chairmen. Neither had a great board, but Bear Stearns may have had better connections on their board and in this instance, Lehman Brothers being second was fatal. Both depended way too much on very short term



financing, including overnight commercial paper or repurchase agreements (repo's) - a very ill advised and highly risky strategy for any company let alone one with very little capital." Similarly, when asked in an October 2008 interview about Rabobank's role in the Bear Stearns crisis when it refused to renew \$2.5 billion in short-term loans coming due in two weeks, Bert Heemskerck, Rabobank's chairman, said: "It is not true that Rabobank helped to bring down Bear Stearns. No, Bear Stearns had set up their balance sheet totally the wrong way." Asked if he understood that when one bank stops refinancing, others will follow, Mr. Heemskerck responded: "And rightly so" (Yale, 2011).

Concerning such risk management during the financial crisis, Buffett wrote in his CEO letter to shareholders (2008): "I have pledged - to you, the rating agencies and myself - to always run Berkshire Hathaway with more than ample cash. We never want to count on the kindness of strangers in order to meet tomorrow's obligations. When forced to choose, I will not trade even a night's sleep for the chance of extra profits. Sleeping around, to continue our metaphor, can actually be useful for large derivatives dealers because it assures them government aid if trouble hits. In other words, only companies having problems that can infect the entire neighborhood - I won't mention names - are certain to become a concern of the state (an outcome, I'm sad to say, that is proper). From this irritating reality comes The First Law of Corporate Survival for ambitious CEOs who pile on leverage and run large and unfathomable derivatives books: Modest incompetence simply won't do; it's mindboggling screw-ups that are required."

Buffett commented on risk control in his 2009 CEO letter: "Charlie and I believe a CEO must not delegate risk control. It's simply too important. If Berkshire Hathaway ever gets in trouble, it will be my fault. It will not be because of misjudgments made by a Risk Committee or a Chief Risk Officer. In my view, a board of directors of a huge financial institution is derelict if it does not insist that its CEO bear full responsibility for risk control. If he's incapable of handling that job, he should look for other employment. And if he fails at it - with the government thereupon required to step in with funds or guarantees - the financial consequences for him and his board should be severe."

## **8 Conclusions: Guidelines for Independent and Competent Directors**

Based upon the research and company examples cited in this paper, the following guidelines are recommended for assessing and ensuring the independence and competence of Board of Director members:

- Independence: "Directors must have no material relationships with the company over the past year" (NYSE, 2003).

- Independence and Competence: "In addition to being independent, directors should have business savvy, a shareholder orientation, and a genuine interest in the company" (Buffett, 2005).
- Independence and Competence: "Use stock, not pay, for Directors' compensation" (Buffett (2007) and use a mix of short and long-term performance measures for Directors' compensation (Hilb, 2008).
- Independence and Competence: "Pay for Performance, not Presence" (Kostyuk, 2014). Evaluate performance over a three year period, using both stock price and accounting performance. Use claw-back provisions for both executive and Board members' compensation if the firm does poorly, compared to its peers over this three year period (Adams, 2014).
- Independence and Competence: There should be a mix of skills with Board members, such as industry knowledge and experience and expertise in financial accounting (required by U.S. SOX Act), risk management (required by U.S. Dodd-Frank Act) and cyber security (Thomson, 2014).
- Independence and Competence: There should be term and age limits for Board members (Bussey, 2012).
- Independence and Competence: There should be women on Boards. For example, Credit Suisse research found that over a six-year period, companies with at least some women on Boards did better, in terms of share price, than those with none. Morgan Stanley has started a fund that invests in companies with women on Boards (Alden, 2013). In summary, there should be no "male, pale, and stale" Boards (Cohen, 2014). "If Lehman Brothers had been Lehman Sisters, it would still be in business" (Hilb, 2009).
- Competence: There should be efficient and effective monitoring of risk without dependence on any corporate bailout financing. "The CEO of any large financial organization must be the Chief Risk Officer and must not delegate risk control to a Risk Committee or a Chief Risk Officer. Risk control is simply too important" (Buffett, 2008).
- Competence: There should be no reimbursements by companies or insurance policies to executives or Boards for legal damages or fines when their incompetence harmed their institutions or the country. "In many cases, directors have long benefitted from oversized financial carrots; some meaningful sticks now need to be part of their employment picture as well" (Buffett, 2009).
- Competence: As required by the NYSE and NASDAQ, make sure there is a viable financial accounting expert, primarily an independent CPA or CFO, not another CEO, on the Board's Audit Committee to check for fraudulent financial reporting or earnings management by a company. "We both have a deep disgust for game playing with numbers, a practice rampant throughout

corporate America in the 1990s and still persisting, although now less frequently and blatantly" (Buffett, 2011).

- Competence: There should be strict procedures for communicating with Wall Street to avoid insider trading and Regulation FD (Fair Disclosure) violations (SEC, 2000). For example, Facebook informed only some favored financial analysts about its declining revenues just before its initial public offering (IPO) which resulted in a shareholder class action lawsuit immediately after the IPO (Ruel, 2012).

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# ECONOMIC IMPACTS OF CAPITALIZATION OF OPERATING LEASES: EVIDENCE FROM JAPAN

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## Abstract

The purpose of this study is to investigate the economic impacts of capitalization of operating leases in Japan. Specifically, this study estimates the ex-ante impacts of capitalization of operating leases by comparing pro-forma accounting numbers based on a proposed rule change with reported accounting numbers under an extant rule. Our findings are twofold. First, capitalization of operating leases has significant impacts on financial ratios, including the debt to equity ratio (DER) and the interest coverage ratio (ICR). Second, the impacts of capitalization of operating leases on these financial ratios are more likely to be large after the adoption of Statement No. 13, *Accounting Standard for Lease Transactions*. This study contributes to the literature on economic consequences of capitalizing leases and discussions of global convergence of accounting standards.

**Keywords:** Constructive Capitalization, Economic Consequences, Lease Accounting, Operating Leases

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## 1 Introduction

The purpose of this study is to investigate the economic impacts of capitalization of operating leases in Japan. In particular, this study estimates the ex-ante impacts of capitalization of operating leases by comparing pro-forma accounting numbers based on a proposed rule change with reported accounting numbers under an extant rule. Our findings on the economic impacts are twofold. First, capitalization of operating leases has significant impacts on key financial ratios, including the debt to equity ratio (DER) and the interest coverage ratio (ICR). Second, the impacts of capitalization of operating leases on these financial ratios are substantially larger after the adoption of Statement No. 13, *Accounting Standard for Lease Transactions*, which is the extant accounting standard for leases in Japan. These results suggest that capitalizing operating leases has significant effects on Japanese firms.

Currently, the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) have proposed a new lease

accounting model that requires lessees to recognize almost all types of leases on their balance sheet (IASB, 2009, 2010, 2013). The current lease accounting models under International Financial Reporting Standards (IFRS) (IAS 17) and U.S. generally accepted accounting principles (GAAP) (ASC 840/SFAS 13) classify leases as either finance (capital) leases or operating leases and account for them differently. Both accounting standard setters assume that operating leases are very similar to finance leases from an economic perspective, but the current accounting standards do not require lessees to recognize operating leases on their balance sheet. Since the existing accounting standards create asymmetry and inaccuracy of information in the market, the IASB and the FASB have criticized them and developed the new lease accounting model (IASB, 2015).

Capitalization of (long-term and/or non-cancelable) operating leases has been proposed for several decades since Myers's (1962) suggestion. The basis for this accounting treatment is that lessees obtain the right to use the leased items and incur

obligations to pay lease payments during the lease term regardless of whether leases are finance leases or operating leases. These leases meet the definitions of assets and liabilities and qualify for the recognition criteria that the IASB and the FASB prescribe in their conceptual frameworks (Lorenson, 1992; McGregor, 1996; Nailor and Lennard, 2000). Therefore, the IASB and the FASB have proposed to recognize almost all types of leases on lessees' balance sheet (IASB, 2009, 2010, 2013).

In these circumstances, prior studies have investigated the economic consequences of capitalization of operating leases (Barone et al., 2014). In particular, some prior studies show that capitalization of operating leases has significant impacts on key financial ratios (Beattie et al., 1998; Goodacre, 2003; Bennett and Bradbury, 2003; Fülbier et al., 2008; Durocher, 2008; Duke et al., 2009; Fitó et al., 2013). These studies find the ex-ante economic impacts of capitalization of operating leases for a sample of firms in Anglo Saxon and European countries.

To the best of our knowledge, none of the literature examines the impacts of capitalization of operating leases on financial ratios using a sample of Japanese firms. The Accounting Standards Board of Japan (ASBJ), which was established as a private standard setter in 2001, has promoted global convergence of accounting standards. Except for some accounting rules, Japanese GAAP is largely similar to IFRS and U.S. GAAP. In fact, Statement No. 13 is very similar to IAS 17 and ASC 840/SFAS 13. That is, leases are classified as either finance leases or operating leases and accounted for differently. Specifically, operating leases are not recognized on lessees' balance sheet. It is necessary to investigate the ex-ante impacts of capitalization of operating leases for Japanese firms. Accordingly, this study analyzes the economic impacts of capitalization of operating leases on accounting numbers and key financial ratios.

Reported accounting numbers are frequently contained in explicit and/or implicit contracts between managers and stakeholders to mitigate agency conflicts (e.g., Watts and Zimmerman, 1986; Bushman and Smith, 2001; Armstrong et al., 2010; Kothari et al., 2010; Shivakumar, 2013). Specifically, Japanese firms use reported accounting numbers in explicit and/or implicit contracts such as debt contracts. In fact, recent empirical evidence on Japanese firms indicates that private debt contracts include accounting-based covenants such as leverage covenants (Okabe, 2010; Inamura, 2012, 2013; Nakamura and Kochiyama, 2013). Furthermore, Japanese firms with higher leverage ratios set more restricted debt covenants in public debt contracts (Suda, 2004). Given that capitalization of leases leads to a change in the amounts of debt on balance sheet and the timing of expenses, capitalizing leases has direct and/or indirect effects on debt contracts. Accordingly, we predict that capitalization of leases

will worsen financial ratios, including the DER and the ICR, thereby significantly affecting debt contracts.

The first objective of our research is to investigate whether capitalization of operating leases has significant impacts on accounting numbers, especially financial ratios such as the DER and the ICR. With regard to financial ratios, if a statistically significant difference exists between pre-capitalization and post-capitalization of leases, it is expected that capitalization of leases will have significant economic consequences. This is because accounting policy has effects on the contracts between managers and stakeholders, thereby affecting the wealth of interested parties (Holthausen and Leftwich, 1983). Thus, this study examines whether capitalization of operating leases has significant impacts on key financial ratios.

In April 2008, Statement No. 13 was mandatorily adopted.<sup>1</sup> Japanese firms were exceptionally allowed not to recognize finance leases on their balance sheet until the initial adoption of Statement No. 13. Almost all firms adopted this exceptional treatment. Statement No. 13 abolishes this exceptional treatment and requires Japanese firms to recognize finance leases on their balance sheet. El-Gazzar (1993) shows that capitalization of finance leases has caused significant increases in the tightness of debt covenant restrictions. When capitalization of finance leases has negative economic effects, rational managers choose off-balance-sheet transactions to avoid such negative effects (El-Gazzar et al., 1989). In fact, previous studies indicate that managers arrange their lease contracts with lessors and transfer finance leases to operating leases when finance leases were required to recognize on their balance sheet (Abdel-Khalik, 1981; Imhoff and Thomas, 1988; Yamamoto, 2010; Arata, 2012). Accordingly, we predict the impacts of capitalization of operating leases on key financial ratios to be significantly large after the adoption of Statement No. 13.

The second objective of our research is to investigate whether capitalization of operating leases is more likely to have large impacts on financial ratios, including the DER and the ICR after the adoption of Statement No. 13. Before the initial adoption of Statement No. 13, Japanese firms were more likely to use finance leases than operating leases, because they could avoid capitalizing finance leases on their balance sheet by using the exceptional treatment. Statement No. 13 abolishes the exceptional treatment and requires Japanese firms to recognize finance leases on their balance sheet. Accordingly, they are more likely to use operating leases than finance leases in response to the adoption of Statement No. 13. Considering these circumstances, capitalization of operating leases is more likely to have significant impacts on key financial ratios after the adoption of Statement No. 13.

<sup>1</sup> Early adoption of Statement No. 13 was permitted for fiscal years beginning on or after April 1, 2007.

This study makes two contributions to the accounting literature and accounting standard setting. First, our research contributes to the literature on the economic impacts of capitalizing leases. Previous studies have investigated both the ex-ante and the ex-post economic consequences of capitalization of leases (Beattie et al., 2006; Barone et al., 2014). However, to the best of our knowledge, no previous ex-ante study analyzes the economic impacts of capitalization of operating leases for Japanese firms. Our research examines the economic impacts of capitalization of operating leases on key financial ratios for a sample of Japanese firms.

Second, this study has implications on discussions of global convergence of accounting standards. Currently, the IASB and the FASB have developed a new lease accounting standard and proposed to recognize almost all types of leases on lessees' balance sheet (IASB, 2009, 2010, 2013). Given this situation, it is necessary to investigate how capitalization of operating leases affects accounting numbers and key financial ratios. Investigating the economic impacts of operating leases is extremely valuable to evaluate the economic consequences of a potential regulatory change in the lease accounting standard.

The remainder of this paper is organized as follows. Section 2 summarizes accounting for leases in Japan and reviews the prior literature. Section 3 explains our research design, including the constructive capitalization method to capitalize operating leases and the research model in this study. Section 4 provides the reasons for selecting the samples and reports the descriptive statistics of the variables of this empirical research. Section 5 shows the economic impacts of capitalization of operating leases using a sample of Japanese firms. Section 6 summarizes the conclusions and discusses the implications of our research.

## **2 Background**

### **2.1 Accounting for Leases in Japan**

In June 1993, the Business Accounting Council (BAC) issued the lease accounting standard, *Statement of Opinions on Accounting Standards for Lease Transactions*. The Statement classified leases as either finance leases or operating leases, and it required the following accounting treatments: finance leases were recognized on lessees' balance sheet, and operating leases were not recognized on their balance sheet. These classification and accounting treatments are similar to IFRS (IAS 17) and U.S. GAAP (ASC 840/SFAS 13).

In Japan, finance leases are classified into two further categories: finance leases that transfer ownership to lessees (FLO) and finance leases that do

not transfer ownership to lessees (FLNO).<sup>2</sup> In principle, Japanese firms are required to recognize finance leases on their balance sheet. However, the BAC permitted Japanese firms not to recognize FLNO on their balance sheet if information equivalent to capitalization of finance leases was disclosed in the notes to their financial statements. Almost all Japanese firms chose the exceptional treatment that allowed them not to recognize finance leases on lessees' balance sheet.<sup>3</sup>

In 2002, the ASBJ started considering whether the exceptional treatment should be repealed to implement global convergence of accounting standards. The ASBJ deliberated on this issue for four years and finally issued Statement No. 13 in March 2007. Statement No. 13 requires lessees to recognize all finance leases, that is, both FLO and FLNO, on their balance sheet. However, Statement No. 13 requires lessees not to recognize operating leases on their balance sheet. Accordingly, Statement No. 13 is very similar to IAS 17 and ASC 840/SFAS 13. Statement No. 13 was mandatorily adopted for fiscal years beginning on or after April 1, 2008.

Before the initial adoption of Statement No. 13, Japanese firms often did not use operating leases. One of the reasons is that they were allowed not to recognize finance leases on their balance sheet. However, since Statement No. 13 requires Japanese firms to recognize all finance leases on their balance sheet, they are more likely to use operating leases than finance leases. In fact, some previous studies indicate that Japanese firms transfer leases from finance leases to operating leases in response to the adoption of Statement No. 13 (Yamamoto, 2010; Arata, 2012). Considering this situation, the implementation of capitalization of operating leases would have significant economic consequences on Japanese firms.

### **2.2 Prior Literature**

Prior studies have investigated the economic consequences of a new accounting standard by analyzing archival accounting data using two methods (Schipper, 1994; Beattie et al., 2006; Fülbier et al., 2009; Trombetta et al., 2012). One method constructs

<sup>2</sup> The Japanese Institute of Certified Public Accountants (JICPA) issued the implementation guidance, *Practical Guidelines on Accounting Standards for, and Disclosure of, Lease Transactions*, in January 1994. The JICPA stated the following criteria to classify leases as either finance leases or operating leases: (a) transfer of the ownership term, (b) grant of the right to purchase term, (c) custom-made or custom-built assets, (d) present value criterion, and (e) useful economic life criterion. When leases satisfy any of the above criteria, they are classified as finance leases. Furthermore, finance leases that meet any of the criteria indicated in (a), (b), or (c) are classified as FLO; they are classified as FLNO otherwise (JICPA, 1994).

<sup>3</sup> The Japan Leasing Association (JAL) found that 99.7% of Japanese listed companies that prepared consolidated financial statements following Japanese GAAP chose the exceptional treatment when they accounted for finance leases (JAL, 2003).

pro-forma accounting numbers based on a proposed rule change and compares these with reported accounting numbers under an extant rule (an ex-ante study). The other compares accounting numbers before and after a change in an accounting rule (an ex-post study). This subsection reviews the previous literature, focusing on ex-ante studies.

Several ex-ante studies examine the impacts of capitalization of finance leases on accounting numbers and financial ratios. For example, Nelson (1963) investigates the impacts of capitalization of leases on the financial ratios of 11 U.S. companies. He finds significant impacts on financial ratios and changes in the rankings. Similarly, Ashton (1985) examines the effects of capitalization of finance leases on six financial ratios using 23 U.K. companies and shows a significant impact on the DER only.

More recent studies focus on capitalization of operating leases because the G4+1 proposed that not only finance leases but also non-cancelable operating leases should be recognized on lessees' balance sheet (McGregor, 1996; Nailor and Lennard, 2000). Capitalizing operating leases has significant impacts on accounting numbers and financial ratios, including leverage ratios. For example, Imhoff et al. (1991) report that capitalization of operating leases results in an average 34% (10%) decline in the return on assets (ROA) and 191% (47%) increase in the DER of high (low) lease usage firms in seven industries (14 firms). Duke et al. (2009) also investigate the economic impacts of capitalization of operating leases on leverage ratios, including the DER and the ICR, and performance ratios (ROA) for U.S. firms in the S&P 500 index. They find that leverage and performance ratios under an extant accounting rule are significant different from those financial ratios after capitalizing operating leases.

Recent studies examine the economic impacts of capitalization of operating leases not only for U.S. firms but also for firms in other countries: the U.K. (Beattie et al., 1998; Goodacre, 2003), New Zealand (Bennett and Bradbury, 2003), Canada (Durocher, 2008), Germany (Fülber et al., 2008), and Spain (Fitó et al., 2013). These studies report that capitalization of operating leases has significant impacts on financial ratios, including leverage ratios. For example, Durocher (2008) uses the 100 largest Canadian public companies (by revenue) as a sample of firms and shows the impacts of capitalization of operating leases on leverage ratios, including the debt to assets ratio. However, the impacts on profitability ratios, including the ROA, are significant only for three industry segments: merchandising and lodging, oil and gas, and financial services.

In Japan, some ex-ante studies analyze impacts of capitalizing finance leases (the Research Committee on the Effects of New Accounting Standard for Lease Transactions, 2006; Hu, 2007). These studies show the impacts of capitalization of finance leases on the DER and the ROA for Japanese

listed companies. However, to the best of our knowledge, no research examines the economic impacts of capitalization of operating leases on accounting numbers and key financial ratios. Accordingly, this study investigates these impacts to fill the gap in the prior literature.

### 3 Research Design

#### 3.1 Constructive Capitalization Method

It is necessary to estimate the value of the operating lease obligations in investigating the economic impacts of capitalization of operating lease obligations. Many previous studies use the present value method to estimate the value of operating lease obligations. In Japan, with regard to operating leases, future minimum lease payments divided between within one year and more than one year out are only disclosed in the notes to the financial statements. The information on operating leases under Japanese GAAP is insufficient compared to that under IFRS and U.S. GAAP. We use the present value method proposed by Imhoff et al. (1991, 1997) and constructively capitalize operating leases as follows.

First, we estimate the total lease contract lifetime (TL) and the remaining lease contract lifetime (RL) of operating leases. The RL for each firm and each fiscal year is calculated by dividing future minimum lease payments (total) by future minimum lease payments (within one year). We assume that operating leases are single contracts paying the amount of future minimum lease payment (within one year) at each year in estimating the RL. In addition, following Imhoff et al. (1991, 1997), we assume that  $RL/TL = 0.5$ .

Next, we estimate the values of the operating lease obligations (OLO) and operating lease assets (OLA) at the end of the fiscal year. We assume that there is no lease payment at the inception of the lease term. Capitalizing future minimum lease payments (within one year) (FMLPs) with the RL and the discount rate ( $r$ ), the value of OLO at the end of the fiscal year is  $\frac{FMLPs}{r} \times [1 - (1 + r)^{-RL}]$ .<sup>4</sup> Moreover, the value of OLA at the end of the fiscal year is calculated by multiplying the value of OLO by the

<sup>4</sup> Following previous studies (e.g., Imhoff et al., 1993; Bennett and Bradbury, 2003; Durocher, 2008; Fülber et al., 2008; Damodaran, 2009), our research uses the firm-specific discount rate to capitalize operating leases. We calculate the firm-specific discount rate as follows. If we obtain the interest rate of finance leases disclosed in the supplementary statements, we use it as the discount rate. If the interest rate of finance leases is not disclosed in the supplementary statements, we calculate it using the note disclosure as follows: this year's interest expenses of finance leases are divided by the average amounts of last year's and this year's equivalent of year-end balance of lease payment payable. If we cannot obtain the interest rate of finance leases, we use the average interest rate of long-term debts as the discount rate.

certain ratio,  $\frac{RL}{TL} \times \frac{[1-(1+r)^{-TL}]^5}{[1-(1+r)^{-RL}]}$ . We assume that OLA is depreciated using the straight-line method and OLO is allocated using the effective-interest method. Thus, the value of OLO is higher than that of OLA during the lease term. The difference between these two values causes a decrease in the book value of equity (retained earnings).

Lastly, we estimate the impacts of capitalization of operating leases on the income statement. With regard to operating leases, we could not directly obtain the information on this year's lease payment, the depreciation expense, and the interest expense in the notes to the financial statements. When we estimate the value of OLO, we assume that lessees pay the amount of future minimum lease payment (within one year) at the end of each year. We assume that this year's lease payment is equal to this year's future minimum lease payments (within one year). In addition, the depreciation expense is calculated by dividing this year's OLA by the RL. The interest expense is also calculated by multiplying OLO at the beginning of this year by this year's discount rate.

### 3.2 Research Model

First, our research analyzes the economic impacts of capitalizing operating leases by examining the difference in financial ratios between pre-capitalization and post-capitalization of operating leases. Among financial ratios, this study focuses on the DER and the ICR. This is because the previous literature shows that capitalizing leases has caused significant increases in the tightness of debt covenant restrictions (El-Gazzar, 1993). Furthermore, Japanese firms often use the DER and the ICR in debt contracts (Okabe, 2010; Inamura, 2012, 2013; Nakamura and Kochiyama, 2013).<sup>5</sup>

Accordingly, this study investigates the mean differences in the DER and the ICR between pre-capitalization and post-capitalization of operating leases by sector.<sup>7</sup> In addition, this study analyses each quartile difference between them to examine the economic impacts of capitalization of operating leases.<sup>8</sup> This is because extreme values of the

<sup>5</sup> When lease payments (LP) are constant during the lease term, the value of OLO is  $\frac{LP}{r} \times [1 - (1+r)^{-RL}]$ . Because the value of OLA at the inception of the lease term is  $\frac{LP}{r} \times [1 - (1+r)^{-TL}]$ , and OLA is depreciated using the straight-line method, the value of OLA is written as:

$$OLA = \frac{RL}{TL} \times \frac{LP}{r} \times [1 - (1+r)^{-TL}] = \frac{RL}{TL} \times \frac{[1-(1+r)^{-TL}]}{[1-(1+r)^{-RL}]} \times OLO.$$

<sup>6</sup> This study also analyzes the economic impacts of capitalization of operating leases on the debt to assets ratio. Unreported results show that these results do not change our main results.

<sup>7</sup> Following the guideline for the Nikkei Stock Average Index, we redefine six sectors based on the Nikkei industrial classification of 36 industries. However, as we exclude banks, securities firms, insurance, and other financial firms from our sample, our study does not use the financials sector.

<sup>8</sup> We examine the mean difference in financial ratios between pre-capitalization and post-capitalization of operating leases

differences in the DER and the ICR would skew mean values, thereby overestimating the economic impacts of capitalization of operating leases. We predict that capitalizing operating leases leads to worsen the DER and the ICR. Thus, the mean and the quartile differences in the DER (ICR) between pre-capitalization and post-capitalization would be significantly positive (negative).

Next, this study examines whether the economic impacts of capitalizing operating leases on financial ratios are more likely to be large after the adoption of Statement No. 13. Because almost all Japanese firms adopted the exceptional treatment that allowed them not to recognize finance leases (JAL, 2003), they were less likely to use operating leases before the adoption of Statement No. 13. However, since Statement No. 13 requires Japanese firms to recognize all finance leases on their balance sheet, they are more likely to increase their use of operating leases. In fact, previous studies indicate that Japanese firms transfer leases from finance leases to operating leases in response to the adoption of Statement No. 13 (Yamamoto, 2010; Arata, 2012).

Accordingly, we predict that capitalization of operating leases is more likely to have large impacts on key financial ratios after the adoption of Statement No. 13. We use the following equations (1) and (2) to examine this prediction:

$$\Delta DER = \alpha_0 + \alpha_1 D + \alpha_2 LEV + \alpha_3 SIZE + \alpha_4 MTB + Industry\ dummy + \varepsilon, \quad (1)$$

$$\Delta ICR = \beta_0 + \beta_1 D + \beta_2 LEV + \beta_3 SIZE + \beta_4 MTB + Industry\ dummy + \mu, \quad (2)$$

where  $\Delta DER$  ( $\Delta ICR$ ) is the difference in the DER (ICR) between post-capitalization and pre-capitalization of operating leases; D is an indicator variable that takes the value of 1 if Statement No. 13 is mandatorily adopted, and 0 otherwise; LEV is debt divided by total assets; Size is the natural log of total assets; MTB is market value of equity divided by book value of equity; and Industry dummy is industry dummy variables. If the impacts of capitalizing operating leases are more likely to be large after the adoption of Statement No. 13, the signs of the coefficients of D in the regression models will be positive ( $\alpha_1 > 0$ ) and negative ( $\beta_1 < 0$ ) for the DER and the ICR, respectively. This study includes leverage (LEV), firm size (SIZE), growth opportunity (MTB), and industry dummy as control variables for the impacts of capitalization of operating leases.

### 4 Sample Selection and Descriptive Statistics

The sample is selected from the period 2001–2013 using the following criteria:

(i) Firms that use Japanese GAAP and are listed on stock exchanges in Japan.

using OLS regression. In addition, we investigate each quartile difference between them using quantile regression.



- (ii) Banks, securities firms, insurance, and other financial firms are deleted.
- (iii) Fiscal year ends on March 31.
- (iv) The accounting period has not changed during the fiscal year.
- (v) The necessary data on financial statements and share prices are available from the *Nikkei NEEDS Financial QUEST* database.

The full-fledged data regarding leases in consolidated financial statements are available only after 2000. This study requires the prior year's data to constructively capitalize operating leases.

Accordingly, this study's sample period starts in 2001. Because the data for investigating economic impacts of capitalizing operating leases are necessary, firms that lack data on future minimum lease payments for operating leases and the discount rate to capitalize operating leases are deleted from our sample. In addition, this study excludes observations with negative total assets or a negative book value of equity. Furthermore, in order to control for outliers, continuous variables are trimmed by year at the top and bottom 0.5%. The final sample consists of 9,130 firm-year observations.

**Table 1.** Descriptive Statistics

	N	Mean	SD	Min	p25	Median	p75	Max
$\Delta$ DER	9,130	0.079	0.304	0.000	0.001	0.007	0.036	9.615
$\Delta$ ICR	9,130	-8.139	44.404	-999.200	-1.055	-0.114	-0.004	33.515
D	9,130	0.442	0.497	0.000	0.000	0.000	1.000	1.000
LEV	9,130	0.249	0.173	0.000	0.102	0.234	0.369	0.764
SIZE	9,130	11.575	1.509	7.718	10.468	11.446	12.557	15.837
MTB	9,130	1.247	0.968	0.027	0.664	0.995	1.510	19.406

Notes:

Continuous variables are trimmed by year at the top and bottom 0.5%.

Pre DER = debt divided by book value of equity before capitalizing operating leases

Post DER = debt divided by book value of equity after capitalizing operating leases

Pre ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) before capitalizing operating leases

Post ICR = business income, which sums operating income

and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) after capitalizing operating leases

$\Delta$ DER = Pre DER subtracted from Post DER

$\Delta$ ICR = Pre ICR subtracted from Post ICR

D = an indicator variable that takes the value of 1 if Statement No. 13 is mandatorily adopted, and 0 otherwise

LEV = debt divided by total assets

SIZE = natural log of total assets

MTB = market value of equity divided by book value of equity

Table 1 presents the descriptive statistics for the variables used in this study. The mean (median) value of  $\Delta$ DER, which is the difference between pre-capitalization and post-capitalization of operating leases, is 0.079 (0.007). In addition, the mean (median) value of  $\Delta$ ICR, which is the difference

between pre-capitalization and post-capitalization of operating leases, is -8.139 (-0.114). These results show that capitalization of operating leases on average increases the DER by 0.08 and decreases the ICR by 8.14.

**Table 2.** Correlation Matrix

	$\Delta$ DER	$\Delta$ ICR	D	LEV	SIZE	MTB
$\Delta$ DER	1.0000	-0.3136 (0.0000)	0.1178 (0.0000)	0.2875 (0.0000)	0.0668 (0.0000)	0.1164 (0.0000)
$\Delta$ ICR	-0.0006 (0.9554)	1.0000	-0.0763 (0.0000)	0.5455 (0.0000)	-0.0052 (0.6186)	-0.1466 (0.0000)
D	0.0243 (0.0202)	-0.0763 (0.0000)	1.0000	-0.0476 (0.0000)	-0.0411 (0.0001)	-0.2809 (0.0000)
LEV	0.2039 (0.0000)	0.2237 (0.0000)	-0.0528 (0.0000)	1.0000	0.1410 (0.0000)	0.0888 (0.0000)
SIZE	0.0009 (0.9333)	0.0169 (0.1073)	-0.0373 (0.0004)	0.1703 (0.0000)	1.0000	0.2957 (0.0000)
MTB	0.0856 (0.0000)	-0.0278 (0.0078)	-0.2445 (0.0000)	0.1251 (0.0000)	0.1596 (0.0000)	1.0000

Notes:

Pearson (Spearman) correlations are below (above) the diagonal.

Continuous variables are trimmed by year at the top and bottom 0.5%.

Pre DER = debt divided by book value of equity before capitalizing operating leases

Post DER = debt divided by book value of equity after capitalizing operating leases

Pre ICR = business income, which sums operating income

and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) before capitalizing operating leases

Post ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) after capitalizing operating leases

$\Delta$ DER = Pre DER subtracted from Post DER

$\Delta$ ICR = Pre ICR subtracted from Post ICR

D = an indicator variable that takes the value of 1 if Statement No. 13 is mandatorily adopted, and 0 otherwise

LEV = debt divided by total assets

SIZE = natural log of total assets

MTB = market value of equity divided by book value of equity

*p* values for correlation coefficients are reported in parentheses.

Table 2 reports the correlation matrix for the variables used in our regression models. The upper-right-hand area of the table reports the Spearman rank-order correlations, and the lower-left-hand area of the table reports the Pearson correlations. In both correlation analyses, D is positively and significantly associated with  $\Delta$ DER, and negatively and associated with  $\Delta$ ICR. The results suggest that the economic impacts of capitalizing operating leases are more likely to be large after the adoption of Statement No. 13, as predicted.

## 5. Results

### 5.1 Main Results

First, this study analyzes the economic impacts of capitalizing operating leases by examining the mean and the quartile differences in the DER and the ICR between pre-capitalization and post-capitalization of operating leases by sector.<sup>9</sup>

In Table 3, Panel A reports the impacts of capitalization of operating leases on the DER for every sector. Column 2 shows that the mean differences in the DER between pre-capitalization and post-capitalization are positive and substantially different from zero. In particular, for the transportation and utilities sector and the consumer goods sector, capitalization of operating leases on average increases the DER by 0.18 and 0.16, respectively. In addition, the quartile differences in the DER between pre-capitalization and post-capitalization are positive and statistically different from zero for every sector and each quartile (columns 3–5). These results document that capitalizing operating leases has substantial impacts on the DER.

Panel B reports the impacts of capitalization of operating leases on the ICR for every sector. Column 2 shows that the mean differences in the ICR between pre-capitalization and post-capitalization are negative and significantly different from zero. In particular, in the consumer goods sector, capitalization of operating leases on average decreases the ICR by 19.5. Furthermore, the first and second quartile differences in the ICR between pre-capitalization and post-

capitalization are negative and statistically different from zero for every sector (columns 3 - 4). Column 5 reports the results of the third quartile differences, which are negative and statistically significant except for the transportation and utilities sector. Overall, these results report that capitalization of operating leases has significant impacts on the ICR.

<sup>9</sup> In addition, this study investigates the mean and the quartile differences in the DER and the ICR between pre-capitalization and post-capitalization of operating leases by year. Unreported results show that capitalization of operating leases has significant impacts on the DER and the ICR, as predicted.

**Table 3.** The Mean and the Quartile Differences in Financial Ratios between Pre-capitalization and Post-capitalization of Operating Leases

**Panel A. DER**

Sector	Mean	Q(0.25)	Q(0.50)	Q(0.75)	N
Technology	0.0311 <sup>***</sup> (12.5550)	0.0015 <sup>***</sup> (12.5541)	0.0070 <sup>***</sup> (20.5498)	0.0238 <sup>***</sup> (20.4746)	2,023
Consumer Goods	0.1607 <sup>***</sup> (15.8773)	0.0017 <sup>***</sup> (10.4017)	0.0146 <sup>***</sup> (8.6534)	0.1089 <sup>***</sup> (13.9042)	1,935
Materials	0.0312 <sup>***</sup> (10.1640)	0.0008 <sup>***</sup> (17.4416)	0.0041 <sup>***</sup> (16.1916)	0.0200 <sup>***</sup> (18.8718)	2,719
Capital Goods and Others	0.0905 <sup>***</sup> (8.6496)	0.0013 <sup>***</sup> (13.2743)	0.0068 <sup>***</sup> (14.9405)	0.0312 <sup>***</sup> (16.6905)	2,028
Transportation and Utilities	0.1828 <sup>***</sup> (12.6724)	0.0032 <sup>***</sup> (5.2790)	0.0337 <sup>***</sup> (6.6495)	0.1649 <sup>***</sup> (7.3552)	802

Notes:

We redefine sectors based on the Nikkei industrial classification of 36 industries.

$\Delta$ DER is trimmed by year at the top and bottom 0.5%.

Pre DER = debt divided by book value of equity before capitalizing operating leases

Post DER = debt divided by book value of equity after capitalizing operating leases

$\Delta$ DER = Pre DER subtracted from Post DER

*t* statistics are reported in parentheses.

<sup>\*\*\*</sup> Statistically significant at the 0.01 level of significance using a two-tailed *t* test

<sup>\*\*</sup> Statistically significant at the 0.05 level of significance using a two-tailed *t* test

<sup>\*</sup> Statistically significant at the 0.10 level of significance using a two-tailed *t* test

**Panel B. ICR**

Sector	Mean	Q(0.25)	Q(0.50)	Q(0.75)	N
Technology	-6.6056 <sup>***</sup> (-8.3035)	-0.9572 <sup>***</sup> (-10.0440)	-0.1341 <sup>***</sup> (-10.3359)	-0.0046 <sup>***</sup> (-4.0588)	1,998
Consumer Goods	-19.4865 <sup>***</sup> (-11.1090)	-5.3667 <sup>***</sup> (-9.7184)	-0.5990 <sup>***</sup> (-8.8024)	-0.0291 <sup>***</sup> (-5.3820)	1,918
Materials	-3.9597 <sup>***</sup> (-7.6346)	-0.4223 <sup>***</sup> (-12.4682)	-0.0511 <sup>***</sup> (-10.6353)	-0.0021 <sup>***</sup> (-5.7527)	2,715
Capital Goods and Others	-6.6241 <sup>***</sup> (-7.8246)	-0.7215 <sup>***</sup> (-8.2992)	-0.0770 <sup>***</sup> (-9.0531)	-0.0023 <sup>***</sup> (-3.5184)	2,044
Transportation and Utilities	-3.9886 <sup>***</sup> (-4.7865)	-0.6031 <sup>***</sup> (-4.7608)	-0.0508 <sup>***</sup> (-3.9285)	-0.0003 (-1.2582)	803

Notes:

We redefine sectors based on the Nikkei industrial classification of 36 industries.

$\Delta$ ICR is trimmed by year at the top and bottom 0.5%.

Pre ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) before capitalizing operating leases

Post ICR = business income, which sums operating income and financial income (interest income, discount

income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) after capitalizing operating leases

$\Delta$ ICR = Pre ICR subtracted from Post ICR

*t* statistics are reported in parentheses.

<sup>\*\*\*</sup> Statistically significant at the 0.01 level of significance using a two-tailed *t* test

<sup>\*\*</sup> Statistically significant at the 0.05 level of significance using a two-tailed *t* test

<sup>\*</sup> Statistically significant at the 0.10 level of significance using a two-tailed *t* test

Next, this study uses the equations (1) and (2) to examine whether the economic impacts of capitalizing

operating leases on key financial ratios are more likely to be large after the adoption of Statement No. 13.

**Table 4.** Regression Results on the Economic Impacts of Capitalization of Operating Leases

**Panel A. DER**

$$\Delta DER = \alpha_0 + \alpha_1 D + \alpha_2 LEV + \alpha_3 SIZE + \alpha_4 MTB + Industry\ dummy + \varepsilon$$

	OLS	QR(0.25)	QR(0.50)	QR(0.75)
	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant	-0.0623 (-1.3710)	-0.0052*** (-3.7039)	-0.0160*** (-4.4441)	-0.0124 (-1.3614)
D	0.0235** (2.4793)	0.0010*** (5.9556)	0.0034*** (5.6713)	0.0064*** (3.6007)
LEV	0.2912*** (5.6501)	0.0055*** (5.8155)	0.0266*** (6.7041)	0.0914*** (9.3512)
SIZE	-0.0012 (-0.2798)	0.0003*** (3.0909)	0.0010*** (3.4506)	0.0004 (0.4878)
MTB	0.0153** (2.4314)	0.0005*** (3.5155)	0.0018** (2.4969)	0.0047*** (2.6047)
Industry dummy	Yes	Yes	Yes	Yes
N	9,130	9,130	9,130	9,130
R <sup>2</sup>	0.134	0.066	0.083	0.113

Notes:  
 Continuous variables are trimmed by year at the top and bottom 0.5%.  
 Pre DER = debt divided by book value of equity before capitalizing operating leases  
 Post DER = debt divided by book value of equity after capitalizing operating leases  
 $\Delta$ DER = Pre DER subtracted from Post DER  
 D = an indicator variable that takes the value of 1 if Statement No. 13 is mandatorily adopted, and 0 otherwise  
 LEV = debt divided by total assets

SIZE = natural log of total assets  
 MTB = market value of equity divided by book value of equity  
 t statistics are reported in parentheses. Standard errors are clustered by firm.  
 \*\*\* Statistically significant at the 0.01 level of significance using a two-tailed t test  
 \*\* Statistically significant at the 0.05 level of significance using a two-tailed t test  
 \* Statistically significant at the 0.10 level of significance using a two-tailed t test

**Panel B. ICR**

$$\Delta ICR = \beta_0 + \beta_1 D + \beta_2 LEV + \beta_3 SIZE + \beta_4 MTB + Industry\ dummy + \mu$$

	OLS	QR(0.25)	QR(0.50)	QR(0.75)
	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant	1.0715 (0.1676)	-1.8635*** (-3.6788)	-0.0504 (-0.4923)	0.0811*** (3.0759)
D	-6.3495*** (-4.8818)	-0.4356*** (-4.9299)	-0.1023*** (-4.7606)	-0.0122*** (-2.6551)
LEV	61.4935*** (9.3859)	6.8171*** (8.0365)	1.6118*** (7.7843)	0.3183*** (9.2305)
SIZE	-1.2168** (-2.2344)	-0.0552 (-1.4188)	-0.0394*** (-4.1859)	-0.0133*** (-5.4219)
MTB	-2.2205*** (-3.0711)	-0.3604*** (-5.9603)	-0.0821*** (-5.6984)	-0.0184*** (-4.6903)
Industry dummy	Yes	Yes	Yes	Yes
N	9,130	9,130	9,130	9,130
R <sup>2</sup>	0.084	0.054	0.074	0.073

Notes:  
 Continuous variables are trimmed by year at the top and bottom 0.5%.  
 Pre ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) before capitalizing operating leases  
 Post ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) after capitalizing operating leases  
 $\Delta$ ICR = Pre ICR subtracted from Post ICR  
 D = an indicator variable that takes the value of 1 if Statement No. 13 is mandatorily adopted, and 0 otherwise  
 LEV = debt divided by total assets  
 SIZE = natural log of total assets  
 MTB = market value of equity divided by book value of equity  
 t statistics are reported in parentheses. Standard errors are clustered by firm.  
 \*\*\* Statistically significant at the 0.01 level of significance using a two-tailed t test  
 \*\* Statistically significant at the 0.05 level of significance using a two-tailed t test  
 \* Statistically significant at the 0.10 level of significance using a two-tailed t test

In Table 4, Panel A reports the results of regression model (1). For OLS regression, column 2 shows that the coefficient of D, 0.0235, is positive and statistically significant at the 5% level. The result indicates that  $\Delta$ DER after the adoption of Statement No. 13 is, on average, 0.02 larger than that before the adoption of Statement No. 13 when we control for LEV, SIZE, MTB, and Industry dummy. In addition, for quantile regression, the coefficients of D are consistent with expected sign and statistically significant at the 1% level for each quartile (columns 3–5). These results show that capitalization of operating leases has significantly profound impacts on the DER after the adoption of Statement No. 13.

Panel B shows the results of regression model (2). For OLS regression, the coefficient of D, -6.3495, is negative and statistically significant at the 1% level (column 2). The result reports that  $\Delta$ ICR after the adoption of Statement No. 13 is, on average, 6.35 smaller than that before the adoption of Statement No. 13 when we control for LEV, SIZE, MTB, and Industry dummy. Further, for quantile regression, columns 3–5 report that the coefficients of D are statistically negative at the 1% level for each quartile. These results indicate that capitalization of operating leases has substantially larger impacts on the ICR after the adoption of Statement No. 13.

### 5.2 Robustness Test

In the previous subsection, this study found that capitalization of operating leases had significant impacts on key financial ratios. These impacts were significantly larger after the adoption of Statement No.

13. This subsection describes the analysis conducted to determine the robustness of our findings.

First, this study changes the assumptions of the present value method. Following Imhoff et al. (1991, 1997), our research assumes  $RL/TL = 0.5$  in constructively capitalizing operating leases. In addition to  $RL/TL = 0.5$ , this study uses  $RL/TL = 0.4$  and  $RL/TL = 0.6$  and reexamines the economic impacts of capitalization of operating leases. Unreported results show these economic impacts. That is, the differences in financial ratios between pre-capitalization and post-capitalization of operating leases are significantly different from zero, and the impacts of capitalizing operating leases are more likely to be large after the adoption of Statement No. 13.

Second, this study uses a different present value method to capitalize operating leases. This study assumes that the amount of lease payment is constant during the lease term in constructively capitalizing operating leases. However, when firms have multiple lease contracts made at different periods, the amount of lease payment gradually decreases because each contract expires over time. Assuming that the amount of lease payment is constant during the lease term would overestimate the values of OLA and OLO. Ely (1995) proposes another present value method that assumes the amount of lease payment gradually decreases over time. Accordingly, following Ely (1995), this study reinvestigates the economic impacts of capitalization of operating leases. Unreported results show that the mean and the quartile differences in the DER and the ICR between pre-capitalization and post-capitalization of operating leases by sector are significantly different from zero, as predicted.

**Table 5.** Regression Results on the Economic Impacts of Capitalization of Operating Leases using Ely (1995) Model

<b>Panel A. DER</b>				
$\Delta DER = \alpha_0 + \alpha_1 D + \alpha_2 LEV + \alpha_3 SIZE + \alpha_4 MTB + Industry\ dummy + \varepsilon$				
	OLS	QR(0.25)	QR(0.50)	QR(0.75)
	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant	-0.0376 (-0.7639)	-0.0051*** (-3.3536)	-0.0140*** (-3.6743)	-0.0082 (-0.9488)
D	0.0225** (2.4865)	0.0011*** (5.5073)	0.0034*** (5.0112)	0.0066*** (3.6418)
LEV	0.3114*** (4.8893)	0.0065*** (5.6238)	0.0296*** (6.8226)	0.0927*** (9.8275)
SIZE	-0.0039 (-0.8745)	0.0003** (2.5663)	0.0009*** (2.6580)	-0.0000 (-0.0292)
MTB	0.0175** (2.3930)	0.0006*** (3.5674)	0.0018** (2.2644)	0.0052** (2.5592)
Industry dummy	Yes	Yes	Yes	Yes
N	8,667	8,667	8,667	8,667
R <sup>2</sup>	0.117	0.054	0.066	0.093

Notes:  
Continuous variables are trimmed by year at the top and bottom 0.5%.  
Pre DER = debt divided by book value of equity before capitalizing operating leases

Post DER = debt divided by book value of equity after capitalizing operating leases  
 $\Delta$ DER = Pre DER subtracted from Post DER  
D = an indicator variable that takes the value of 1 if Statement No. 13 is mandatorily adopted, and 0

otherwise  
 LEV = debt divided by total assets  
 SIZE = natural log of total assets  
 MTB = market value of equity divided by book value of equity  
*t* statistics are reported in parentheses. Standard errors are clustered by firm.

\*\*\* Statistically significant at the 0.01 level of significance using a two-tailed *t* test  
 \*\* Statistically significant at the 0.05 level of significance using a two-tailed *t* test  
 \* Statistically significant at the 0.10 level of significance using a two-tailed *t* test

**Panel B. ICR**

$$\Delta ICR = \beta_0 + \beta_1 D + \beta_2 LEV + \beta_3 SIZE + \beta_4 MTB + Industry\ dummy + \mu$$

	OLS	QR(0.25)	QR(0.50)	QR(0.75)
	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant	-6.7498 (-0.8029)	-2.5373*** (-3.9493)	-0.1895 (-1.4895)	0.0561 (1.4105)
D	-6.8303*** (-4.6356)	-0.4770*** (-4.1219)	-0.1325*** (-4.8609)	-0.0275*** (-3.8345)
LEV	68.3181*** (9.2909)	7.9161*** (6.7166)	2.0499*** (7.9193)	0.4605*** (8.0355)
SIZE	-1.1134* (-1.9573)	-0.0342 (-0.7801)	-0.0412*** (-3.7624)	-0.0151*** (-4.3021)
MTB	-2.6079*** (-3.2383)	-0.4284*** (-4.0649)	-0.1002*** (-4.8674)	-0.0269*** (-4.7152)
Industry dummy	Yes	Yes	Yes	Yes
N	8,667	8,667	8,667	8,667
R <sup>2</sup>	0.078	0.047	0.066	0.069

Notes:  
 Continuous variables are trimmed by year at the top and bottom 0.5%.  
 Pre ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) before capitalizing operating leases  
 Post ICR = business income, which sums operating income and financial income (interest income, discount income, and interest on securities), divided by financial expenses (interest expenses and discount on notes) after capitalizing operating leases  
 ΔICR = Pre ICR subtracted from Post ICR  
 D = an indicator variable that takes the value of 1 if

Statement No. 13 is mandatorily adopted, and 0 otherwise  
 LEV = debt divided by total assets  
 SIZE = natural log of total assets  
 MTB = market value of equity divided by book value of equity  
*t* statistics are reported in parentheses. Standard errors are clustered by firm.  
 \*\*\* Statistically significant at the 0.01 level of significance using a two-tailed *t* test  
 \*\* Statistically significant at the 0.05 level of significance using a two-tailed *t* test  
 \* Statistically significant at the 0.10 level of significance using a two-tailed *t* test

Table 5 reports that capitalizing operating leases has larger impacts after the adoption of Statement No. 13. Panel A shows the results for the DER. For both OLS regression and quantile regression, the coefficients of D are consistent with the expected signs and statistically significant. In addition, Panel B reports the results for the ICR. For OLS regression and quantile regression, the coefficients of D are significantly negative at the 1% level. These results indicate that capitalizing operating leases has larger impacts on financial ratios after the adoption of Statement No. 13.

In summary, even after changing the assumptions of the constructive capitalization method and using another constructive capitalization method, the results do not change our main results. These results confirm the robustness of our findings.

**6 Discussion and Concluding Remarks**

This study investigated the economic impacts of capitalization of operating leases in Japan. Our research specifically examined whether capitalization

of operating leases had significant effects on financial ratios. This study provided some useful evidence, as follows.

First, this study investigated whether capitalization of operating leases had significant impacts on financial ratios, including the DER and the ICR. Our findings showed that the mean and the quartile differences in the DER between pre-capitalization and post-capitalization were positive and significantly different from zero, and the differences in the ICR between pre-capitalization and post-capitalization were negative and substantially different from zero. These results showed the ex-ante negative impacts of capitalization of operating leases.

Next, this study examined whether the impacts of capitalizing operating leases on financial ratios were more likely to be large after the adoption of Statement No. 13. Since almost all Japanese firms adopted the exceptional treatment that allowed them not to recognize finance leases, they did not often use operating leases before the adoption of Statement No. 13. After the adoption of Statement No. 13, Japanese firms must recognize finance leases on their balance

sheet, and thus they are more likely to use operating leases. This study found that the impacts of capitalizing operating leases on key financial ratios were significantly larger after the adoption of Statement No. 13.

This study shows that capitalization of operating leases has significant effects on financial ratios. These results provide useful implications for the discussion of global convergence of accounting standards. Our results show that capitalization of operating leases has significant effects on debt contracts. Since firms include reported accounting numbers in debt contracts (e.g., Watts and Zimmerman, 1986; Armstrong et al., 2001; Shivakumar, 2013; Taylor, 2013), capitalization of operating leases has significant impacts on accounting numbers and financial ratios, thereby affecting debt contracts. El-Gazzar (1993) shows that capitalization of finance leases has caused significant increases in the tightness of debt covenant restrictions. It would be possible to extrapolate this result to capitalization of operating leases. In fact, Beattie et al. (2006) show that companies raise concerns about the renegotiation of debt covenants if capitalization of operating leases is implemented. Although the IASB and the FASB suggest that their proposal would not affect the provisions of debt contracts (IASB, 2013, par. BC374), our results suggest that capitalization of operating leases has significant effects on debt contracts.

On the other hand, our results would be consistent with the new lease model that requires lessees to recognize operating leases on their balance sheet. The IASB and the FASB assume that operating leases are very similar to finance leases from an economic perspective. Both accounting standard setters criticize the current accounting standards because they report economically similar lease transactions very differently, thereby reducing comparability and failing to meet the needs of investors and analysts (IASB, 2015). As shown in this study, it is possible to capitalize operating leases using the information disclosed in the notes to the financial statement. However, this would be insufficient for users to make reliable adjustments to lessees' financial statements (IASB, 2009, 2010, 2013). For example, Bratten et al. (2013) report the associations between the costs of debt and equity and recognized finance lease obligations versus disclosed operating lease obligations are different only when disclosures on operating leases are less reliable. Under the assumption of economic similarity between the two types of leases, it would be expected that capitalizing operating leases would increase comparability and improve the decision usefulness of accounting information.

Despite the useful insights with regard to capitalization of operating leases, this study has several limitations. This study investigated the impacts of capitalizing operating leases on key financial ratios. It would be necessary to investigate contract terms

including debt covenants to directly analyze the impacts of capitalizing operating leases. Furthermore, our research does not investigate whether operating leases are economically similar to finance leases. It would be necessary to examine whether operating leases are very similar to finance leases from an economic perspective to determine whether capitalizing operating leases improves the decision usefulness of accounting information. Although there are several limitations, this study makes significant contributions to the literature on the economic consequences of capitalizing leases and discussions of the global convergence of accounting standards.

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## **EMPLOYMENT GENERATION THROUGH ICT: A CASE STUDY OF DELTA STATE OF NIGERIA ICT PARKS PROJECT**

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### **Abstract**

Statistically, Nigeria has a youth population of about 67 million, aged between 15 and 35 years. 42.2% of these young people are not gainfully employed while only 20% have more than the secondary school certificate. In order to bridge this gap, the Delta State Government developed the Delta ICT parks, a growing 21st century business, service and technology facility equipped to train, educate and encourage an entrepreneurial culture with sound human resource, that would drive development of an ICT knowledge based economy. This initiative, borne out of the Delta beyond oil is already in steady progress, enjoying the partnership of System Application Product (SAP) under the platform of Europe, Middle East and Africa (EMEA) that portends a global IT based future. The objective of this paper is to access the level of implementation and publicity, skill acquisition and degree of the impact of the initiative on employment generation in Delta State. The study, which adopted a survey design, applied three research questions and used oral interview and a Millennium Park Entrepreneurial Assessment Questionnaire (MPEAQ). The content validity was validated by experts from Entrepreneurial Skills Development and Human Resources Management of Delta State Polytechnic Ogwashe-Uku (DESPOG) with a test, re-test reliability coefficient of 0.82. A Sample of 350 was drawn using stratified random sampling technique from an undeterminable growing population comprising of secondary, tertiary education students, trainees and graduates of the programme. The simple percentage was used for data analysis. The findings revealed the need for the establishment of ICT parks with adequate awareness campaign. Also, that ICT skill acquisition is a panacea for employment generation in most societies. Recommendations were made based on findings on this model of employment generation through ICT in Delta State of Nigeria.\*\*\*\*

**Keywords:** ICTs, Employment Generation, Millennium Park

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### **1 Introduction & Background**

Any nation that is knowledgeable and skilled enough to influence positively the technological, industrial, educational, agricultural and other important sectors of the economy is classified as a developed Nation (UNDP, 2001). To achieve these feats, the youths of such nation must be given right type of education through training which will enable them to be self-employed or employers of labour after their graduation.

Nigeria, despite the enormous wealth and the recent rebasing of her economy as the largest in Africa ahead of South Africa, is still poor with limited overall development. World Bank (2007) as cited by Olaniyi (2009) indicates that two-thirds of the Nigerian population is poor. Poverty rate as a result of unemployment rose from 27% - 70% between 1980 and 1990. In Nigeria, unemployment is a major

problem of the country essentially because of over dependency on oil, Government jobs, insecurity, high inflation rate and corruption, insurgency, among others. The Federal Government realized that without tackling this problem, realizing the Millennium Development Goals (MDGs) will become a mirage. Similarly, with the global trend in Information, Communication Technology, platforms were set with such programme as Youth Economic Advancement Programme (YEAP), National Economic Empowerment Development Strategies (NEEDS), State Economic Empowerment & Development Strategies (SEEDS), YOU-WIN and other ICT initiatives were set up to leverage and fill the gaps created by the unemployment situation. This allows Governments at various levels to key in and develop a workforce driven by ICT for employment generation in a 21st century world. Delta State, rich in oil mineral deposits, situated in Nigeria's south- south

geographical region, with multiple ethnic groups came up with the ICT park project to meet this critical need through its Youths Empowerment Initiative Programme. The initiative was carried out with a mission to harness the production potential of youths in Delta State, in order create an era of rapid, sustainable, social and economic development that will transform the state into the most peaceful, ICT and industrialized state in Nigeria (Ofuani, 2013). The objective of this initiative of the Delta State Government includes: Developing a platform that will re-orient youths across the state on opportunities to be employed or an employer through education, training and development in ICT; Creating an environment for training on skill acquisition opportunities through ICT in small scale entrepreneurship; and Promote private sector participation for societal development (Chambers, 2002).

The proponents believe that this platform would help to curb youth unrest, and bolster economic empowerment and development. This was indeed the rationale behind the establishment of the Millennium Park in the Central and Northern Senatorial districts of Warri and Asaba, respectively in Delta State. The establishment of these Millennium Parks has positive effect on the youth empowerment and economic development of the state.

The youths are vibrant, energetic, creative and have the potential to play significant roles in economic development, and, the development of ICT is important in stimulating youths in SME's to complete favourably and effectively as a way of fighting poverty through job and wealth creation (Adebola, 2013).

## **2 Theoretical Framework**

### ***ICT Parks & Employment Generation***

For this study, ICT is defined as the integration and utilization of computer technologies for the purpose of disseminating information to a target destination or consumer without the constraint of time and space (Adekomi, 2004). Operationally, ICTs comprise digital devices either in the forms of hard-wares or software for transferring information. The millennium parks intervention of the Delta State Government is to basically provide necessary knowledge and skill acquisition for youths after completion of the training. Trainees would be provided with a support base to fit into the society. The ICT Park, a pet project of Delta state government, was born out of the state's human capital development policy. The park, which is equipped with modern state-of-the-art facilities was designed to train young Deltans in acquiring various computer and vocational skills through training that will prepare them for Compu-life and ultimately achieve the desired private sector driven economy of international standards. The overall idea is to harness the positive qualities, talents of young and talented

Deltans with these ingenuities and change them from jobs seekers to employers of labour in the country. For instance, Bill Gates a leading Computer expert in the world today, built an empire in real value terms that has translated into the annual budgets of over sixteen African countries (Ofuani, 2014)

Sesan (2004) stated that in developing countries, there is an astronomic increase on unemployment. He was of the opinion that from 2010 onwards, over 700 million youths will enter the labour market in Nigeria. However, this initiative of the Government of Delta State allows for the training of youths with both secondary and tertiary educational backgrounds to be trained for self-sustenance, economic empowerment and development. The Delta State Government ICT Millennium Parks, which is a 21st Century business, science and technology Park was designed to encourage an entrepreneurial culture and the development of knowledge based industry, as a major ICT hub in the whole of West Africa sub-region. This Park was borne out of "Delta Beyond Oil" initiative with income generation capacity of one billion dollars annually (Ofili, 2012).

### ***Modern Information and Communication Technology in Nigeria***

Information and communication Technology (ICT) initiative in Nigeria dates back to when the Nigerian Communications commission (NCC) was established by Decree 75 of 1992. The Commissions main objectives are the following:

- Creating a regulatory environment to facilitate the supply of telecommunication services and facilities;
- Facilitating the entry of private entrepreneurs into the telecommunication market; and
- Promoting fair competition and an efficient market conduct among all players in the industry.

A look at the communication system since 1992 till date reveals a slow development in the communication industry with its enormous potentials. This had lead government into other projects that will make information communication services more accessible efficient and affordable (Arzika, 2000).

Despite the laudable efforts by government, Nigeria lags behind in the race to become a digital society. The 'digital divide' has made it near impossible to empower our youth, women and rural communities. According to the free encyclopedia, Wikipedia (2005), the term 'digital divides' refers to gaps that exist between groups regarding their ability to use ICTS effectively, due to deferring levels of literacy and technical skills, as well as the gap between those that have access to quality, useful digital content and those who have adequate access to information and communication technologies such as computers and the internet and those who have limited or no access need to be bridged so that Nigeria can

harness the potential of these technologies (OECD, 2000).

Currently, ICT is literally putting smiles on faces in most countries. Individuals, organizations, nations, people and groups are applying ICT in processes and in their everyday life. Some economies have improved greatly while others are yet to appreciate the valid potentials of the new phenomenon (Laswell, 1948).

ICT offers a lot of gains to a country's economy and society. Efforts by governments, enterprises, civil society organizations and citizens to capture these benefits can produce significant employment opportunities for young people with requisite ICT skills and competencies (NEPAD, 2002).

Basically, a self-sustaining economic environment would be normally achieved with employment generation through ICT especially in the face of dwindling oil revenue and double digit inflationary rate of our country presently. These benefits can also extend from improvement in the production of goods and services through more efficient processes and higher quality output. More importantly, the potential gain is in the benefits for civil society and poverty reduction. This according to Curtin (2001) can come from the application of ICT to improving the lives of citizen in general and less privileged or poorest in particular. These opportunities apply to not only offering new or improved opportunities to earn income, they also relate to better information about and access to government funded service like the millennium ICT parks. Cecchini (2003) identifies three priority areas in which ICT potential could be harnessed for the reduction of poverty, namely opportunity, empowerment and security. Opportunity makes markets work better for the poor and expands poor people's assets. Empowerment makes government institutions work better for the poor and removes social barriers. Security helps poor people manager risk. ICT infrastructure such as internet, radio, television, enables the relay of education to isolated rural area. Another major benefit accruing from these ICT millennium packs is that it offers talent related job placement in exchange for the over stretched public service employment or other agencies (Bawden, 2001).

### **Structural transformation**

Africa's recent growth has not been job-rich. More progress can be achieved if concerted efforts are made to add value through ICT aggressive industrialization drive that generates employment opportunities for a large majority of the workforce. A more diversified economic structure will also be critical in strengthening African's resilience to economic, social and human development. These will create opportunities for good and decent jobs and secure livelihoods, reduce poverty and inequality. When people escape from poverty, it is most often by joining

the middle class, but to do so, they will need that training and skill through education to be successful in the job market and respond to demands by business for more workers ( World Bank , 2007).

### **3 Problem Statement**

The level of unemployment across Delta State and Nigeria was put at over 70%, National Directorate of Employment (NDE, 2009). Olaniyi (2009) expressed the fact that youth unemployment has caused a lot of problems in Nigeria. The Niger-Delta militancy, kidnapping, armed robbery, oil theft, insurgency and internet frauds, which is rampant amongst youths in Nigeria (Nigeria Punch September, 2008). Though various programmes have been put in place by State Governments but little or few results have been achieved.

In order to effectively address this problem, the following research questions are addressed:

What is the current level of ICT Parks awareness amongst youths in Delta State?

What are the levels of implementation of this training on skill acquisition of youths in Delta State?

What is the impact of the ICT Park skill acquisition on societal developments in Delta State?

### **4 Research Objectives**

The objectives of the paper are:

To establish the current level of ICT Parks awareness amongst youths in Delta State.

To investigate the levels of implementation of ICT training on skill acquisition of youths in Delta State.

To establish the impact of the ICT Park skill acquisition on societal developments in Delta State.

### **5 Methodology**

The study employed a survey research approach. The sample for the study consisted of 350 youths drawn from a population of youths who were involved in various levels of secondary and tertiary education, trainees and graduates in Delta State. They were selected through stratified sampling procedures based on location. Questionnaires and oral interview were developed by the researcher to collect information from the participants. The questionnaire was titled Millennium Park Entrepreneurial Assessment Questionnaire (MPEAQ). It solicited demographic information about sex, age, status, educational qualifications and localities.

### **6 Data Analysis**

The data collected was analysed using the simple statistical percentage

**Table 1.** Demographic distribution of respondents

Sex	Number	Percentage
Male	250	71.4
Female	100	28.6
<b>Total</b>	<b>350</b>	<b>100</b>

Age	Number	Percentage
18-25	50	14.3
25-30	180	51.4
31-35	120	34.3
<b>Total</b>	<b>350</b>	<b>100</b>

Status	Number	Percentage
Graduates	160	45.7
Trainees	190	54.3
<b>Total</b>	<b>350</b>	<b>100</b>

Educational Qualifications	Number	Percentage
WASC/SSCE/NECO/GCE	45	12.86
NCE/OND/	190	54.28
B.Sc and above	115	32.86
<b>Total</b>	<b>350</b>	<b>100</b>

Location	Number	Percentage
Rural	105	30
Urban	245	70
<b>Total</b>	<b>350</b>	<b>100</b>

## 7 Discussion of findings

The respondent distribution sets above, showed the demographic distributions of sex, age, status, educational qualifications and location of the respondents. The sex distribution comprises of male and female with populations of 250 and 35, which represent percentages of 71.4% and 28.6% respectively. The age distribution had clusters of between 18-25, 25-30 and 31-35, with a populations of 50, 180 and 120 respectively (which represent 14.3%, 51.4% and 34.3% respectively). The categories had a population of 160 and 190 for trainees and graduates distributions (with percentages of 45.7% and 54.3% respectively). Educational qualifications also had basic secondary school certificates of 45, NCE/OND of 190, B.Sc and above of 115, which is 12.86%, 54.28% and 32.86% respectively. Finally, the location had 245 and 105 population for urban and rural involvement with 70% and 35% respectively.

### **Awareness level of ICT in Delta State**

A total of 340 respondents with a percentage of 97% identified the fact there are two existing ICT millennium parks in Delta State in two senatorial

districts of central and north respectively, located in the cities of Warri and Asaba. Evidently, it goes to show that the level of publicity is high with increased enrolment through internet, school and other sources. This gave room for easy access and large turnout of youths into the programme. More so, the public knowledge was high because the various media, namely social, print and electronic was effectively utilised for publicity across the state. Remarkably, it was noticed in the increase in enrolments between urban and rural youths.

### **Level of implementation of ICT programmes in Delta state**

A total of 345 respondents representing 98% addressed the issues raised. This high response rate was attributable to the various types of training programmes available. In the sense that the programmes had full-time, part-time and weekend periods that allowed categories of Delta State indigenes to fit into any training session. Similarly, the involvement of schools, partnering the parks was an added advantage because results showed that schools engaged students in Work Training Schemes, exchange programmes visit and resource programmes

with the park as well as Industrial Training. The schemes gave a broader scope of involvement. Also, as a way of ensuring that appropriate skills are acquired, the duration of the programme was tied to the type of skills to be acquired with a spread from 3 months- 1year. The skills acquired ranged from business, operational, managerial, basic computer application packages, desktop publishing, networking, e-business skills, etc.

### ***Impact of the ICT park skills acquisition on societal development***

A total of 335 responses representing 96% responded to the issues raised. They revealed that this computer entrepreneurial training had a major pragmatic value shift in the society. It goes to show that the various government support schemes on graduation through engagements into related ventures and provision of take-off grant/incentives where a major boost. This initiative have succeeded in removing a lot of government job seekers from the streets, improved such services as e-registration, cyber-cafes among others in the society. Moreover, findings revealed that most of the graduates of this programme had an increase sense of belonging in the society, increased number of workers over time. Tertiary education graduates can also undertake their mandatory National Youth Service Corps (NYSC), which is a one year programme on primary assignments. These graduates lived their dreams of gaining employment with a mind-set that the state provides equal opportunities irrespective of place, status, class, creed or religion.

### ***Challenges of ICT in Nigeria***

The peculiarity of the country's pace of development has left some major challenges that affect the growth and development of ICT. These challenges as also hinted by the interviewee are summarised below:

Poor electricity supply: Inadequate power supply has been identified as a major challenge militating against the growth and development of information and communication technology in Nigeria. Regrettably the current democratic government has partially privatized the power holding parastatal of Nigeria with various power stations under construction. But the megawatts generated are yet to be felt by the average Nigerian. In most parts of the country, not even a kilowatt gets to households for domestic consumption as electricity penetration was 50.3% in 2012 (e-learning report, 2014).

Poor Global System Mobile (GSM) outreach: Accessibility to GSM is on the increase in Nigeria. As evidenced in the recent rebasing where Nigeria is rated as the largest economy in Africa and limiting broadband growth can negatively affect employment opportunities. However, some of the interviewees noted that the GSM outreach is yet to hit its peak where all nooks and corners of the country are

connected. It creates a vacuum where access to internet crannies usually affects the smooth flow of information especially where internet users and penetration was 48,366,179 and 32.9% in 2012 (e-learning, report, 2014).

High cost of Internet Connectivity: Most of the interviewees indicated high cost of internet connectivity as a major challenge. Due largely to poor electricity supply, GSM connectivity and policy implementations access to internet in Nigeria is still very high. ICT service exports 4.4% and mobile subscription 68 per 100 in 2012 (e-learning, report, 2014). Most households, individuals, institutions, organization pay so much to be connected in order to be part of the fast growing global village.

Weak government policies and programmes: The federal government of Nigeria today is yet to develop a master plan in her economic roadmap towards globalization that will promote the full integration, of young entrepreneur into the business world. This was also alluded to by the interviewees. Though such programmes like "You Win", have been introduced by the previous administration, it is yet to impact on the economic development of Nigeria.

### **Recommendation**

From the above challenges, the following recommendations are proposed:

- Government should create and sustain a policy of full privatization of the power sector to sustain such ICT parks
- The policy of full connectivity should be enforced by the regulatory agency, namely Nigeria communications commission
- Government should put in place policies that would encourage and subsidize internet access cost in the country
- Policies and programs of government should be matched by appropriate constitutional penalties on default.

### **Conclusion**

In conclusion, it can be said that the Delta ICT millennium Park initiative for employment generation is a laudable model which can be successfully implemented to become a great platform for job creation and the recreation of entrepreneurial spirit and skills, that is necessary for self-sustaining economy.

ICT has become a key factor in economic development in most developing countries. In employment generation, stakeholders should strive towards this youth societal and global empowerment which would reduce poverty and crime rate across the country. Today's youth are well positioned to capitalize on their familiarity with ICT to generate a win – win opportunities along ICT value chain that will also bring about the opportunity for youths to

come up with solutions without relying on government.

Young professionals in ICT should also be encouraged and positioned in a way to build upon previous research, fill critical gaps and respond to real gaps confronting unemployment challenges in the country.

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# **DO BANKS USE DERIVATIVES TO OFF SET ECONOMIC CONSEQUENCES OF WRONG STRATEGIES: EXTERNALLY GROWTH THROUGH ACQUISITIONS TOO MUCH EXPENSIVE (HOSTILE TAKEOVERS)?**

*Loredana Ferri Di Fabrizio\**

## **Abstract**

One of the unresolved questions in the matter of financial decision is why firms hedge with derivatives. Prior researches hypothesize different reasons for derivatives use and empirical results are contradictory. When Managers and Owners are different an agency problem could arise in the hedging decisions. For instance, the Managers may hedge in a manner that does not maximize the value of the firm. On one side derivatives allow shifting and hedging risks but on the other side reduce the cost of engaging in speculative transactions.

The paper is motivated mainly by the ongoing debate on derivatives use and seeks to answer following questions : how do corporate strategies use derivatives? What is the really goal of using derivatives: hedging or taking risks? How CEOs use derivatives to hide or delay losses or their imbalanced corporate strategies (e.g. hostile takeovers)?.

**Keywords:** ICTs, Employment Generation, Millennium Park

*\* Derivatives, Acquisitions, Hedging, Speculative, Risk Management, Systemic Risk, OTC, Financial Crisis, Shadow Banking*

## **1 Introduction**

The nature of bank's operations implies several financial risks (e.g. interest rate risk, foreign exchange risk, credit risk, liquidity risk) and requires on-balance and off-balance sheet strategies to manage them. During the past ten years, bank managers used derivatives contracts with position as dealers or speculators to manage these risks exposure (M. Venkatachalam, 1996).

Through financial derivative securities firms not only achieve goals to transfer and to hedge risks, but also have cheaply access to take speculative risks and determining when they are hedging or speculating is not a simple matter because it is difficult to value portfolio of derivatives. In banking sector is most important to determine if banks are using derivatives to hedge or to take risks because if large banks increase their risks through derivatives, the entire banking system is exposed to important potential losses related to. Otherwise, if large banks all take relevant positions in derivatives market, the failure of one may determine the failure of many, so called "Systemic Risk" (Gary Gorton and Richard Rosen, 1995). On one hand, derivatives allow shifting and hedging risks but on the other hand reduce the cost of engaging in speculative transactions. Their role in the recent crisis is not clear. Likewise, establishing the risk management benefit of financial derivatives is empirically difficult (Francisco Pérez-González and Hayong Yun, 2010).

Since the 1980s, the financial derivatives markets have been increased by firms that try to shed undesired risk and to hedge their exposures at low cost. In other words, derivative contracts allow to trade away risks that firms do not wish to be exposed while maintaining and controlling other risks exposures. For instance, an interest rate swap can be used to put off the interest rate risk from the credit risk (J.Kambhu, F. Keane and Catherine Benadon, 1996).

Derivatives are classified in two categories: Plain Vanilla and Exotic. Plain Vanilla includes: options (contracts based on a promise to buy or sell at a fixed price something in the future); forward contracts (one party is obliged to buy the underlying at a fixed price at a certain time in the future from a counterparty who is obliged to sell the same underlying at that fixed price); swap (is a contract to exchange cash flows over the life of the contract). Exotic derivatives are a complicated function of one or many underlyings (Rene M. Stulz, 2004).

The value of derivatives financial contract is related to the price of a particular financial security (bond or equity), to the likelihood of default on a payment or to the price of another derivatives-contract, e.g. options on a futures-contracts ( T. Norfield, 2012). Derivatives contracts have grown strongly in both organized exchanges and over-the-counter (OTC) markets: the most successful exchange-traded derivatives are those that add liquidity to the underlying markets, while the most successful OTC derivatives are those that paint

contracts adapted to the needs of counterparties in strip out risks. In the OTC markets are negotiated swaps, options and forward contracts without the interposition of a clearinghouse into deals. In particular, OTC markets trade personalized contracts and are less liquid than the underlying cash markets because their primary function is to offer new configurations of risks rather than provide liquidity (Eli M. Remolona, 1993).

Corporate risk management is one of the most important part of the firm's strategy and financial derivatives (currency, interest rate and commodity derivatives) are one means of managing risks facing corporation (Wayne Guay and S.P. Kothari, 2003).

Theoretical research investigates on optimal hedging in response to different types of capital market imperfections, which create incentives for firms to use derivatives instruments (C. Géczy, Bernadette A. Minton and C. Schrand, 1997). If capital markets are perfect, hedging with derivatives does not add to firms value and market imperfections explain why firms use derivatives each year. In particular, firms hedge in response to high costs of underinvestments and financial distress. In other words, hedging increase with expected financial distress costs, firm size and investment opportunities (John R. Graham and Daniel A. Rogers, 1999). Hedging increases firm value by reducing expected tax liabilities, costs of financial distress and to control agency problems. Corporate hedging consists in the use of off-balance sheet instruments (forwards, futures, swaps and options) that reduce the volatility of firm value (Deana R. Nance, Clifford W. Smith Jr, Charles W. Smithson, 1993). Hedging may also reduce suboptimal risk allocation resulting from an agency problem between managers and shareholders, thereby reducing agency cost (DeMarzo and Duffie, 1992).

The increasing role of derivatives as a tool for risk management determine the growth of derivatives market. Because the importance of the recognition and measurement of these financial instruments, the Financial Accounting Standards Board (FASB) established SFAS 105, SFAS 107 and SFAS 114 to improve the transparency of financial reports. SFAS 105 requires the disclosure of the contractual and notional amount, nature, terms and credit risk of financial instruments with "off-balance sheet" risk. SFAS 107 imposes at the banks to disclose the fair value of all financial instruments for which is possible to estimate the value. SFAS 119 requires banks to identify the purpose of the use of derivatives financial instruments, reporting whether the aggregate fair value of the derivatives portfolios represents a net asset or net liability position through a detailed information for fair values and contractual amounts of derivatives divided in category of instrument and the purpose for which they are held (M. Venkatachalam, 1996).

Banks and financial institutions developed their derivatives activities and contracts in derivatives instruments became more and more complex and

characterized by a longer maturities and cover a broader range of underlying assets. The most diffused within derivatives instruments is plain vanilla instruments (e.g. forwards). Derivatives risks are classified in several categories: a) Market risk related to the change in financial market prices, who may be determine losses related to the firm's financial position in derivatives; b) Credit risk related to the likelihood that the counterparty of a derivatives contract fails; c) Operational risk refers to losses generated by a weak internal controls or information systems; d) Legal risk that derivatives contracts are not legally enforced. To managing these different risks, firms develop methods of risk assessment (e.g. VAR). If derivatives business are based on theoretical models for pricing models, model errors add risk related to misvalued contracts sold for less than their actually worth or contracts purchased at overvalued prices. Mistakes in estimating risk exposures imply hedging strategies less effective than estimated (T. Clifton Green and Stephen Figlewski, 1999).

The corporate scandals occurred over the past ten years showed that more often managerial strategies are decided externally of the firm: another entity, different from the board (e.g. political power), chooses the goal of the firm without regards to the interest of shareholders. For instance, hubris CEOs of a local bank try to become a large bank, through an externally growth (e.g. hostile takeovers), aiming at self-entrenchment rather than enrich shareholders and to obtain the support of shareholders, they hide the losses of their bad deals (e.g. too high bid price), through an accounting manipulation.

This study conducts an empirical analysis within 134 commercial Banks in USA which incurred in failures in 2009 and the main finding of the model is that when banks lead by ambitious CEOs who adopt imbalanced corporate strategies conducting to the default, hire more than their real need, increase their investments in PP&E, their loans growth faster with the purpose of to portraying the bank to market as healthy firm. If the investors believe in these strategies, the market value increase as awards to the good job of the management but around the announcement of failure the market value drops significantly.

The paper is motivated mainly by the ongoing debate on derivatives use and seeks to answer following questions: how do corporate strategies use derivatives? What is the really goal of using derivatives: hedging or taking risks? How CEOs use derivatives to hide or delay losses or their imbalanced corporate strategies (e.g. hostile takeovers)?

The remainder of the article is organized as follows. Section 2 summarizes the existing literature on derivatives use. Section 3 introduces a conceptual framework developed through several propositions. Section 4 describes sample characteristics and presents the model. Section 5 concludes.



## **2 Literature Background**

In the literature on Derivatives usage, two main research streams can be identified: the first considers derivatives as useful tools that allow investment managers to utilize information better, manage risk and reduce transaction cost; the second, describes derivatives as speculative and high-risk investments (Jennifer Lynch Koski and Jeffrey Pontiff, 1999). For instance, Norvald Instefjord (2000) shows that bank risk is unrelated to access to derivatives markets and defines the bank as an institution with a relatively rigid capital structure and a relatively large asset exposure in illiquid loans markets. Banks that are able to hedge more, also take on more underlying risk. Starting from the beliefs that firm risk in banking sector has a systemic dimension and the credit derivatives market can help to limit the firm risk, Norvald Instefjord detects that credit derivatives instruments increase bank risk if the loans market is highly price elastic. On the opposite, Ludger Hentschel and S.P. Kothari (2001) find that no firms alter their exposure or volatilities through derivatives and an over widespread speculation with derivatives is unfounded. The Authors detect that firms use derivatives to reduce the risks associated with short-term contracts. More interesting, Tufano (1996) finds that firms in the gold-mining industry use derivatives to reduce risk, due to managerial and owner risks aversion. Yet, an empirical analysis within US firms operating in the sectors of electric and gas utilities (both high weather-sensitive), shows that weather derivatives allow an increase of firm value and hedging that, in turn, allow firms to increase investment and use more aggressive financing structures (Francisco Pérez-González and Hayong Yun, 2010). The study of a sample of large U.S. nonfinancial firms evidences a positively relationship between the use of foreign currency derivatives (FCDs) and firm market value. In other words, in accordance with prior researches (Stulz, 1984; Smith and Stulz, 1985; DeMarzo and Duffie, 1992; Froot, Scharfstein and Stein, 1993), firms attempt to reduce risks through models of corporate hedging based on derivatives. Alternative theories predict that firms use derivatives to take additional risks (Black and Scholes, 1973; Jensen and Meckling, 1976; Myers 1977).

Existing hedging theories try to explain corporate use of derivatives. In particular, prior empirical derivatives researches find a positive relationship between hedging and leverage, while others do not find they are related. Yet, some studies find a positive relation between derivatives use and both the market-to-book ratio and R&D expenditure while others do not detect such relation. Many firms hold derivatives positions because of benefits in cash flow and market value sensitivities. The use of derivatives increases with greater investment opportunities, increases among more geographically different firms and among

firms led by CEOs with high wealth sensitivity to stock price (Wayne

Guay, S.P. Kothari, 2003). When firms recognize that external financing is expensive and it implicates a reduction in investment opportunities, firms conduct their hedging through the use of derivatives. In the meantime, when firms do not generate enough cash flow, hedging can increase firm value reducing the underinvestment problem associated with high cost of external financing (Gerald D. Gay and Jouahn Nam, 1998).

Without hedging, firms are more likely to pursue suboptimal investment projects, while hedging reduces the costs of obtaining external funds and the dependence on external financing (Myers, 1977).

M. Venkatachalam (1996) investigates on the risk management strategies of banks and studies the relation between fair value gains and losses on derivatives and on-balance sheet gains and losses on financial instruments. The author finds that the fair value gains and losses on-balance sheet financial instruments are negatively related with the fair value gains and losses on derivative hedge instruments. This result suggests that banks use partially derivatives to reduce their risks exposure and a significant number of sample banks might use derivatives to assume additional risks rather than to reduce risk. M. Venkatachalam also shows that notional values of derivatives is negatively related to bank equity value after controlling for the fair values of derivatives. In other words, the fair value estimates for derivatives is correlated with the variation in bank share prices.

Firms with potential exposure to foreign currency risk generated from foreign operations, foreign-denominated debt and high concentration of foreign competitors in their industries use currency swaps, forwards, futures, options or combinations of these instruments. In particular, firms with greater growth opportunities and in presence of financial constraints are more likely to use currency derivatives to reduce the variation in cash flows or earnings that might preclude investments in growth opportunities (C. Géczy, Bernadette A. Minton and C. Schrand, 1997).

Managers decide to use derivatives measuring the level of the firm exposure to risks and the cost of managing risks; for instance, the use of currency derivatives depends on the cost of managing foreign exchange-rate risk (C. Géczy, Bernadette A. Minton and C. Schrand, 1997). When firms begin to use derivatives in response to risk shocks, firms use derivatives to hedge risks with an expected benefits from hedging (Wayne R. Guay, 1999).

If markets are perfect and complete, the value of the firm is independent of its hedging policy. In an "imperfect" market, firm needs a corporate financing policy that allows to maximize the market value. A firm can hedge by trading derivatives contracts or by different real operating decision (e.g. merger). A value-maximizing firm can hedge for three reasons: 1)

politicians impose additional constraints on the firm, like taxes or in terms of accounting numbers, that imply the need to hedge accounting. If firms take positions in options markets, those hedging may reduce the variability of pre-tax firm value and the expected corporate tax liability is reduced. In other words, post-taxes value of the firm is increased; 2) also the bankruptcy costs lead to hedging. The firm has to convince potential bondholders that it will hedge after the bond sale to reduce the bankruptcy costs. But bondholders know that an increase in the value of the firm means also a redistribution of wealth from shareholders to bondholders. So, without an incentive to hedge it will be difficult for the firm to make a credibility announcement of hedge. Incentives for shareholders to adopt a hedging policy occur at least : a) when firm borrow frequently, the reputation for hedging decreases the price for its new debt; b) through hedging the firm reduce the costs of financial distress and shareholders avoid binding bond covenants that constrain its investment policy; 3) managers, employees, supplier and customers are risk adverse and require extracompensation to bear nondiversifiable risks. Managers demand higher compensations or equities if the risk of failure is greater; employees demand higher wages if the likelihood of firing is greater; suppliers pretend more guarantee- terms in long contracts and suppliers do not buy products without warranty obligations from the firm with unexpectedly large changes in firm value. Yet, if managerial compensation is related to firm value, managers have incentives to involve in their plan also market value strategies . If hedging is costly, shareholders try to discourage managers from spending excessive resource in hedging strategies. Managerial compensation also can include payment related to accounting earnings. If managers compensation depends heavily on accounting earnings, managers may pursue principally hedge accounting earnings which allow to constrain the variance of the firm economic value. If the compensation package is major related to the value of the firm, the manager is more likely to hedge. (Smith Clifford and René Stulz,1985).

Managers who receive larger option awards are less likely to hedge using derivatives because the value of the options will increase with the increase of the riskiness of the firm. While, equity holdings by the managers are positively related to the likelihood of hedging and to hedge through the use of derivatives. Further, in presence of equity ownership by institutional investors, we expect a greater probability of hedging and of hedge through a greater level of derivatives usage (Lee C. Adkins, David A. Carter and W. Gary Simpson , 2006).

Modigliani-Miller Theorem implies that with informational symmetry and perfect market assumptions, the financial hedging is irrelevant. In fact, corporate financial policy has not reflection in a market without imperfections, like transactions costs,

bankruptcy costs, taxes and so on. Firms have proprietary information and shareholders could not adopt for themselves financial strategies, because they have not that private information held by managers. However, shareholders may infer informations from price changes in securities markets. If managers compensation is a non-linear function of output, managers and shareholders interests would likely be in conflict and managers actions would only partially tend to implement the optimal hedging strategies. If managers compensation is related to the firm market value, this conflict may be resolved (DeMarzo Peter and Darrell Duffie,1991).

Shareholders do not decide about the hedging policy which are taken by managers; but, shareholders decide about managerial compensation contracts, that maximize their wealth and the value of the firm. The compensation scheme chosen by shareholders implies that their wealth is maximized under the constraint that managers receive a high level of expected utility when they work for shareholders. In other words, the compensation schedule establishes that managers compensation is related to the change in the value of the firm (René M. Stulz,1984).

Shivaram Rajgopal and Terry Shevlin (2002) investigate the relationship between employee stock options (ESOs) and managerial actions in risk taking on a sample of firms operating in oil and gas sectors. They measure the impact of the ESOs on the level of the risk assumed and find that ESOs motivate managerial investment in risky projects.

During the 1980s ESOs largely diffused favoured by their accounting treatment. In 1993 the FASB required to firms to determine the value of ESOs by using an option pricing model and charging this value on earnings or disclosed in footnotes to the financial statements. The ESOs value appears negatively related to firms stock prices, because when an option is vested it is more likely to be exercised. The unexercised option represent a cost for shareholders. In small firms, the ESO is not related to the firm share price, while in large firms, ESO value is strongly negative related to stock price. In fact, small firms are characterized by less sophisticated investors with limited capabilities in evaluation ESO (David Aboody,1996).

The use of financial hedging by managers is related also to their career concerns. The optimal hedging policy adopted by manager depends on the accounting information that are available to shareholders. In this case, the analysis is focused on the informational effect of hedging rather than on the role of hedging in transferring or sharing risks among the parties. The most important channels of this informational effect are: 1) information about the value of the shareholders options allows them to exercise their options or leave the current investment project. On the other side, managers have an incentive to hide this information to reduce the risk of their future wages; 2) information revealed by profit has a

nonlinear effect on reputation, future wage and current managers. Firms might adopt a decentralized risk-management policy in each profit of center, because decentralized hedging benefit of increasing informativeness of divisional performance reports. Starting from the assumption that managers are better informed about the source and magnitude of the firm risks, this asymmetry puts managements in a better position to hedge their risks. Shareholders judge the quality of the firm's management and investment projects on the firm's performance. In other words, current profits are related to manager reputation and future wage (Peter M. DeMarzo and Darrel Duffie, 1995).

Equityholders have also interests in support hedging when managers have private informations about an unobservable risk that affects the firm's payoffs. In firms with greater informational asymmetry equityholders will have greater benefits if the firms hedges (DeMarzo and Duffie, 1991).

Venkatachalam (1996) investigates on the issue whether the notional amounts of derivatives provides informations to market about the bank managers views on risk management and in particular on the bank level of involvement in derivatives. In other words, the notional amounts of derivatives might reveals the view about whether derivatives are used to increase or decrease risk. When market participants do not trust managers to use the derivatives to reduce risk or do not understand how derivatives are used, react negatively to derivatives usage. Most managers usually affirm that derivatives disclosed as "other than trading" are used for asset-liability management purpose, that means hedging. The FASB with the enact of SFAS 119 could help to determine how managers use derivatives.

Daniel A. Rogers (2002) investigates the effect of managerial goals on hedging policy in relation to the derivative holdings. In other words, how CEO risk taking incentives are related to corporate usage is investigated analyzing CEOs portfolios of stock and option holding. The Author detects that CEO risk taking bias are negatively related to the amount of derivative holding, because derivatives are used for hedging purpose.

Concerning the relationship between banks using financial derivatives instrument and banks lending, existing literature affirms that banks get in derivatives contracting for two reasons. First, to complement their traditional lending activities; second, to hedge risk-exposure generated from deposit taking and lending. In particular, commercial banks who use interest-rate derivatives increase their ability to provide more intermediation service, in terms of commercial and industrial (C&I) lending. In other words, derivatives markets allows banks to increase lending activities at a greater rate than banks that do not use derivatives. Thus, strong regulatory constrains on derivatives usage may determines a decrease in lending growth. (Elijah Brewer III, Bernadette A. Minton and James T.

Moser, 2000). Derivative-trading become another way to increase revenues and earnings. In other words, banks and finance corporations create money and generate profit not only through productive investment but also through the support of the financial innovation (T.Norfield, 2012).

Derivatives instruments can be used to reduce risk exposure (hedging) or to make a profit generated by the change in the value of the underlying asset (speculating). Speculators believe they have an information advantage relative to the market gained from Government or Official sources, and have a transactions cost advantage in trading (economies of scale), thereby, they view speculation as a profitable activity. Firms are more likely to speculate when CFOs compensation is highly related to the stock price sensitivity and his options is not associated with speculation. In fact, CFOs and not CEOs undertake decisions about speculation and CFO is the most responsible of derivatives positions. Internal controls have the relevant functions to monitoring and control to avoid excessive risks exposure through the access to derivatives. Firms characterized by a weak governance are more likely to incur in speculation strategies undertaken by managers. In other words, speculation may be viewed as a governance failure. To limit speculation, firms develop strong internal controls on derivatives activities, like frequently report to the Board of directors and a regular valuation of portfolio. The financial statements are not transparent about firms' speculative activities and may be related to the corporate scandals realized through the financial reporting of off-balance sheet assets.

### **3 Theoretical Propositions**

In this article are examined the potential economic consequences of imbalanced corporate strategies, who constrain managers to use derivatives to hide the losses of their bad deal (e.g. hostile takeovers). This analysis is conducted through the study of the dynamics of employment, loans, equity, fixed assets and the fair value of gains and losses on derivatives usage, with particular focus on their behavior around two specific periods: before and during the failure.

The empirical prediction of the model that have not been tested in literature are summarized below:

- Banks who are implementing imbalanced corporate strategies, hire more than their real need. We expect that two variables related of hiring (Personnel Expenses and Number of Employees) growth in before period and shrink in during period;
- The purpose of to convince the market about the good health of the firm leads the banks to increase their loans. So we expect a growth of the variables "Gross loans" in at least before period. We also expect in the same period a growth for the variable "Fixed Assets", which reveal investments in PP&E (Property, Plant and Equipment);

- After the growth of hiring and loans, also the market value increases as awards by the investors to the good job of the managers. The prediction is an increase of the proxy variable (Equity ) at least in before period.
- The ammount of dividend paid is related to the value of the firm. We expect in before period an increase in the value of the Dividends paid;
- Net Gains (losses) on Trading and Derivatives are proxies of the use of Derivatives (missing data). We expect their growth at least in before period; in other words, Net Gains (losses) on Trading and Derivatives may be a measure of the entity of derivatives instruments used before and during the failure period and we exepct their constant growth.

#### 4 Methodology

##### Data

The sample for this study consists of 137 banks, that meet two criteria: use on-balance and off-balance sheet financial derivatives and failed in 2009 after the 2008 financial crisis. Failure occur when a bank is not able to face its obligations in front of its depositors and creditors and become insolvent and illiquid. More specifically, a bank fails economically when the market value of its assets drop to a value lower than the market value of its liabilities.

The Federal Deposit Insurance Corporation (FDIC) closed 465 failed banks from 2008 to 2012 : 26 in 2008, 140 in 2009, 157 in 2010, 92 in 2011 and

51 in 2012. The list of banks failures in 2009 was compiled by FDCI official site.

The financial statement data for the empirical analysis are "hand-collected" from bank annual reports obtained from Bankscope database. Out of the 140 failures, 137 banks are covered by Bank scope, matched through company name. The sample is composed by all the banks in Bank Scope with non missing value for the variables of interest: Net gains (losses) on Trading and Derivatives, Personnel Expenses, Gross Loans, Fixed Assets , Equity, Dividend Paid, and the number of Employees.

As proxies of stock prices for the banks included into the sample are used the Equity value, while as proxies of derivatives value is used Net Gains (losses) on Trading and Derivatives. The dynamics of the variables included into the model is compared with a control group of nonfailures banks around the same period. The banks of control group choosed are the non failures banks who acquired the failures banks. The list of these 87 banks are available on FDCI official site and are matched on Bank Scope through company names. Out of them, 84 are covered by Bankscope.

The original sample included 137 banks failures and 84 nonfailures banks, after excluding banks that have missing data, become the final sample so composed: 16 banks failures and 21 peers.

Sample period investigated is 2004 to 2008 and it is divided in two sub-period: before the failure (since 2004 to 2006) and during the failure (since 2007 to 2008).

The following table presents the descriptive statistics.

**Table 1.** Descriptive Statistics in Growth Rate (Sample period is 2004-2008)

	Variable	Mean	Std.dev.	Min	Max
Failures	Net gains (losses) on	-2,879	5,632	-9,914	3,656
Banks	Trading and Derivatives				
	Personnel Expenses	1,346	1,523	-0,002	3,456
	Gross Loans	1,668	1,495	0,138	3,009
	Fixed asstes	1,638	1,119	0,165	2,890
	Dividend Paid	1,648	8,597	-9,648	11,204
	Number of Employees	0,519	1,491	-1,099	2,394
	Equity	0,269	3,621	-4,982	3,051
Non Failures	Net gains (losses) on	-1,286	3,633	-4,558	3,903
Banks	Trading and Derivatives				
	Personnel Expendure	2,462	1,335	1,253	4,255
	Gross Loans	2,697	1,214	1,439	4,227
	Fixed asstes	3,048	1,736	1,163	5,095
	Dividend Paid	2,893	9,959	-10,266	12,997
	Number of Employees	1,659	1,342	0,428	3,454
	Equity	3,533	2,770	-0,044	6,550

##### Model

This study uses a cross-sectional valuation model to examine what would happen in a multiperiod framework and the determinants of corporate

derivatives use. That model was just used from Kedia and Philippon (2009) to measure the economic consequence of earnings management and fraudulent accounting forced to financial restatements. This work replicates their analysis to empirically test the

prediction established and answer to the question of the present research.

The regression is the follow:

$$y_{it} = \beta^{before} 1_{t < \tau(i)} + \beta^{during} 1_{t \geq \tau(i)} + \Phi_t + \gamma x_{it-1} + u_{it}$$

Where:

$y_{it}$  is the variable of interest

$\beta^{before} 1_t$  and  $\beta^{during} 1_{t \geq \tau(i)}$  are coefficients who reveal if the variable of interest grows in a significantly manner in the two periods.

Before is a dummy variable for the period since 2004 to 2006 and During is a dummy variable for the failure period (2007 and 2008).

$\tau(i)$  is the failure period for bank  $i$

$\Phi_t$  is a time dummy

$x_{it-1}$  is a control variable

After including the control group of non failures banks the variables of interest are adjusted by subtracting the mean of control group:

$$\hat{g}_{it} = g_{it} - \bar{g}_{cit}$$

Where:

$\hat{g}_{it}$  is the variable of interest after the adjustment  
 $g_{it}$  is the variable of interest before the adjustment  
 $\bar{g}_{cit}$  is the mean of control group

The economic equation becomes:

$$\hat{g}_{it} = \beta^{before} 1_{t \leq \tau(i)} - \beta^{before} 1_{-3 < t < \tau(i)} + \beta^{during} 1_{t \geq \tau(i)} + u_{it}$$

The coefficient  $\beta^{before}$  and  $\beta^{during}$  explain the expected different dynamic of each variable of interest before and during the failure period. So the null hypothesis will be that  $\beta^{before} = \beta^{during}$ .

Table 1 illustrates the dynamics of failures banks comparing the behavior of the variables of interest overtime, with the null hypothesis that that  $\beta^{before} = \beta^{during}$ . The results show a significantly change around the failures in the Personnel Expendure, Fixed Assets, Dividends Paid and Market Value. Consistent with the assumptions, before the failure banks increase the number of their employees and in particular their wages increase significantly, while during the failure period the growth of number of employees is significantly lower, and in turn, also the personnel expenses. Personnel Expenses and Fixed Assets growth significantly before the failure and growth more slowly afterwards. Before the failure banks enhance significantly the amount of Dividends Paid, to obtain the shareholders support while the Management are adopting imbalanced corporate strategies. In that time the market believes in the good health of the bank and the valuation grows significantly, but after the announcement of failure the market value shrinks down. A similar dynamic is seen in the Gross Loans, which increase before the failure and decrease afterwards.

The analysis of the growth of Net Gains (losses) on Trading in derivatives shows they are flat, which is not consistent with the prediction of the fifth hypothesis. This unexpected result is not sufficient to invalid the prediction, because we are considering the sample without adjustment for the control group. To make the final sentence is necessary to analyze the adjusted sample.

**Table 2.** Dynamic of Variables in Failures Banks

Growth of Gains (losses) On Derivatives	Growth of Personnel Expenses	Growth of Number of Employees	Growth of Gross Loans	Growth of Fixed Assets	Growth of Equity	Growth of Dividends Paid
(Before)						
-0,298	0,195	0,472	0,00779	0,101	0,056	0,507
<b>(-0,99)</b>	<b>(2,41)</b>	<b>(1,39)</b>	<b>(1,55)</b>	<b>(2,02)</b>	<b>(2,81)</b>	<b>(2,51)</b>
(During)						
-0,3592	0,1261	0,017	-0,191	0,106	-0,535	-0,068
<b>(-0,57)</b>	<b>(0,57)</b>	<b>(-1,54)</b>	<b>(-0,73)</b>	<b>(1,08)</b>	<b>(-2,67)</b>	<b>(-1,84)</b>
			p-value			
(Before=During)						
0,572	0,573	0,144	0,474	0,298	0,018	0,086

Coefficients are not in bold and T-statistics are reported in bold below the coefficients.

Table 2 reports the values of the variables in the two periods, after their adjustment for the mean of the of control group. Also in this case, the analysis confirms the reduction of the number of employees and the the Personnels expenses; the reduction of the

the Gross Loans and Fixed assets. A significantly decrease is seen in Dividends Paid and market value. Net Gains (losses) on trading Derivatives shrink around the failure period confirming the relationship between the imbalanced corporate strategies, which conduct the banks to default, and the use of derivatives.

**Table 3.** Dynamic of Adjusted Variables in Failures Banks

Growth of Gains (losses) on Derivatives	Growth of Personnels Expenses	Growth of Number Employees	Growth of Gross Loans	Growth of Fixed Assets	Growth of Equity	Growth of Dividends Paid
(Before)						
-0,364	0,280	0,175	0,152	0,006	0,099	1,177
(-1,02)	(1,90)	(1,26)	(0,76)	(0,05)	(0,81)	(1,95)
(During)						
-2,741	-0,228	-0,248	-0,201	-0,175	-0,543	-1,026
(-5,50)	(-1,66)	(-1,96)	(-1,62)	(-1,36)	(-4,71)	(-3,17)
			p-value			
(Before=During)						
0,005	0,118	0,06	0,127	0,192	0,0003	0,007

Coefficients are not in bold and T-statistics are reported in bold below the coefficients.

Table 3 shows the results of testing the dynamic of non failure banks. In this case is possible to investigate the behavior of the variables of interest not only before and during the failure period, but also after that period (two years later). The Net Gains (losses) on Trading Derivatives are flat before and during the failure of the sample banks, and decrease significantly after their acquisition . It may indicate a strong effect of derivatives of failures banks on

balance-sheet of acquiring banks. The gross Loans are flat before and during the failure and decrease significantly after the acquisition of the failure banks. The Dividends Paid growth before the failure, decrease significantly during and enhance following the acquisition of failure banks and it would be interpreted as a strategy to achieve widespread support from the shareholders. Interesting, the value of the market decrease significantly during the failure period and increase faster after the acquisition of failure banks.

**Table 4.** Dynamic of Variables in Control Sample

Growth of Gains (losses) on Derivatives	Growth of Personnel Expenses	Growth of Number Employees	Growth of Gross Loans	Growth of Fixed Asstes	Growth of Equity	Growth of Dividends Paid
(Before)						
-0,414	-0,075	-0,774	-0,056	-0,062	-0,971	0,684
(-0,56)	(-0,83)	(-0,07)	(-0,94)	(-0,722)	(-0,83)	(3,10)
(During)						
-0,182	-0,067	-0,069	-0,076	-0,124	-0,216	-0,513
(-0,45)	(-1,36)	(-1,49)	(-1,85)	(-1,98)	(-3,26)	(-5,63)
(After)						
-2,559	0,103	-0,010	-0,094	0,049	0,048	-0,095
(-11,06)	(1,45)	(-0,34)	(-3,84)	(0,65)	(1,14)	(-0,32)
			p-value			
(Before=During)						
0,655	0,188	0,149	0,078	0,061	0,003	0,018
(During=After)						
0,309	0,160	0,737	0,001	0,522	0,267	0,095

Coefficients are not in bold and T-statistics are reported in bold below the coefficients.

## 5 Conclusion

In banking sector is most important to determine if banks are using deviratives to hedge or to take risks because if large banks increase their risks through derivatives the entire banking system is exposed to important potential losses related to. Otherwise, if large banks all take relevant postions in derivatives market, the failure of one may determine the failure of

many, so called "Systemic Risk" (Gary Gorton and Richard Rosen, 1995). On one side, derivatives allow shifting and hedging risks but on the other side reduce the cost of engaging in speculative transactions. Their role in the recent crisis is not clear. Likewise, establishing the risk management benefit of financial derivatives is empirically difficult (Francisco Pérez-González and Hayong Yun, 2010).

When firms recognize that external financing is expensive and it implicates a reduction in investment opportunities, firms conduct their hedging through the use of derivatives. In the meantimes, when firms do

not generate sufficient cash flow, hedging can increase firms value reducing the underinvestment problem associated with costly external financing (Gerald D. Gay and Jouahn Nam, 1998). Hedging reduces the probability of financial distress by reducing the variance of the firm value and, thereby, reduces the expected costs of financial distress (Smith Clifford and René Stulz, 1985). Also bondholders have interests to support optimal hedging to avoid exogenous bankruptcy costs. Without hedging, firms are more likely to pursue suboptimal investment projects, while hedging reduces the costs of obtaining external funds and the dependence on external financing (Myers, 1977).

Usage of derivatives increases with greater investment opportunities, increases among more geographically different firms and among characterized by high CEOs sensitivity of wealth to stock price (Wayne Guay, S.P. Kothari, 2003). In other words, the managerial wealth invested in the firm is positively related to the use of derivatives. When managers are owner of unexercised options, they can choose to increase the risk of the firm to increase the value of their options. Otherwise, in the case of derivatives are used for hedging, option holdings are negatively related to derivatives use.

Managers who receive larger option awards are less likely to hedge using derivatives because the value of the options will increase with the increase of the riskiness of the firm. On the opposite, equity holdings by the managers are positively related to the likelihood of hedging and to hedge through the use of derivatives. Further, in presence of equity ownership by institutional investors, greater probability of hedging through a greater level of derivatives usage (Lee C. Adkins, David A. Carter and W. Gary Simpson, 2006). Equityholders have also interests in support hedging when managers have private information about an unobservable risk that affects the firm's payoffs. In firms with greater informational asymmetry equityholders will have greater benefits if the firms hedges (DeMarzo and Duffie, 1991).

The literature on business ethics has examined CEOs ethical profile to explain managerial fraud and corporate scandals. For instance, CEOs lack of moral values and their high aspiration increase the likelihood of managerial fraud through the undertaking of an imbalanced corporate strategy. CEOs charismatic leadership has the power to obtain the support of stakeholders (stakeholders cohesion) while the same CEOs pursuit an imbalanced corporate strategy (Zona, Minoja and Coda, 2012).

In according with Boddy et al. (2010), the access to power, influence, prestige and money are associated with leadership corporate positions. In this view, ambitious CEOs adopt a growth strategy through, for instance, hostile takeovers (with a target firm overpaid) and to justify these acquisitions in front of stakeholders, the managers hide the losses generated

by the bad deals (e.g. too high bid price) with an accounting manipulation.

In this article are examined the dynamics of several variables (employment, loans, equity, fixed assets, the fair value of gains and losses on derivatives, gross loans and dividends paid) to detect if economic consequences of imbalanced corporate strategies constrain managers to use derivatives to hide the losses of their bad deal (e.g. hostile takeovers).

The empirical results of this study show that when banks are lead by ambitious CEOs who adopt imbalanced corporate strategies conducting to the default, hire more than their real need, increase their investments in PP&E, their loans growth faster with the purpose of to portraying themselves to the market as healthy firms. If the investors believe in these strategies, the market value increase as awards to the good job of the management but around the announcement of failure the market value drops significantly. The empirical analysis of Net Gains (Losses) on trading Derivatives detects a strong relationship between imbalanced corporate strategies, conducting to default and the use of derivatives.

As preliminary work, it has some limitations (the most important is the small sample size due to the missing data) which need to be overcome to improve the theoretical predictions. Moreover, to verify and endorse the relation between a specific imbalanced strategies (hostile takeovers) and derivatives corporate use is necessary to test the reasons of the failure to select an appropriate sample.

A full understanding of the relationship between the collapse of derivatives user with larger position and the so called Systemic Risk is a task for future research.

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## **RECENT DEVELOPMENTS IN DEPOSIT INSURANCE FROM EU PERSPECTIVE**

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### **Abstract**

The aim of this article is to present recent developments on deposit guarantee scheme within the EU. These schemes has changed significantly during the financial crisis, which led to adoption of a directive on deposit guarantee schemes in 2014. A strong emphasis will be put on deposit guarantee schemes financing issues. This is a crucial issue, especially at the time when European Banking Authority is working on methods for calculating contributions to deposit guarantee schemes and its funding model. This model may be an important step in mitigating risks generated by banks and may contribute to financial stability in EU.

**Keywords:** European Union, Safety Net, Deposit Guarantee Schemes, Funding Model

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### **1 Introduction**

Deposit guarantee scheme is a very important pillar in every financial safety net. Among its main functions are depositor protection and providing financial stability to the whole financial system. During global financial crisis deposit guarantee schemes had undergone significant changes in jurisdictions all over the world. The process of harmonization of practices between deposit guarantee schemes can be very clearly seen in the EU. Single deposit guarantee scheme was supposed to be one of the main components of banking union and also a substantial institutional innovation within EU. Despite the fact that this particular project was dropped in the nearest future, some important changes were introduced in the new directive on deposit insurance.

The aim of this article is to present recent developments on deposit guarantee scheme within the EU. A strong emphasis will be put on deposit guarantee schemes financing issues. This is a crucial issue, especially at the time when European Banking Authority is working on methods for calculating contributions to deposit guarantee schemes and its funding model. This model may be an important step in mitigating risks generated by banks and may contribute to financial stability in EU.

### **Deposit guarantee schemes - current issues**

Deposit insurance has become a widespread feature of countries' financial safety nets around the world. Theoretically, deposit insurance can be conducive to financial stability, helping to mitigate threats that arise from self-fulfilling depositor runs on banks. At the same time, deposit insurance can also give rise to

moral hazard, weakening market discipline exercised by depositors because they are protected and inducing greater risktaking by banks- with potential detrimental effects on stability. The empirical literature investigating the effects of deposit insurance on financial stability stresses that the net effect depends on (Deutsche Bank, 2014, p.2):

- the institutional context in which schemes operate – a strong institutional environment, including high-quality supervision and regulation, tends to reduce potential negative effects.

- the specific design of deposit guarantee schemes, for instance their coverage, financing and organisation, which are important to determine the extent to which moral hazard issues arise and are balanced.

There remains substantial variation worldwide with respect to the design of financial safety nets including –but not limited to –deposit insurance. Historically, financial crises have often triggered the introduction of or changes to deposit guarantee schemes (the first deposit guarantee schemes was established in 1933 in USA as a result of The Great Depression).

It is important to remember that a deposit guarantee scheme has always two main functions (Bernet, Walter, 2009, p.8-9):

- it prevents a run on an illiquid but not yet insolvent financial institution since in this way the spread of the crisis in one individual institution to the other network partners via the interbank market can be prevented,

- it should make good the losses incurred by the depositors caused by an illiquid or insolvent financial institution up to a certain amount, since it is assumed that the majority of smaller depositors of the

bank were hardly themselves able to monitor the risk that they had taken by, for example, opening a deposit account.

The recent global financial crisis tested deposit insurance schemes and their ability to protect household savings in banks. Both country authorities and financial regulators reacted to the unusual circumstances of the crisis by expanding the coverage offered in existing deposit insurance systems or adopting deposit insurance where it was not already in place (Demirguc- Kunt, Kane, Laeven, 2014, p.3).

In an effort to contain the fallout from the global financial crisis, many countries expanded their financial safety net, both by increasing coverage of deposit insurance and by extending government guarantees to non-deposit liabilities (and in some cases on bank assets). The expansion of the safety net was substantial, especially for crisis countries, and extended beyond traditional deposit insurance. The main actions taken to mitigate effects of the global financial crisis were (Demirguc- Kunt, Kane, Laeven, 2014, p.14):

- increasing statutory coverage,
- abolishing co-insurance,
- introducing a government guarantee on deposits,
- introducing a government guarantee on non-deposit liabilities,
- introducing a government guarantee on bank assets,
- undertaking significant nationalizations of banks.

Deposit guarantee schemes reforms undertaken during global financial crisis within EU addresses both the consumer protection and financial stability

functions. The first one is connected with the harmonization of coverage. The revised rules adopted by a directive from 2009 (Directive 2009/14/EC) raised the coverage level up to 100 000 EUR. It is worth noticing that coverage levels in terms of GDP per capita continue to differ across the EU (table 1). From the financial stability perspective both levels and changes of coverage matters. The coverage offered by the schemes must be designed carefully, balancing consumer protection, financial stability and market discipline. Theoretically, deposit guarantee schemes must cover a sufficient number of depositors and deposits to prevent bank runs effectively (Deutsche Bank, 2014, p.2 ).

The recent financial crisis confirmed these views and focused attention on the need to review and reevaluate the determinants of coverage. It became clear that the objective of promoting financial stability outweighed concerns about limiting moral hazard. Many countries that had emphasized the importance of allowing markets to function freely and raised concerns about the moral hazard implications of deposit insurance, introduced measures that enhanced depositor protection arrangements, including expanded coverage limits—both level and scope—and modifications to their deposit insurance systems. In many cases, coverage was sharply expanded to fully protect virtually all depositors, irrespective of the proportion of deposits fully covered. Many authorities concluded that coverage levels had been too low, even for stable periods, exposing most retail depositors to excessive risks and chose to permanently maintain higher coverage limits (International Association of Deposit Insurers, 2013, p.9).

**Table 1.** Coverage level/GDP ratio in selected EU countries (as of 2013)

Country	Indicator value
France	3,08
Germany	3,02
Italy	3,91
the Netherlands	2,78
Spain	4,51
UK	3,35
EU countries average	3,44

Source: own work

The next issue important from a depositor perspective that has been changed is the faster payout. The maximum payout period will be cut from 20 to 7 days with a reduction following a stepwise schedule

(table 2). It is worth remembering that quick access to funds is obviously valuable for households but can also help to avoid spreading uncertainty if a bank becomes insolvent.

**Table 2.** Repayment periods

Period	Payout time
Up till 31 December 2018	20 working days
1 January 2019 until 31 December 2020	15 working days
1 January 2021 until 31 December 2023	10 working days
1 January 2024	7 working days

Source: (Directive 2014/49/EU, 2014)

The new directive also requires that that banks provide customers with more information about

deposit insurance. This includes information on customers' account statement about the deposit

guarantee scheme protection of their deposits and mandatory information sheets in a standardised format that must be countersigned by consumers when placing deposits and regularly updated (Deutsche Bank, 2014, p.9)..

### **Selected issues on deposit guarantee schemes funding**

Financing issues connected with deposit guarantee scheme have played very important role in a discussion within EU. The main reason for this was the fact that it have been said that deposit guarantee schemes don't have a proper financing. In de Larosiere report it was pointed out that preference should be given to schemes which are pre-funded by the financial sector. Such schemes are better to foster confidence and help avoiding pro-cyclical effects resulting from banks having to pay into the schemes at a time where they are already in difficulty (de Larosiere, 2009, p.34). Unstable funding without the lack of proper risk sensitive funding arrangements involves a significant risk that governments will have to carry the financial burden indented for the banks, or

worse, that the scheme fails on its commitments (de Larosiere, 2009, p.34).

On 12 July 2012 European Commission adopted a legislative proposal for a thorough revision of thorough revision of Directive 94/19/EC on deposit guarantee schemes. In this document some proposals were made, among them (Directive Proposal, 2010, p.7) :

- deposit guarantee scheme in every EU country must have 1,5% of eligible deposits on hand after a transition period of 10 years,
- banks must pay extraordinary contributions of up to 0,5% eligible deposits if necessary,
- a mutual borrowing facility will be created to allow a deposit guarantee scheme to borrow money from another scheme in EU.

When a directive 2014/49/EU was adopted in 2014 some changes were made, among them the most important one, concerning the level of the fund. EU countries shall ensure that by 24 July 2024 the available financial means of a scheme shall at least reach a target of 0,8% of the amount of covered deposits of its member. The fund size of selected EU countries is presented in table 3.

**Table 3.** Fund size of selected EU countries (as of 2010)

Country	Indicator value
Belgium	0,32
France	0,21
Germany	0,37
Italy	0
Malta	0,13
the Netherlands	0
Slovakia	0,14
Spain	0,37
UK	0

Source: (Demirguc- Kunt, Kane, Laeven, 2014, p.43).

It can be seen that in these selected countries the level of the fund is on a very low level and the adjustment to the new directive will lead to high costs that banks will have to bear.

The Directive also stipulates that the contributions to deposit guarantee scheme will be based on the amount of covered deposits and the degree of risk incurred by the respective member. Without such risk-adjusting banks with the same amount of covered deposits would pay the same amount of contributions to the scheme. If risk-adjusting is applied, those banks may pay different contributions (potentially, to a large extent), depending on whether their activity – measured by a set of specific indicators – is deemed more prudent or more risky. Riskier banks imply a higher likelihood of failure and, in turn, the need to trigger the scheme. Therefore, such banks should pay more contributions to the scheme (European Commission Memo, 2014, p.4). The European Banking Authority was supposed

to issue guidelines on payment commitments. On 28 May 2015 European Banking Authority published a set of guidelines on payment commitments of deposit guarantee schemes and on methods of calculating contributions to deposit guarantee schemes (European Banking Authority, 2015). These guidelines will contribute to providing incentives to institutions to operate under a less risky business model. To that end, these guidelines set out principles on the risk component of the calculation method. In addition, they capture various aspects of the institutions' risk profile by specifying a number of core risk indicators pertaining to capital, liquidity and funding, asset quality, business model and management, and potential losses for the deposit guarantee schemes. The publishing of these guidelines was preceded by a test exercise among EU countries on three different systems for calculating risk-based contributions. The test systems were developed so that EU countries could verify how different combinations of mandatory

elements of calculation methods could be applied to their national banking sectors. Each of the three test systems used a fixed set of risk indicators and proposed calibration of thresholds for particular risk indicators and risk classes to be applied in all EU countries (European Banking Authority, 2015, p.5).

These guidelines specify five categories of risk indicators in order to ensure that a sufficiently wide

range of key aspects of institutions' operations are reflected in the risk classification. Among them are indicators connected with capital, liquidity and funding, asset quality, business model and management and potential losses for the deposit guarantee scheme. Indicators in each category are presented in table 4.

**Table 4.** Indicators in each of the risk category

Risk category	Indicators
Capital	<ul style="list-style-type: none"> <li>• leverage ratio</li> <li>• capital coverage ratio</li> <li>• common equity Tier1 ratio</li> </ul>
Liquidity and funding	<ul style="list-style-type: none"> <li>• liquidity coverage ratio (LCR)</li> <li>• net stable funding ratio (NSFR)</li> <li>• liquidity ratio</li> </ul>
Asset quality	<ul style="list-style-type: none"> <li>• non-performing loan ratio (NPL)</li> </ul>
Business model and management	<ul style="list-style-type: none"> <li>• risk weighted assets (RWA)/ total assets ratio</li> <li>• return on assets (RoA)</li> </ul>
Potential losses for the deposit guarantee scheme	<ul style="list-style-type: none"> <li>• unencumbered assets/ covered deposits</li> </ul>

Source: (European Banking Authority, 2015, p.38-40).

It is important to notice that these indicators are based on historical data, which come from financial statements and may not properly assess future risks connected to bank failures. It is worth mentioning that the adoptions of the new directive on deposit insurance and EBA's guidelines is an important step in the introduction of common deposit guarantee schemes' funding model. The work on this subject have been going on for a long time. An important step in this process was a publication of a report prepared by a Joint Research Centre at the request of European Commission in 2010 (Joint Research Centre, 2010). The aim of this report was to give some advices on a possible funding models within EU, that could be introduced in the future. It can be seen that current solutions are based on conclusions made in this report.

## Conclusions

Deposit guarantee schemes in EU have undergone significant changes during global financial crisis. The milestone of this process was the adoption of a new directive on deposit guarantee schemes in 2014. Before that among important actions taken to contribute to financial stability, the harmonization of the coverage level and shortening the period of payout process may be mentioned.

Nowadays what is the most significant in improving the construction of deposit guarantee schemes within EU is the adoption of the new funding model. This model, that will use risk-based contributions, may contribute to reducing the risk caused by participants of the system in every country, mitigating moral hazard and thereby may positively influence the financial stability in European Union.

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# WHO ARE THE INDEPENDENT DIRECTORS IN LARGE ITALIAN BANKS? IDENTITY, DIVERSITY AND DISCLOSURE

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## Abstract

This paper investigates the quality of the independent directors of large Italian banks, with the aim of understanding who they are and the degree of diversity among them. The extent to which the profile of the independent director meets the requirements of independence as well as the level of biographical disclosure is also examined. The results indicate that the identikit coincides with a 60-year-old man coming from the bank's territories and with remarkable expertise and a middle international vocation, while diversity is lacking in relation to gender, education and professional background. The study also raises serious concerns about the time availability and true independence that characterizes independent directors, as well as an insufficient level of biographical disclosure.

**Keywords:** Independent Directors, Banks, Identity, Diversity, Disclosure

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## 1 Introduction and objectives

Corporate governance broadly embraces all mechanisms, processes and relationships developed to direct and control companies in an effective and balanced way, in order to improve performance (Cadbury Report, 1992). It deals with the distribution of power, responsibilities and rights among stockholders, board of directors, managers, employees and all stakeholders that influence and in turn are influenced by decision-making. Corporate governance has gained increasing attention in recent years, as testified by the continuous promulgation of rules and regulations and the release of reports and guidelines worldwide, as well as the large amount of research on the topic.

This renewed attention, after the primary contributions of the 1990s, aimed at setting out general principles and recommendations to assure proper governance (Cadbury Report, 1992; Rapport Vienot, 1995; OECD Report, 1998; Preda Code, 1999), has been enhanced firstly by the long list of corporate collapses and scandals around the world (among the most famous see Enron in the U.S.A. and Parmalat in Europe), and then by the world financial crisis. Due to the key role that banks play in the economy, corporate governance has also become a central issue in the debate on the future of the banking industry, as it is seen as a powerful tool to stabilize the financial markets and restore confidence in them (Mulbert, 2010). Banks' 'uniqueness' is at the core of more severe agency problems than in other companies (Adams and Merhan, 2003; Levine, 2004), and in recent years corporate governance rules for banks have deeply changed worldwide due to the combined

influence of the evolution of banking regulations and the convergence towards the rules for all listed companies. A lack of studies on key aspects of banks' corporate governance is reported (Szego *et al.*, 2008), for instance in terms of the quality of the independent directors and their level of independence. From the agency theory perspective, the appointment of outside board directors is essential to control management more effectively, to expand a firm's boundary through their social networks (Hillman *et al.*, 2000) and to increase financial transparency, thereby improving a firm's performance (Walsh and Seward, 1990). Though the essential role of non-executive directors is not new and has been internationally remarked by a number of codes of conduct (Cadbury Report, 1992; Australian Corporate Practices and Conduct Guidelines, 1995; Higgs Report, 2003), today it seems to be even more crucial to prevent companies' conflicts of interests and restore credibility in financial markets. In the literature there is no conclusive evidence of the positive relationship between independent directors and corporate performance (Peng, 2004), and some scholars claim that it is the independence of outside directors that makes a difference, not just the difference between insider and outsider. Nevertheless, very few studies have been able to extract the true independence of them beyond traditional definitions (Luan and Tang, 2007). In general, a controversial issue in contemporary discussions on corporate governance has been the prevalent quantitative approach used to assess its impact (Gompers *et al.*, 2003; Black *et al.*, 2006; Bebchuck *et al.*, 2009), blamed for disregarding the quality of individuals behind the rules and structures (Bertini, 2014). Thus, in line with the theoretical

approach arguing that 'the directors' independence cannot be built by requirements' as it is a personal quality of the individual (Stein and Plaza, 2011), this paper uses a qualitative approach to shed light on the figures of the independent directors. The aim, in particular, is to define the identity of the independent directors in the Italian banking system, in order to address the following questions:

- Who are the independent directors? Gender, provenance, age, educational and professional background and international orientation are some of the personal qualities investigated.
- What are their characteristics, in terms of time availability to serve the purpose, expertise and true independence?
- Does the identikit meet the requirements of the independence of independent directors?
  - What is the degree of diversity among them?
  - What is the level of disclosure about independent directors' identity?

This paper is organized as follows. Section 2 shows a regulation and literature review on corporate governance and the profile of independence, while section 3 focuses on the independent directors in the banking industry. Section 4 outlines the research methodology with reference to the sample and the data collection, section 5 illustrates results, and section 6 is devoted to the final discussion and conclusion.

## **2 Corporate governance and independence of directors**

Corporate governance refers to the complex set of rules, relationships and responsibilities shared by ownership, board of directors, top management and stakeholders, coming from the traditions, behaviours and customs of management and control systems developed in each country (Bianchi Martini *et al.*, 2006). In relation to the characteristics of Anglo-Saxon companies, corporate governance has mainly been studied under the agency theory perspective, according to which the balancing of power and control mechanisms inside firms is needed to reduce agency costs caused by the information asymmetry existing between stockholders (the principal) and managers (the agent). In fact, the latter are supposed to act in the interests of the owners, but in reality they are often driven by the possibility of increasing their own welfare at the expense of the former (Jensen and Meckling, 1976). One of the main mechanisms to align the differing interests between ownership and managers is the board of directors, and a fair relationship between inside and outside directors (Johnson *et al.*, 1996). While the interests of inside directors are substantially aligned to those of the management, as they basically serve as 'firm officers' (Peng, 2004), the purpose of outside directors is to monitor and control management to safeguard the interests of shareholders. Furthermore, the possibility

of catalysing external resources due to their social ties and increasing financial transparency in order to rebuild trust in the market, especially in times of crisis (Gul and Leung, 2004), are usually utilized to prove the effectiveness of outside directors in enhancing a firm's performance (Walsh and Seward, 1990).

Recent theories have highlighted that non-executive directors should be independent not only of the company's management, but also of any other external interest that could undermine their own orientation towards the whole firm's interest, and that the real issue is linked to the true independence of a director more than the insider/outsider dichotomy (Luan and Tang, 2007). Previous research has shown contradictory results as to the effectiveness of outside directors on firm performance (Goodstein *et al.*, 1994; Bhagat and Black, 2002), probably due to the difficulty of defining independent directors. Although the role of non-executive directors has been remarked internationally since the Cadbury Report of 1992, and consequently reviewed in a number of documents and guidelines worldwide to cope firstly with company failures and secondly with the financial crisis, no univocal agreement exists on the concept of independence.

There is widespread agreement in the literature on the fact that the extent of independence basically depends upon the professional or personal associations of non-executive directors with top management (Patton and Becker, 1987). As these associations are not always evident, seemingly independent directors, actually aligned with management interests, could be nominated. Therefore, the individual matters beyond the requirements of guidelines and codes of corporate governance, as it is the nature of the director that counts for independence and impartiality in his or her decision-making (Stein and Plaza, 2011; Bertini, 2014). Another problem is the array of definitions for independence, coming from regulations, laws and codes that companies can use alternatively within the same country (Mulgrew *et al.*, 2014).

To regain consistency in interpreting the concept of independence, in the literature a three-way classification system for directors has been proposed. It distinguishes insider directors, outsider directors and 'grey area' directors, who are those somehow affiliated with the company or its management (Baysinger and Butler, 1985). 'Grey area' includes all non-executive directors who are relatives of management, act as executives, consultants, suppliers or customers, are retirees or previous employees, hold shares or share options, have close professional relationships with the company or its external auditing body, interlocking directorates or other related party transactions. Baysinger and Butler (1985) related a firm's performance to board composition, finding that companies with a high proportion of independent outside directors achieved relatively higher returns on investments over a ten-year period. Byrd and Hickman (1992) found consistent results with the importance of

identifying 'grey area' directors, while Vicknair *et al.* (1993) provided evidence of the material presence of 'grey area' directors on many audit committees across NYSE. Clifford and Evans (1997) provided empirical support for the three-scale classification system in listed Australian companies, where the combination of insider and 'grey area' directors constituted a majority of the board. Brennan and McDermott (2004) examined the issue of independence of companies listed on the Irish Stock Exchange, finding a number of risky situations which impose upon independence, a lack of compliance with guidelines' provisions and an insufficient degree of biographical disclosure to assess directors' independence. Luan and Tang (2007), starting from the assumption of the inconsistency of the definition of outside directors, found through regression analysis a positive impact of independent outside directors appointments on a firm's performance in Taiwan.

The Italian corporate governance system has unique features, such as a limited role of institutional investors and banks in favour of a rather concentrated control structure due to the presence of a blockholder, often representing a family group, who prevails over other shareholders and is able to effectively monitor management (Melis, 2004). This paves the way for a new agency problem: majority shareholders strongly control management, and often the board is a formally constituted body deprived of decision-making power, while minority shareholders' interests remain unprotected (Brunetti, 1997). In this regard, in Italy the role of the independent director is crucial to align the interests of blockholders and minority shareholders and to increase transparency and autonomy in order to attract and protect institutional investors.

These issues have been addressed since the 1990s with Legislative Decree n. 58/1998 (Draghi Reform), which regulated the financial market and corporate governance for listed companies, and the Self-Disciplinary Code for listed companies (Preda Code) of 1999, which focused on board role and composition. Then the reform of company law with Legislative Decree n. 6/2003 aimed, among other things, to progressively drive corporate governance systems of Italian companies to the international standard models, by giving them the freedom to choose the one-tier board (unitary model) or the two-tier board (dual model) beside the traditional Italian corporate governance system requiring a board of directors (Consiglio di Amministrazione) and a board of statutory auditors (Collegio Sindacale), composed of independent and expert members appointed by the shareholders' general meeting to monitor the directors' performance.

Nevertheless, the interpretations of independence in the country vary depending upon the definitions which Italian companies adopt, usually swinging between that given by the Consolidated Law of Finance (Testo Unico della Finanza - TUF), released

with Draghi Reform, and that of the Preda Code. The independent directors are, first of all, non-executive directors, which the Civil Code defines as those individuals who are not members of the executive committee, do not receive any delegated power and do not perform, not even *de facto*, functions relating to the management of the bank. Then, following art. 148 of the TUF, the non-executive director is not independent when:

- is interdict, disqualified, bankrupted, convicted and sentenced to debarment from public contracts or directorship incapacity;
- is spouse, relative and relative by marriage within the fourth degree of consanguinity of directors of the company or controlling and controlled companies;
- have working, professional or patrimonial relationships with the company, or controlling and controlled companies.

For the Preda Code, on the other hand, is not independent, as regards substance rather than form, who:

- directly or indirectly, controls the company or has a significant influence on it;
- in the three previous accounting years has been a leading representative, has or has had in the previous accounting period, directly or indirectly, significant commercial, financial or patrimonial transactions, is or has been in the three previous accounting periods an employee, gets or has got in the three previous accounting periods a significant extra-remuneration by the company or controlling and controlled companies;
- has been a director of the company for more than nine out of the last 12 years or is also an executive director in a company where is director another executive director of the company;
- is a shareholder or director of a company of the group of the external auditing body;
- is a close relative of a person in one of these situations.

### 3 Regulation and studies on the independent directors in banking companies

Since the initial guidance published by the Basel Committee on Banking Supervision (BCBS) in 1999, the aim of enhancing corporate governance in banks has become a central issue of the agenda of national supervisory authorities, as well as in the literature. Today it is recognized that good corporate governance in banks is extremely important, as with other businesses, to reduce agency costs and to cope with more severe agency problems caused by banks' uniqueness (Levine, 2004). The specificity of their role, the high debt-to-equity ratio, the presence of safety nets and the lack of transparency of their accounting system potentially increases both the

information asymmetry with minority shareholders and creditors and the risk propensity of majority shareholders (Szego *et al.*, 2008). The governance of banking companies has never been as relevant as it is now due to the current subprime crisis, because it is largely believed that weak balancing and control mechanisms concurred to create too imprudent a level of risk (Adams and Mehran, 2012). In consideration of the crucial role of banks in the stability of the whole economy, corporate governance is viewed as a powerful tool to restore banks' reputation and trust in the financial market (Draghi, 2008).

Italian listed banks, firstly, have to accomplish all the requirements set by corporate governance regulation for listed companies. Secondly, they have to respect specific supervisory regulations for banking companies. In this regard, in 2008 the Bank of Italy issued a regulation on banks' internal organization and corporate governance, with which were implemented the general guidelines set forth by the Minister of Economic Affairs with Decree n. 200/2004 (the 'Treasury Decree'). The new regulation, among other principles, highlighted the key role and functions of non-executive and independent directors within the board and in its special committees (Scassellati-Sforzolini and Zadra, 2008). Banks were also obliged to draw up a 'corporate governance plan'. In December 2011, the Bank of Italy carried out an investigation of 258 banking and financial companies to assess the degree of implementation of the supervisory regulation of 2008 (Bank of Italy, 2011). With reference to the number of independent directors on the board, the study revealed an average of 15.6% on the total directors, slightly higher than the standard set by art. 147-*ter* of the TUF (one or two independent directors when the board has more than seven members), but lower than 33% (and always at least two independent directors) as asked by the Preda Code to FTSE-Mib listed companies.

The investigation also remarked on the problem of the plurality of definitions of independence, none of them really satisfying as underestimating key aspects such as kinship or professional and patrimonial relationships. The study indicated as a best practice an average of 25% (or more for the most complex banks) of independent directors on the total members of the board.

The extreme generality of regulation is the reason for a number of international initiatives to enhance the quality of banks' governance, which is seen as an essential requirement to assure safer and more prudent activity. In 2011, for instance, the European Banking Authority (EBA) released the 'Guidelines on Internal Governance' which define principles to compose more efficient boards and control bodies. Professionalism, authority, experience and competence, as well as time availability to perform the task, are some of the criteria directors must respect. Board qualifications are also stressed by the updated version of BCBS' guidance, 'BCBS

Principles for enhancing corporate governance', issued in 2010 as a contribution to overcoming the financial crisis. Finally, the new legislative package of the European Parliament and Council, made up of Directive 2013/36/UE and EU regulation (575/2013), and known as 'Capital Requirements Directive' (CRD IV), set out in detail aspects like the composition of company bodies, role of non-executive directors, limits on the number of directorates, and board remuneration. In particular, to improve independence and critical sense in decision-making, the question of diversity is introduced. The rationale behind this is that board composition should be diversified for age, gender, educational and professional background and provenance, in order to represent a variety of points of view and experiences and to cope with 'gang mentality'. These new advancements convinced the Bank of Italy to promote a public consultation, concluded in January 2014, to improve the 2008 supervisory regulation and align it to new European standards. In the meantime, with a Note of 11/01/2012, the Bank of Italy started a process of 'self-evaluation of the qualitative and quantitative composition of the boards of Italian banks' (Bank of Italy, 2013). A total of 43 main Italian banks were involved in the analysis, which revealed that, on average, boards were larger and the number of independent directors was lower than best practices. As regards independence, it showed a strong disparity in the sample and the fact that not much attention was paid to true independence. Participation in executive committees, or previously to management boards, length of directorship, being part of shareholders' agreements, and directorates in companies strongly indebted to the bank were some of the commonly underestimated variables. Interlocking directorates were not considered, as in Italy they have been explicitly forbidden for financial organizations by Law no. 214/2011. Diversity, level of education, international orientation and number of directorates were then evaluated, all of them showing unsatisfactory standards in comparison to best practices and regulation requirements.

The results of the self-evaluation process on banks' corporate governance suggested the Bank of Italy identify, in 2014, a set of options, together with an analysis of their impact, to improve the effectiveness of supervisory regulation. Among others, as Italian banks insufficiently addressed the suggestion of 2011 in relation to having an adequate number of independent directors on the board, the obligation of at least 25% of them (more for larger banks) on the total number of directors has been proposed.

Finally, disclosure has been recognized as a key variable for safe and sound banking practices since the BCBS release of the document 'Enhancing Bank Transparency' in 1998, highlighting six different areas of information that banks should disclose, including business, management and corporate governance. The



area of risk disclosure has become preeminent in the wake of the Basil II Accords of 2004, and especially to accomplish the third pillar of 'market discipline', as banks should comply with disclosure requirements concerning capital adequacy, risk exposure and the general characteristics of the systems put in place to identify, measure and manage such risks. The Third pillar requirement has been acknowledged with Circular n. 263/2006 (New Prudential Supervisory Provisions) by the Bank of Italy. Banks' financial accountability has certainly increased over time (BCBS, 2001; Barth *et al.*, 2004; Tadesse, 2006), but serious concerns remain about the level of corporate governance disclosure, and in particular in relation to assessing directors' true independence.

The banking literature shows a gap in qualitative research on corporate governance and independent directors. Independence has mainly been studied, following a quantitative approach, as one of the variables of board structure that is supposed to have an impact on bank performance. Nevertheless, such studies revealed diverging results as board independence alternatively appeared to be related (Mishra and Nielsen, 2000; Pathan *et al.*, 2007; Chahine and Safieddine, 2011; Ștefănescu, 2014) or not related to performance (Adams and Mehran, 2012; Pathan and Faff, 2013). In other cases, the board independence of banks was supposed to be a dependent variable in order to investigate if it could be affected by regulation, finding a positive impact with the empowerment of official supervisory agencies to discipline banks (Li and Song, 2013), or by bank CEOs, finding no impact (Pathan and Skully, 2010). Furthermore, two emerging issues are associated with the independent directors' remuneration of banks, which seems to vary from the corporate governance systems used (Kostyuk *et al.*, 2012), and with diversity, basically analysed, through statistical methodologies, with reference to gender (Mateos de Cabo *et al.*, 2012; Romano *et al.*, 2012; Pathan and Faff, 2013), and to race and provenance (Ștefănescu, 2011; Hartarska and Nadolnyak, 2012). Gender

equality, not coincidentally, is also the main aspect of diversity considered by regulation. Law n. 120/2011 and D.P.R. n. 251/2012, for instance, established that Italian listed companies, must have in the board 1/5 (first mandate) and 1/3 (second and third mandate) of the directors belonging to the under-represented gender.

#### 4 Methodology

The sample data are based upon the Italian banks that underwent comprehensive assessment by the European Central Bank (ECB) in October 2013. The comprehensive assessment, including a risk assessment, an asset quality review (AQR) and a stress test, has been uniformly applied to all significant European banks in the preparation of the single supervisory mechanism. Starting from the total of 15 Italian banking companies involved in the process, the final sample is made up of 14, as ICREEA Holding was excluded as a cooperative bank with proper regulation of corporate governance outside the provisions of 2008 set by the Bank of Italy for all other banks. The reasons behind the selection are that a) it is a very homogeneous group, so filling one of the gaps usually mentioned in the literature for this kind of investigation (Brennan and McDermott, 2004); b) being the larger and more complex banks, accounting for about 60% of the total capital invested in the sector in 2013, they are supposed to present advanced corporate governance systems in line with regulation requirements and best practices; c) elevated availability of information is supposed to characterize such a relevant industry and companies, as they are all banking holding companies, and 12 out of 14 are listed on Italy's Stock Exchange (The Borsa Italiana S.p.A.). As shown in the last column of table 1, which accounts for the sample's characteristics, only three companies adopt the corporate governance dual model, while the rest rely on the traditional Italian one.

**Table 1.** Characteristics of the sample

No.	Banking company	Asset (€/000)	Holding	Listed on stock exchange	Corporate governance system
1	Banco Popolare	126,042,652	•	•	Traditional
2	Banca Popolare dell'Emilia Romagna	61,758,052	•	•	Traditional
3	Banca Popolare di Milano	49,353,318	•	•	Dual
4	Banca Popolare di Sondrio	30,462,715	•	•	Traditional
5	Banca Carige	42,156,275	•	•	Traditional
6	Credito Emiliano	31,530,794	•	•	Traditional
7	Credito Valtellinese	27,198,703	•	•	Traditional
8	Intesa San Paolo	626,283,000	•	•	Dual
9	Mediobanca	72,841,306	•	•	Traditional
10	Monte dei Paschi di Siena	199,105,906	•	•	Traditional
11	UBI Banca	124,241,837	•	•	Dual
12	Unicredit	845,838,444	•	•	Traditional
13	Banca Popolare di Vicenza	42,111,484	•	•	Traditional
14	Veneto Banca	31,390,986	•	•	Traditional

With the aim of defining the identity of the independent directors in large Italian banks, an empirical investigation on the personal quality of the individuals composing the board with strategic functions is carried out. According to alternatives let to the companies by Italian regulation (Civil Code, artt. 2380-2409 *novesdecim*), strategic functions in the sample are up to the board of directors in 11 cases, to the supervisory board in two cases and to the management board in one case, for a total of 231 directors of whom 163 are non-executive and 127

qualified as independent (Table 2). In the sample, the board is made up of 16.50 directors with a percentage of non-executive and independent directors, respectively, of 70.56% and 54.98% (77.91% independent in respect to non-executive directors) on average. Regarding independence, the composition of the boards seems to be in line with Bank of Italy's recommendations of 2011 and 2014, as in just one case the number of independent directors, which amounts to 9.07 per bank, is below the limit of 25% of the total.

**Table 2.** Composition of the board (sample)

	Number of directors	Non-executive directors	Independent directors
Total	231	163	127
Mean	16.50	11.64	9.07
St. Dev.	4.86	5.33	5.61
Average		70.56%	54.98% (77.91%)

A biographical analysis on the 127 independent directors is then performed through several information sources. Firstly, the main official documents such as annual reports, corporate governance reports (mandatory for listed companies), company statutes, corporate governance plans (mandatory for banks since Bank of Italy regulation of 2008), together with information released through the official websites, are used to reconstruct personal data and professional backgrounds. All sources are related to the accounting year of 2013, with the latest updated data. When necessary, because of the lack of disclosure, official sources are integrated with online research and in particular with business-oriented and professional social networks. Furthermore, in order to shed light on hidden patrimonial or financial connections that could influence the profile of autonomy, official documents of the companies related to the independent directors (such as family businesses or companies where he/she holds office as a director) are also analysed. For this purpose, an in-depth investigation, by means of the AIDA database, is carried out on a total of 283 annual reports, referring to the accounting year 2013, in order to detect prejudicial presences of capital shares, debts, loans, equity participations, financial instruments or commercial transactions between the bank and the companies related to each independent director.

In relation to data elaboration, the identity of individuals is analysed with reference to gender, provenance, age, educational and professional background, and international orientation, which are also considered to assess diversity among the independent directors (Directive 2013/36/UE). In particular, international orientation is evaluated by considering nationality, education, place of work and international vocation in directors' own jobs or related companies.

Some important characteristics of the independent directors are then evaluated in light of

regulation and guideline requirements. The first characteristic is the time availability to serve the purpose, which is analysed considering the provisions of both the National Commission for Companies and the Stock Exchange (CONSOB) (art. 144-*duodecies* and Attachment 5-*bis* of 'Regolamento Emittenti Consob', 2010) and the Directive 2013/36/UE on the limit of directorates for board directors. The second relevant characteristic is the authority and experience of the independent director, summarized in the concept of 'expertise', that is assessed by cross-checking data on the length of office and the educational and professional background (Draghi Reform, 1998). The third characteristic is the true independence of the individual, whose assessment relies on the presence of a set of circumstances strictly disciplined by regulation and codes of conduct (Cadbury Report, 1992; Higgs Report, 2003; Bank of Italy, 2011, 2013), such as previously being a director in the management board or an executive director/officer of the company, or having held the office of director for more than nine years, rather than having professional relationships with the external auditing body or crossed directorates with other directors of the bank, or some kind of financial or commercial relationship between the bank and companies where he/she holds office as a director, or some other kind of patrimonial and personal relationship.

Finally, the degree of disclosure by the banks of independent directors' identities is investigated by considering five different information areas: personal data, career path, education and international orientation, time availability, and personal, financial and commercial relationships.

## 5 Results

With reference to identity, table 3 shows that of the 127 independent directors' biographies studied, 96

(75.59%) were male directors and 31 (24.41%) were female directors. Independent directors are around 60 years old on average, and the age brackets ranging from 50 to 69 years account for about 59% of the sample. In relation to provenance, for which both place of birth and place of work are considered, independent directors come from the areas where the banking group is located (69.29%). They are mainly private sector managers (34.65%) and university professors in the field of economics and finance

(24.41%), but a good percentage of them are accountants (and auditors or consultants) (14.96%) and lawyers (11.81%). As a consequence, the great majority of them have graduated in the areas of economics and finance (60.55%) and law (23.85%). Finally, the number of internationally-oriented and of not internationally-oriented independent directors appears to be quite balanced in the sample, with a slightly higher presence of the first category (respectively, 55.12% and 44.88%).

**Table 3.** Identity of the independent directors

<b>Gender</b>	Male	%	Female	%
	96	75.59%	31	24.41%
<b>Age</b>	Mean	St. Dev.	Min.	Max.
	58.42	10.34	35	78
<i>Brackets (number and average)</i>				
	30-39	40-49	50-59	60-69
	4 (3.15%)	25 (19.69%)	39 (30.71%)	36 (28.35%)
				23 (18.11%)
<b>Provenance</b>	Bank area		Other areas	
	n.	%	n.	%
	88	69.29	39	30.71
<b>Professional background</b>	Entrepreneur	Manager	University professor	Freelance professional
	14 (11.02%)	44 (34.65%)	31 (24.41%)	38 (29.92%)
<i>Freelance professional (details)</i>				
	Notary	Accountant / Auditor/Consultant	Lawyer	Physician
	2 (1.57%)	19 (14.96%)	15 (11.81%)	2 (1.57%)
<b>Education</b>	Degree	High school certificate		Not given
	109 (85.83%)	12 (9.45%)		6 (4.72%)
<i>Degree fields</i>				
	Economics / Banking / Finance	Law	Engineering	Agriculture
	60.55%	23.85%	1.83%	1.83%
				2.75%
	Political science	History	Literature	Not given
	0.92%	0.92%	0.92%	6.42%
<b>Internationality</b>	Yes	%	No	%
	70	55.12%	57	44.88%

Table 4 is helpful in the interpretation of diversity, which reveals to be lacking in relation to gender, as highlighted by the fact that in 50% of banks the feminine gender is represented by a percentage equal to or lower than 25% of all independent directors. Nevertheless, diversity is good with reference to age (3.29 age brackets represented on average) even if the independent directors, as mentioned before, tend to concentrate on the interval between 50 and 69 year olds. Although the presence of independent directors coming from the bank area is massive, the results show a remarkable provenance diversification (4.21 territories on average), meaning that the different territories of each bank holding company are well represented. Professional background is also significantly differentiated, since the independent directors belong to 3.64 professional categories on average, and the only category of managers occurs with a percentage higher than 25%.

As more than 85% of the independent directors hold a degree, diversity in education is associated with the different fields of study. Positively (in this case), almost 85% of the sample graduated in the areas of economics and law (table 3). To conclude, in spite of the apparent equilibrium between internationally-oriented and not internationally-oriented independent directors, the first category appears rather concentrated, as more than 35% of the banks have a percentage of independent directors with an international vocation equal to or lower than 25%.

This study assumes that some key characteristics of an independent director are having sufficient time to serve the purpose, adequate expertise and true independence. In relation to the first issue, table 5 shows that each director holds 3.69 total offices and 2.85 effective offices (excluding the directorship in the bank) on average. The difference is that effective directorates, in line with art. 144-*duodecies* of

CONSOB Regulation and CRDIV provisions, do not take into account offices held in foundations and non-profit organizations as well as, among others, in other companies of the banking group. By using the standards set in the above mentioned regulation, and also just considering the number of effective

directorates, results reveal that 27.56% of the independent directors hold five or more offices elsewhere, with 80% of them with more than five offices.

**Table 4.** Diversity of the independent directors

	Gender	Age	Provenance	Professional background	Education (degree)	Internationality
Category diversity on average	-	3.29	4.21	3.64	2.43	-
Banks with all directors in a single category	2 (14.28%)	1 (7.14%)	1 (7.14%)	0	2 (14.28%)	-
Banks with one category with a value $\leq 25\%$	7 (50%)	-	-	-	-	5 (35.71%)

A remarkable level of expertise, coming from the combined consideration of educational and career paths, length of current office and previous directorships can be observed in the sample, with the bulk of the independent directors having significant experience in banking, financial and insurance markets (66.93%).

A quite surprising result, of course, is that about the extent of independence, as the investigation reveals that the majority of the independent directors (57.48%), are not really independent for one or two different causes (about 89% of them), or more than three causes (about 11%).

In particular, table 6 shows the nature and weight of the different causes of non-independence, and gives

more detailed information on the leading cause, that is the existence of financial relationships between the independent directors and the bank. In order of frequency, the main causes are four-fold: financial relationships between the bank and other companies where they hold an office, crossed boards with other directors of the bank, office held for a period equal to or longer than nine years, membership of the bank's executive (or strategy) committee. Another four causes - past membership of the bank's management board, relationships with the external audit body of the bank, having been an executive officer or manager of the bank and other kinds of patrimonial or personal relationships with the bank - together account for less than 7%.

**Table 5.** Independent directors' characteristics

Directorates	No.	Min.	Max.	Mean	Directors with $\geq 5$ offices (%)	Offices = 5	Offices > 5
<i>total</i>	469	0	31	3.69	32.28%	17.07%	82.93%
	No.	Min.	Max.	Mean	Directors with $\geq 5$ offices (%)	Offices = 5	Offices > 5
<i>effective</i>	362	0	16	2.85	27.56%	20%	80%
<b>Expertise</b>	Banking and similar sectors		Other sectors		No experience		
	85 (66.93%)		31 (24.41%)		11 (8.66%)		
<b>Independence</b>			Number of causes of non-indep.	Causes of non-independence per director (%)			
	Yes	No		1	2	3	4
	54 (42.52%)	73 (57.48%)	121	46.58%	42.47%	9.59%	1.37%

Sometimes hidden behind the financial relationships between the bank and its independent directors are very deep links, as the companies where the independent directors hold office often have multiple financial connections and an independent

director often holds an office in a plurality of companies that has financial relationships with the bank. This is the reason why the 51 financial relationships translate into 90 different connections. In fact, in the sample, each independent director holds an

office in 1.96 companies related to his/her bank on average, and 1.76 connections affect each independent director on average.

**Table 6.** Causes of non-independence (details)

<i>Nature</i>	Financial relationships	Crossed directorates	Offices in the bank for $\geq 9$ years	Executive or strategy committee	Others
<i>Number</i>	51	26	19	17	8
<i>Average</i>	42.15%	21.49%	15.70%	14.05%	6.61%
<i>Financial relationships (details)</i>					
Debts	Bank shares	Financial guarantees	Company shares	Commercial relationships	Others
28	21	12	11	10	8
31.11%	23.33%	13.33%	12.22%	11.11%	8.90%

The last line of table 6 shows that the main financial cause is represented by bank debts (31.11% of total connections), whose relevance is proved by the large amount of both the average single debt (€102,173,305.53) and the average independent director debt (€162,720,449.50), which includes the sum of the debts taken out by the companies where he/she holds offices. The second recurrent connection is the ownership of bank shares (23.33%), while financial guarantees, the ownership of company shares by the bank, and other commercial relationships settle at slightly more than 10% each.

In relation to the second and third cause of non-independence it is possible to add more detailed information. With reference to crossed directorates, each independent director shares on average 1.77 boards with colleagues, while the average length of offices over the limit of nine years is 14.11 years.

To conclude the analysis of the independence, it is interesting to note that in only two banks (14.28%)

all independent directors are really independent, and that in the sample an array of definitions of independence is used, as 35.71% of banks adopt the definition proposed by the Preda Code, 28.57% of them that of art. 148 of the TUF, and 21.43% of them a combination of the two definitions, while 14.29% of the banks do not adopt any definition.

Finally, the analysis of the level of disclosure as to the independent directors' identities shows insufficient results as banks, on average, provide only about 50% of the total information that they could potentially release (Table 7). In particular, while the highest transparency is associated with the career path of the independent director, as 85.71% of banks provide adequate information about it, the different kinds of relationships between him/her and the bank stand out for information incompleteness. Only two banks (14.28%), in fact, give full information about what has previously been proved to be the main cause of non-independence.

**Table 7.** Level of biographical disclosure

Areas	No.	%
Personal data	7	50%
Career path	12	85.71%
Education and internationality	6	42.86%
Time availability	10	71.43%
Personal, financial and commercial relationships	2	14.28%
<i>Mean</i>		52.86%

## 6 Conclusion

This paper aims to advance the understanding of the personal qualities of the independent directors in large Italian banks, and of the distance existing between their profile and the requirements asked for this key role by regulation and codes of conduct. The identikit that comes to light from the study reveals that the independent director is usually a 60-year-old man coming from the area in which the bank is located, has generally graduated in economics or law and is mainly a manager or a university professor. He shows relevant expertise in directing and controlling banks

and other companies and a medium international vocation. In spite of the growing attention paid to the issue of diversity by supervisory authorities, the independent directors show remarkable differences only in age, international orientation and provenance, while essential aspects to prevent the risk of 'gang mentality' in decision-making, such as gender, education and professional background seem to be rather disregarded (CRDIV, Directive 2013/36/UE). The analysis of some important characteristics of the individuals raises serious concerns about their ability to effectively serve as independent directors. Firstly, a significant number of them appear not to be aligned to

recent regulations on the limit of directorates (CONSOB, 2010; CRDIV, Directive 2013/36/UE), holding a number of offices in other companies too high to devote the right time to the bank board. Furthermore, the valuation is prudential and time availability is probably lower as a number of offices supposed to be time-consuming are not considered. Secondly, the topic of independence stands out as the main issue as the findings reveal that non-independent directors would constitute the majority of the sample. Surprisingly, considering that banks are highly regulated companies due to the primary importance they have to the economy and in promoting recovery from the financial crisis, the 'grey area' includes 57.48% of the independent directors of large Italian banks and this confirms the concerns of the Bank of Italy about the underestimation of substantial elements beyond formal requirements of independence (Bank of Italy, 2013). Financial relationships by far the most frequent one, but also crossed directorates, length of office and participation in the executive committee are the main causes that impose upon their independence. Once more, it is reasonable to believe that the large number of non-truly-independent directors is even prudent, as the insufficiency of the data does not always permit a full assessment of independence. For instance, the annual reports of the companies related to the independent directors that have been analysed cover around 78% of all effective directorates, dropping to about 60% when considering total directorates.

In general, as founded in other studies (Brennan and McDermott, 2004), the level of disclosure of biographical information by large Italian banks is not adequate for tracing the identity and assessing the independence of directors. This has major implications for the supervisory authorities responsible for filling the regulatory gap on the obligatoriness of full biographical disclosure. Not coincidentally, the lowest level of transparency affects the area of personal, financial or commercial relationships between the bank and the directors, that proved to be the first cause of their non-independence.

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# **REVENUES FROM RELATED PARTIES: A RISK FACTOR IN THE ITALIAN LISTED COMPANY'S FINANCIAL STATEMENTS**

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## **Abstract**

As suggested in literature, related party transactions (RPTs) may be instruments to carry out abuse concerning conflicts of interest between ownership and control or between majority and minority shareholders. These transactions are subject to moral hazards, and for this reason are characterized by a greater inherent risk than other transactions. Regulators have recently strengthened existing rules, introducing new bans and requirements, aimed at guaranteeing the substantial and economic fairness of these transactions. This paper produces evidence which justifies the potential risk of these operations. In particular, focusing only on the revenues made with RP, we investigated the relation between the business trends and the intensity of RP revenues in the income statements. This study provides a starting point for future research, which could extend our analysis (which deals only with economic effects) to include financial effects and consider other elements that are influenced by the intensity of RP revenues.

**Keywords:** Independent Directors, Banks, Identity, Diversity, Disclosure

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## **1. Introduction**

Recent shortcomings in corporate affairs, related to the bursting of the New Economy Bubble and the Global Financial Crisis have underlined how related party transactions (RPTs) have, in many cases, played a prime role in order to produce abuses. This attitude has forced regulators to strengthen rules, introducing new bans and requirements aimed at guaranteeing the substantial and economic fairness of related parties transactions (RPTs). These reforms have mainly focused on two areas, the first being the approval processes, and the second being increasing the level of transparency. From a theoretical perspective, RPTs are studied according to two different perspectives: conflict of interests or the efficient transaction hypothesis.

The first theory supports the idea that these transactions represent a conflict of interest and that they conflict with company and investor protections (Emshwiller 2003). The conflict of interest theory claims that RPTs may in general be the instrument of abuse relating to two main opposing groups: ownership and control (executive directors and management), or between majority and minority shareholders.

On the other hand, the efficient transaction hypothesis assumes that RPTs are sound business exchanges, efficiently fulfilling the underlying economic needs of the corporation (Pizzo 2011), because the reduction of information asymmetry reduces transactions costs as well as risks.

Considering the potential risk that these transactions produce, our study aims to analyze relations between revenues made with RPTs (Related Revenues) and the companies' economic trends.

Excluding banks, which are subject to specific rules, the 100 most capitalized Italian companies that were listed in 2011 were examined. The focus was placed on Italy because Italian listed companies are strongly interrelated as in most European countries. These relations involve intra-group entities as well as extra-group entities. In particular, the Italian listed corporate sector features concentrated control (Bianchi & Bianco 2006) through opaque structures, such as pyramids and the dominance of a small number of interlinked but competitive entrepreneurs (Assonime 2011). Italian companies are generally characterized by the presence of a controlling owner (Bianchi 2001). This shows the relevance of this topic in the Italian context because minority shareholders are exposed to a high risk of exploitation (Nenova 2003, Dyck and Zingales 2004). And, as Holderness (2009) states, minority control is an issue that is widespread and constant the world over, in different forms and modes. Data was collected partially from a database and partially from financial statements. In compliance with Consob Resolution n. 15519/2006 companies are obliged to specify the amounts of revenues and costs produced with RPTs in the income statements, as well as related receivables and related liabilities in the financial statements. This information was checked with information presented in the notes on financial statements, as required by IAS 24, which disclose details regarding the related parties.

In literature, some studies underline a positive relation between RPTs and corporate performance, through increasing sales or reducing transaction costs (Khanna and Palepu 1997), whereas other studies support the evidence that there is a negative association between RPTs and performance, with Tobin's  $q$  and ROA (Munir & Gul 2011), or ROE (Cheung et al. 2009). This research, through an OLS model, aims at contributing to literature on RPTs finding evidence which is able to justify an increasingly expensive and more cogent regulation. Results show that the intensity of related party revenues is superior when the company has been subject to a reduction of profitability as well as to a reduction in turnover. On the contrary, there is no evidence of inverse relations between related party revenues and the financial position of the company. This provides input for future research to implement our analysis taking the financial dimension into account.

### **Literature review of RPTs**

The sequence of scandals (Enron, Arthur Andersen, WorldCom, Adelphia, Tyco International and Parmalat) that shook up financial markets at the beginning of the new millennium has fueled the debate on Corporate Governance (CG). To understand its relevance, it is important to clearly establish the purpose of a corporation. As Stout (2013) and many other authors (Clark 2013, Stevelman 2013 Weinstein 2013) argue, the corporate form can meet the needs of many different groups of entities. One of the most widespread theories is the maximization of shareholder value based on the difficult issue of resolving conflicts between the ownership and other stakeholders. In this sense CG rules aim to put shareholder interests before those of Directors (Agency theory) and stakeholders. Hence RPTs can play a positive role in helping companies to reach their shareholder targets. This excludes their total ban (Goshen 2003). However, at the same time, they can be used to generate abuses against other different types of entity involved in corporate life. RPTs can reduce asymmetric information problems between outsider stakeholders (including investors) and corporate management (Gordon et al. 2004), partly because of the conflict of interest that can arise among shareholders.

For this reason, CG is expected to reduce the opportunistic behavior of management, to improve the quality of corporate reporting quality, and to increase firm performance (Chen et al. 2009, Bhagat and Bolton 2008, Denis and McConnell 2003). At the same time, it constrains (diminishes) the opportunistic uses of discretionary accruals in a company's financial statements (Chung et al. 2002 and Park and Shin 2004), inter-group borrowings (Berkman et al. 2009), and corporate fraud (Chen et al. 2006).

In the Shareholder Value Myth, Stout (2013) shows how the traditional managerial focus on the shareholder's interest can be harmful to the corporation. He suggests a more long-term perspective that does not reward a small subset of shareholders, the most shortsighted, opportunistic, undiversified, and indifferent to ethics and the welfare of others. Furthermore, as Biondi suggests, the accounting system can be deemed the heart of the business corporation and can replace or complement the market price. A method based on accounting reporting is better able to represent and control the relationship between shareholders and the business corporation (Biondi 2012).

Due to this, CG rules must regulate the assessment process and approval of these RPTs and must improve the efficiency and quality of financial reporting (Razae 2004). This would limit the improper use of RPTs and foster the disclosure of the information required to assess these transactions (Fooladi et al. 2011).

As with CG, RPTs are also an issue that is strongly influenced by the type of culture to which they are applied. Hofstede (1980) points to the large cultural differences between countries as the reason why the approaches adopted for specific subjects can be so varied. As a consequence there are many different types of CG models and rules. Globally, three main forms of capitalism are identifiable: Anglo-Saxon, Teutonic and Latin. The main differences are generally produced by the differences in culture but there are other elements that influence CG variables. Despite the globalization process which is fostering unification of the models in many countries, significant differences remain regarding the ownership structure and corporate control. In particular, many studies focus on the relationship between ownership structure (Zengquan et al. 2004, Kun 2005, Jian & Tak 2010, Munir 2010), the role played by the stock market (Gordon et al. 2004, Lo et al. 2010, Yeh et al. 2012) and the quality and relevance of RPTs in corporate life. Cernat (2004) argues that CG constitutes not only a crucial difference between varieties of capitalism but is also a major factor in determining their economic performance. Chen (2014) found that the financial crisis has triggered a need for companies to adopt a new governance structure in order to better cope with the challenges of the environment. However, as yet, the literature on RPTs has not paid sufficient attention to the relationship between CG and RPT disclosure, although the knowledge of these transactions can affect the way in which analysts of Financial Statements assess the performance, financial position, and risk and opportunities of an entity (Corlaciuc and Tudor 2011).

Two main definitions are used for RPTs (Chen-Wen & Chinshun 2007) in business literature.

The first is that RPTs are generically defined as transactions between a company and related entities (e.g., subsidiaries, affiliates, principal owners,

officers, and directors) (FASB 1982). Young (2005) suggests a second definition of RPTs that defines them as «transactions between a company and an insider», who is a person considered to be part of the company (Pan & Hsiu-Cheng). The common element is the relationship between parties that can influence and establish the binding conditions of the contract (implicitly or explicitly), which are different because the parties are not independent.

One of the most influential and widespread definitions is provided by International Accounting Standards which define RPTs as a «transfer of resources, service or obligations between a reporting entity and a related party, regardless of whether a price is charged» (IAS 24), and where «a related party is a person or entity that is related to the entity that is preparing its financial statements» (IAS 24). Two or more parties are considered to be related, both companies and people, when one of them has the ability to influence the other in making operational or financial decisions. Furthermore, International Accounting Standards state that related entities are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others), including where the entity, or any member of a group provides key management personnel services to the reporting entity or to the parent of the reporting entity. The latter provision was added by Annual Improvements to the IFRSs 2010–2012 Cycle, taking effect for annual periods beginning on or after 1 July 2014. This version does not deem two entities related simply because they have a director or key manager in common.

To sum up, RPTs can be observed through different perspectives, one that puts the risks before the advantages produced by these transactions, and the other which highlights their natural tendency to reduce monitoring costs and information asymmetry.

From a theoretical perspective, RPTs are studied according to two different perspectives:

- (a) conflicts of interest;
- (b) the efficient transaction hypothesis.

Lemmon and Lins (2003) suggest that a corporation ownership structure is what principally determines the extent of agency problems between controlling insiders and outside investors. The insiders able to control corporate assets can potentially expropriate outside investors by diverting resources for their personal use or by committing funds to unprofitable projects that provide private benefits. Furthermore, Grossman and Hart (1980) showed that if a corporation has a broad shareholder base, no single shareholder has adequate incentives to monitor management closely. In this context the transfer price could favor the controlling or related party at the expense of minority shareholders (Johnson et al. 2000). For this reason it is important to guarantee an adequate legal process that protects minorities and small investors. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) argue that the absence of strong

legal protection and other external governance mechanisms further increases the severity of agency problems between controlling insiders and outside investors.

Based on these assumptions, the first theory supports the idea that these transactions are a conflict of interest and that they conflict with company and investor protections (Emshwiller 2003). The conflict of interest theory claims that RPTs may in general be the instrument of abuse relating to two main opposing groups: ownership and control (executive directors and management), or between majority and minority shareholders.

The first conflict is examined by Agency Theory literature (Jensen and Meckling 1976, Fama 1980, Eisenhardt, K. 1989), which also deals with the effectiveness of monitoring management (Fama and Jensen, 1983, Fama and Jensen, 1983). The second conflict is sufficiently analyzed in literature as an investor protection tool (La Porta et al 2000). In particular, these transactions are subject to moral hazard, i.e. a situation where a party has the tendency to take risks because it is not liable for any costs incurred. Thus, RPTs can produce benefits for the strong party (insiders) at the expense of the weak (outsider). The reasons for this discrepancy are the lack of elements to preserve the minority's rights and the presence of asymmetric information (Beak et al. 2006). Some examples of this abuse could lead to a reduction in shareholder wealth (tunneling transactions), yielding a virtual increase in the resources of the corporation or finally towards producing misleading statements (earnings management). Furthermore, some studies (Gordon 2004 et al., Kohlbeck and Mayhew 2005) conclude that weak corporate governance leads to a larger number of RPTs. Several studies have confirmed the use of earnings management by large numbers of listed companies in order to achieve particular levels of ROE (Chen and Yuan 2004, Liu and Lu 2007). The manipulation of the process of financial reporting to obtain private gain may be easily placed through RPTs.

In contrast with the previous approach, the efficient transaction hypothesis assumes that related party transactions represent sound business exchanges, efficiently fulfilling the underlying economic needs of the corporation (Pizzo 2011). The basis of this theory is the reduction of transactions costs as well as the reduction of the risk associated with these transactions.

Although the theories are opposed, Kohlbeck and Mayhew (2005) suggest that the potential benefit or detriment depends on the parties involved in the transaction or the type of RPTs conducted.

Some studies underline a positive relation between RPTs and corporate performance, through increasing sales or reducing transaction costs (Khanna and Palepu 1997), whereas other studies support the evidence that there is a negative association between

RPTs and performance, with Tobin's  $q$  and ROA (Munir & Gul 2011), or ROE (Cheung et al. 2009). In addition, Pozzoli and Venuti (2014) conclude that RPTs and company financial performance (ROA) are not correlated and there is no evidence of cause and effect. Considering Tobin's  $q$  and the net profit after tax divided by the average shares outstanding for the year, Wen-Yi Lin et al. (2010) claim that it is difficult, if not impossible, to determine whether such transactions are beneficial or detrimental to organizational performance, and this evaluation should be made case by case. This analysis is made harder considering the difficulties in the different activities due to ordinary and anomalous transactions (Wong & Ming 2003).

Other studies evaluate the effect produced by RPTs on the corporate value. For instance, Kohlbeck & Mayhew (2009) found that the market assigns lower values and subsequent returns to corporations that engage in certain types of RPTs. Moreover, this study verified the different influences RPTs had in relation to the type of RPT involved.

The conflicts of interest theory and the efficient transaction theory are not necessarily in opposition, because these transactions can produce benefits as well as disadvantages. For this reason, as stated by Goshen (2003), a total ban on self-dealing would be irreconcilable with the goal of preserving the performance of efficient transactions. Furthermore, a non-intervention approach does not protect the investor from the conflict of interest problem.

Finally, a contingency perspective has been suggested that encompasses both the theories (Pizzo 2011). The basis of this perspective is the consideration that both of the above research methodologies have inconsistencies or deficiencies and are unable to cope with various kinds of possible cases.

Some studies suggest that, on average, RPTs are not harmful to outside shareholders (Ryngaert & Thomas 2011). This observation can be extended to the other classes of stakeholders (Henry et al. 2007). However a high inherent risk exists due to the attitude of RPT, higher than for other operations, to engage in fraudulent behaviors. In particular this type of transaction tends to increase the discrepancy in treatment between those who hold the power and those who can only be subject to it (minority shareholders or shareholdings in general).

Most of these transactions are a normal feature of business, because many entities frequently carry out their activities through subsidiaries, joint control or significant influence, and the fact that corporations conduct a high volume of such transactions should not automatically lead to the conclusion that they are instruments used to hide accounting and financial fraud (Gordon et al. 2007).

Although it should be remembered that the disclosure of RPTs is essential for the proper understanding of corporate performance, it does not

itself prevent improper or illegal activities. Consequently informing stakeholders is different from supplying a legal protection of stakeholders' rights.

Regarding disclosure, some studies (Chalmers 2001, Chalmers and Godfrey 2004, Taylor and Darus 2006) provide evidence that the quality of voluntary derivative disclosure by corporations gradually increased over the period leading up to the introduction of the mandatory disclosure requirements, and, at the same time, there was a significant increase in voluntary disclosure in the year in which the mandatory disclosure requirements came into effect. Hwanh et al. (2013) provide evidence that disclosure regulation helps to reduce a few types of transactions (earnings management), but this influence is non-symmetric between different sectors.

More detailed disclosure requirements limit the number of accounting choices to managers, forcing them to disclose related party information (Leuz and Verrecchia 2000).

Regulators have issued rules aimed at increasing the transparency of RPTs and reducing their tendency to generate conflicts of interest.

From a normative point of view the presence of gaps and weaknesses is clear.

Numerous studies provide evidence of their role in many financial crises (Swartz and Watkins 2003; Tague 2004) and in achieving specific aims (Erickson et al. 2000), whilst others show that RPTs did not play a strategic role in various corporate scandals (Bell & Carcello 2000). While the presence of RPTs is not indicative of fraudulent financial reporting, failure to recognize or disclose related party transactions was found to be one of the top 10 audit deficiencies in the United States by Beasley et al. (2001).

Regulators reacted by strengthening the existing rules introducing new bans and requirements, aimed at guaranteeing the respect of stakeholders' rights. For instance, in 2002 the Sarbanes-Oxley Act set new or enhanced standards for all U.S. public company boards, management and public accounting corporations with the aim of restoring public trust in the nation's securities markets. Section 402 of the document deals with the issue of conflicts of interest and prohibited loans to some related parties such as directors and officers.

In response to the perception that stricter financial governance laws were needed, SOX-type laws were subsequently introduced in many other countries such as Japan, Germany, France, Italy and Australia.

However, these frauds can be carried out with parties not included in the most common definitions of related parties.

As stated, the attention paid to these transactions in particular is due to their greater inherent risk. Hence regulation cannot exclude a risk approach to evaluating the transactions to be disclosed in order to identify a correct tradeoff between costs and positive effects.

## 2. Research questions and sample

### Research questions

The aim of our analysis is to verify whether there is an association between the intensity of revenues with related parties and the firm's profitability, as well as with turnover trends. Data was collected from(?) consolidated financial statements in order to limit the effects produced by the group's dimension.

In particular, we were not interested in identifying an association between ROI (return on investments), ROE (return on equity) and ROA (return on assets), but we took into account the effects produced by an increase or a reduction in these ratios between 2010 and 2011. The reason for this was that the selected companies operate in different sectors that are characterized by different profitability averages. The same analysis was made on the turnover trends in the same period.

The following questions were asked:

*RQ 1) Is there an association between revenues with related parties and the firm profitability?*

To identify this correlation we took into account the variation of ROI between 2010 and 2011. We used ROI, that is the relation between EBIT and total assets. We chose ROI because it explains the core business profitability. On the contrary the use of other indicators such as ROE and ROA are affected by many other extraordinary components that can change values without a proven crisis sign. A positive association may mean that these transactions are efficient and can really help companies to yield better economic results. On the contrary, an inverse association could be a warning sign that emphasizes the inherent risk behind these transactions.

*RQ 2) Is there an association between revenues with related parties and the turnover trend?*

In the last few years the recession has brought about a contraction in sales in many sectors. This is one of the main reasons why companies have stopped generating wealth and have started to consume it.

We investigated if companies that increase or reduce in turnover are more or less oriented to carrying out revenues with related parties. A statistical association between the intensity of related party revenues and an increase in turnover may be evaluated as a physiological effect. On the contrary an association between the intensity of related party revenues and a reduction in turnover might be interpreted as an means to reduce the economic disequilibrium.

### Sample

The empirical analysis considers the 100 most capitalized Italian listed companies in 2010 and 2011. We chose to exclude banks because they are subject to specific rules on related party transactions. Appendix 1 shows the list of companies.

### Model design

The model that we suggest is innovative and it is aimed at verifying the relation between the intensity of RPR and other variables.

$$RPR\ intensity = \alpha + \beta_i \Delta Turn + \beta_{ii} \Delta ROI + \beta_{iii} \Delta Cash + \beta_{iv} Marg_{2011} + \varepsilon \quad (1)$$

We consider the intensity of RP Revenues as the ratio between RP revenues and the 2011 turnover. The reason why we prefer turnover to the total assets value is because it explains the importance of the company on the market better. Different businesses required different investments, which could influence the association with the other variables taken into consideration. The ratio is:

$$RPR\ intensity = \frac{Related\ party\ revenues}{Operating\ revenues} \quad (2)$$

$\Delta Turn$  is the relative increase or decrease in turnover between 2011 and 2010. We opted for a ratio in order to reduce the effect produced by the difference in size. The ratio is:

$$\Delta Turn = \frac{Turnover\ 2011 - Turnover\ 2010}{Turnover\ 2010} \quad (3)$$

$\Delta ROI$  is the difference between 2011 operating profitability and the one in 2010 ROI (return on investment) is a performance measure used to evaluate the operating profitability. ROI is the relation between EBIT and total assets. We opted for it because it explains the core business and it is not influenced by other variables such as financial elements or extraordinary results. This is the formula:

$$\Delta ROI = ROI\ 2011 - ROI\ 2010 \quad (4)$$

$\Delta Cash$  is a way to evaluate the firm's financial trends This indicates the difference between the Net Cash Flow between 2011 and 2010. This is the formula:

$$\Delta Cash = \frac{Cash\ 2011 - Cash\ 2010}{Cash\ 2010} \quad (5)$$

Marg 2011 is the relation between EBITDA and Operating revenues. It is a stock variable, and we used it to

verify if companies with higher related revenues in 2011 had higher operating margins in the same year.

### 3. Results

An OLS linear model was used (Model I) to develop this study. All analyses were performed with SPSS (22).

A  $R^2$  of .378 is a low value, but it can be considered adequate if the independent variable is the intensity of the related revenues on the total (table 1).

**Table 1.** Model Summary<sub>b</sub>

Model	R	R Square	Adjusted R Square	Std. Error	Durbin-Watson
1	.615 <sub>a</sub>	.378	.351	.17080	1.775

a. Predictors: (Constant), ΔTurn, ΔROI, ΔCash, Marg2011.

b. Dependent Variable: RP Revenues intensity.

**Table 2.** ANOVA<sub>a</sub>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.634	4	.408	14.001	.000 <sub>b</sub>
	Residual	2.684	92	.029		
	Total	4.318	96			

a. Dependent Variable: RP Revenues intensity

b. Predictors: (Constant), ΔTurn, ΔROI, ΔCash, Marg2011.

Empirical evidence shows the variables observed have significant influences on the intensity of related revenues on the total, since their p-value is between 0.05 and 0.01.

**Table 3.** Coefficients<sub>a</sub>

Model		Unstand. Coeff.		Stand. Coeffi.	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.026	.024		1.086	.280
	ΔTurn	-.264	.086	-.285	-3.081	.003
	ΔROI	-1.970	.397	-.479	-4.963	.000
	ΔCash	.071	.022	.301	3.276	.001
	Marg2011	3.878E-18	.007	.306	3.612	.000

The results in Table 3, show there is a negative relation between a fluctuation in turnover and the intensity of the RP revenues. This means that companies that registered a decrease in turnover between 2010 and 2011 are the companies that in 2011 have the higher RP revenues intensity.

The same association is extendible to firm profitability. A reduction in profitability seems to induce companies to state more revenues with RP.

On the contrary, table 3 shows a positive association between the difference of Net Cash Flow and the intensity of the RP revenues. It produces two

different outputs: the first one suggests that it is interesting to expand this type of analysis also to the financial dimension of RPTs, and, the second may underline that RP revenues are used to inject liquidity into the firms. This may be useful for the firm, but at the same time it subordinates these transactions with a sole financial necessity. There is also a positive association between Marg2011 and the intensity of the RP revenues.

Table 4 and 5 evaluate the multicollinearity problem.

**Table 4.** VIF

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	ΔTurn	.788	1.269
	ΔROI	.724	1.380
	ΔCash	.801	1.248
	Marg2011	.944	1.059

**Table 5.** Multicollinearity index

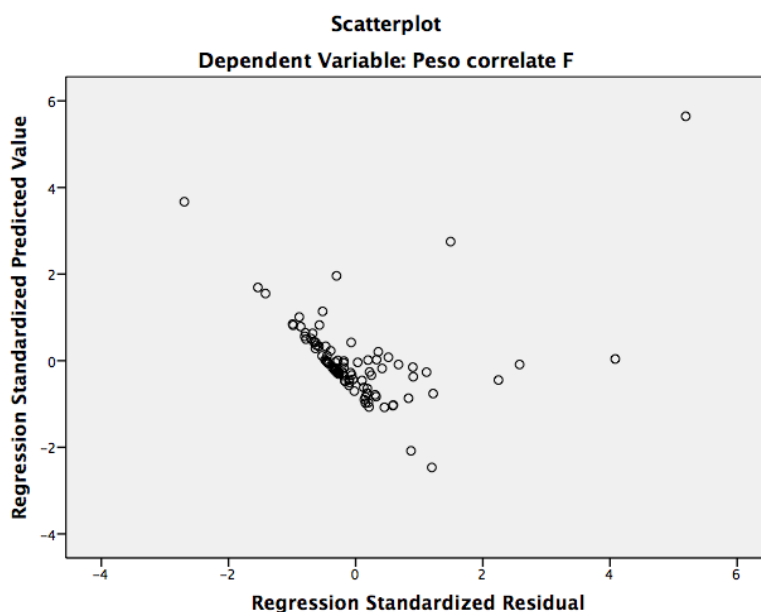
Model	Dimension	Eigenvalue	Condition Index
1	1	1,909	1,000
	2	1,613	1,088
	3	,660	1,701
	4	,479	1,996
	5	,339	2,374

VIF values are low and suggest that there are no correlations between independent variables.

Furthermore, the multicollinearity index is also slow in confirming the adequateness of the model.

Table 6 shows that our model is not affected by a heteroschedasticity problem.

**Table 6.** Heteroschedasticity



#### 4. Conclusions

As suggested in literature, RPTs may be instruments to carry out abuse concerning conflicts of interest between ownership and control or between majority and minority shareholders. These transactions are subject to moral hazards, and for this reason are characterized by a greater inherent risk than other transactions. Regulators have recently strengthened existing rules, introducing new bans and requirements, aimed at guaranteeing the substantial and economic fairness of these transactions.

The objective of this normative process is to guarantee a correct use of RPTs.

This paper produces evidence which justifies the potential risk of these operations. In particular, focusing only on the revenues made with RP, we investigated the relation between the business trends and the intensity of RP revenues in the income statements.

The first variable considered is the difference in Turnover between 2010 and 2011. A reduction in turnover must be seen as one of the main common problems for a firm. It may be generated by a problem

in efficacy of the outputs produced or it may also be the effect of an environmental economic situation. Obviously, considering the importance of the fixed costs in the Italian income statements a reduction in turnover can bring the business into question.

Our analysis responds to the first RQ with positive evidence. There is a statistical negative association between the turnover trend and the intensity of RP revenues. This may also be read as a warning because companies that are subject to higher reduction in turnover are more oriented to producing revenues with RPs. These results partially justify the recent tightening in rules.

The second element that we took into account is the difference in firm profitability. In particular we investigated the relation between the difference in ROI (return on investments) and the intensity of the RP revenues. Our analysis responds to the second RQ with positive evidence. There is a statistical negative association between the ROI trend and the intensity of RP revenues. This is another sign of potential danger because companies that are subject to higher reduction in profitability are more oriented to producing revenues with RPs.

We also tested the intensity of RP revenues on two other variables: the variation of net free cash flow and the EBITDA margin.

The cash flow trend need to verify the relation between RP revenues and the financial position of the firm. The study highlights a positive association between these variables. This suggests that companies with a better financial position do not incur high RP revenue intensity.

It produces two different outputs: the first one suggests that it is interesting to expand this type of analysis also to the financial dimension of RPTs, and the second may underline that RP revenues are used to inject liquidity into the firms. This may be useful for the firm, but at the same time it subordinates these transactions with a sole financial necessity.

There is also a positive association between Marg2011 and the intensity of the RP revenues. This suggests that companies with a higher Margin are companies that make mere revenues with RPs. This positive association suggests the potential risk behind these RP revenues, because they may be the reason why this margin is higher.

This study provides a starting point for future research, which could extend our analysis (which deals only with economic effects) to include financial effects and consider other elements that are influenced by the intensity of RP revenues.

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Appendix

1	A.S. ROMA SPA
2	A2A S.P.A.
3	ACEA S.P.A.
4	ACOTEL GROUP SOCIETA' PER AZIONI
5	ACSM-AGAM S.P.A.
6	AEDES SPA
7	AEFFE S.P.A.
8	AEROPORTO DI FIRENZE S.P.A.
9	AMPLIFON S.P.A.
10	ANSALDO STS S.P.A.
11	ARNOLDO MONDADORI EDITORE SPA
12	ASCOPIAVE S.P.A.
13	ASTALDI S.P.A.
14	ATLANTIA S.P.A.
15	AUTOGRILL S.P.A.
16	AUTOSTRADE MERIDIONALI S.P.A.
17	B. & C. SPEAKERS - SOCIETA' PER AZIONI
18	BASIC NET S.P.A.
19	BASTOGI S.P.A.
20	BE S.P.A.
21	BEGHELLI S.P.A.
22	BEST UNION COMPANY S.P.A.
23	BIESSE S.P.A.
24	BREMBO S.P.A.
25	BUZZI UNICEM S.P.A.
26	CAIRO COMMUNICATION S.P.A.
27	CALTAGIRONE EDITORE S.P.A.
28	CEMBRE S.P.A.
29	CEMENTIR HOLDING S.P.A.
30	CIR S.P.A.
31	COFIDE - GRUPPO DE BENEDETTI S.P.A.
32	DANIELI & C. S.P.A.
33	DATALOGIC S.P.A.
34	DAVIDE CAMPARI-MILANO S.P.A.
35	DE' LONGHI S.P.A.
36	DIASORIN S.P.A.
37	EL.EN. - S.P.A.
38	EMAK S.P.A.
39	ENEL - SPA
40	ENEL GREEN POWER S.P.A.
41	ENGINEERING - INGEGNERIA INFORMATICA - S.P.A.
42	ENI S.P.A.
43	ERG S.P.A.
44	ESPRINET S.P.A.
45	FALCK RENEWABLES S.P.A.
46	FIERA MILANO S.P.A.
47	FINCANTIERI S.P.A.
48	FINMECCANICA S.P.A.
49	FNM S.P.A.
50	GEOX S.P.A.
51	GRUPPO EDITORIALE L'ESPRESSO S.P.A. SI
52	HERA S.P.A.
53	IGD SIIQ S.P.A.
54	IMA S.P.A.
55	IMMSI S.P.A.
56	INTERPUMP GROUP S.P.A.

57	IREN S.P.A.
58	ITALCEMENTI FABBRICHE RIUNITE CEMENTO S.P.A.
59	ITALMOBILIARE SPA
60	JUVENTUS F.C. - S.P.A.
61	LA DORIA - S.P.A.
62	LUXOTTICA GROUP SPA
63	MAIRE TECNIMONT S.P.A.
64	MARR S.P.A.
65	MEDIASET S.P.A.
66	NICE S.P.A.
67	OLIDATA S.P.A.
68	PARMALAT S.P.A.
69	PIAGGIO & C. S.P.A.
70	PIRELLI & C. S.P.A.
71	PRADA S.P.A.
72	PRELIOS S.P.A.
73	PRIMA INDUSTRIE - S.P.A.
74	PRYSMIAN S.P.A.
75	RCS S.P.A.
76	RECORDATI INDUSTRIA CHIMICA E FARMACEUTICA S.P.A.
77	REPLY S.P.A.
78	RISANAMENTO SPA
79	SABAF S.P.A.
80	SAFILO GROUP S.P.A.
81	SAIPEM S.P.A.
82	SALVATORE FERRAGAMO S.P.A.
83	SARAS S.P.A.
84	SAVE S.P.A.
85	SEAT PAGINE GIALLE S.P.A.
86	SERVIZI ITALIA S.P.A.
87	SNAI S.P.A.
88	SNAM S.P.A.
89	SOCIETA' INIZIATIVE AUTOSTRADALI E SERVIZI S.P.A.
90	SOGEFI S.P.A.
91	SOL S.P.A.
92	SORIN SPA
93	TAMBURI INVESTMENT PARTNERS S.P.A.
94	TELECOM ITALIA SPA
95	TERNA S.P.A.
96	TOD'S S.P.A.
97	TREVI - FINANZIARIA INDUSTRIALE S.P.A.
98	VIANINI LAVORI - S.P.A.
99	YOOX S.P.A.
100	ZIGNAGO VETRO S.P.A.

## **THE EXTENT OF DEBT FINANCING WITHIN STATE-OWNED CORPORATIONS IN KENYA**

*Micah Odhiambo Nyamita\**, *Nirmala Dorasamy\*\**, *Hari Lall Garbharran\*\*\**

### **Abstract**

The public sector reforms' programme in Kenya, has witnessed five state-owned corporations being privatised, and several more, from hotels to banks, have been scheduled to be privatised. However, many of Kenya's state-owned corporations are in considerable debt, which reduce their value in the process of privatisation. This study attempted to determine the extent and the theory suitable for explaining debt-financing within the state-owned corporations in Kenya from 2007 to 2011. The study applied both descriptive statistics and a hybrid of cross sectional and longitudinal quantitative surveys. The results observed some level of stability on the aggregate long-term debt ratios, with minimal use of stock market instruments, which implied the application of the agency theory.

**JEL Classification:** G32

**Keywords:** Debt Financing, Financial Leverage, Pecking Order Theory, Trade-Off Theory, Agency Theory, State-Owned Corporations

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### **1. Introduction**

In Kenya, the first phase of the reform agenda of state corporations, under the umbrella of public sector reforms' programme, has witnessed five state-owned corporations being privatised, and several more, have been scheduled to be privatised (Seymour, 2011). However, many of Kenya's state-owned corporations are in considerable debt, which reduce their value in the process of privatisation. Phase two of the reforms, which was launched in 2006 and still in progress, witnessed a series of ministerial and segmental initiatives that led to the introduction of governance reforms, especially on public sector financial management, including debt financing policies and performance-based management (Marwa and Zairi, 2009).

The Kenyan presidential report, Republic of Kenya (2013) further noted that, in 2011/12, eleven income generating state-owned corporations made losses, compared to twelve in 2010/11 and sixteen in 2009/10. This represents 21%, 23% and 31%, respectively, of all income generating state-owned corporations. Highlighting the debt financing patterns, the report observed that the pattern of accumulation of publicly guaranteed debt financing to state-owned corporations in Kenya shows a decline in 2007 from 2006, but has been on an upward trend since then. This indicates that financial performance of state-owned corporations in Kenya has been increasing while their debt financing levels have been on the rise

since 2007. Consequently, this study attempted to determine the extent and the theory suitable for explaining debt-financing within the state-owned corporations in Kenya for five-year period, from 2007 to 2011.

### **2. Extent of debt financing**

Many diverse empirical measures have been used to show debt-financing levels within corporations (Frank and Goyal, 2009). They argue that some scholars advocate for book leverage, which is the proportion of corporation debt finance to the total book value of the corporation assets. Others scholars advocate for market leverage, which is the proportion of corporation debt to market value of the corporation.

Book leverage, as a measure of the debt financing level within a corporation, is the proportion of corporation debt finance to the total book value of the assets. Frank and Goyal (2009) argued that supporters of the book leverage approach believe that financial markets swing so much and managers, in many occasions, tend to have a notion that market leverage figures may be unreliable as a guide to corporate financial policy. Since the calculation of book leverage relies on the book value of the corporation, which is an accounting measure (Chen, 2013), managers tend to put more attention on book leverage because debt is better supported by assets in place than it is by growth opportunities.

Market leverage, used as a measure of the debt-financing level of a corporation, is the proportion of corporation debt to market value of the corporation. In support of market leverage, Knaup and Wagner (2012) argued that the statement of financial position might provide an inaccurate assessment of the true value of a corporation since many of the assets listed on the statement of financial position are mostly valued on their historical cost rather than their current value. Markets are generally believed to be futuristic and numbers generated from them in the calculation of market leverage may be more relevant to the decisions of the corporations managers (Frank and Goyal, 2009).

Fama and French (2002) and Rajan and Zingales (1995) suggested that reliance on book leverage is not a serious limitation and most of the state corporations in Kenya are not listed in the stock exchange. This study applied the book leverage and different definitions of debt, i.e., long-term, short-term and total debt, as debt-financing level proxies.

### **3. Theories of debt financing**

Studies have analysed debt finance to determine whether optimal debt finance levels exist. An optimal debt finance level would be one that will minimize a corporation's cost of capital while maximizing corporation value. According to Miller (2012), the balancing of the bankruptcy costs against the tax gains on debt financing gives rise to an optimal capital structure. Therefore, decisions on debt finance level have an impact on the success of the corporation. Precisely how corporations decide the amount of debt in their capital structures remains a puzzle (Rao, Al-Yahyaee and Syed, 2007).

The argument for the existence of an optimal debt financing level has kept researchers long in the field for decades. From the initial work of Modigliani and Miller (1958) to the recent studies like Jõeveer (2013); Jiraporn, Kim and Kitsabunnarat (2012); Kayo and Kimura (2011) and Fan, Titman and Twite (2012), researchers have continued to find out whether debt financing levels are relevant or irrelevant in financing decisions of a corporation. Myers (2001) argued that there is no universally accepted theory of debt financing choice and there is no reason to expect one. However, he consents to the fact that there are several conditional theories which have been accepted.

Most corporate finance literature point to the "trade-off theory", in which taxation and deadweight bankruptcy costs are taken into consideration (Frank and Goyal, 2009). According to this theory, corporations seek debt finance levels that balance the tax advantages of additional debt against the possible bankruptcy costs (Myers, 2001). Myers (1984) proposed the "pecking-order theory" in which there is preference of retained earnings, debt and then equity. Frank and Goyal (2009) argued that the idea that firms engage in "market timing" has also become popular.

Finally, the "agency theory" lurks in the background of much of the theoretical discussion. Agency concerns are normally included in the trade-off framework when deduced broadly. Each theory has tried to explain the reasons behind the choice between debt financing and other forms of financing.

There are other recent theories which have been proposed lately. Jensen (1986) developed the free cash flow theory in which he argues that free cash flows allowed firms' managers to finance projects earning low returns which might not be funded by the equity or bond markets, hence, reducing debt financing. Myers and Majluf (1984) contributed to the asymmetric information hypothesis in debt financing. They argued that asymmetric information problems drive the capital structure of firms since managers know more than the rest of the market about their firm's value (information asymmetry) and the market penalizes the issuance of securities, including debt, whose benefits related to the assessment of such information.

Berger, Ofek, and Yermack (2012) highlighted that there are theoretical arguments and some empirical evidence that point to the possibility that managers can become entrenched, and that they may deviate from choosing optimal debt financing as a result. The argument is referred to as managerial entrenchment theory, which suggests that entrenchment motives may cause managers to increase debt financing level beyond the optimal point, in order to inflate the voting power of their equity stakes and reduce the possibility of takeover attempts (Harris and Raviv, 1988). Since managerial entrenchment involves management control issues, it affects the agency costs and can be grouped under the agency costs theory of debt financing. Research on debt financing theories is yet to be concluded (Myers, 2001). This study is, therefore, an additional contribution to the wealth of financial management epistemology already in existence in the area of debt financing.

### **4. Methodology**

The study used descriptive approach which enabled the researcher to determine the extent of debt financing and identify the debt financing theory applicable in explanation of debt-financing strategies within state-owned corporations in Kenya. In addition, the study applied a hybrid of cross sectional and longitudinal quantitative surveys. Rindfleisch, Malter, Ganesan and Moorman (2008), in their study of cross-sectional versus longitudinal surveys, argued that both the designs have limitations and a combination will give a strong output. Therefore, the combination of the techniques allowed the researcher to investigate the constructs of the study.

## Variables and measures for debt financing Data analysis

Since Fama and French (2002) and Rajan and Zingales (1995) suggested that reliance on book leverage is not a serious limitation and most of the state corporations in Kenya are not listed in the stock exchange, this study applied the book leverage and definitions of debt, i.e. long term, short term and total debt, as debt financing level proxies. As summarised in table 3.1 below, the study used book values to measure long term debt leverage (LTL) using long term debt of the state corporation divided by the total assets, Short term debt leverage (STL) using short term debt of the state corporation divided by the total assets and, total debt leverage (TDL) using total debt of the state corporation divided by the total assets.

### Sample size

The sample size for the study is made up of all the 50 income generating corporations, selected from the general population of 262 state corporations in Kenya, using stratified non-probability sampling technique. The non-income generating corporations are excluded from the study, since their financial performance is not profit based and may not be influenced by market oriented decisions, such as debt financing strategies. Struwig and Stead (2013) argued that non-probability sampling technique should be used in special cases, usually when the population has a lot in common, like in this case income-generating state-owned corporations.

The information from the financial statements, were used to measure the variables across the state-owned corporations. In addition, ratio analysis was used to measure the variables from the financial statements over the five year period. Most of the study variable measures were extracted from the financial statements of the state-owned corporations for the five-year period from 2007 to 2011. The researcher obtained in total 80% of the copies of financial statements both from the Ministry of Finance office. These copies of the financial statements of the corporations obtained from the Ministry of finance office were used as secondary data for longitudinal analysis of the extent of debt financing within the state corporations using debt financial ratios.

## 5. Results

### Descriptive statistics for items of common-size financial statements

Table 5.1 presents the descriptive statistics of the common statement of financial position and the common cash flow, which are used to illustrate the extent of debt financing within the state-owned corporations in Kenya for the five-year period from 2007 to 2011. The table shows that the maximum value of total debt ratio was 2.736, and of long-term debt and short-term debt were 2.736 and 2.630, respectively. These results indicate that, during this period, some state-owned corporations borrowed more than their total assets, meaning that they were insolvent and have a high risk of being put under receivership.

**Table 1.** Descriptive statistics for items of common-size financial statements

	Minimum	Maximum	Mean	Std. Deviation
Non-current assets	0.018	0.970	0.583	0.281
Current assets	0.030	0.982	0.417	0.281
Long-term debt	0.000	2.630	0.283	0.489
Short-term debt	0.008	2.736	0.295	0.341
Total Debt	0.008	2.736	0.576	0.640
Equity	-1.736	0.992	0.424	0.640
Dividend payment	0.000	0.508	0.007	0.028
Capital expenditure	-0.174	0.805	0.048	0.092
Net increase in working capital	-2.589	1.095	-0.008	0.192
Operating cash flows after interest and taxes	-2.535	0.450	0.019	0.176
Financing deficit	-0.588	1.139	0.028	0.177
Net equity financing	-0.069	1.042	0.034	0.103
Net debt financing	-0.341	0.304	0.007	0.059

On the other hand, minimum debt ratios were low, with the long-term debt ratio figure being zero. This shows that, at some point during this period, there were state-owned corporations using only short-term debt as a way of borrowing. The standard

deviation shows that there was a very high deviation on long-term debt figures, at 0.489, compared to short-term figures' deviation, which was at 0.341, during the five-year period from 2007 to 2011. However, when the two are combined as total debt, the deviation was

much higher at 0.640. This highlights that there were some state-owned corporations with very low figures of total debt and very high figures at the same time, during the period.

Table 1 also shows a minimum negative financing deficit of -0.588 and maximum net equity financing being (1.042) more than net debt financing (0.304). These results indicate a contradiction of the findings of Shyam-Sunder and Myers (1999) pecking order model, which assume that the financing deficits will be filled entirely with new debt issues, except for firms at or near their debt capacity. In addition, the mean and the standard deviation of net equity financing of 0.034 and 0.103, respectively, are greater than those of net debt financing of 0.007 and 0.059, respectively.

### Common-size statement of financial position and statement of cash flow

Table 2 presents an aggregate common-size statement of financial position for state-owned corporations in Kenya for the five-year period from 2007 to 2011. The value of each item of the common-size statement of financial position is calculated as a percentage of the book value of total assets and then averaged for each corporation reporting data in their statement of financial position in that year. The table shows remarkable stability of total debt over the five-year period, with a slight decline in 2011. This behaviour is consistent with the findings of Frank and Goyal (2009) and Lemmon *et al.* (2008) who also found stability in total debt ratios of the U.S. corporations. According to Lemmon *et al.* (2008), leverage ratios, such as total debt, long-term and short-term debt ratios are generally relatively stable over time.

**Table 2.** Common-size statements of financial position

Year	Average statement of financial position's item as a fraction of total assets				
	2007	2008	2009	2010	2011
Non-current assets	0.588	0.591	0.585	0.580	0.568
Current assets	0.412	0.409	0.415	0.420	0.432
Total assets	1.000	1.000	1.000	1.000	1.000
Long-term debt	0.288	0.283	0.306	0.283	0.253
Short-term debt	0.369	0.305	0.287	0.264	0.251
Total debt	0.661	0.587	0.585	0.549	0.498
Equity	0.339	0.413	0.415	0.451	0.502
Total equity and liabilities	1.000	1.000	1.000	1.000	1.000

Further, Table 2 highlights stability in short-term debt ratios, with some slight declining trend, throughout the five-year period. The aggregate total debt ratios, on the other hand, seem to be quite stationary over the period. It is remarkable how the assets, particularly non-current assets, also remained stable over the period.

However, it is interesting to note that equity grew steadily over the five-year period. If the increase in equity is due to increase in profits, then it is an indication that this increase in equity, with a decrease

in debt levels, can be explained by the pecking order theory. The theory basically states that the corporation will use debt financing, rather than equity financing when internal cash flow is not sufficient to finance investment expenditures (Myers, 2001).

Table 3 presents common-size cash flows data for state-owned corporations in Kenya. The value of each item of the cash flow is calculated as a fraction of the book value of total assets and then averaged across each corporation reporting data in its statement of cash flow for the five year period from 2007 to 2011.

**Table 3.** Common-size statements of cash inflows and outflows

Year	Average cash flow items as a fraction of total assets				
	2007	2008	2009	2010	2011
a) Dividend payment	0.0203	0.0053	0.0017	0.0018	0.0034
b) Capital expenditure	0.0297	0.0530	0.0426	0.0523	0.0643
c) Net increase in working capital	-0.0811	0.0142	0.0340	-0.0379	0.0317
d) Operating cash flows after interest and taxes	-0.0343	0.0350	0.0340	0.0186	0.0442
Financing deficit (a+b+c-d)	0.0032	0.0376	0.0443	-0.0023	0.0552
Net equity financing	0.0099	0.0454	0.0224	0.0484	0.0430
Net debt financing	0.0118	-0.0042	0.0163	-0.0003	0.0112

In contrast, Table 5.3 shows that operating cash flows after interest and taxes, which indicates profits

in cash basis, declined during the last three years from 2008 to 2011, while net equity financing increased



over these periods. Therefore, this increase in equity, while debt financing decreased, can be best explained by the agency theory. The theory indicates that there was external financing during these periods, but equity external financing was preferred over external debt financing because of the fear of managers to expose their investments for external screening (Frank and Goyal, 2005).

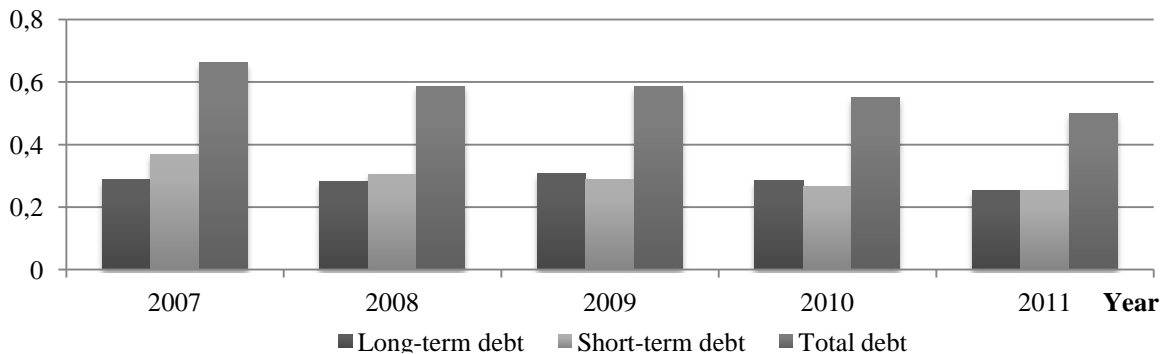
**Graphical presentation of aggregate debt ratio levels**

The graphical presentation of debt ratio levels, presented in Figure 1 shows some stability on total debt, with a slight declining trend, of less than 5%, towards the end of the period-in 2011. As advocated by Lemmon *et al.* (2008), a very steady stability of total debt is observed between 2008 and 2009, where the values were stationary. Figure 5.1 also shows that short-term debt somehow follows the same trend of total debt, with a steady slight average decline of about 6% throughout the years. This may be an indication of the state-owned corporations changing their debt financing strategy to use more of long-term

debt, compared to short-term debt, over the period, because of the steady commercial banks' interest rates. Interestingly, the long-term debt levels shows some "trade-off theory" debt pattern, where there exists an optimal or target level, and the state-corporations adjust their debt levels towards that target (Frank and Goyal, 2005).

Figure 1 shows an existence of optimal or target level in 2009 and the firms adjust towards it at a rate of about 2%. However, the figure also shows an immediate deviation, at the same rate (2%), from the target level in the following years i.e., 2010 and 2011. According to the trade-off theory, stationary behaviour is expected when the debt level of the corporation has reached the optimum level. In general, the stability behaviour of the debt-financing levels, highlighted in Figure 1, also pose a problem for the pecking order theory (Frank and Goyal, 2005). In order to further understand the debt-financing levels within the state-owned corporations in Kenya, the aggregate levels of individual types of debt financing during the five-year period from 2007 to 2011, are illustrated in Figure 2.

**Figure 1.** Aggregate debt ratio levels



**Figure 2.** Aggregate levels of individual types of debt financing

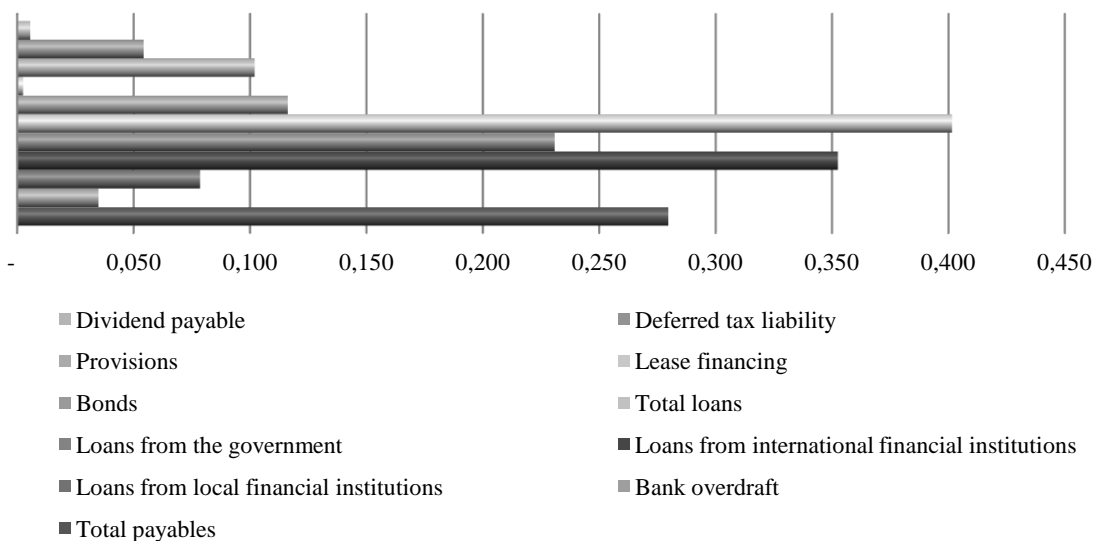


Figure 2 shows that the average levels of bank loans, in total, were higher than all the other types of debt, such as bonds and total payables, during the five-year period from 2007 to 2011. It is further observed that loans from international financial institutions were higher (0.353) than the loans from the government (0.231) and loans from local institutions (0.079). These results indicate that the state-owned corporations in Kenya prefer borrowing from financial institutions, since the local commercial banks' interest rates in Kenya have been higher than most of the international banking rates during this period. Further, the state-owned corporations in Kenya may be using more of loans from international financial institutions as a foreign exchange rate risk hedging strategy.

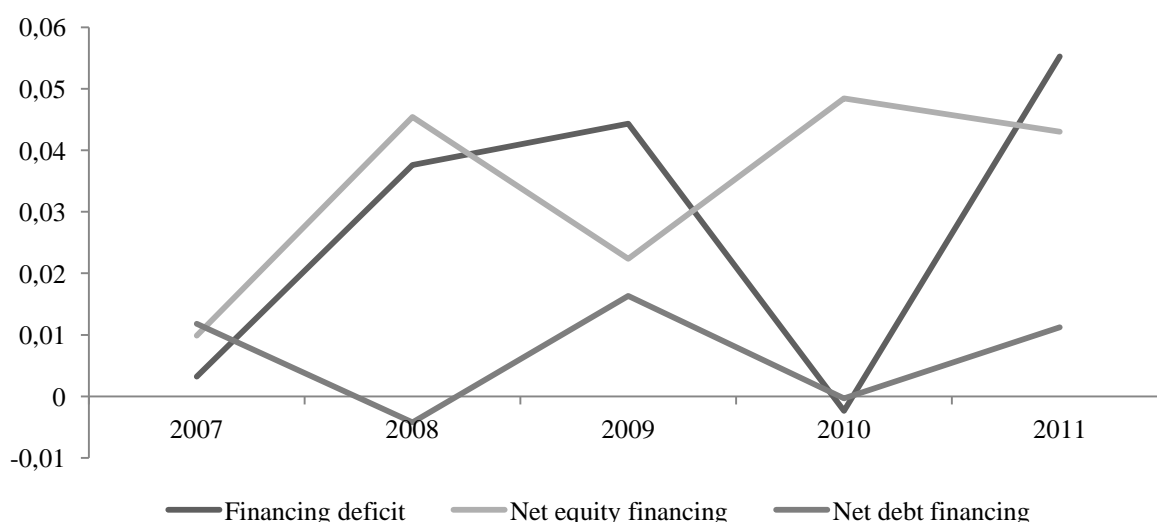
Figure 2 also shows that the levels of trade and other payables (0.280) were equally high during this period, second to loans from international financial institutions. On the other hand, the levels of bonds (0.054) and lease finance (0.002) are on the lower levels, though the level of bonds is, to some extent, higher than lease finance. This may be an indication

that state-owned corporations in Kenya are beginning to appreciate financing through debt securities, such as bonds. Aggregate bank overdraft level (0.035) was not very high, but Figure 2 indicates that it is also a type of debt financing used by some state-owned corporations in Kenya.

### Graphical presentation of aggregate net external financing levels

Figure 3 presents the average net long-term debt financing/issuance, net equity financing/issuance and financing deficit for the state-owned corporations in Kenya for the five-year period from 2007 to 2011. The figures are calculated as a fraction of total assets. Net debt financing is increase in long-term debt minus long-term debt repayments. Net equity financing is the issue of equity stock minus any repurchase of equity stock. The financing deficit is calculated as dividend paid plus capital investments plus change in working capital minus operating cash flows.

Figure 3. Net aggregate external financing levels



According to Frank and Goyal (2003), it is expected that net debt financing and net equity financing ought to track the financing deficit. They argued that, under the pecking order theory, one would expect net debt financing to track the financing deficit much more closely than would net equity financing. Empirically, Figure 5.3 shows an interesting pattern between net debt financing, net equity financing and financing deficit for state-owned corporations in Kenya for the five-year period from 2007 to 2011. The correlation between aggregate net debt financing and aggregate financing deficit (0.3) is greater than that between aggregate net equity financing and aggregate financing deficit (0.2). As highlighted in Figure 5.3, aggregate net debt financing

tends to track financing deficit more than the aggregate net equity financing.

However, the rate at which net debt financing tracks financing deficit is very low. This is an indication that state-owned corporations used debt to finance part of their financing deficits during the five-year period (Frank and Goyal, 2005). In contrast, in 2008 and 2010, Figure 5.3 shows that aggregate net equity financing were above financing deficit. This indicates that equity issues were also used by the state-owned corporations in Kenya, during the five-year period, to finance part of their financing deficits. In general, Figure 5.3 indicates that most of the state-owned corporations in Kenya use debt conservatively and that these corporations occasionally use more equity than debt.

**Debt financing levels of Kenyan state-owned corporations within various sectors**

Table 4 presents the descriptive statistics for the analysis of long-term debt financing of state-owned corporations within the various sectors of the economy in Kenya. The table shows that the level of long-term debt financing within the state-owned corporations in Kenya, during the five-year period from 2007 to 2011 was higher within the manufacturing sector. The mean

of the long-term debt ratio is the highest (0.514), with the highest maximum ratio of 2.630 and standard deviation of 0.710. These results indicate that the use of long-term debt is common amongst state-owned corporations within the manufacturing sector in Kenya. However, the minimum value of zero indicates that some state-owned corporations within the sector also did not have long-term debt as a type of debt financing within the financial statements during the five-year period from 2007 to 2011.

**Table 4.** Descriptive statistics for the long-term debt of the sectors

	Minimum	Maximum	Mean	Std. Deviation
Manufacturing	0.000	2.630	0.514	0.710
Finance	0.000	0.822	0.146	0.242
Energy	0.000	0.520	0.226	0.154
Transport and telecommunication	0.014	1.200	0.342	0.474
Trade	0.000	1.672	0.414	0.725
Education	0.000	0.128	0.010	0.020
Other sectors	0.000	0.000	0.000	0.000
Unlisted state-owned corporations	0.000	2.630	0.302	0.528
Listed state-owned corporations	0.000	0.520	0.187	0.187

It can also be observed from Table 4 that state-owned corporations within the trading sector used more of long-term debt to finance their investments, since the highlighted long-term debt ratio mean of the sector is 0.414, with a maximum value of 1.672 and standard deviation of 0.725. The minimum long-term debt ratio of zero within this sector, as well, shows that there were some state-owned corporations within the trade sector which did not have long-term debt under their financial statements during the period. Table 5.4 further shows that long-term debt is also a common financing strategy amongst the state-owned corporations within the transport and communication sector, with a long-term debt ratio mean of 0.342 and a maximum of 1.200. Nevertheless, the minimum long-term debt ratio was 0.014, indicating that all the state-owned corporations within the transport and communication sector had long-term debt in their financial statements throughout the five-year period from 2007 to 2011.

On the other hand, Table 4 shows that the levels long-term debt ratios within the energy, finance, education and other sectors are on the low side, with other sectors (Medical and housing) which have a mean, maximum and minimum values of zero each. These results indicate that the long-term debt financing was not a financing strategy used by state-owned corporations within the medical and housing

construction sectors in Kenya. These long-term debt financing levels are clearly observed using a graphical presentation in Figure 4. The figure presents the average long-term debt ratio for the state-owned corporations within the various economic sectors in Kenya for the five-year period from 2007 to 2011.

It is observed in Figure 4 that the manufacturing sector had the highest levels of long-term debt financing within the state-owned corporations in Kenya over the five-year period from 2007 to 2011. This was followed by the levels within trade, transport and communication, energy and finance sectors, respectively. Education and other sectors had the lowest levels, with other sectors presenting zero levels. In general, the sectors highlight some kind of stability throughout the years, with the trading sector showing a decline in 2008, followed by stability and then another decline in 2011. According to Murray Z and Vidhan K (2008), stability of long-term debt ratios acts as an evidence of trade-off theory. On the other hand, the authors argued that a fluctuation of long-term debt ratios tracking the corporation's financial deficits is a sign of the pecking order theory. Therefore, with more of stability amongst the long-term debt ratios within the sectors, a sign of trade-off theory is highlighted, though not steadily, since there are some fluctuations within the period.

**Figure 4.** Long-term debt levels of the sectors

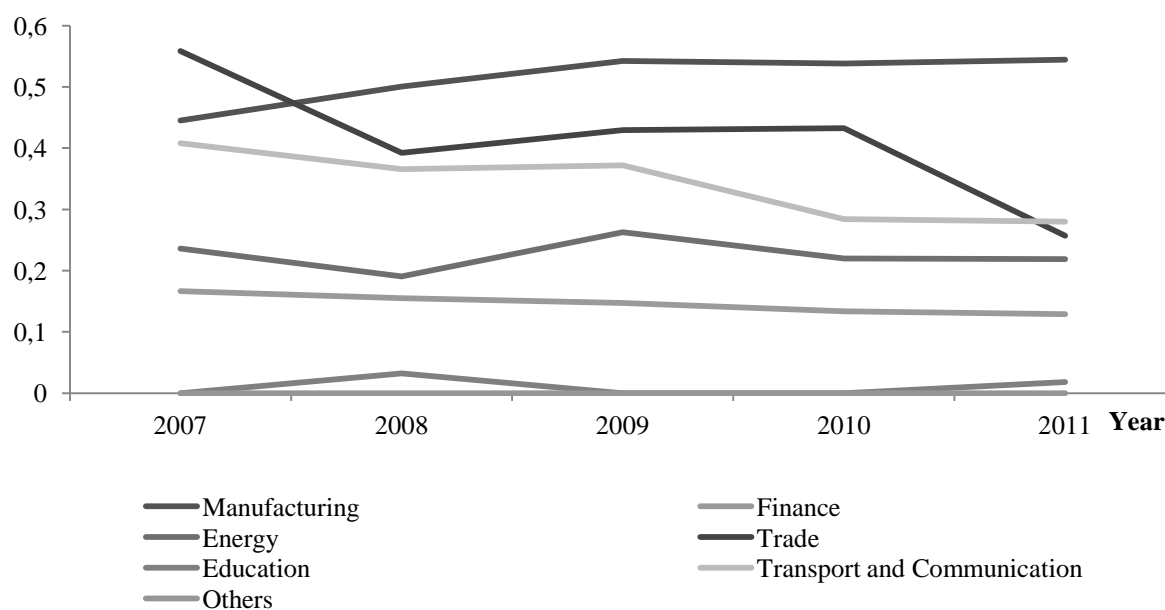


Table 5 presents the descriptive statistics for the sector's short-term debt as a fraction of total assets for the state-owned corporations within the various

economic sectors in Kenya for the five-year period from 2007 to 2011.

**Table 5.** Descriptive statistics for the short-term debt of the sectors

	Minimum	Maximum	Mean	Std. Deviation
Manufacturing	0.008	1.106	0.243	0.301
Finance	0.010	0.896	0.314	0.378
Trade	0.020	0.994	0.346	0.424
Energy	0.065	0.400	0.183	0.137
Transport and telecommunication	0.048	0.534	0.264	0.183
Education	0.048	2.736	0.386	0.436
Other sectors	0.026	1.005	0.480	0.264
Unlisted state-owned corporations	0.008	2.736	0.280	0.333
Listed state-owned corporations	0.020	0.896	0.374	0.389

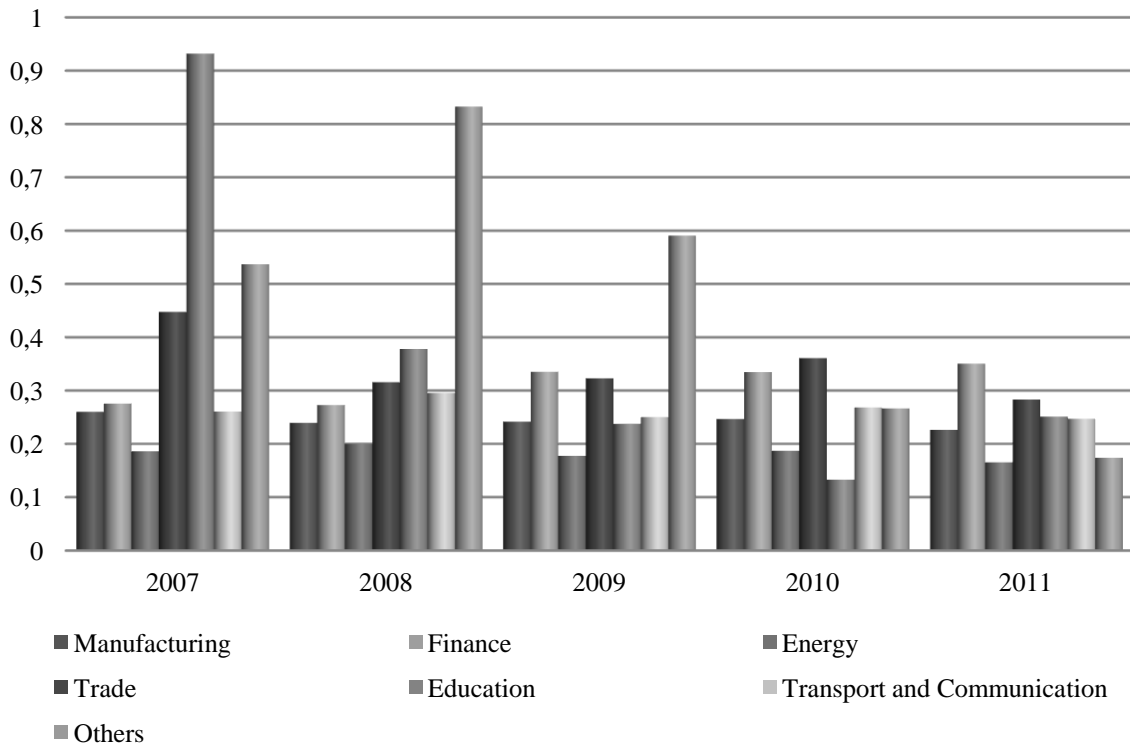
Table 5.5 shows that the use of short-term debt is common amongst all the state-owned corporations from various economic sectors in Kenya. Unlike the long-term debt ratio, the mean of short-term debt ratio levels within the manufacturing sector did not demonstrate the highest value, though the maximum value still showed a high figure (1.106) amongst other sectors, being second to the education maximum value (2.736).

Further, Table 5 shows that, except for the trade sector, most of the sectors, such as education and other sectors, which had mean levels of long-term debt, show high mean levels of short-term debt (0.386 and 0.480, respectively). These results indicate that those sectors, which were not using a lot of long-term debt financing, compensated the low levels of long-term

debt with more of short-term debt levels in their financing strategies.

Figure 5 gives a better graphical presentation of short-term debt levels amongst these various economic sectors in Kenya over the five-year period from 2007 to 2011. It can be observed from the figure that most sectors had stable short-debt levels over the five-year period, with the exception of the educational and other sector categories. The highest level of short-term debt level amongst the sectors was experienced in 2007 and 2008 within the category of education and other sectors, respectively. In order to advance the reduction of heterogeneity of debt-financing levels of state-owned corporations that may be caused by listing or non-listing, an additional analysis of levels of debt financing is done, taking into account whether the corporation is listed or not.

**Figure 5. Short-term debt levels of the sectors**



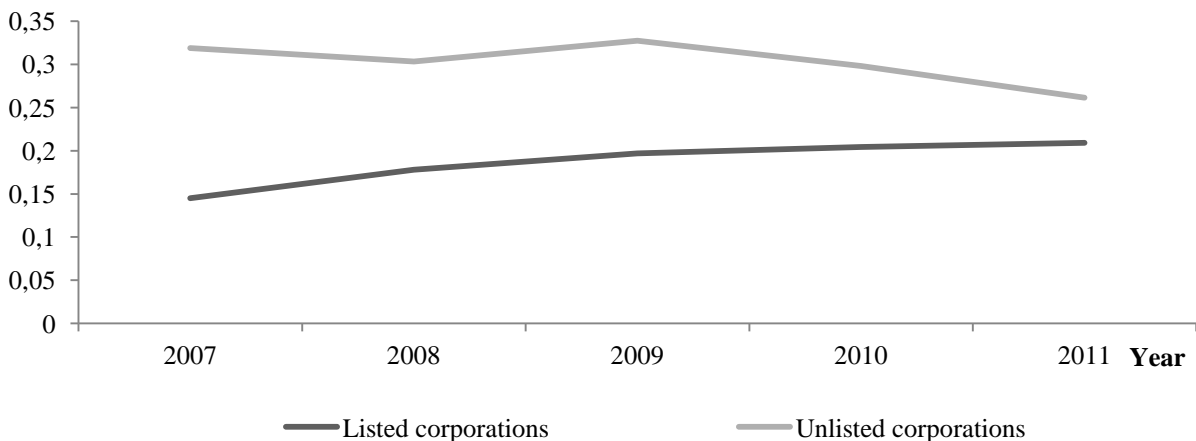
**Debt financing levels of listed and unlisted state-owned corporations in Kenya**

The percentage of listed state-owned corporations in Kenya has been increasing through the new public management reforms' privatisation process being adapted in Kenya. A total of 15% of the state-owned corporations included in this study sample are listed in the Kenyan capital market. Most of the state-owned corporations (75%) in Kenya are not listed in the capital market and, therefore, rarely access the stock market debt financing sources.

However, Figure 6 shows that long-term debt levels of unlisted state-owned corporations, though

slightly fluctuating, have been above the long-term debt levels of listed state-owned corporations over the five-year period from 2007 to 2011. The figure indicates that, even though the unlisted state-owned corporations in Kenya rarely access the capital market debt financing sources, their levels of long-term debt financing, through other non-capital market sources, are still higher than long-term debt financing levels of listed state-owned corporations. The slight fluctuations within the long-term debt of unlisted state-owned corporations is a sign of the pecking order theory if the fluctuations are tracking a financing deficit trend (Murray Z and Vidhan K, 2008).

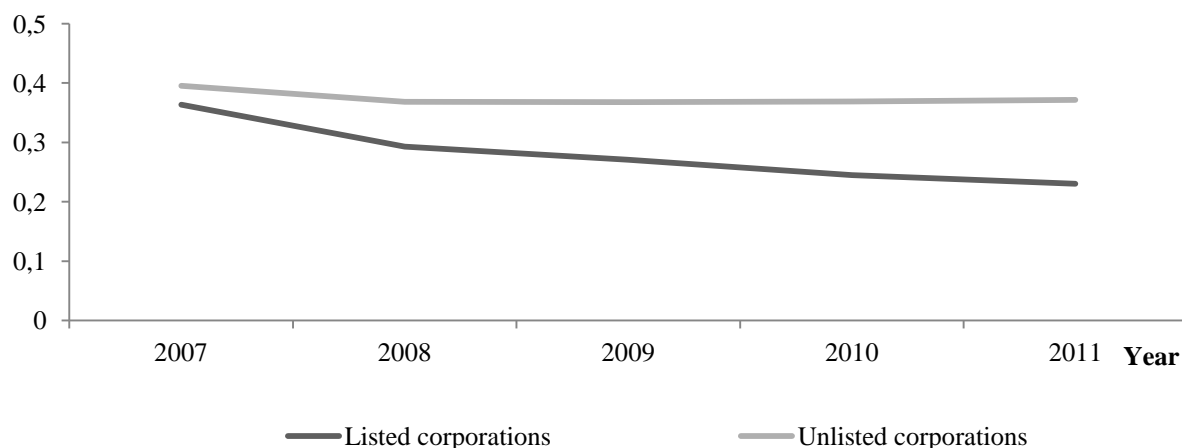
**Figure 6. Long-term debt levels within listed and unlisted state-owned corporations**



The long-term debt financing levels of listed state-owned corporations are lower throughout the period. However, they show some stability, with a slight incline towards 2011. The stability is a sign of the trade-off theory pattern amongst the listed state-owned corporations. It can be highlighted, though not proved, that long-term debt financing theories pursued by the listed state-owned corporations and unlisted state-owned corporations are not consistent.

However, Figure 7 shows that the levels of short-term debt within the same corporations have some consistency on the trends. The trend of the short-term debt levels for the unlisted state-owned corporations demonstrates some steady stability, while the levels of long-term debt financing look stable but with some decline towards 2011.

**Figure 7.** Short-term debt levels within listed and unlisted state-owned corporations



The figures of both the long-term debt ratios and the short-term debt ratios within the state-owned corporations in Kenya during the five-year period from 2007 to 2011 indicate that the levels of debt financing in total are slightly stable, but with some decline trend towards 2011. However, there is a lot of variation on debt financing levels amongst state-owned corporations from different economic sectors and whether the corporation is listed or unlisted. It is, therefore, important to identify the factors influencing these debt-financing levels within the state-owned corporations in Kenya.

## 6. Conclusion

It can be concluded that the extent of debt financing within the state-owned corporations in Kenya is not much different from the behaviour exhibited in earlier studies under private-sector corporations. The stability of aggregate debt levels was experienced under long-term debt, while slight fluctuations were observed under aggregate total-debt and short-term debt results. This implies that the state-owned corporations in Kenya do not apply the pecking order theory fully. The results demonstrated that state-owned corporations prefer using internally generated funds followed by debt, in terms of local and international loans, and equity, in terms of grants and government allocations. The debt instruments in the stock exchange, which should also follow after internally generated funds, with other debt forms, like loans, rank last, which somehow contradicts the pecking order theory. Hence, the results may be a sign of the

agency costs theory, since more use of debt from the stock exchange exposes the investments of the state-owned corporations to the debt providers (Frank and Goyal, 2005; Randa and Gubbins, 2013).

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# COMPARABILITY OF REPORTED CASH FLOWS UNDER IFRS - EVIDENCE FROM GERMANY

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## Abstract

IFRS are intended to provide users with transparent and comparable financial information. However, in contrast to US GAAP and German GAAP, IFRS offer considerable flexibility regarding the classification of interest and dividends in the statement of cash flows. We explore the reporting practice of German listed firms and shed light on the determinants of classification choices which aim to increase operating cash flow (OCF). Our findings support prior research in that firms tend to increase OCF under specific circumstances, especially when they are highly leveraged and/or less profitable. Moreover, we find that industry practice plays a major role in determining firms' reporting choices. Overall, our results cast doubt on whether the advantages of the flexibility offered under IFRS outweigh the disadvantages of reduced comparability.

**JEL Classification:** M41

**Keywords:** Comparability, IAS 7, Cash flow, Classification, Interest, Dividends

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## 1. Introduction

"Profits are someone's opinion ... whereas cash is a fact."<sup>10</sup>

Statements such as the one above are based on the perceived reliability and comparability of cash flow information. The notion that cash flows are well comparable across firms and time can often be found in the literature.<sup>11</sup> Comparability of accounting information is of utmost importance to users of financial reporting since it facilitates economic decision making. The International Accounting Standards Board (IASB) recognizes this in its objective to develop financial reporting standards which "should require high quality, transparent and comparable information in financial statements and other financial reporting" (Preface to IFRSs, par. 6(a)). Accordingly, the Conceptual Framework of the IASB (Framework) establishes comparability of financial information as a qualitative characteristic which enhances the usefulness of financial reporting (Framework, QC4, QC20-QC25). Moreover, the importance of comparability has been particularly emphasized by the adoption of International Financial Reporting Standards (IFRS) in the EU which was motivated by the aim "to ensure a high degree of

transparency and comparability of financial statements"<sup>12</sup> across the member states.

The relevance of cash flow information is increasing as evidenced by the growing number of analyst forecasts (see Lee, 2012).<sup>13</sup> In particular, operating cash flow (OCF) is considered to be "a key indicator of the extent to which the operations of the entity have generated sufficient cash flows to repay loans, maintain the operating capability of the entity, pay dividends and make new investments without recourse to external sources of financing" (International Accounting Standard No. 7 "Statement of Cash Flows", par. 13, IAS 7.13). Therefore, it is typically the most important subtotal in the statement of cash flows to users (Nurnberg, 2006) and plays a vital role in firm valuation (e.g. Imam et al., 2008) as well as in contracts, e.g. within management compensation schemes (e.g. Nwaeze et al., 2006) or debt covenant agreements.<sup>14</sup>

<sup>12</sup> Regulation (EC) No. 1606/2002, Article 1. Regulation (EC) No. 1606/2002 generally requires European firms to prepare their consolidated financial statements since 2005 in accordance with IFRS, if their securities are admitted to trading on a regulated market within the EU.

<sup>13</sup> Lee (2012) mentions several studies which document increases in the existence of cash flow forecasts and interprets this trend as evidence for the perceived importance of cash flow measures.

<sup>14</sup> In their review of the literature on the use of financial reporting by capital providers, Cascino et al. (2014) note that cash flow is one of the most common bases of financial covenants.

<sup>10</sup> Quoted from Smith (1992), p. 200.

<sup>11</sup> See e.g. ADS International (2002), Chapter 23 "Cash Flow-Rechnung" [*Cash Flow Statement*], par. 3.



Advocates of the use of cash flow information often argue that cash flows are more reliable and comparable than earnings. In fact, IAS 7 emphasizes that cash flow information is not only useful but particularly "enhances the comparability of the reporting of operating performance by different entities because it eliminates the effects of using different accounting treatments for the same transactions and events" (IAS 7.4). However, cash flows should be interpreted with caution and not simply taken as a 'fact'. To date, academics provide initial evidence on managers using discretion over reporting within the statement of cash flows, especially aiming to increase OCF (Zhang, 2009; Lee, 2012; Gordon et al., 2014). One mechanism to influence reported cash flows is classification, i.e. the decision about whether to classify a cash flow as operating, investing or financing (Lee, 2012). It is feasible especially where accounting standards permit explicit classification choices.

In our paper, we examine the classification of interest and dividends under IFRS to assess the comparability of reported cash flows in Germany. Unlike US GAAP and German GAAP, IAS 7 allows firms to report these cash flows either within or outside OCF. Accordingly, these choices are not merely 'cosmetic' but rather affect important financial indicators (Kvaal and Nobes, 2010). In particular, such cash flow items are often material to the subtotals in the statement of cash flows, especially OCF (Nurnberg and Largay, 1998). Empirical evidence indicates that classification decisions can have consequences regarding the prediction of OCFs as well as the market's assessment of accruals' and OCF's persistence (Gordon et al., 2014). Moreover, although classification is observable, experimental evidence suggests that users evaluate firms' financial strength more favorably when they report higher OCF simply because of classifying interest paid into the financing category rather than into OCF (van der Heijden, 2015).

This paper analyzes the comparability of reported cash flows under IFRS in Germany. We focus on Germany for multiple reasons. First, Germany has been characterized as a bank-dominated, debt-financed economy (Monnet and Quintin, 2007) and, thus, we expect relatively high interest payments which increases the relevance of the issue. Second, prior research finds substantial within-country variation with regard to the classification of interest and dividends (see section 2.2) which suggests that the determinants of classification choices can be studied relatively well. Third, the percentage of firms that separately disclose interest payments in their financial reports is particularly high.<sup>15</sup> Finally, the relevant German GAAP guidance has recently been revised by

the Accounting Standards Committee of Germany (ASCG). Under the new German Accounting Standard 21 (GAS 21) "Cash Flow Statements" neither interest nor dividends are classified into OCF. This recent change and the deviation from former national as well as current international standards emphasize the controversy of the topic and its relevance for German accounting practice.

Documenting accounting practice for a sample of 1,064 firm-year observations from 2005 to 2012, we find substantial diversity with regard to the classification of cash flows which reduces comparability. The dominant classification under IFRS reflects the concurrent German GAAP provisions: More than two thirds of the firms classify interest paid (70%), interest received (71%), and dividends received (69%) as operating, while dividends paid are included into the financing category almost without exception. Importantly, reported OCF under IFRS significantly exceeds the amount that would have been reported without the IFRS-specific options (see also Gordon et al., 2014).

Our multivariate analyses provide further insights into the drivers of classification choices that generally affect OCF positively, largely in line with findings in Gordon et al. (2014). We complement existing research by examining several additional corporate governance and management-related factors. First, our findings support the notion that highly-leveraged and less profitable firms use discretion over cash flow reporting in response to contracting concerns (Gordon et al., 2014) or in order to augment reported financial information (Adhikari and Duru, 2006). Moreover, we provide strong evidence for the relevance of industry practice for the policy choices of listed firms which suggests that this factor may be understated in cross-country studies due to the dominating effect of country patterns. In addition, our results indicate that mandatory IFRS adopters are more reluctant and firms using cash flow measures for internal control purposes are more likely to classify interest paid as financing. Furthermore, we provide some evidence consistent with the view that large international auditors do not only act as a constraint but rather as an advisor with regard to IFRS financial statements (Cole et al., 2013). However, we find no evidence for associations between classification choices and ownership concentration or earnings management behavior.

Our insights into current practice and the drivers of reporting decisions are relevant not only for financial reporting users who we advise to have a close look at specific cash flow items to ensure inter-entity comparability, but also to standard-setters as well as regulators intending to accept IFRS in the future. Besides the ASCG which just issued a new standard, the IASB also recently debated about enhancing consistent classification. Thus, our results are relevant to the long-lasting debate about the

<sup>15</sup> Gordon et al. (2014) find that only 8% of German IFRS preparers do not disclose interest paid separately, while for 12 other countries non-disclosure of interest paid ranged from 11% (UK) to 42% (Sweden).

appropriate conceptual classification of interest and dividends (e.g. Nurnberg and Largay, 1998).

Our findings contribute to two streams of literature. First, we contribute to the literature on comparability of international financial reporting. A number of studies explore comparability across countries (e.g. Kvaal and Nobes, 2010 and 2012; Haller and Wehrfritz, 2013). However, while these studies document substantial variation both across and within countries, less evidence exists regarding the determinants of accounting policy choices beyond country. Thus, our findings on the determinants of classification choices are important complements to explain what cannot be attributed to country, and, especially, pre-IFRS national practices. Second, we contribute to an understanding of the use of managerial discretion over reported cash flows. Zhang (2009) provides evidence for incentives related to meet certain cash flow benchmarks similar to incentives to avoid reporting a loss or missing analyst earnings forecasts (e.g. Burgstahler and Dichev, 1997). Lee (2012) provides compelling evidence for cash flow management under US GAAP which is associated with specific firm characteristics that increase the perceived importance of OCF. Gordon et al. (2014) are the first to examine classification choices specific to IFRS and provide evidence for the role of capital market incentives as well as reporting environment factors. As outlined above, we complement these findings by examining additional variables in a single country context, thereby, controlling for the strong influence of country-level factors.

The paper is organized as follows. Chapter 2 describes the conceptual background regarding the classification of interest and dividends in the statement of cash flows and reviews related literature. Chapter 3 develops our hypotheses about possible determinants of classification choices and describes our research design. Chapter 4 describes our data and results as well as robustness checks and additional analyses. Chapter 5 concludes.

## 2. Conceptual background and related research

### 2.1 Classification of interest and dividends in the statement of cash flows<sup>16</sup>

Until 1998, German firms were only legally required to provide some kind of cash flow statement when they registered their securities for trading on a public

market. The relevant §§ 21 and 23 *Börsenzulassungsverordnung* (BörsZulV) required those firms to publish, in the issued *prospectus*, a statement of sources and uses of funds for the three latest years. The legal requirement to provide a statement of cash flows regularly was introduced by the *Gesetz zur Kontrolle und Transparenz im Unternehmensbereich* (KonTraG) in April 1998. According to this law, German listed firms had to provide a statement of cash flows as part of their consolidated financial statements for fiscal years beginning on January 1, 1999, or later. In 1999, the German Accounting Standard 2 "Cash flow statements" (GAS 2)<sup>17</sup> was passed by the ASCG providing detailed guidance on the preparation of the statement of cash flows.<sup>18</sup>

### Classification according to German GAAP

Overall, GAS 2 is largely comparable to the requirements regarding the statement of cash flows under IFRS and US GAAP. In particular, all of the standards follow a relatively narrow definition of funds ("cash and cash equivalents") and require a classification of cash flows into three categories, operating, investing, and financing. With regard to interest and dividends, however, GAS 2 differs from international guidance while allowing firms to comply with both, IFRS and US GAAP. Specifically, GAS 2.36 states that, generally, interest paid, interest received and dividends received are classified as operating. Classification of these cash flows as investing or financing is only possible in exceptional cases, if such classification is justified in the particular circumstances. Accordingly, under GAS 2, the default classification for these cash flows has been the operating category. This is also reflected in the preceding summary to GAS 2: "In addition, interest paid and received, dividend income [...] shall be treated as part of operating activities." With regard to dividends paid, GAS 2.37 prescribes the treatment as financing cash flow without exception. Empirical

<sup>16</sup> In the following, we focus on the guidance for non-financial firms, since cash flow statements of financial institutions have a different conceptual meaning due to the distinct nature of their business models. Therefore, standard setters often issue specific guidance regarding the cash flow statements of financial institutions and, in particular, with regard to the classification of interest and dividends.

<sup>17</sup> Prior to GAS 2, national guidance regarding the statement of cash flows existed only in the form of a non-binding recommendation issued jointly by the Institute of Public Auditors in Germany (IdW) and a working group formed by the Schmalenbach-Gesellschaft für Betriebswirtschaft e.V. (SG), an association aiming to promote exchange between research and practice in the field of business. This recommendation (HFA 1/1995) essentially aligned national and international guidance. See Jakoby et al. (1999) for a comparison of HFA 1/1995 to IAS 7 and US GAAP guidance.

<sup>18</sup> See Leuz (2000) for the whole paragraph. Although not required by German law, a number of German firms provided cash flow statements voluntarily before 1999 (see Leuz, 2000, with further references). Jakoby et al. (1999) examine the reporting practice of German DAX30-firms from 1988 to 1997 and document that some firms refer to international guidance, i.e. IFRS or US GAAP, while others refer to the German recommendation and, thus, cash flow statements were prepared on different bases. However, they find only two firms that classify interest paid and received as well as dividends received out of OCF.

findings show that for the cash flows where deviation was allowed in exceptional cases, such classification outside OCF was extraordinary, if existent at all. In particular, Haller and Wehrfritz (2013) examine 110 German GAAP reports for the year 2001 and do not find a single case of classification of interest paid, interest received, or dividends received outside the operating category.

In February 2014, the ASCG adopted a new standard on "Cash Flow Statements" (GAS 21) to be applied by firms that prepare (consolidated) financial statements according to German GAAP for fiscal years beginning after December 31, 2014. While the main principles have been retained, the standard prescribes a definite classification for interest and dividends which largely deviates from the guidance of GAS 2. According to GAS 21.44, interest and dividends received are classified as investing cash flows, while GAS 21.48 requires interest and dividends paid to be attributed to financing activities.

### *Classification according to international standards*

IAS 7.31 explicitly requires firms to disclose interest and dividends received and paid separately.<sup>19</sup> In addition, they shall be classified consistently over time as either operating, investing, or financing cash flows (IAS 7.13). However, changes with regard to the classification are possible in accordance with the provisions for changes in accounting policies set out in IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" (see e.g. Lüdenbach, 2006). While IAS 7.33 states that financial institutions usually classify interest received and paid as well as dividends received into OCF, it points out that "there is no consensus on the classification of these cash flows for other entities." Moreover, the standard allows firms to classify interest paid as either operating or financing<sup>20</sup> and interest and dividends received as either operating or investing cash flows. Classification as operating is based on the notion that the related income and expenses amounts enter into the determination of net income. The alternative treatments are justified because interest paid constitutes financing costs and interest and dividends received are earned as returns from investments. With regard to dividends paid, IAS 7.34 allows classification as financing cash flow on the grounds that they are costs of obtaining financial resources and, alternatively, as operating

cash flow. The latter treatment would assist users of the statement of cash flows to assess the firm's ability to pay dividends with cash proceeds from operating activities.<sup>21</sup>

Prior to the requirement to provide consolidated financial statements in accordance with IFRS some German firms prepared solely US GAAP consolidated financial statements.<sup>22</sup> Therefore, it is important to note that the relevant US GAAP guidance, FASB Accounting Standards Codification Topic 230 (ASC 230) "Statement of Cash Flows", requires interest paid and received as well as dividends received to be classified as operating, while dividends paid shall be classified as financing.<sup>23</sup> Table 1 summarizes the relevant guidance under IFRS in comparison to German GAAP and US GAAP.

### *Current developments – the ongoing debate*

Historically, there has been international diversity with regard to the classification of interest in the statement of cash flows (e.g. Stolowy and Walser-Prochazka, 1992) reflecting controversial conceptual and practical arguments.<sup>24</sup> Thus, the options provided by IAS 7 can be seen as a compromise to accommodate various views<sup>25</sup> in order to reach

<sup>19</sup> Importantly, such disclosure is considered as material information. Our analysis of error announcements following an investigation by the German Financial Reporting Enforcement Panel (FREP) (Deutsche Prüfstelle für Rechnungslegung e.V.) reveals at least five cases (until December 31, 2014) in which missing disclosures regarding interest and dividends were observed and firms had to announce this to the public.

<sup>20</sup> With regard to interest paid that is capitalized, however, a classification as investing may also be observed in practice (see PwC, 2014, par. 30.96.1-30.96.3 for a discussion).

<sup>21</sup> Some view the classification of income taxes as a similar choice, although IAS 7 is definite in when taxes have to be classified out of OCF. However, since the detailed analysis of tax cash flows on a transaction basis is often impracticable and taxes are typically paid in subsequent periods, income taxes paid are usually classified as operating (PwC, 2014, par. 30.97.1). Consequently, prior research did not find any alternative classification of income taxes (e.g. Hitz and Teuteberg, 2013) which is why we do not examine tax cash flows.

<sup>22</sup> It was only in 2007 that the US Securities and Exchange Commission (SEC) began to allow foreign firms listed on a US stock exchange to provide consolidated financial statements in accordance with IFRS without reconciliation to US GAAP (SEC, 2007). In the course of the mandatory IFRS adoption, German firms that already prepared their consolidated financial statements according to US GAAP for the purpose of an exchange listing outside the EU were allowed to adopt IFRS as of 2007 (Regulation (EC) No. 1606/2002, Article 9(b)). In this context, however, it is noteworthy that the SEC accepted a cash flow statement prepared according to IAS 7 without a reconciliation to US GAAP since 1994 (e.g. Leuz, 2000; Meyer, 2007).

<sup>23</sup> The predecessor of ASC 230, Statement of Financial Accounting Standards No. 95 (SFAS 95) "Statement of Cash Flows", prescribed the same classification with regard to these cash flows.

<sup>24</sup> See, for example, Nurnberg and Largay (1998) for a discussion of the contentious FASB decision in 1987 to require uncapitalized interest payments to be classified into OCF by financial as well as non-financial firms.

<sup>25</sup> For example, the option to classify interest paid as operating reflects the view of proponents of the so-called 'inclusion concept' according to which OCF should generally reflect the cash flows from transactions and events that enter into the determination of profit or loss (see Nurnberg, 1993; Nurnberg and Largay, 1998), whereas the alternative to classify interest paid as a financing cash flow reflects the view that "interest is paid for the use of debt capital" (Nurnberg and Largay, 1998, p. 409). See also the rationale provided by IAS 7.33 for allowing the policy choice.

agreement on the treatment of interest and dividends when the standard was issued (Kirsch, 2006). However, the appropriate classification still constitutes an area of debate to date (IFRS Foundation, 2014). During deliberations upon clarifications of the definitions of operating, investing, and financing activities to enhance consistent classification in the statement of cash flows in general,

the staff of the IASB also dealt with the treatment of interest and dividends. In March 2013, in its final proposal to clarify cash flow classification under IAS 7, the staff recommended removing the options and to classify interest and dividends paid into the financing and interest and dividends received into the operating category, respectively (IFRS IC, 2013).

**Table 1.** Classification of interest and dividends of non-financial firms under IFRS, German GAAP, and US GAAP

Cash flow	IFRS	German GAAP		US GAAP
	IAS 7	GAS 2 (until 2014)	GAS 21 (from 2015)	ASC 230
Interest received	Operating or Investing (par. 33)	Generally: Operating (par. 36), exceptionally, if justified in the circumstances: Investing (par. 39)	Investing (par. 44)	Operating (par. 230-10-45-16)
Interest paid	Operating or Financing (par. 33)	Generally: Operating (par. 36), exceptionally, if justified in the circumstances: Investing or Financing (par. 39)	Financing (par. 48)	Operating (par. 230-10-45-17), exception: interest capitalized as part of the cost of assets which is to be classified as Investing (par. 230-10-45-13)
Dividends received	Operating or Investing (par. 33)	Generally: Operating (par. 36), exceptionally, if justified in the circumstances: Investing (par. 39)	Investing (par. 44)	Operating (par. 230-10-45-16)
Dividends paid	Financing or Operating (par. 34)	Financing (par. 37)	Financing (par. 48)	Financing (par. 230-10-45-15)

Source: own illustration

Moreover, with regard to the classification of interest paid that is capitalized, the IASB even issued an exposure draft clarifying that the type of the related asset should be decisive for the classification into the operating or investing category (IASB, 2012). However, neither proposal has been approved by the IASB so that firms are still given the flexibility described above (see IASB, 2013).<sup>26</sup> Taking this into consideration, it is remarkable that the ASCG decided to issue a revised German standard prescribing a classification of interest and dividends which deviates from both former national and current IFRS guidance.

These developments evidence the controversy and relevance of the matter for standard setting and practice. In this paper, we do not question which classification of interest and dividends is theoretically preferable but instead, aim to contribute to an understanding of current reporting practice which

might help standard setters in further deliberations on the matter and encourage the removal of accounting options.

## 2.2 Prior research

The widespread acceptance of IFRS around the globe with the aim of achieving harmonization of financial reporting has stimulated a large body of research on the international comparability of reporting practices. Nobes (2006) argued that there will remain considerable room for international diversity under this shared set of standards due to several reasons, such as different versions and translations of IFRS, gaps in IFRS, differences in enforcement, and, importantly, accounting choices. Subsequently, several studies examined IFRS policy choices of firms across various countries, including the classification of interest and dividends in the statement of cash flows.

Kvaal and Nobes (2010) provide evidence for substantial systematic cross-country variation with regard to 16 observable accounting policy choices in financial statements of 232 firms from five countries for the year 2005/06. Moreover, they conclude that the international differences are driven by national pre-

<sup>26</sup> However, at the time of writing, the IASB is undertaking several projects as part of a broader 'Disclosure Initiative' one of which includes reviewing the guidance of IAS 7 regarding the statement of cash flows. For further information see <http://www.ifrs.org/Current-Projects/IASB-Projects/Disclosure-Initiative/Principles-of-Disclosure/Pages/Home.aspx> (last retrieved April 14, 2015).

IFRS practices. Concerning the choices under consideration in this paper, Kvaal and Nobes (2010) document that the percentages of firms that disclosed interest paid as operating ranged from 39% (Spain) to 91% (Australia), while those of firms that disclosed dividends received as operating ranged from 37% (UK) to 93% (France). In addition, they also find remarkable within-country variation. In particular, 62% (67%) of the German firms for which interest paid (dividends received) were identified, classified the respective cash flow as operating. In a subsequent paper, Kvaal and Nobes (2012) examine the policy choices for a similar sample of firms for the year 2008/09 and find that national IFRS reporting practices continue to exist. Also, they find no substantial changes in the patterns regarding the classification of interest paid and dividends received from 2005/06 to 2008/09. Nobes (2011) extends this database and documents international differences for eight countries (Italy, the Netherlands, Sweden in addition to the above) reflecting Anglo and continental European groupings.

Nobes and Stadler (2013) also classify countries into groups on the basis of IFRS policy choices. For a sample of 514 firms from twelve countries<sup>27</sup>, they find substantial international diversity in financial statements for the year 2011. Two of the 14 choices under investigation concern interest paid and dividends received in the statement of cash flows. Nobes and Stadler (2013) report percentages of firms disclosing these cash flows as operating ranging from 43% (Hong Kong) to 96% (South Africa) and from 5% (China) to 91% (South Korea), respectively. With regard to the 33 non-financial German firms in their sample, percentages of firms classifying interest paid (61%) and dividends received (71%) as operating do not deviate substantially from earlier studies. Nobes and Stadler (2013) also find differences regarding policy choices between industries when dividing their sample broadly into financial, extractive and other. However, they only provide a few examples rather than discussing detailed results for each policy choice.

Based on the notion that management's default decision would be to follow previous national practice or industry norms, Stadler and Nobes (2014) examine the relative importance of country, industry and firm factors on 16 IFRS policy choices of 323 firms from ten countries in 2008/09 financial statements. While they find significant differences regarding the classification of interest paid and dividends received across countries, they only find two countries with very low within-country variation, i.e. 10% or less deviation from the default choice (operating), indicating the relevance of determinants beyond

country.<sup>28</sup> Overall, however, they conclude that country factors are most influential, while industry and firm factors play a role with regard to some topics, especially when an important accounting number is affected. Similarly, Cole et al. (2013) find country to be the primary factor influencing policy choices, including dividends received as well as interest paid and received, in 2009 financial statements of 197 firms from seven European countries. While they provide some evidence for the relevance of industry factors as well as the auditor type<sup>29</sup>, they neither find a strong influence of the firms' size and capital structure nor do they examine the role of incentives.

Haller and Wehrfritz (2013) start with an examination of the dominant national pre-IFRS accounting practices of UK and German firms for consolidated financial statements of the year 2001. With regard to interest paid and received as well as dividends received, they report that none of the 110 firms for which German GAAP financial statements were examined classified these cash flows outside the operating category of the statement of cash flows. Thus, classification as investing or financing was, in fact, only accepted exceptionally and if justified in the circumstances under GAS 2. Subsequently, Haller and Wehrfritz (2013) examine IFRS policy choices of German and UK firms for 2005 and 2009 and provide evidence for the survival of such national accounting patterns under IFRS. In particular, German firms are more likely to classify interest paid and received as well as dividends received as operating than UK firms.<sup>30</sup>

A comprehensive study on the comparability of reported cash flows under IFRS is conducted by Gordon et al. (2014). For a sample of 798 firms from 13 European countries, they examine the classification of interest paid and received as well as dividends received for the period from 2005 to 2012. Again, the study documents substantial differences across countries. For example, firms from Denmark, Finland, and Sweden classify interest received and paid into OCF almost without exception, while less than 20% of the firms from Portugal choose this category. With

<sup>27</sup> Importantly, in addition to the countries covered by the earlier studies, Nobes and Stadler (2013) also examine IFRS policy choices of firms from China, Hong Kong, South Africa, South Korea, and Switzerland.

<sup>28</sup> Stadler and Nobes (2014) do not, however, provide much insight on the determinants of these classification choices beyond country factors. While their results suggest that firms that are cross-listed in the US tend to classify dividends received as operating, i.e. consistent with US GAAP, they find little influence of industry factors and other firm factors. With regard to the classification of interest paid as operating, their robustness tests show a significantly negative association with a firm's leverage and market-to-book-ratio.

<sup>29</sup> Specifically, Cole et al. (2013) argue that big international audit firms do not only have a constraining effect on firms' policy choices but, especially with regard to IFRS financial statements, also serve as an advisor, e.g. during the transition from local GAAP to IFRS.

<sup>30</sup> The detailed results reveal that 73% of the German firms classified interest paid as operating (interest received: 73%; dividends received: 64%) in 2009 as opposed to 63% of the UK firms (interest received: 40%; dividends received: 23%) (Haller and Wehrfritz, 2013).

regard to Germany, Gordon et al. (2014) confirm the variation described above and show that about two thirds of the cash flows related to interest received and paid as well as dividends received are classified as operating.<sup>31</sup> Besides documenting European reporting practice, the authors show that the flexibility under IFRS results in higher reported OCF as compared to a benchmark classifying interest and dividends as under US GAAP.

Gordon et al. (2014) further examine the drivers of classification choices and find that firms that are closer to financial distress, highly leveraged and less profitable tend to increase OCF via classification. In addition, firms that are inclined to access equity markets more frequently are more likely to exploit the discretion provided under IFRS. Remarkably, Gordon et al. (2014) do not find industry practice to be relevant to firms' reporting decisions, possibly due to the dominance of country factors. Importantly, their analyses also indicate that the flexibility with regard to classification can have consequences for the prediction of OCF as well as the market's assessment of the persistence of accruals and OCF.

### 3. Determinants of classification choices: hypotheses and research design

We build on recent cross-country research by Gordon et al. (2014) to examine the determinants of classification choices of German listed firms. Accordingly, we construct the following two dependent variables which proxy for OCF-increasing classification choices (see Gordon et al., 2014): (1) *DeltaOCF* is intended to capture the magnitude of firms' OCF increases as a result of the flexibility regarding interest and dividends computed by comparing as-reported OCF to a hypothetical benchmark which we adjust for these classification choices (see chapter 4.3); (2) *InterestPaidFin* is an indicator variable that equals 1 if the firm classifies interest paid as a financing cash flow and, thus, *ceteris paribus*, increases OCF relative to the alternative classification of interest paid in the operating section.<sup>32</sup>

As a starting point, we consider several incentives as well as reporting environment factors in our single-country setting that potentially affect firms' tendency to report higher OCF as examined by Gordon et al. (2014). On this basis, we first examine

the role of firms' probability of financial distress. Prior literature suggests that firms with higher probability of financial distress have incentives to inflate OCF (Lee, 2012) since it is an important indicator for the assessment of credit and default risk (e.g. Gebhardt and Mansch, 2012). Accordingly, we expect firms with a high probability of financial distress to be more likely to use classification choices to increase OCF. Our proxy for financial distress (*DistressHi*) follows Gordon et al. (2014) and is based on Altman's Z-score (Altman and Hotchkiss, 2006). Second, we further consider that OCF is a meaningful indicator of a firm's ability to pay interest and repay debt (Gebhardt and Mansch, 2012). Prior research and anecdotal evidence suggest that OCF plays a vital role in debt covenant contracts (see Cascino et al., 2014).<sup>33</sup> In line with the findings of Gordon et al. (2014) we expect firms with stronger contracting concerns to have incentives to report higher OCF. To examine the role of contracting concerns, we include an indicator variable (*LeverageHi*) that equals 1 if the leverage, i.e. the ratio of total liabilities over total assets, of a firm is above the median of all firms in the respective year.

Third, we test for the association between classification choices and profitability. Adhikari and Duru (2006) document that less profitable firms are more likely to issue voluntary free cash flow measures to augment their reported performance. Similarly, firms with a weaker profitability may have stronger incentives to inflate OCF to mitigate the performance conveyed by the income statement.<sup>34</sup> We use return on assets to proxy for *Profitability* and expect that less profitable firms have stronger incentives to increase OCF, consistent with findings in Adhikari and Duru (2006) and Gordon et al. (2014).

Next, we examine three reporting environment factors. First, we test whether the existence of analyst cash flow forecasts is associated with classification choices that increase reported OCF. The existence of analyst cash flow forecasts can be interpreted as a summary statistic for the perceived importance of cash flow measures for a firm (Lee, 2012). Following Gordon et al. (2014), we construct an indicator variable that equals 1 if at least one analyst cash flow forecast is available on I/B/E/S for the respective firm-year observation. We expect firms with analysts' following to be more likely to make OCF-increasing classification choices.<sup>35</sup>

<sup>31</sup> Contrary, Gordon et al. (2014) find remarkably less variation in other countries: More than 80% of the firms from Austria, Denmark, Finland, Italy, the Netherlands, Portugal, and Sweden treat interest paid identically.

<sup>32</sup> We focus on interest paid because this cash flow is most often disclosed separately by the firms and typically constitutes a larger amount in comparison to interest and dividends received (see chapter 4). Moreover, firms may better be able to influence the timing and amount of cash outflows relative to inflows "thus making interest paid more susceptible to use as an OCF-increasing item" (Gordon et al., 2014, p. 4).

<sup>33</sup> See Appendix B for anecdotal evidence highlighting the use of OCF in debt covenant agreements.

<sup>34</sup> Note that the nature of the relationship is not unambiguous since profitable firms may be inclined to use OCF-increasing classification choices to align cash flow performance with accrual-based performance measures (Gordon et al., 2014).

<sup>35</sup> The classification of interest and dividends shall be consistent from period to period, i.e. frequent changes are not allowed. Thus, analyst forecasts can be expected to implicitly control for the firm's accounting policies which is why we do not consider incentives to meet or beat analyst forecasts as determinants of the classification choices.

Second, we take into account the differences between IFRS and US GAAP. The latter accounting regime does not allow flexibility regarding the classification of interest and dividends. Prior research suggests that firms that are cross-listed in the US tend to report closer to US GAAP (Lang et al., 2003; Bradshaw et al., 2004). Consistent with this notion, Stadler and Nobes (2014) and Gordon et al. (2014) provide some evidence for firms that are cross-listed in the US being more inclined to classify dividends received and interest paid into the operating category as required under US GAAP. Hence, we include the indicator variable *USList* that equals 1 if a firm is listed on a US exchange and expect these firms to be less likely to make OCF-increasing choices under IFRS.

Third, we aim to explore the role of industry practice. Prior research provides evidence for the importance of industry to individual firms' reporting choices (Jaafar and McLeay, 2007) including the comprehensiveness of firms' cash flow reporting (Wallace et al., 1999). While Gordon et al. (2014) do not find any association between firms' individual reporting behavior and that of their industry peers, this might be driven by the dominant role of national accounting patterns in their cross-country study. To re-examine the role of industry practice for classification choices of German firms, we construct a variable to proxy for the homogeneity of cash flow classification within an industry as the percentage of firms in the same industry that classify interest paid as a financing cash flow (*IndPractice*) (Gordon et al., 2014). As we believe that industry practice is an important determinant of accounting choices and *IndPractice* is based on an OCF-increasing choice, we expect a positive relationship between our proxy and our dependent variables.

Furthermore, we include *EqIssues* as the percent change of a firm's contributed capital over the sample period to capture the effect of accessing capital markets by means of seasoned equity offerings. In line with Gordon et al. (2014), we expect firms which attempt to raise further capital to have stronger incentives to increase OCF in order to improve their valuation and, therefore, expect a positive relation with *DeltaOCF* and *InterestPaidFin*. Without predicting the sign of the relation with classification choices, we further include *Size* (measured by the natural logarithm of the firms' market capitalization) to capture general effects of the reporting environment, the complexity, and the expertise and competence of the firms' accounting departments. In addition to the factors based on Gordon et al. (2014) above, we explore several further potential determinants of firms' classification choices which we

divide into (a) corporate governance factors and (b) management-related factors.<sup>36</sup>

### **Corporate governance factors – information asymmetry**

The value relevance of cash flows, especially OCF, has been documented in various studies (e.g. Clacher et al., 2013). For a large sample of German listed firms, Rapp (2010) shows that the value relevance of OCF is higher when information asymmetry between corporate insiders, i.e. the management, and outsiders, i.e. shareholders, is high. Thus, it follows that the higher the information asymmetry is the more important OCF is with regard to the valuation of the firm. Moreover, a widely dispersed ownership base may monitor accounting choices less closely than large blockholders which may enhance the effect of visible OCF-increasing reporting techniques.<sup>37</sup> Accordingly, we expect firms exhibiting a high information asymmetry to be more likely to use classification choices to increase OCF. Following Rapp (2010), we define an indicator variable (*Dominated*) that equals 1 if the free float of the firm is lower than 50% to proxy for information asymmetry.

### **Corporate governance factors – auditor type**

Our second factor related to corporate governance pertains to the auditors of the financial statements which presumably have some influence on accounting policies chosen by their clients (e.g. Leuz, 2000). As described in chapter 2.1, GAS 2 generally required interest paid and received as well as dividends received to be classified into OCF. Smaller audit firms are typically more strongly influenced by national accounting customs and national GAAP. By contrast, the large international Big 4 audit firm networks are known for their IFRS expertise and often not only work as a constraint but rather as an advisor with regard to IFRS financial statements (Cole et al., 2013).<sup>38</sup> Therefore, we expect Big 4 auditors to be more willing to accept, or even promote, exercising the IFRS-specific classification choices in a manner

<sup>36</sup> We are aware that our categories of factors overlap with those of Gordon et al. (2014). More specifically, our management-related factors largely stem from incentives, while our corporate governance factors could also be seen as part of the reporting environment of the firm. However, we consider our categories to express more precisely the nature of the influential factors which we explore in addition to the set of incentives and reporting environment factors based on Gordon et al. (2014).

<sup>37</sup> An alternative view would be that large blockholders have presumably access to information via other information channels and, therefore, may rely less on publicly available financial statements (Leuz, 2000).

<sup>38</sup> In a similar vein, during the time before mandatory IFRS reporting, Leuz (2000, p.193) pointed out that big international audit firms "are likely to encourage internationally accepted accounting and disclosure standards as part of their competitive strategy".

that is not consistent with national practice. Accordingly, we expect cash flow statements audited by a Big 4 audit firm to be more likely subject to OCF-increasing classification choices.<sup>39</sup> To examine this hypothesis, we include the indicator variable *Big4* which equals 1 if the financial statements are audited by a Big 4 auditor in the respective year.<sup>40</sup>

### **Corporate governance factors – mandatory adoption of IFRS**

German firms account for a large share of the firms that adopted IFRS relatively early (Daske and Gebhardt, 2006). However, some firms did not switch from German GAAP to IFRS until they had to adopt the latter mandatorily in 2005. We construct the indicator variable *MandAdopter* which is equal to 1 if a firm had not reported under IFRS prior to the year 2005, i.e. German GAAP was applied in 2004. We expect those 'mandatory IFRS adopters' to be less likely to make use of the IFRS specific classification choices which had not existed under concurrent German GAAP (GAS 2) because they presumably face less pressure with regard to their IFRS financial data from users. Consequently, we expect a negative sign for the relation.

### **Management-related factors – inclination to earnings management**

Although incentives to manage earnings and incentives to increase reported OCF are not mutually exclusive (Lee, 2012), the classification choices under consideration can be considered as decisions that are independent from earnings management. This is because the decisions only affect the amount of operating (as well as investing and/or financing, respectively) cash flow while holding earnings and aggregate cash flows constant (Lee, 2012). While this is important to note with regard to the determinants of the classification choices explored, this is also a reason for examining the nature of the relationship between incentives to manage earnings and incentives to increase OCF: 1) Is the relationship complementary in nature, i.e. are managers that manage earnings more likely to increase OCF? In other words, are there differences between managers regarding their general inclination to influence financial reporting? 2) Is the relationship substitutive in nature, i.e. does the management focus with regard to financial reporting depend on which measures, earnings or cash flows,

are more important to the firm in the current situation?<sup>41</sup>

To proxy for earnings management, we use the PM/ATO diagnostic developed by Jansen et al. (2012), a measure that is not affected by cash flow classification choices. The rationale behind this approach is that a contemporaneous change of a firm's profit margin (PM) and asset turnover (ATO) in opposite directions indicates earnings management behavior.<sup>42</sup> Accordingly, we include an indicator variable *EarningsMgmt* that equals 1 if  $\Delta PM < 0$  and  $\Delta ATO > 0$  or  $\Delta PM > 0$  and  $\Delta ATO < 0$ .<sup>43</sup> Considering our alternative views stated above, we do not predict a sign for the relationship between *EarningsMgmt* and OCF-increasing classification choices.

### **Management-related factors – use of cash flow measures for internal control purposes**

As a second management-related factor, we aim to explore the association between the use of cash flow based measures for internal control purposes and the inclination to increase OCF by classification choices. In particular, we expect firms that use cash flow information to steer their business (alongside accruals-based measures and balance sheet information) to be more likely to make OCF-increasing choices. Just as the existence of cash flow forecasts is interpreted as indicator for the perceived importance of cash flows by firms' outsiders, the voluntary internal use of cash flow based performance measures can be regarded as an indicator for the importance of cash flows as perceived by the firm itself. Moreover, the internal use of cash flows makes them more likely to be important parameters for the evaluation of managers which may increase incentives to report high OCF. To proxy for the use of cash flows for internal control purposes, we create an indicator variable (*CFmetric*) which equals 1 if the firm includes cash flow based measures in its segment reporting according to IFRS 8 "Operating Segments"<sup>44</sup>, and 0 otherwise.<sup>45</sup>

<sup>39</sup> Many studies find a negative association between auditor size and earnings management (see Dechow et al., 2010). However, the classification choices examined are options that are in line with IFRS which is why we do not expect a mitigating effect of Big 4 auditors as opposed to classical earnings management studies.

<sup>40</sup> Note that Gordon et al. (2014) consider whether the choice of an individual audit firm is associated with OCF-increasing cash flow classification choices and do not find a significant relationship.

<sup>41</sup> For example, managers may consider OCF to be more important for external parties than earnings if the firm is close to financial distress, although they view earnings as the most important indicator in general (Graham et al., 2005).

<sup>42</sup> For example, if a firm understates bad debt allowance and, thereby, manages earnings upwards, accounts receivable on the balance sheet as well as the firm's net income of the period increase. Assuming a constant level of sales, this leads to an increasing PM and a decreasing ATO.

<sup>43</sup> We also check whether upward (downward) earnings management is followed by downward (upward) earnings management in the subsequent period to identify cases in which our earnings management indicator is likely to detect the reversal of earnings management in the preceding period.

<sup>44</sup> IAS 7.50(d) encourages, but does not require, the disclosure of segment cash flows. According to IFRS 8, the disclosure in a firm's segment reporting is based on information which is reported to the top management which is in charge of allocating resources to segments and reviewing their performance (PwC, 2014, par. 10.8).



### Management-related factors – undervaluation

Cash flow information is relevant for valuation purposes (e.g. Imam et al., 2008; Gebhardt and Mansch, 2012). Therefore, specific management intentions might arise in case the valuation of the firm is perceived as unsatisfactory. Accordingly, we expect managers to be more inclined to exploit classification choices in an OCF-increasing manner if the firm is supposedly undervalued. We therefore employ the market-to-book ratio (*MTB*) as an additional control variable in our model.

Summarizing the above, we arrive at the following model with *Classification* indicating our two dependent variables *DeltaOCF* and *InterestPaidFin*. All variables are defined in Appendix A.

$$\begin{aligned} & \text{Classification}_{it} \\ & = \beta_0 + \beta_1 \text{DistressHi}_{it} + \beta_2 \text{LeverageHi}_{it} \\ & + \beta_3 \text{EqIssues}_i + \beta_4 \text{Profitability}_{it} \\ & + \beta_5 \text{AnalystForecast}_{it} + \beta_6 \text{IndPractice}_{it} \\ & + \beta_7 \text{USList}_{it} + \beta_8 \text{Size}_{it} + \beta_9 \text{Big4}_{it} \\ & + \beta_{10} \text{Dominated}_{it} + \beta_{11} \text{EarningsMgmt}_{it} \\ & + \beta_{12} \text{CFmetric}_i + \beta_{13} \text{MTB}_{it} + \beta_{14} \text{MandAdopter}_i \\ & + \varepsilon_{it} \end{aligned}$$

## 4. Data and results

### 4.1 Data description

In order to examine the comparability of reported cash flows in Germany, our initial sample includes all firms listed in the main indices of the dominant German stock exchange, Deutsche Börse AG (DAX30, MDAX, SDAX, and TecDAX<sup>46</sup>). We analyze the years from the mandatory adoption of IFRS for listed firms in 2005 to 2012 to allow preparers to adjust their initial classification choices and to develop best practices, e.g. industry-specific reporting patterns. Our initial sample therefore comprises 1,280 firm-year observations. We exclude financial institutions (SIC

codes 6000-6999) because of industry-specific classification guidance (see IAS 7.33) and firms that did not report in accordance with IFRS. Our final sample consists of 1,064 firm-year observations from 13 industries following the industry classification of Barth et al. (1998). Table 2 summarizes our sample.

To examine the use of classification choices, we exploit hand-collected data from annual reports for interest paid, interest received, dividends received, and dividends paid. This includes the magnitude of these cash flow items, the location of disclosure as well as the classification in the statement of cash flows. Further hand-collected data includes the firms' auditors and whether firms reported cash flow based measures in their segment reporting. Altman's Z-scores were obtained from S&P Capital IQ.<sup>47</sup> All other financial and non-financial data are obtained from Thomson Reuters Datastream.

### Disclosure frequency and non-disclosure of interest and dividends

As noted above, IAS 7.31 requires firms to disclose interest and dividends received and paid separately. Therefore, we identified the cash flows related to interest and dividends by examining the statement of cash flows (*inSCF*), notes immediately next to the statement of cash flows (*nextSCF*) as well as the notes to the consolidated financial statements that explained the statement of cash flows (*NOTES*). Most commonly, the cash flows are disclosed on the face of the statement of cash flows (e.g. 69% of interest paid), while only few firms report the cash flows next to the statement or in the notes. Table 3 summarizes how the firms disclose the cash flow items.

The fact that not all of our sample firms disclose the cash flows related to interest and dividends separately, despite the explicit requirement of IAS 7.31, is noteworthy. In 2% of the cases, we could not identify interest paid, while interest received (6%), dividends paid (17%) and, in particular, dividends received (59%) could be identified even less frequently. Of course, those firms may not have experienced these cash flows in the respective periods or they might have been immaterial. Nevertheless, these findings hint towards potential compliance problems regarding the disclosure of interest and dividends. In the light of the errors regarding missing disclosure of interest and dividends identified by the German FREP (see footnote 19), our findings are of interest to enforcement institutions and signal potential room for improvement in this area.

Thus, although only disclosures about segment profit or loss as well as segment assets and liabilities are explicitly required by the standard, the requirement to disclose cash flow measures may arise if they are regularly reported to the management. This is because the core principle of IFRS 8 requires disclosure of information that is used by the management to decide about the allocation of resources and the evaluation of the segment performance (see PwC, 2014, par. 10.79.1).

<sup>45</sup> For each firm, we examine the most recent financial statements included in our sample in order to arrive at our indicator variable for the whole period, since IFRS 8 was applicable from 2009 onwards.

<sup>46</sup> The DAX30 equity index contains shares of the 30 largest German firms with regard to free float market capitalization and exchange turnover. The following 50 largest firms are included in MDAX, while SDAX includes further 50 firms that rank directly below MDAX-firms with regard to size. TecDAX contains shares of the 30 largest technology firms trading on the German stock exchange (see Deutsche Börse, 2012).

<sup>47</sup> We thank Tobias Stork-Wersborg for providing access to Capital IQ data.

**Table 2.** Sample composition

	<b>Firm-year observations</b>
<b>Initial Sample</b>	<b>1,280</b>
Financial Institutions	(166)
No audited IFRS report available	(50)
<b>Final Sample</b>	<b>1,064</b>

The initial sample consists of all firms of the largest German stock indices (DAX30, MDAX, TecDAX, and SDAX). For each year from 2005 to 2012, these indices were rebalanced as to their constituents. Financial institutions (SIC 6000-6999) were removed due to industry-specific classification guidance set out in IAS 7. Furthermore, observations were eliminated if no audited IFRS report was available.

**Table 3.** Location of disclosure

	inSCF <sup>1</sup>	nextSCF <sup>2</sup>	NOTES <sup>3</sup>	none
Interest paid	69%	13%	16%	2%
Interest received	64%	13%	17%	6%
Dividends paid	82%	0%	1%	17%
Dividends received	26%	4%	11%	59%

<sup>1</sup> *inSCF* signifies observations for which firms display the respective cash flow within the statement of cash flows including those which additionally reveal it in the notes.

<sup>2</sup> *nextSCF* refers to the location outside the statement of cash flows but underneath it.

<sup>3</sup> *NOTES* refers to observations where the cash flow is solely shown in the notes and nowhere else.

#### 4.2 Classification of interest and dividends by German firms

Table 4, Panel A provides an overview of the classification choices by German firms from 2005 to 2012. The reporting behavior varies with regard to the cash flow to be classified. Dividends paid<sup>48</sup> are almost unanimously classified as a financing cash flow consistent with the view that dividends are a cost of obtaining financial resources (IAS 7.34). Having documented the homogeneous classification practice, we exclude dividends paid from some of our subsequent analyses. On the contrary, interest paid are classified as operating by more than two thirds of our sample firms (70%) consistent with the notion that interest expense enter into the determination of profit or loss rather than being costs of obtaining financial resources (IAS 7.33).<sup>49</sup>

Interest received is also predominantly reported in the operating section of the statement of cash flows (71%). While 18% of our sample firms classify interest received as investing, 10% allocate interest received to the financing category and, thus, report inconsistent with guidance in the relevant standard. Similarly, dividends received were mainly reported in the operating (69%) or investing category (28%).

Again, the classification of dividends received as a financing cash flow (3%) is not consistent with the explicit options (IAS 7.33). Overall, our results show substantial variation regarding the classification of interest paid and received as well as dividends received, largely in compliance with the guidance of IAS 7, while some deviations have to be noted.

Over time, the classification choices remain relatively stable. This is in line with the general requirement to classify these cash flows "in a consistent manner from period to period" (IAS 7.31). However, a moderate trend towards more OCF-increasing choices can be observed from the early years of mandatory IFRS reporting to the more recent financial statements. In particular, interest paid was classified as a financing (operating) cash flow in 33% (67%) of the cases in 2012 as opposed to 25% (74%) in 2005. This is noteworthy, since interest paid can have a material impact on OCF (see chapter 4.3). The development of the classification choices regarding interest and dividends received shows a smaller increase of OCF-increasing choices. In 2005, 68% (69%) of the firms classified interest (dividends) received into OCF as opposed to 71% (73%) in 2012. Our observation that a total of 61 firms changed their classification from one year to another during the sample period reflects the moderate trend towards OCF-increasing choices. Frequent changes include shifting dividends received into OCF (20% of changes observed), interest received into OCF (20%), and interest paid out of OCF (18%), all of which increase, *ceteris paribus*, OCF.<sup>50</sup>

<sup>48</sup> These include dividends paid to owners of the parent company as well as to non-controlling shareholders.

<sup>49</sup> Furthermore, the classification of interest paid (which may be capitalized) into the investing category turns out to be a rare phenomenon (1%). This points to a contradiction between the recent proposal to clarify that the classification of interest paid that is capitalized should follow the nature of the respective asset (IASB, 2012) and current accounting practice (see also Hitz and Teuteberg, 2013). Thus, based on our findings, the IASB's decision not to proceed with the proposal (see IASB, 2013) seems to be welcome.

<sup>50</sup> However, the moderate trend towards OCF-increasing classification cannot solely be attributed to firms that change their accounting policies, since the number of cash flows identified as well as the sample composition does not remain unchanged over the years.

**Table 4.** Classification of interest and dividends by year and industry

**Panel A: Classification choices by Years<sup>1</sup>**

Year	Interest paid				Interest received				Dividends paid				Dividends received			
	Obs.	OCF	ICF	FCF	Obs.	OCF	ICF	FCF	Obs.	OCF	ICF	FCF	Obs.	OCF	ICF	FCF
2005	112	74%	1%	25%	96	68%	22%	10%	91	1%	1%	98%	38	69%	26%	5%
2006	114	74%	1%	25%	103	70%	20%	10%	94	1%	0%	99%	43	66%	30%	5%
2007	126	71%	2%	27%	120	72%	20%	9%	100	0%	0%	100%	50	66%	30%	4%
2008	135	70%	1%	29%	130	72%	19%	9%	112	0%	0%	100%	60	62%	33%	5%
2009	138	69%	1%	31%	130	73%	17%	11%	108	0%	0%	100%	54	70%	28%	2%
2010	139	69%	1%	30%	138	71%	17%	11%	101	1%	0%	99%	60	68%	30%	2%
2011	139	69%	0%	31%	140	73%	17%	10%	111	0%	0%	100%	54	76%	22%	2%
2012	137	67%	0%	33%	138	71%	18%	11%	117	0%	0%	100%	56	73%	23%	4%
<b>Total (Mean)</b>	<b>1040</b>	<b>70%</b>	<b>1%</b>	<b>29%</b>	<b>995</b>	<b>71%</b>	<b>18%</b>	<b>10%</b>	<b>834</b>	<b>0%</b>	<b>0%</b>	<b>100%</b>	<b>415</b>	<b>69%</b>	<b>28%</b>	<b>3%</b>

**Panel B: Classification choices by Industries<sup>1</sup>**

Industry	Interest paid				Interest received				Dividends paid				Dividends received			
	Obs.	OCF	ICF	FCF	Obs.	OCF	ICF	FCF	Obs.	OCF	ICF	FCF	Obs.	OCF	ICF	FCF
Mining and construction	33	76%	0%	24%	33	67%	24%	9%	34	0%	0%	100%	27	59%	41%	0%
Food	8	100%	0%	0%	8	100%	0%	0%	8	0%	0%	100%	8	100%	0%	0%
Textiles, printing and publishing	39	51%	0%	49%	38	55%	24%	21%	29	0%	0%	100%	9	78%	22%	0%
Chemicals	61	39%	0%	61%	51	35%	33%	32%	58	0%	0%	100%	42	55%	33%	12%
Pharmaceuticals	50	84%	0%	16%	47	66%	28%	6%	38	0%	0%	100%	16	50%	50%	0%
Extractive industries	8	100%	0%	0%	8	100%	0%	0%	8	0%	0%	100%	6	0%	100%	0%
Durable manufacturers	349	75%	1%	25%	328	75%	17%	8%	261	0%	0%	100%	144	74%	23%	3%
Computers	107	79%	1%	20%	97	77%	19%	4%	70	0%	0%	100%	22	77%	18%	5%
Transportation	100	50%	4%	46%	100	67%	27%	6%	70	0%	0%	100%	56	50%	45%	5%
Utilities	22	77%	0%	23%	22	100%	0%	0%	22	0%	0%	100%	17	100%	0%	0%
Retail	90	53%	0%	47%	90	58%	9%	33%	83	0%	1%	99%	24	67%	33%	0%
Services	96	85%	0%	15%	99	77%	19%	4%	89	2%	0%	98%	20	85%	15%	0%
Other	77	80%	0%	20%	74	86%	10%	4%	64	0%	0%	100%	24	92%	8%	0%
<b>Total (Mean)</b>	<b>1040</b>	<b>70%</b>	<b>1%</b>	<b>29%</b>	<b>995</b>	<b>71%</b>	<b>18%</b>	<b>10%</b>	<b>834</b>	<b>0%</b>	<b>0%</b>	<b>100%</b>	<b>415</b>	<b>69%</b>	<b>28%</b>	<b>3%</b>

<sup>1</sup> For the classification of each cash flow item the total reflects the number of observations in which a firm disclosed the item.

Table 4, Panel B shows the classification choices by industry. The classification of interest paid differs substantially across industries. Among those industries with a noteworthy number of firm-year observations (>30), *Pharmaceuticals* and *Services* firms classify interest paid into OCF most frequently (84% and 85%, respectively), while only classifying interest paid as financing in 16% and 15% of the cases. Firms from *Computers* (79%), *Mining and construction* (76%), and *Durable manufacturers* (75%) also classify interest paid as operating frequently. On the other hand, *Retail* (53%), *Textiles, printing and publishing* (51%), and *Transportation* (50%) firms allocate interest paid substantially less often to the operating category, thereby increasing OCF. Remarkably, 61% of the firms operating in the *Chemicals* industry classify interest paid as financing as opposed to only 39% keeping interest paid into OCF.

With regard to interest and dividends received, our analysis also shows substantial variation across industries. The percentage of firms classifying interest received as operating ranges from remarkably low 35% (*Chemicals*) to around 75% (*Durable manufacturers*, *Computers*, and *Services*) when considering industries with a noteworthy number of observations (>30). Firms from *Textiles, printing and publishing* (21%), *Chemicals* (32%), and *Retail* (33%) most frequently classify interest received as a financing cash flow, inconsistent with the guidance in IAS 7. With regard to dividends received, some industries (e.g. *Durable manufacturers*, *Computers*,

and *Services*) exhibit remarkably higher percentages of observations indicating classification as operating than others (e.g. *Transportation* or *Mining and construction*), while total observations, and, thus, observations per industry have been relatively low. Overall, our descriptive analysis suggests that industry factors play a role in firms' reporting decisions.

Following Gordon et al. (2014), we further analyze the combinations of classification choices regarding interest paid and received as well as dividends received. Table 5 provides an overview of the most common combinations derived from a sub-sample of 424 firm-year observations which disclosed all of the three individual cash flows. The analysis shows that more than half of the firms (52%) classify all items in the operating category rather than using the IFRS-specific options. The second most common combination consists of the consequent use of the alternative options provided by IAS 7.33 for interest and dividends received as investing and interest paid as financing cash flows. Thus, our analysis suggests that firms tend to either disregard the options to classify the cash flows out of OCF or use these options consistently. However, it should be noted that the latter policy has only been adopted by 13% of the firms and that the analysis is limited to firms that disclosed all of the three cash flows at the same time. Importantly, 8% of the firms classify interest paid as financing while classifying interest and dividends received as operating, thereby, *ceteris paribus*, achieving the highest OCF.

**Table 5.** Combinations of classification choices

Classification by section combinations						
Interest paid		Interest received		Dividends received	Total	%
Operating		Operating		Operating	222	52%
Financing		Investing		Investing	54	13%
Operating		Operating		Investing	40	9%
Financing		Operating		Operating	34	8%
Financing		Financing		Investing	17	4%
Operating		Investing		Investing	13	3%
Financing		Investing		Operating	12	3%
Financing		Financing		Financing	9	2%
Others					23	5%
<b>Total</b>					<b>424</b>	

The table shows the most common combinations used to classify interest paid and received as well as dividends received for a sub-sample of firms for which all of the three individual cash flows were identified.

### 4.3 Materiality of interest and dividends

Table 6 reports absolute mean and median values for interest and dividend cash flows as well their magnitude relative to OCF. On average, interest paid represents a fraction of 29% of reported OCF (155m€ in absolute numbers) whereas interest received amounts to 10% (85m€). With regard to dividends paid (received), we document a share of 51% (6%). These figures illustrate the substantial impact that classification can have on reported cash flows, particularly in the case of interest paid. The effect becomes apparent to an even greater extent when

considering that some firms only report positive OCF because interest paid is classified out of OCF.<sup>51</sup> We identify six firms which avoid reporting a negative

<sup>51</sup> For example, in 2006 (2007) the former largest German department store holding company Arcandor AG (formerly: KarstadtQuelle AG) which filed bankruptcy in 2009 included interest paid of 272m€ (118m€) in financing cash flow. As a result, the firm was able to report a positive OCF of 102m€ (15m€) which would have been negative otherwise. Without the IFRS-specific choices, i.e. including interest paid and received as well as dividends received into OCF, the firm would have reported an OCF of -63m€ (-23m€) in these years.

OCF at least once solely by exerting their high materiality of the cash flows related to interest classification choices. In summary, we document a and dividends.

**Table 6.** Materiality of cash flow items

	Observations <sup>1</sup>	Mean <sup>1</sup>	Median <sup>1</sup>	Mean (% of OCF) <sup>2</sup>	Median (% of OCF) <sup>3</sup>
Interest paid	1,033	154,943	17,000	29%	12%
Interest received	994	85,068	3,342	10%	3%
Dividends paid	833	164,562	17,620	51%	19%
Dividends received	415	28,730	0	6%	2%

<sup>1</sup> Only including observations for which the respective item was located. Means and medians are absolute values in thousand Euros.

<sup>2</sup> Computed by firm and averaged over the total sample.

<sup>3</sup> Computed by firm and taken as the median over the total sample.

Next, we examine the overall effect of the classification choices on reported cash flows under IFRS. Therefore, following Gordon et al. (2014), we construct a hypothetical benchmark (*OCF\_adjusted*) against which we compare reported OCF (*OCF\_reported*) by adjusting reported OCF to include interest paid and received as well as dividends received, i.e. the three cash flows for which substantial variation can be observed. Importantly, these cash flows are required to be reported within OCF under US GAAP. Moreover, the operating category has been the default classification for these cash flows under GAS 2, the relevant German GAAP guidance throughout our sample period. This allows our results to be interpreted with reference to the US accounting regime as well as concurrent German GAAP practice.<sup>52</sup> To examine the financial statement effects comprehensively, we also adjust as-reported investing and financing cash flows by excluding any of the three cash flows.<sup>53</sup>

Subsequently, we compare our benchmark cash flows to the cash flows that were reported under IFRS. In line with several of our hypotheses regarding incentives to increase OCF, we expect *OCF\_reported* to be significantly higher than *OCF\_adjusted* as a result of management's discretion over cash flow classification. Table 7 shows mean and median values for as-reported and adjusted operating, investing, and financing cash flows. As expected, *OCF\_reported* significantly exceeds *OCF\_adjusted* indicating that the flexibility provided by IAS 7 increases OCF on average. The mean (median) *OCF\_reported* exceeds

*OCF\_adjusted* by 3.0% (3.6%).<sup>54</sup> While investing cash flow also increases significantly as a result of the classification choices, the as-reported financing cash flow is significantly lower than it would have been if interest paid would have to be classified as operating. We are able to reject the null hypotheses of equal mean and median values for the reported versus adjusted operating, investing, and financing cash flows at the 1%-level. To visualize the magnitude of the effects from cash flow classification, one can say that the mean (median) OCF in our sample being 859m€ (116m€) is increased by about 26m€ (4m€).

Our descriptive and univariate analyses show variation regarding the classification of interest and dividends, the materiality of these cash flows as well as the overall effect of the choices on the subtotals of the cash flow statement. In the following, we further study potential determinants of the current practice by means of multivariate analyses.

#### 4.4 Determinants of classification choices

As described above, we employ two dependent variables as proxies for OCF-increasing classification choices. First, we present our results based on Fama-MacBeth estimations which use the magnitude of OCF-increasing classification choices (*DeltaOCF*) as the dependent variable. Second, we run logistic regressions that employ an indicator variable (*InterestPaidFin*) as the dependent variable that equals 1 if the firm classifies interest paid as a financing cash flow. Table 8 shows our results from both approaches as well as descriptive statistics for the variables employed.

<sup>52</sup> However, since the classification choices examined are not the only difference between IFRS, US GAAP, and German GAAP cash flows and our focus is not on a comparison between accounting regimes, we do not label our benchmark as being a (pro forma) German GAAP or US GAAP cash flow as Gordon et al. (2014).

<sup>53</sup> Following Gordon et al. (2014), we set values equal to zero if for any of the three cash flows the amount could not be identified.

<sup>54</sup> Percent differences computed as the mean (median) of *OCF\_reported* divided by mean (median) of *OCF\_adjusted* minus 1.

**Table 7.** Comparison of reported and adjusted operating, investing, and financing cash flows

	Mean	SD	Median
<i>OCF_reported</i> <sup>1</sup>	0.0903	0.0832	0.0848
<i>ICF_reported</i> <sup>1</sup>	-0.0705	0.0919	-0.0553
<i>FCF_reported</i> <sup>1</sup>	-0.0105	0.1345	-0.0176
<i>OCF_adjusted</i> <sup>2</sup>	0.0876	0.0842	0.0818
<i>ICF_adjusted</i> <sup>2</sup>	-0.0716	0.0920	-0.0559
<i>FCF_adjusted</i> <sup>2</sup>	-0.0067	0.1346	-0.0144
<i>Delta_OCF</i> <sup>3</sup>	0.0027 ***	0.0094	0.0000 ***
<i>Delta_ICF</i> <sup>3</sup>	0.0010 ***	0.0040	0.0000 ***
<i>Delta_FCF</i> <sup>3</sup>	-0.0038 ***	0.0090	0.0000 ***

<sup>1</sup> Cash flows as reported under IFRS scaled by total assets.

<sup>2</sup> Cash flows adjusted in the way that interest paid and received as well as dividends received are included in OCF and excluded from investing (ICF) and financing cash flows (FCF).

<sup>3</sup> Deltas are calculated per observation as reported less adjusted values and then averaged respectively taken as the median for the entire sample.

\*\*\* p < 0.01

### **Magnitude of OCF-increasing classification choices**

Based on the model by Fama-MacBeth (1973) and the application by Jegadeesh and Kim (2010), we perform separate cross-sectional regressions for each year between 2005 and 2012. Subsequently, we obtain coefficient estimates and test statistics as the average of the year-wise calculations. Excluding firms with missing data to calculate the entire sets of variables reduces our initial sample of 1,064 firm-year observations to 967 observations that pertain to 194 firms.

Our results for the German capital market are largely in line with the findings of Gordon et al. (2014) for the European sample. Consistent with our expectation, we document a positive coefficient for *LeverageHi* which is significant at the 1%-level. Accordingly, the *DeltaOCF* of firms with an above median leverage is increased by about 103% compared to firms which are not highly leveraged. With regard to the indicator variable *DistressHi*, for which we also expect a positive association, we fail to report significance.<sup>55</sup> *EqtIssues* is not significant either which suggests that incentives arising from capital market access are less pronounced in the German setting. As to the profitability of a firm, we find a negative association which is significant at the 1%-level. Thus, firms that are less profitable (i.e. achieving smaller positive or even negative return on assets) exert classification choices in a way that increases OCF more extremely than profitable firms, which is consistent with our hypothesis and prior research (Adhikari and Duru, 2006; Gordon et al.,

2014). For the size of a firm, we find a negative association with the magnitude of OCF-increasing reporting choices which is significant at the 1%-level. The larger a firm, the less it increases OCF by classification of interest and dividends.

In contrast to the findings of Gordon et al. (2014), the indicator variable for the existence of analyst cash flow forecasts is positive and significant at the 5%-level. Firms with cash flow forecasts reveal a *DeltaOCF* which is about 76% higher than for firms which are uncovered. This is consistent with the notion that the existence of analyst forecasts signals the importance of OCF to the respective firm (Lee, 2012). We find no significant association between cash flow classification choices and an exchange listing in the US which may be attributable to the low fraction of cross-listed firms in our sample (< 3%). Importantly, *IndPractice* is positive and significant at the 1%-level which is in line with our expectation of an association between the individual reporting choice of a firm and the dominant choices of its industry peers. The higher the homogeneity (i.e. the consensus) of choosing to classify interest paid in the financing category within a certain industry, the higher the magnitude of OCF increases. This finding seems contrary to Gordon et al. (2014) who do not find a significant association which might be due to the dominant role of country factors in their study. However, while it appears reasonable for firms to align to their national custom within an industry (in line with the effect that we document) it is less obvious and probable to align to a supra-national industry practice (which would be the case in Gordon et al., 2014).

<sup>55</sup> In order to account for potential collinearity among all variables and in particular with regard to *DistressHi* and *LeverageHi*, the variance inflation factor (VIF) test is performed. The VIF mean of 1.42 as well as the fact that no single score exceeds a value of 2.1 indicates that collinearity is not an area of concern here.

**Table 8.** Determinants of OCF-increasing classification choices**Panel A: Descriptive Statistics**

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>
DeltaOCF	0.0026	0.0069	0.0000
InterestPaidFin	0.2916	0.4547	0.0000
DistressHi	0.3246	0.4684	0.0000
LeverageHi	0.5052	0.5002	1.0000
EqIssues	11.0473	110.3928	0.1000
Profitability	0.0528	0.0896	0.0442
AnalystForecast	0.9182	0.2743	1.0000
IndPractice	0.6330	0.0786	0.6000
USList	0.0292	0.1683	0.0000
Size	14.1468	1.6074	13.9200
Big4	0.8297	0.3760	1.0000
Dominated	0.2813	0.4498	0.0000
EarningsMgmt	0.3603	0.4803	0.0000
CFmetric	0.1119	0.3155	0.0000
MTB	2.4980	3.0559	1.8900
MandAdopter	0.1317	0.3383	0.0000

n = 1,064

**Panel B: Regressions**

	<b>DeltaOCF (OLS)</b>				<b>InterestPaidFin (Logit)<sup>1</sup></b>		
	<b>Exp. sign</b>	<b>Estimate</b>	<b>SE</b>	<b>p-value</b>	<b>Estimate</b>	<b>SE</b>	<b>p-value</b>
DistressHi	+	0.00040	0.00029	0.2080	-0.20100	0.18490	0.27700
LeverageHi	+	0.00269	0.00018	0.0000	0.38177	0.16397	0.02000
EqIssues	+	0.00000	0.00001	0.6820	0.00049	0.00065	0.44700
Profitability	-	-0.01216	0.00234	0.0010	-2.08753	1.09287	0.05600
AnalystForecast	+	0.00200	0.00071	0.0230	1.56975	1.09548	0.15200
IndPractice	+	0.01867	0.00111	0.0000	11.26736	1.39696	0.00000
USList	-	0.00055	0.00064	0.4150	-0.09580	0.47309	0.84000
Size	?	-0.00048	0.00008	0.0000	-0.11222	0.05205	0.03100
Big4	+	0.00127	0.00060	0.0690	0.37696	0.25475	0.13900
Dominated	-	0.00005	0.00041	0.8970	-0.05936	0.16777	0.72300
EarningsMgmt	?	-0.00041	0.00040	0.3410	-0.03888	0.15372	0.80000
CFmetric	+	0.00057	0.00024	0.0460	0.52634	0.23730	0.02700
MTB	-	-0.00015	0.00011	0.1970	-0.03951	0.07376	0.59200
MandAdopter	-	-0.00013	0.00028	0.6660	-0.73245	0.26335	0.00500
n = 967					n = 967		
Adjusted R-squared	0.1381				Pseudo R-squared	0.1010	
F-Test	12.04	(p-value <0.0001)			Wald Chi-square	90.87	(p-value <0.0001)

<sup>1</sup> Year dummies are employed (untabulated).

With regard to the corporate governance and management-related factors which we additionally explore, we obtain the following results. For the indicator variable *Big4*, we document a positive association that is significant at the 10%-level. In line with our expectation, we find that firms which have their financial statements audited by a *Big4* audit firm increase OCF more extremely by classification

choices, thus moving further away from concurrent national German accounting customs (represented by the benchmark '*OCF\_adjusted*'). Accordingly, the *DeltaOCF* of firms with a Big 4 auditor is 48% higher compared to firms without a Big 4 auditor. This is consistent with the view of Big 4 auditors acting not only as a constraint but also as IFRS advisors (Cole et al., 2013). With regard to the indicator variable

*Dominated* which proxies for the degree of information asymmetry between managers and shareholders, we do not find a significant association. Similarly, we are not able to report a significant association between *MandAdopter* and *DeltaOCF*.

Moving on to management-related factors, we document a negative association between OCF-increasing choices and our earnings management variable (*EarningsMgmt*), a relationship for which we did not predict the coefficient sign. This indicates that the relationship of 'cash flow management' and earnings management may be substitutive in nature. However, our result is not significant. Our proxy for potential undervaluation of a firm, the market-to-book ratio, is negatively associated with an increase of OCF as expected, yet not significant.

Finally, we document a positive association between the use of cash flow based measures for internal control purposes (*CFmetric*) and the magnitude of OCF increases by classification choices which is significant at the 5%-level. This suggests that firms which include cash flow based measures into their segment reporting according to IFRS 8 and which, accordingly, presumably steer their business also on the basis of cash flows are more likely to make OCF-increasing classification choices. We interpret this as managers of those firms paying more attention to cash flow figures and facing stronger incentives to shape cash flow performance than others, e.g. due to being evaluated on the basis of cash flows.

#### **Likelihood of OCF-increasing choices: Classification of interest paid as financing**

To analyze the likelihood of OCF-increasing classification choices, we run a pooled logistic regression with indicator variables for years and robust standard errors using the indicator variable *InterestPaidFin* as dependent variable. For the following variables, we document significant associations (with equal sign) that have also been obtained in the Fama-MacBeth regressions above: *LeverageHi*, *Profitability*, *IndPractice*, *Size*, and *CFmetric*. This reinforces our findings on the important roles of contracting concerns, profitability, industry practice as well as the use of cash flows for internal control purposes as determinants of cash flow classification choices. For example, firms which are highly leveraged are 47% more likely to classify interest paid as financing in order to increase their OCF. Similarly, firms which use cash flow metrics for internal control purposes are 69% more likely to do so.<sup>56</sup> Furthermore, in line with our findings above, we do not obtain significant results for the firms' closeness to financial distress (*DistressHi*), need to approach the capital market (*EqIssues*), and cross-

listing in the US (*USList*). With regard to the existence of analyst cash flow forecasts (*AnalystForecast*) as well as the auditor type (*Big4*), we find positive, yet insignificant associations. Similarly, the coefficients for earnings management (*EarningsMgmt*), information asymmetry (*Dominated*) as well as undervaluation (*MTB*) remain insignificant.

In addition, in the logistic regression, the coefficient for *MandAdopter*, i.e. firms that reported under German GAAP until they had to switch to international standards mandatorily, is negative and significant at the 1%-level. Firms which did not opt for voluntary adoption of IFRS are 52% less likely to classify interest paid as financing. This is in line with our expectation and indicates that firms which did not opt to voluntarily early adopt IFRS are more likely to keep their pre-IFRS German GAAP practice (i.e. classification of interest paid into OCF) thereby contributing to the persistence of international differences under IFRS that have been documented in the literature (see chapter 2.2). Moreover, this finding supports the notion by Stadler and Nobes (2014) that management's default decision regarding policy choices under IFRS is to follow previous practice if possible.

Overall, our analysis regarding the classification of interest paid supports the picture drawn from the previous estimations where the determinants of the magnitude of the increase of OCF due to the use of IFRS-specific classification choices were examined. Taken together, our results provide evidence for the notion that highly-leveraged and/or less profitable firms use discretion over cash flow reporting in order to augment financial information (Adhikari and Duru, 2006). Furthermore, our findings support claims that industry practice is an important driver of accounting policy choices, a factor that may be understated in cross-country settings. The findings further indicate the relevance of whether firms use cash flow based measures internally for their external reporting choices. In addition, our results provide some evidence for differences between voluntary and mandatory adopters of IFRS, the role of analyst forecasts as well as the relevance of auditor types, especially in the context of IFRS-specific reporting matters where Big 4 audit firms seem to act as advisors rather than solely as auditors (Cole et al., 2013).

#### **4.5 Robustness checks and additional analyses**

We conduct various robustness checks and additional analyses to validate our results. Besides the determinants of classification choices examined above, we test for the effect of several other constructs. In order to further examine the areas of financial distress and profitability, we control for

<sup>56</sup> The change in probabilities is calculated as follows: 47% arising from  $(e^{0.3817728} - 1)$ , 69% as  $(e^{0.5263381} - 1)$ , and -52% as  $(e^{-0.732452} - 1)$  obtained from the coefficients in the logistic regression (see Table 8, Panel B).



firms with negative net income or negative OCF as well as the interest coverage ratio as a frequently used measure of financial stability. Neither of these variables is significantly associated with OCF-increasing classification choices made by German firms. We also replace the general indicator variable for cash flow based measures in segment reporting by a more narrowly defined indicator variable that equals 1 if a firm reports OCF on a segment basis but results remain similar. Additionally, we run our regressions without a control for the use of cash flow measures for internal control purposes since our proxy is based on recent information only and, thus, less reliable for the years before IFRS 8 had to be applied.

As far as the relation between earnings management and decisions to influence cash flows is concerned, we replace the earnings management variable based on Jansen et al. (2012) by a related indicator variable which proxies for upwards management of earnings only. However, as in our main analyses, we do not find a significant association between the two constructs. Additionally, we employ a continuous variable measuring free float as the percentage of widely-held shares instead of using an indicator variable that equals 1 if a firm is dominated (free float < 50%) and an alternative definition for *Size* that employs the natural logarithm of sales instead of market capitalization. In both cases, our results remain unchanged.

#### ***Alternative industry classifications, exclusion of industries and industry indicators***

In our main analyses, we follow Gordon et al. (2014) and use the industry classification by Barth et al. (1998). Since one of our main insights is the relevance of industry practice, we conduct all of our analyses again with alternative industry classifications. Our results remain qualitatively unchanged using the industry classification following Frankel et al. (2002) or a standard two-digit SIC classification. To further validate our results regarding the influence of industry reporting practices, we run our main regressions excluding firms from industries with less than 30 firm-year observations according to Table 4. We obtain results similar to our main analyses. In order to test the robustness of the influence of industry, we also run our model separately with a set of indicator variables for industries instead of the variable *IndPractice*. However, results remain unchanged and confirm the strong association between industry and cash flow classification.

#### ***Only observations with explicit disclosure of interest paid***

Based on our observation that interest and dividends appear on the face of the cash flow statement when being classified as investing or financing, we treat observations where interest paid were not disclosed as

if interest paid were classified implicitly as operating in our main logistic regressions. Therefore, we run these regressions only with observations where interest paid was identified on the face of or close to the cash flow statement or in the footnotes. Results remain unchanged as expected due to the high percentage of firms that disclose interest paid separately.

#### ***Index affiliation***

Our sample is based on the four most important German stock indices. However, firms in these indices differ. In particular, firms contained in the leading German index DAX30 are substantially larger and presumably more proficient in terms of accounting disclosure and choices than others, especially compared to recently listed smaller firms contained in the SDAX or TecDAX. Moreover, they receive greater public and investor attention which may lead to higher incentives with regard to OCF. Further, belonging to an index may affect the firms' perceived peers and, therefore, lead to homogeneous reporting among firms from the same index similar to the inclination to follow industry practice. Although *Size* already captures partly such effects, we additionally control for such 'index-related effects' and construct an indicator variable for DAX30 affiliation as well as, alternatively, one for DAX30 or MDAX affiliation. However, both indicator variables are insignificant and do not change the overall results.

## **5. Conclusion**

Comparability is an important attribute of financial information and enhances its usefulness (Framework, QC.4, QC20-QC25). Consequently, it has been one of the aims followed when IFRS were introduced in the EU. However, the comparability of IFRS financial statements may be reduced for several reasons, including explicit accounting options (Nobes, 2006). Among such options are the classification choices for interest and dividends in the statement of cash flows according to IAS 7. We document substantial diversity regarding the classification of interest paid and received as well as dividends received that are classified as operating cash flows by more than two thirds of our sample of German firms between 2005 and 2012. Contrary, dividends paid are classified as financing almost without exception. Assuming interest and dividend cash flows to be economically similar phenomena across non-financial firms, the alternative classifications documented reduce comparability (see Framework, QC25). Importantly, the choices are not merely 'cosmetic', but rather affect important subtotals, especially OCF (Kvaal and Nobes, 2010). Empirical and experimental evidence further indicates the relevance of the classification decisions to cash flow prediction models (Gordon et al., 2014) and user

perceptions of the firm's financial strength (van der Heijden, 2015).

Our results show that reported OCF is significantly increased by the discretion allowed under IFRS as compared to German GAAP practice under GAS 2 as well as US GAAP. Moreover, we find that OCF-increasing choices, especially the classification of interest paid as a financing cash flow, are associated with firms being highly leveraged and less profitable which suggests that classification is driven by firm-specific incentives rather than economic differences. In addition, unlike prior cross-country studies (Gordon et al., 2014) our results suggest that industry practice is highly relevant to the individual reporting decisions of a firm, at least when holding country factors constant. We further find that incentives arising from accessing equity markets are of minor relevance to cash flow reporting in Germany consistent with the country being traditionally characterized as a bank-dominated, debt-financed economy (Monnet and Quintin, 2007).

We further provide some evidence suggesting that firms that are audited by a Big 4 auditor are more likely to exploit IFRS-specific classification choices which supports claims that big international auditors also serve as advisors to their clients' IFRS financial statements (Cole et al., 2013). In addition, our findings indicate that mandatory IFRS adopters are less likely to classify interest paid outside OCF consistent with the notion that management's default decision regarding IFRS policy choices is to follow previous practice (Stadler and Nobes, 2014). Moreover, our results indicate that firms using cash flow measures for internal control purposes are more inclined to use IFRS-specific classification choices to increase OCF, possibly due to the higher relevance of cash flows for the firms' operations and the evaluation of the management. Contrary, although incentives to manage earnings and influence cash flows are not mutually exclusive (Lee, 2012), we do not find a significant association between a firm's inclination to increase OCF and earnings management behavior. However, our initial analyses should motivate further research on whether earnings and cash flows are influenced differently depending on the firm's situation.

Our results are subject to limitations. First, we are focusing on specific explicit choices under IAS 7 and, thus, the drivers of classification of other cash flows may differ. Second, we are examining large listed firms which may impede the generalizability of our results. However, large listed firms are among the main preparers of IFRS consolidated financial statements and have a role model function for aspiring companies. Third, some of our analyses provide initial insights on the relevance of possible determinants of classification choices, e.g. information asymmetry, the use of cash flow measures for internal control purposes, and inclination to earnings management. Thus, we aim to encourage further research to employ alternative and refined proxies for these constructs. In

addition, subsequent papers could further explore the role of compensation agreements as well as different proxies for the comparability of cash flows and decisions to increase OCF.

While we contribute to the literature on comparability of financial reporting under IFRS as well as on the use of managerial discretion over cash flow reporting, our results are of interest beyond these literature streams. First, our results are of interest to users of cash flow information who we advice to take a close look at the composition of the subtotals in the statement of cash flows before incorporating the information into their decision-making. Second, we advice academics to not simply rely on claims that OCF is a comparable measure or on data which is not adjusted for diverse classification. At least, researchers should be aware of potential differences when drawing inferences on cash flow data. Third, our study contributes to the ongoing debate about the theoretically preferable classification of interest and dividends as well as the related question of whether to allow flexibility or not. Standard setters should be aware that diverse classification of cash flows, without economic justification, creates non-comparability which is potentially driven by firm-specific incentives. Therefore, our results encourage a removal of the options currently provided under IFRS. In addition, to improve comparability across accounting regimes, national and international standard setters should cooperate more closely since the different treatment of interest and dividends is elusive in a time where the statement of cash flows is largely aligned between accounting regimes.

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## Appendix A

Variable Definitions	
<i>DeltaOCF</i>	OCF as reported by the firm <i>i</i> in the year <i>t</i> less the hypothetical benchmark which is computed by adjusting as-reported OCF to include interest paid and received as well dividends received. Both OCF as reported as well as the benchmark are scaled by total assets of the respective firm as at the beginning of the period.
<i>InterestPaidFin</i>	Indicator variable equal to 1 if the firm chooses to classify interest paid in the financing section of the statement of cash flows and 0 otherwise.
<i>DistressHi</i>	Indicator variable equal to 1 if the firm's distress level based on the Altman's Z-score is $\leq 1.81$ , and 0 otherwise.
<i>LeverageHi</i>	Indicator variable equal to 1 if the firm's leverage, as measured by total liabilities over beginning of period total assets, is greater than the median of all firms in the respective year.
<i>EqIssues</i>	Percent change of contributed capital over the sample period.
<i>Profitability</i>	Return on Assets as measured by the firm's net income over beginning of period total assets.
<i>AnalystForecast</i>	Indicator variable equal to 1 if at least one analyst cash flow forecast is available for that firm on I/B/E/S, and 0 otherwise.
<i>IndPractice</i>	Percentage of firms within an industry which choose to classify interest paid in the financing section of the statement of cash flows. The industry classification is based on Barth et al. (1998).
<i>USList</i>	Indicator variable equal to 1 if the firm is listed on a US stock exchange in addition to a German stock exchange, and 0 otherwise.
<i>Size</i>	Natural logarithm of a firm's beginning of period market capitalization.
<i>Big4</i>	Indicator variable equal to 1 if the firm's financial statements have been audited by a Big 4 audit firm, i.e. PwC, KPMG, Ernst & Young, or Deloitte, in the respective year.
<i>Dominated</i>	Indicator variable equal to 1 if a firm's free float is $\leq 50\%$ , and 0 otherwise, based on Rapp (2010).
<i>EarningsMgmt</i>	Indicator variable indicating earnings management (PM/ATO diagnostic based on Jansen et al., 2012).
<i>CFmetric</i>	Indicator variable equal to 1 if the firm employs cash flow based metrics in the segment reporting according to IFRS 8, and 0 otherwise.
<i>MTB</i>	A firm's market-to-book ratio measured by the market capitalization over the beginning of period book value of equity.
<i>MandAdopter</i>	Indicator variable equal to 1 if a firm had not switched its reporting to IFRS prior to the year 2005 and still applied German GAAP in 2004. The identification of IFRS and German GAAP preparers in 2004 is based on the Datastream item 'Accounting Standards Followed' (WC07536) using the coding of Daske et al. (2013).

## Appendix B

### Anecdotal evidence of cash flow based debt covenant agreements

Extract from a comment letter of SEOPAN, a grouping of the main Spanish construction companies and worldwide leaders in the transport infrastructure concessions industry, to the IFRS Interpretations Committee highlighting the use of OCF as incorporated measure in debt covenants. The comment letter is dealing with the presentation of cash flows for construction or upgrading services within the scope of IFRIC-12, Service Concession Arrangements.

*"We want to remark that this is not only a theoretical discussion on accounting but also a practical issue with negative impact in the business, because, if the change proposed in IAS 7 by the IFRIC is finally approved, most of the covenants of the debt financing these projects, in particular, financial expenses coverage ratio, will be affected, as normally that ratio uses operating cash flow as a reference of cash generation to pay interest of the debt."*

The comment letter has been published as appendix to the Agenda Paper 3 for the IFRS Interpretations Committee meeting in July 2012. The whole Staff Paper "IAS 7 Statement of Cash Flows: Examples illustrating the classification of cash flows" can be retrieved on the website of the IFRS Foundation (<http://www.ifrs.org/Meetings/Pages/IFRICJuly2012.aspx>, last retrieved: April 24, 2013).

# **RISK MANAGEMENT PRACTICES IN THE TOP 20 SOUTH AFRICA'S LISTED COMPANIES: AN ANNUAL/ INTEGRATED REPORT DISCLOSURE ANALYSIS**

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## **Abstract**

The King III Report on Corporate Governance places risk management at the nerve centre of the company's strategic decision makers. The main objective of this article was to assess the risk management disclosures in the annual (integrated) reports of the top twenty (20) listed companies. The objectives were obtained through a literature review on risk management developments as per the requirements of the King III report on Corporate Governance, and supported by empirical evidence obtained from assessing the 2013 annual/ integrated reports of these top listed companies.

The results obtained indicate that the majority of the JSE's top 20 listed companies adhere to good risk management disclosure practices. However, there are areas in which the non-disclosure of information was prevalent. These areas of non-disclosure were found to be lacking detail on actual risk management practises applied. It was observed that the company accomplishments in these areas could be enhanced.

**Keywords:** Annual Reports, Disclosures, Governance, Integrated Reports, JSE, King III, Listed Companies, Risk Management

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## **1 Introduction**

Kliem & Ludin (1997) define risk as the occurrence of an event that has a consequence or an impact on a project. In a similar manner, Knight (1999) believes that there are three elements of risk, these being: firstly, the perception that something could happen; secondly, the likelihood of something happening; and lastly the consequences of it happening.

Risk is defined as the possibility that an event will occur, which will impact an organization's achievement of objectives. This definition was formulated by the Institute of Internal Auditors in the Professional Practices Framework as far back as 2004 (IIA 2004), and although refined over the years, the term risk still remains variously defined. Hardaker, Raud and Jock (1997) for instance define risk as imperfect knowledge where the probabilities of the possible outcomes are known, and uncertainty exists when these probabilities are not known. Of the definitions outlined above, the Committee of Sponsoring Organisations of the Treadway Commission (COSO 2004), provides the broadest where risk is defined as a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its

risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

The COSO definition indicate that there are many forms of risk can impact the organization which is why risk management should be applied across the enterprise and these risks could include IT risk, financial risk, operational risk, network security risk, and personnel risk. Realization of some of these risks have manifested themselves in major industrial and financial catastrophes such as the sinking of the Titanic, Bhopal, Chernobyl, Three Mile Island, Enron, the BP oil spill, the most recent financial crisis and the London Whale (IBM 2014) which have to the extent contributed to the growing need for a formal strategy to combat and prepare for known and unknown risks. As such, organizations should use a risk management approach that identifies, assesses, manages, and controls potential events or situations (IIA 2004).

Most studies have focussed on assessing the disclosure/ practises in the context of the broader corporate governance by South African companies (KPMG 1997/1998; Deutsche Bank Securities Incorporated 2003; KPMG 2006; Moloji 2009 and Jansen van Vuuren & Schulschenk 2013); as such, it was noted that very little research exists on the topic of risk management practices. This study seeks to assess the extent and level of risk management disclosures in South Africa's top 20 listed companies

as per the requirement of King III Report on Corporate Governance.

The King III recommended information for the selected companies was extracted directly from the selected companies 2013 annual/integrated reports obtained from the JSE's top-20 index, based on market capitalization as quoted by Sharenet on the 30th of June 2014 (Sharenet 2014). Investor-Words (2014) defines market capitalization as a measurement of corporate or economic size of a company and is equal to the share price times the number of shares outstanding of a public company. The annual/integrated report was selected as a unit of extracting information because of its locus as it communicate risk management information that is pertinent to investor's decision making as well as stakeholders' interests. Ponnu and Ramthandin (2008), agrees with this point in stating that annual reports communicates the information which stakeholders find to be important in safeguarding their interests. For Skærbæk (2005), annual reports lend legitimacy to an organisation, mainly for external readers and audiences.

## **2 Objectives, Scope and Limitations**

The objectives of this article are twofold: firstly, to provide a brief overview of the risk management requirements as per the King III directions, and secondly to assess the risk management disclosures in the annual/ integrated reports thereof.

In order to determine the risk management disclosures in the annual reports of the top South African listed companies, the data on the top 100 listed companies based on their market capitalization was obtained from Sharenet (Sharenet 2014). Using the top 100 list from Sharenet, a process was then followed where all the companies with the market capitalization below the top twenty (20) on the list were eliminated from the sample. The effect of the elimination process yielded the top twenty (20) listed companies and they are listed below in order of their market capitalization; British and American Tobacco, SAB Miller, Glencoe Xtrata, BHP Billiton, Richemont, Naspers, MTN Group, Sasol, Anglo American, Standard Bank, First Rand, Vodacom, Old Mutual, Barclays Africa, Aspen, Sanlam, Steinhoff, Anglo Platinum, Nedbank and Remgro.

The study has specific limitations. The assessment was limited to the 2013 published annual/integrated reports of the top 20 listed companies. Companies not in the top 20 list and those that are not listed on the Johannesburg Securities Exchange (JSE) did not form part of the study and represents a research area to explore in future. The justification for limiting this study to the listed companies' submitted annual/ integrated reports, is that these represent the official reports that companies are liable to submit to their shareholders as part of the companies act as well as the listings requirements.

Further justification for limiting this study to the company's annual/ integrated report is that the annual/ integrated report is the most important stakeholder's document produced by a company on an annual basis. Any organisation committed to promoting and maintaining good corporate governance should use its annual/ integrated report to communicate this to its shareholders and to the public in general. The annual report should provide the first impression of a company's corporate governance compliance.

In addition to the limitations highlighted above, the content analysis methodology used for the purpose of coding information from the relevant reports has its inherent limitations. However, even with its limitations, Unerman (2000) observed that the recent literature still support the content analysis technique as an acceptable research method for analysing annual reports (see Abeysekera 2007; Barac & Moloï 2010; Brennan and Solomon 2008 and Boesso & Kumar 2007). This is because the content analysis technique is particularly useful for extracting information which is not explicitly presented in a quantified and structured format, but is implicit in the information.

The remainder of this article provides an overview on the literature, followed by a section reporting on the findings that resulted from the assessment of risk management disclosures in the twenty (20) top listed South African companies' 2013 annual reports. In the final section, results are summarised, conclusions reached and recommendations made.

## **3 Review of Relevant Literature**

### **3.1 Overview on Risk Management**

It is clear in the risk definitions outlined in section 1 that risk is concerned with the potential opportunity or threat that may impact or disturb an organisation's ability to meet its objective. This observation is also shared by the Government of Ontario in Canada (2000) where they indicate that risks encompasses all potential obstacles, consequences and opportunities impacting on the abilities of an enterprise to meet its objectives. Further to the above, the Government of Ontario in Canada (2000) argues that risks of an organisation can be found internally and externally and as such risk categories and areas are: environmental; operational; financial; strategic and informational.

In South Africa, the King II report (IOD 2002) defines risk management as a process that entails planning, arranging and controlling of activities and sources to minimise the impact of all risks on all levels of organisation. As a result, risk management is thus a process that utilises the internal controls as one of the measures to mitigate and control risk. Risk, for example, political, technological and legislative risks that cannot be mitigated through the traditional internal controls within a company should be dealt

with using flexibility as well as forward planning and similar mechanisms. Further, the King II report on Corporate Governance view risk management as the process that ensures the identification and the evaluation of actual and potential risk areas as they pertain to the company as an entity, followed by a process of termination, transfer, tolerance and mitigation of each risk (IOD 2002).

It appears that the King II report (IOD 2002) agrees with the COSOs definition of risk as it states that risk management should be practised throughout the company by all employees of the company in their day-to-day activities. According to the King II report, (IOD 2002) once the risk management process is performed; all forms of risks can be easily identified and managed effectively in an integrated approach. This fact is agreed to by COSO (2004) where it argues that an integrated response to multiple risks is critically important due to the fact that in their analysis, all processes carry inherent risks; therefore organisational risk management should enable integrated solution for addressing these risks.

Further, COSO (2004) indicate that risk management is related to corporate governance as it provides information about risks for the board of directors. The committee stresses that risk management is a continuous process that should be driven by the board of directors and can be used as a tool to verify the effectiveness of internal controls within a company. From this discussion, it is apparent that risk management is not a once off thing; it has to be applied throughout the company in an attempt to understand and achieve the objectives, vision, mission and the company strategy.

For Kloman (1999), risks are connected and this statement is substantiated by using a piano player parable and Kloman (1999) says "watch a piano player, its keys moving up and down with no visible evidence of control. Risks are like that, they don't appear to be connected, but like piano keys controlled by an unseen paper roll, they produce music when coordinated, and a cacophony when not. Striking a single key produces a single note. Striking several keys blindly means dissonance. However, striking a group of keys in a coordinated manner produces a chord. This is the goal today of managing organisational risks, that is creating harmony other than atonality" (Kloman 1999.)

### **3.2 King III Risk Management Disclosure Recommendations**

The King III places risk management at the nerve centre of the company's strategic decision makers. It makes it the focal point of the board by making risk management the responsibility of the board of directors. Since this study assesses risk management practices by determining the level and the extent of risk disclosures in the annual/ integrated reports of the top 20 South Africa's listed companies, the King III

risk management disclosure requirements are briefly outlined in paragraphs that follow.

#### **3.2.1 Responsibility to Govern Risk**

According to the King III Report on Corporate Governance, the responsibility to govern risks within the company rests with the board of directors. In governing risks, the King III report on Corporate Governance recommends that the board should:

- develop the policy and plan for system and process of risk management;
- comment on the integrated reporting on the effectiveness of the system and process of risk governance;
- express their responsibility of the risk governance on the charter;
- incorporate the risk governance in their ongoing training;
- the responsibility of risk governance should manifest itself in a documented approved risk management policy and plan which should be widely distributed across the company;
- at least once annually, review the implementation of the risk management plan; and
- Continually monitor the implementation of risk management plan thereof (IOD 2009).

Checklist questions intended to gauge the extent and the level of disclosure of information relating to the board's responsibility to govern risk were formulated. The formulated checklist questions were utilised to code the annual/ integrated report for the information relating to the risk governance and in line with the guiding principle in Table 1.1.

#### **3.2.2 Determination of Tolerance Levels**

Accordingly, the King III Report on Corporate Governance recommends that the board should determine the levels of risk tolerance as well as the appetite levels annually. Once the levels of risk tolerance and appetite are determined, the board should monitor that risks taken are within the tolerance and appetite levels (IOD 2009).

To gauge the extent and the level of disclosure of information relating to the tolerance levels, the annual/ integrated report for each relevant top 20 listed company was coded using checklist questions developed and in line with the guiding principle in Table 1.1.

#### **3.2.3 Establishment Of Relevant Committee To Assist The Board**

With regards to the establishment of the board committee to assist the board in discharging its duties, the King III Report on Corporate Governance recommends that risk committee or audit committee is established and this committee should assist the board in carrying out its risk responsibilities. Accordingly, the established committee should:



- consider risk management policy and plan and monitor the risk management process;
- have as its members executives and non-executives as well as members of senior management. If deemed necessary, independent risk management experts can be invited;
- have a minimum of three (3) members who meet at least twice per annum; and
- have its performance evaluated by the board once a year (IOD 2009).

Checklist questions intended to gauge the extent and the level of disclosure of information relating to the establishment of a relevant board's committee to assist the board in discharging its responsibilities were formulated. The formulated checklist questions were utilised to code the annual/ integrated report for the information relating to the board committee concerned and in line with the guiding principle in Table 1.1.

### *3.2.4 Delegation of Responsibilities to Management*

According to the King III Report on Corporate Governance, the board is expected to delegate to management the responsibility to design, implement and monitor the risk management plan. To this extent, the committee has recommended the following:

- the board's risk strategy should be executed by management by means of risk management systems and processes;
- management is accountable for integrating risk in the day-to-day activities of the company; and
- the CRO should be a suitably experienced person who should have access and interact regularly on strategic matters with the board and/or appropriate board committee and executive management (IOD 2009).

To gauge the extent and the level of disclosure of information relating to the delegation of responsibilities to management to assist the board in discharging its responsibility to govern risk, the annual/ integrated report for each relevant top 20 listed company was coded using checklist questions developed and in line with the guiding principle in Table 1.1.

### *3.2.5 Risk Assessments*

The board is expected to ensure that risk assessments are performed on a continual basis. In promoting the effective and ongoing risk assessments, the King III Report on Corporate Governance recommends that the board ensures:

- that there is a systematic, documented, formal risk assessment that will ensure that risk assessments are conducted at least once a year;
- that risks should be prioritised and ranked to focus responses and interventions;
- that the risk assessment process should involve the risks affecting the various income streams of the

company, the critical dependencies of the business, the sustainability and the legitimate interests and expectations of stakeholders;

- that risk assessments should adopt a top-down approach; and
- That they regularly receive and review a register of the company's key risks (IOD 2009).

Checklist questions intended to gauge the extent and the level of disclosure of information relating to the risk assessments were formulated. The formulated checklist questions were utilised to code the annual/ integrated report for the information relating to the risk assessments and in line with the guiding principle in Table 1.1.

### *3.2.6 Risk Response and Monitoring*

According to the King III Report on Corporate Governance, the board should ensure that management considers and implements appropriate risk responses and that there is continual risk monitoring. To this extent the following the committee recommend that this is to be adhered to:

- management should identify and note in the risk register the risk responses decided upon;
- management should demonstrate to the board that the risk response provides for the identification and exploitation of opportunities to improve the performance of the company; and
- The responsibility for monitoring should be defined in the risk management plan.

Checklist questions intended to gauge the extent and the level of disclosure of information relating to risk response and monitoring were formulated. The formulated checklist questions were utilised to code the annual/ integrated report for the information relating to the risk response and monitoring and in line with the guiding principle in Table 1.1.

### *3.2.7 Risk Assurance and Disclosure*

In promoting appropriate risk disclosure and assurance, the board is charged with ensuring that there are processes in place enabling complete, timely, relevant, accurate and accessible risk disclosure to stakeholders. The King III Report on Corporate Governance further recommends that the board receive assurance regarding the effectiveness of the risk management process. In order to ensure the appropriate risk disclosure and assurance:

- Management should provide assurance to the board that the risk management plan is integrated in the daily activities of the company; and
- Internal audit should provide a written assessment of the effectiveness of the system of internal controls and risk management to the board.

To gauge the extent and the level of disclosure of information relating to the risk assurance and disclosure, the annual/ integrated report for each relevant top 20 listed company was coded using

checklist questions developed and in line with the guiding principle in Table 1.1.

#### 4. Research Methodology

In order to determine the level and the extent of information disclosed in each section and to decide if a particular annual/ integrated report carries fully disclosed, not disclosed or obscurely disclosed risk management information as per the recommendations of the King III Report on Corporate Governance, the empirical method known as content analysis was utilised.

According to Ingram and Frazier (1980), the content analysis methodology is a methodology that involves the selection of analytical categories within the context of the content material. For Krippendorff (1980), there are three (3) factors that support the suitability of content analysis that can be used for the purpose of coding information in reports namely; stability, reproducibility and accuracy.

- stability refers to the ability of a researcher to code data the same way over time. Assessing stability

of the content analysis methodology involves a test-retest procedure;

- accuracy refers to the reliability of the coded information; and
- Reproducibility refers to the extent to which coding produces the same results when the text is coded once more (for the second time) or by the other researchers.

Hsieh and Shanon (2005) support Krippendorff's view and they further indicate that the content analysis methodology is not a single focused methodology as it has three dimensions namely, conventional, directed and summative. Further, Berelson (1952), Krippendorff (1980) and Weber (1990) all agree that content analysis is a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding.

In order to accomplish the objectives of this article, the coding guiding principles that will be utilised in coding relevant information from the annual reports were formulated and they are presented in Table 1 below:

**Table 1.** Data Extraction and Analysis Tool (Content Analysis)

	<b>Full Disclosure of Recommended Information</b>	<b>Non-Disclosure of Recommended Information</b>	<b>Abstrusely Disclosure of Recommended Information</b>
<b>Guiding disclosure principles</b>	If the required risk information is disclosed under its category in a paragraph, a few paragraphs or a full page and this information contains all the required information as well as voluntary disclosures for that category, the item is marked as <b>Yes</b> in the checklist.	If there is no disclosure at all of the minimum required risk information, the item is marked as <b>No</b> in the checklist.	If the minimum required risk information is disclosed, however this risk information is not disclosed separately under its category, and is not disclosed in detail i.e. appears in one sentence that does not give adequate details, the item is marked <b>Abstrusely</b> in the checklist.

#### 5 Research Findings and Interpretation

The research findings presented below demonstrate the results of content analyses performed on the twenty (20) annual/ integrated reports that were analysed for their disclosure of risk management information in their annual reports.

Table 2 shows the categories and disclosed topics (number 1 to 16) relating to the responsibility to govern risk, determination of tolerance levels, relevant committee to assist the board discharge its responsibilities and the delegation of responsibilities by the board to management. On the responsibility to govern risk, assessed information revealed that all listed companies fully disclosed the information relating to the commentary on the effectiveness of the system and process of risk management, expression of board's responsibility for governance on the charter and continual monitoring of implementation of risk management plans. Disclosure of information relating to the company wide distribution of the approved risk management policy and plan as well as that relating to the incorporation of risk governance training were

concerning. For instance, of the twenty (20) assessed annual/ integrated reports, only ten (10) companies disclosed that it widely distributes the approved risk management policy and plan whilst nine (9) other listed companies did not disclose this information at all. In a similar way, eleven (11) top 20 listed companies abstrusely disclosed the information relating to the incorporation of risk management training on the ongoing board training programmes.

Of the twenty (20) listed companies assessed for the disclosure of information relating to the tolerance levels, only eight (8) fully disclosed that they have determined the level of risk tolerance and appetite, whilst only seven (7) indicated that the risk taken during the 2013 financial year was within the defined tolerance and appetite levels. The top listed companies displayed the high level of disclosure with regards to the information relating to the relevant committee to assist the board in discharging its responsibilities. All companies fully disclosed the information relating to consideration of risk management policies and plans, the constitution of the committees as well as the attendance of meetings.

**Table 2.** Governance of Risk, Tolerance Levels, Board Committee and Delegation

Nº	Category and disclosed item	Full disclosed	Not disclosed	Abstrusely disclosed	Total
<b>Responsibility to govern risk</b>					
1	Policy and plan for system and process of risk management	20	0	0	20
2	Comment on the integrated reporting on the effectiveness of the system and process of risk governance	20	0	0	20
3	Board express their responsibility of the risk governance on the charter	20	0	0	20
4	Risk governance incorporated in the boards ongoing training	9	0	11	20
5	Documented, approved risk management policy and plan widely distributed across the company	10	9	1	20
6	Implementation of the risk management plan at least once, annually	20	0	0	20
7	Continually monitor the implementation of risk management plan	20	0	0	20
<b>Determination of tolerance levels</b>					
8	Determination of the levels of risk tolerance as well as the appetite levels annually	8	0	12	20
9	Risks taken are within the tolerance and appetite levels	7	1	12	20
<b>Relevant committee to assist the board</b>					
10	Committee consider risk management policy and plan and monitor the risk management process	20	0	0	20
11	Membership consists of executive, non-executive and senior management. Committee has access to independent experts.	20	0	0	20
12	Committee have a minimum of three (3) members who meet at least twice per annum	20	0	0	20
13	Performance of risk committee evaluated by the board once a year	5	0	15	20
<b>Delegation of responsibilities to management</b>					
14	Management has risk management systems and processes to execute the board risk strategy	20	0	0	20
15	Management ensures that risk is integrated on day to day activities of the company	20	0	0	20
16	CRO is experienced on strategic matters and has access to the board or its committee and executive management	9	5	6	20

(Source: 2013 annual report disclosure)

The information relating to the evaluation of the performance of the relevant committees could be enhanced. It was noted during the assessment that only five (5) of the twenty (20) listed companies had fully disclosed the fact that the performance of the committee that assist the board in discharging its risk responsibilities is evaluated annually. Fifteen (15) of the listed companies abstrusely disclosed this fact for instance some companies indicated that they only evaluate members for their independence after they had been an independent non-executive in a company for a certain time period. Few assessed companies had the stand-alone risk committees as the committee of the board. Most of the top listed companies had the hybrid of audit and risk committees.

On the delegation of responsibilities to management, all companies fully disclosed the information relating to the integration of risk on the day to day activities of the company by management as well as the information relating to the formulation of systems and processes for the purpose of executive the board risk strategy.

A weak disclosure of information was observed in the disclosure of information relating to the Chief

Risk Officers (CRO). Of the twenty (20) assessed annual/ integrated reports, only 9 (nine) companies disclosed the information relating to the CRO and that the CRO had unhindered access to the executive committee, the board or its relevant committee. Five (5) other companies did not disclose this fact at all whilst six (6) other companies abstrusely disclosed this information. For the companies that abstrusely disclosed this information, it emerges that the risk management is either part of the Chief Executive Officer (CEO) or the Chief Financial Officer (CFO) function. The board or the relevant committee of the board gains access to the risk management information through these executives.

Based on the result displayed in Table 2, it is clear that generally disclosures relating to the experience and the influence of the CRO, evaluation of the relevant committees performance, annual determination of risk tolerance and appetite including the indication as to whether the risks taken in that particular year are within the defined levels, wide distribution of risk management plan and policy across the company and the incorporation of risk governance

training in the ongoing board trainings could be improved.

**Table 3.** Risk Assessments, Response And Monitoring, Assurance And Disclosures

Nº	Category and disclosed item	Full disclosed	Not disclosed	Abstrusely disclosed	Total
<b>Risk assessments</b>					
1	A process that is systematic, ensures risks are documented, and that there is formal risk assessment at least once annually	20	0	0	20
2	Risks are prioritized and ranked	20	0	0	20
3	Divergence risks are raised	20	0	0	20
4	Top down approach in risk assessments	0	0	20	20
5	Board regular receives and reviews risk register	20	0	0	20
<b>Risk response and monitoring</b>					
6	Noting of risk responses to the risk register	20	0	0	20
7	Risk response leads to identification and exploitation of opportunities to improve the performance of the company	18	2	0	20
8	Responsibility for monitoring risks is defined in the risk management plan	17	3	0	20
<b>Assurance and disclosures</b>					
9	Management assurance that risk management is integrated in the company's daily activities	20	0	0	20
10	Internal audit's written assessment on the effectiveness of the system of internal controls and risk management	20	0	0	20

(Source: 2013 annual report disclosure)

Table 3 shows the categories and disclosed topics (number 1 to 10) relating to risk assessments, risk response and monitoring as well as the risk assurance and disclosures.

During the assessment of disclosure of risk management practices in the annual/ integrated reports of selected companies, it was noted that all assessed top 20 listed companies fully disclosed the fact that they have a process that systematically ensures that risks are documented and that formal assessments are held annually, risks are prioritized and ranked, different types of risks are raised and that boards regularly receive and review the risk registers. However, all twenty (20) companies abstrusely disclosed the information relating to the risk assessment approach. It was noted during the assessment that some companies had indicated in their reports that they used both "the top down" and "the bottom up" approaches when they assess their risks.

There was full disclosure on the information relating to the noting of the risk responses in the annual/ integrated reports. Eighteen (18) listed companies fully disclosed the fact that the manner in which they respond to risks in the form of risk responses or mitigations leads to the exploitation of opportunity whilst two of the listed companies did not disclose this fact at all. Seventeen (17) top listed companies fully disclosed the fact that their risk management plans apportioned the responsibility for monitoring, whilst three (7) did not disclosed this information at all.

In contrast to the risk response and monitoring where some of the information was not disclosed, disclosures relating to management assurance that risk is integrated to the company activities and internal auditors written assessment on the effectiveness of the system of internal controls and risk management were comprehensively disclosed by the top listed companies.

## 6 Conclusion and Areas for Future Research

In conclusion, the paper observed that the King III Report on Corporate Governance places risk management at the nerve centre of the company's strategic decision makers. It makes it the focal point of the board by making risk management the responsibility of the board of directors. The idea behind placing risk management at the centre of strategic decision making is based on the idea that adherence to sound risk management practices is essential so that proper scenarios can be developed to either control or mitigate the effect of uncertainties.

The study found that according to the risk management disclosures in the Annual Reports, the top twenty (20) listed companies in South Africa are widely adhering to sound risk management practices as recommended by the King III Report on Corporate Governance. Of concern, however, was the finding that there were certain disclosures that lacked details on the actual practices applied in some respect such as in the disclosure of information relating to the approach to risk assessments, identification and

exploitation of opportunities arising from proper risk response, incorporation of risk governance in the ongoing boards trainings, company wide distribution of the approved risk management policy and plan, annual determination of risk tolerance levels and appetite, indication of whether the risk in that particular year was within the define tolerance and appetite levels, the CROs experience as well access to the board, its committees executives and performance evaluation of the relevant committee responsible for risk.

The non-disclosures of recommended information with no explanations from the annual/integrated reports as to why the recommendations were not implemented by companies that did not comply cast doubt on the true state of the risk management capabilities and whether some of these companies have resilient risk management programmes that can help the company navigate through when the uncertainties occur.

As indicated in section 2 of the study, the assessment was limited to the published annual/integrated reports of the top twenty (20) South African listed companies which are part of the top 100 listed companies based on their market capitalization. Other companies not in the top 100 list and those that are not listed on the Johannesburg Securities Exchange (JSE) did not form part of the study and represents a research area to explore in future. There is value in undertaking such a study to determine the level of compliance of South African listed companies as the King III report on Corporate Governance applies to all forms of companies in South Africa.

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