


Accounting & Taxation

VOLUME 8

NUMBER 1

2016

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VALUE RELEVANCE OF VOLUNTARY RISK DISCLOSURE LEVELS: EVIDENCE FROM SAUDI BANKS

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ABSTRACT

This study seeks to examine whether the levels of voluntary risk disclosure in Saudi listed banks are value-relevant or not. The sample of this investigation consists of all banks listed on the Saudi Stock Market Exchange (Tadawul). All data was collected from the annual reports of the sample banks from 2009 to 2013 using manual content analysis. Other variables were collected using DataStream and Bloomberg. Ordinary least squares regressions analysis was used. The findings of the multivariate analysis demonstrated that there is no association between the levels of voluntary risk disclosure and firm value as measured by the market to book value at the end of the year (MTBV). But, the results generate from the accounting based measure (ROA) show that there is a positively significant association between the levels of voluntary risk disclosure and firm value. This study contributes to the literature on general accounting disclosure and in particular advances and contributes to the literature on risk disclosure in developing economies. It also contributes to the understanding of the role of accounting information in relation to the market valuation of a firm. The empirical findings of this study have several implications for banks' investors, regulatory bodies and any other interested group as they report the importance of corporate risk disclosure and its economic consequences. This can be used to increase the value relevance in the banking sector. This study also informs regulators about the current level of risk disclosure in all Saudi listed banks. To the best of the researcher's knowledge, no prior research has been conducted on the relationship between firm value and levels of risk disclosure in general nor especially in emerging markets, such as Saudi Arabia, the focus of this study.

JEL: M4, M49

KEYWORDS: Banks, Saudi Arabia, Risk Disclosure, Economic Consequences, Firm Value

INTRODUCTION

The need for financial reporting and disclosure raises from increased information asymmetry gaps and agency conflicts between insiders (managers) and outsiders (investors) (Kothari et al., 2009). However, corporate disclosures can assist in reducing such information gaps, ease such conflicts, augment the credibility of such financial reportage, and complement the role of accounting information in relation to firm value. Previous researches have studied the consequences of disclosure on market valuation of firm (Klein et al., 2005). Enhanced accessibility of corporate information can enhance the capital market efficiency and entice more investors (Wang et al., 2008). Hassan et al., (2009) reported that disclosure is employed as an instrument to moderate agency costs ascending from the likelihood that insiders might not act in the best interest of investors. It has also been argued by Pagano et al., (2002) that disclosure is an instrument which permits stakeholders to enlarge their ability in monitoring and improving the valuation of the firm.

The literature on the economic consequences of disclosure has mostly explored well-developed economies and focused on non-risk voluntary disclosure (Healy and Palepu, 1993; Clarkson et al., 1996; Baek et al., 2004; Nekhili et al., 2012; 2015). In addition, Hassan et al. (2009) claimed that all the empirical findings on disclosure are in line with finance-theory extrapolations, implying that greater public disclosure of information to investors and interested groups increases the valuation of the firm. Prior investigations have explored the relationship between voluntary disclosure and the cost of capital and stock liquidity (Botosan and Plumlee, 2002; Easley and O'Hara, 2004; Healy et al., 1999; Leuz and Verrecchia, 2000), and a small stream of literature has examined the relationship between voluntary disclosure and firm value (Hassan et al., 2009; Nekhili et al., 2012, 2015; Uyar and Kilic, 2012). However, to the best of the researcher's knowledge, all prior research on the latter relationship has been conducted on developed economies, whilst there is no empirical research focusing on this association in developing economies. Thus, the objective of this study is to examine the relationship between the levels of voluntary risk disclosure and firm value in a developing economy, Saudi Arabia. Preceding literature has examined disclosure levels of firms and determinants of disclosure; whereas, there is not a large body of research which examine the effect of disclosure on FV (Uyar and Kilic, 2012) yet the dearth is even greater when it comes to the effect of voluntary risk disclosure on firm value. Thus, there is a need for more elaboration on the value that corporate information have on risk disclosure in banks.

This study is motivated by the fact that the effect of disclosure on firm value is still an empirical issue (Hassan et al., 2009). Further to this Al-Akra et al., (2010), has demounted that there is little empirical research to back the link between the two variables. Moreover, Hassan et al., (2009 p.80) has briefly touched upon this association by asserting that, "There is little direct empirical evidence with regard to the relationship between disclosure and firm value". Hence, this research is motivated to conduct an empirical study in Saudi listed banks to demonstrate what the level of voluntary risk disclosure can add value for the sample banks. It is also motivated by the rarity of studies exploring the impact of the level of risk disclosure in relation to firm value. In addition, Vogel (2005) argued that the findings associated with the relationship between disclosure and firm value still remain inconclusive. Such inconclusiveness creates ground for further investigation not just for risk disclosure, but also for other kinds of disclosure. Furthermore, prior researches have claimed that the association between firm value and disclosure is sensitive to the proxy used for valuation of the firm (Uyar and Kilic, 2012; Elzahar, 2013). The above argument also highlights the need for more research into this association. There is a dearth of academic examination that studies the potential economic consequences and valuation implications for banks. Finally, this study is motivated by the dearth of research on financial institutions reporting disclosures, risk disclosure and by the calls for more research on the valuation implications of such disclosures made by preceding studies (Hassan et al., 2009; Leuz and Wysocki, 2008).

This study makes some contributions to the literature of risk disclosure and economic consequences. Even though, there have been a dearth of empirical studies studying the link between risk disclosure and market valuation in the banking sector, as far as the researcher knows, this is the first study to empirically investigate this relationship in Saudi banks. The study offers a unique contribution to the existing literature by looking at the economic consequences of risk disclosure in Saudi listed banks. This study also contributes to the literature on general accounting disclosure and in particular advances the literature on risk disclosure in developing economies by empirically examining the link between voluntary risk disclosure levels and the market valuation of banks in Saudi Arabia. It also contributes to the literature by extending the traditional research on corporate disclosure beyond the narrow focus of financial disclosure to include risk disclosure in relation to firm value. This study also contributes to the existing literature by indicating that there is a positive firm value arising from the levels of voluntary risk disclosure. It also contributes to the understanding of the role of accounting information in relation to the market valuation of a firm. Studies about such markets are required and are fundamental to ameliorating the weak transparency and disclosure situation through attracting the attention of regulatory institutions and corporation directors

(Uyar and Kilic, 2012). There is a lack of research investigating the impacts of risk disclosure on the firm value for banks in a developing country. Thus this study fills this gap.

It has been suggested by previous literature that there is a positive link between the levels of disclosure in relation to firm value. However, this association continues to be vague whether rises in information can assure an enhanced market valuation of the firm for MTBV and ROA or not. Hence, the possible impact of risk disclosure on firm value is still an open empirical question particularly for banks in emerging markets. This study fills this gap in the literature by providing a direct analysis of the association between risk disclosure and firm value based on two different measures namely market to book value at the end of the year and profitability (MTBV and ROA). The first measure is a market based measure and the second is an accounting based measure. This study focus is on banks in an emerging market context which offers a unique empirical setting which permits for a clearer and richer picture between their levels of voluntary risk disclosure and banks market valuation from well-developed countries. This investigation contributes to the literature by demonstrating that corporate risk disclosure is essential for efficient firm value. This proposes that policymakers, accounting and regulatory institutions such as SAMA, SOCPA and the CMA might earnestly contemplate the quantity, quality and comprehensiveness of risk materials when endeavouring to facilitate capital market efficiency for Saudi listed bank by introducing a new form of risk disclosure' measures. Prior economic consequences studies tend to concentrate on the cost of equity and remain silent in regards to the valuation of firms (Dhaliwal et al., 2011). The findings of this investigation produce some awareness to help directors who attempt to increase the market value of their banks. The evidences of this investigation on the influence of risk disclosure in relation to firm value contribute to previous disclosure and risk disclosure literature by advancing the association between the two variables, which states that different proxies for firm value may have different effects on the level of risk disclosure.

Preceding research has concentrated on other forms of economic consequences ignoring the market valuation of banks. The effects of augmented disclosure on cost of capital (Easley and O'Hara, 2004; Kothari et al., 2009) analysts' forecasts (Wang et al., 2013) financial performance (Wang et al., 2008) and share price anticipation of earnings (Schleicher et al., 2007). This stream of literature is focused mostly on developed countries. There is a dearth of research investigating the link between disclosure and firm value stated Uyar and Kilic (2012), especially in developing economies. This stream of research is still in its early stage. However, to the best of the researcher knowledge research concerning the association between risk disclosure and firm value is absent in general and in particular in banks in developing markets. However, the economic consequences have not yet been empirically examined in in banks in developing markets and in the case of this study in Saudi Arabia measuring the influence of risk disclosure on firm valuation.

The empirical findings of this study indicate that the impact of the levels of voluntary risk disclosure on firm value vary depending on the proxy used for firm value. The results reported based on the market based measure show that there is a non-significant relationship between firm value and the levels of voluntary risk disclosure (MTBV). The results generate from the accounting based measure (ROA) show that there is a positively significant association between the levels of risk disclosure and firm value. The reminder of the paper proceeds as follows: section 2 provides the literature review and hypothesis development; section 3 discusses the theoretical framework; section 4 outlines the research design; section 5 discusses the results; and section 6 concludes.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Out of the many studies reported in the literature, only a few have explored firm value and disclosure in developed countries (Healy et al., 1999; Leuz and Verrecchia, 2000; Baek, Kang and Park, 2004; Da Silva and Alves, 2004; Uyar and Kilic, 2012; Elzahar et al., 2015) and only one study has examined firm value and disclosure in emerging economies (Hassan et al., 2009). To the best of the researcher's knowledge, not a single study has explored the effect of voluntary risk disclosure on firm value and thus this is the first to

do so. This dearth of literature makes this exploration of the relationship between firm value and voluntary risk disclosure in the context of Saudi Arabia all the more valuable. This study focuses particularly on the market valuation in relation to voluntary risk disclosure reported by all Saudi listed banks. It is worth noting that most of the preceding investigations into firm value have concentrated on disclosure in non-financial corporation (Baek et al., 2004; Hassan et al., 2009; Nekhili et al., 2012; 2015; Elzahar et al., 2015), leaving the association between the two variables in the banking industry completely un-researched. This study is intended to shed light on the effect of banks' voluntary risk disclosure on firm value in an emerging market. Risk disclosure in the banking industry is still relatively under-researched and suffers from major limitations (Oliveira et al., 2011a; Barakat and Hussainey, 2013). This is of particular importance for a number of reasons. Banks are risk management entities since their primary business is to take risks and provide liquidity. Accordingly, banks are predicted to release considerable amounts of risk disclosure in order to enlighten external investors (Bessis, 2002), thus indirectly increasing the market valuation of the firm. Generally, disclosure has ascended to a different level of significance within banks compared to non-financial corporations since by their nature banks are inherently opaque (Huang, 2006).

Prior literature on disclosure has indicated that corporate disclosure can moderate the information asymmetry amid internal and external personnel (Kothari et al., 2009). Therefore, improved disclosure may culminate in increased demand for a firm's shares and, thus, a rise in the price of shares (Clarkson et al., 1996; Hassan et al., 2009; Healy and Palepu, 1993) since the disclosure ought to reveal the firm's value (Healy et al., 1999). An environment rich in information might result in positive economic consequences, such as increases in the value of the firm (Beyer et al., 2010; Leuz and Wysocki, 2008). The consequences of augmenting the levels of disclosure are usually debated in terms of diminishing mispricing, increasing profitability and firm value (Botosan and Plumlee, 2002). Moreover, prior empirical researches provide some supporting proof in relation to the association between voluntary disclosure levels and firm value. Healy et al., (1999) documented that companies with increased levels of disclosure could at the same time enjoy considerable improvements in market valuation. This direct effect of the levels of disclosure on firm value influences administrators' decisions and effects the distribution of future cash flows (Lambert et al., 2007). Also, according to Elzahar et al., (2015) augmented disclosure will possibly enhance the market valuation of firms.

Substantial amounts of literature studied the effects of disclosure in general, but the number of studies that investigated the impact of disclosure on firm value is limited. This lack is even greater when exploring risk disclosure in relation to firm value. Several empirical investigations established that voluntary disclosure augments stockholders' ability to forecast future earnings, which has an effect on the valuation of the firm (e.g., Hussainey et al., 2003). It has been contended by Rhodes and Soobaroyen (2010) that disclosure can limit the raise of agency conflicts by diminishing information asymmetry, consequentially augmenting market valuation of firms. Sheu et al., (2010) stipulated that the capital market only supplies higher firm valuations to firms, which opt for a more inclusive disclosure policy. Gordon et al., (2010) provided strong evidence that greater levels of voluntary disclosure are positively related with the valuation of the firm. Nonetheless, the findings of researches investigating the relationship between corporate disclosure and firm value are mixed. For instance, several investigations have documented a positive link between the two variables (see Baek et al., 2004; Cheung et al., 2010; Gordon et al., 2010; Jiao, 2011; Anam et al., 2011; Dhaliwal et al., 2011). However, Hassan et al., (2009) claimed that the effect of disclosure on firm value is still worthy of empirical investigation. They intimated that there is no significant association between firm value and discretionary disclosure although there is a negative and significant relationship between the market value of the firm and mandatory exposure. Concurring with their findings, Uyar and Kilic (2012) claimed that the link between discretionary disclosure and company value differs according to the proxy employed for the market value of the firm.

In theory, the market value of a firm raises due to augmented disclosure levels via either a reduction in the cost of capital or an upturn in the cash flow to the company's shareholders or both (Amihud and Mendelson,

1986; Diamond and Verrecchia, 1991). Debatably, high exposure levels decrease the cost of capital since they encourage investors to lower their estimation of the risk level and, thus, decrease the mandated rate of return when purchasing a company's shares (Coles et al., 1995; Clarkson et al., 1996). Moreover, the value of the company rises following the predicted enhancement in stock liquidity since the transaction costs are decreased whilst the demand for the company's shares soars (Amihud and Mendelson, 1986; Diamond and Verrecchia, 1991). There could be problems with information asymmetry and agency conflicts between company directors and external stakeholders (Healy and Palepu, 2001) since external investors do not generally have access to the in-house information of the firm that is freely available to company directors. This could affect the expectations of outside stakeholders concerning risk, mandated returns and company cost of capital and, thus, the company's share value. However, augmented voluntary corporate disclosure can be employed to mitigate these problems (Hassan, 2009).

Healy and Palepu (1993) argued that the higher the disclosure level, the more possibility there is that shareholders are able to understand the way managers operate. Also, Diamond and Verrecchia (1991) claimed that by lowering the information asymmetry amongst management and un-informed shareholders leads to less uncertainty regarding the future performance of the company and an enhancement in the liquidity of its shares. Hence, Coles et al. (1995) and Clarkson et al. (1996) contended that lower transaction costs in addition to a higher demand for shares could lead to an upturn in share price and, thus, the value of the firm. Nonetheless, the impact of augmented disclosure may not be positive since it might have a negative impact on the company's competitiveness (Healy and Palepu, 1993) and, thus, have an adverse impact on the company's valuation. High quality exposure has a positive impact on the value of a company due to institutional investors being attracted to the company (Dhaliwal et al., 2011). Hassan et al., (2009) argued that the association between the two variables is complicated and depends upon whether the exposure is voluntary or mandatory. However, the authors found no significant link between firm value and the voluntary exposure made by Egyptian companies, whereas they identified a negative and significant relationship between company value and mandatory exposure. Moreover, Uyar and Kilic (2012) established that the link between discretionary disclosure and firm value is influenced by the measurement of firm value. For example, when they used market-to-book value as opposed to market capitalisation as the dependent variable in the regression model, their findings went from positive to insignificant.

Furthermore, earlier investigations that examined the effect of disclosure on company value reported mixed findings as previously emphasised. The limited empirical literature examining the relationship between market value firms and voluntary disclosure suggests a positive relationship between the two variables (Baek et al., 2004, Lim et al., 2007; Anam et al., 2011; Sheu et al., 2010; Nekhili et al., 2012), for instance, Anam et al. (2011) and Sheu et al. (2010) reported that discretionary disclosure levels in Malaysia and Taiwan are associated with company value. Correspondingly, Silva and Alves (2004) established that financial information discretionarily reported by Latin American companies has a significant and positive relationship with company value. However, Uyar and Kilic (2012) and Elzahar et al., (2015) claimed that the link between discretionary exposure and company value differs according to the proxy employed for the market value of the firm, and Hassan et al., (2009) reported that the association between the two variables depends on the type of disclosure used. Vafaei et al.'s (2011) study included both developed and developing countries and documented that there is a significant association between disclosure and firm value for Hong Kong and the UK and reported a negative relationship between the two variables for Singapore and Australia. Therefore, based on the above discussion the following hypothesis is formulated:

H: there is a positive association between the levels of voluntary risk disclosure ANF firm value

THEORETICAL FRAMEWORK

An assertion has been made by Linsley and Shrivs (2006) that there is a difficulty in considering any risk disclosure investigation, which is to clearly identify risk information. Therefore, it is crucial to impeccably

define risk. Yet, defining risk can be problematic as the level of management control over risk varies in accordance to the type of risk, for example, financial risk could be controlled by financial instruments and other risks are operational (Schrand and Elliott, 1998).

Therefore, for the purpose of this study, the researchers adopted a well-defined and fit for purpose risk disclosure definition by Linsley and Shrivs (2006, p.3), who defined risk reporting as “If the reader is informed of any opportunity or prospect or of any hazard, danger, harm, threat, or exposure, which has already impacted upon the company or may impact upon the company in the future or of the management of any such opportunity prospect, hazard, harm, threat or exposure”.

Risk Disclosure Theories

A number of different theories have been proposed to explain why companies report risk information. However, there is no single theory which can explain the phenomena of disclosure as a whole, thus Researchers tend to choose the most articulated theory with their study’s hypotheses (Linsley and Shrivs, 2000). This section will consider the theoretical perspectives employed for the purpose of this study. Modern firms are reknowned by the detachment of ownership from control (Fama and Jensen, 1983) and this contributes to the widening information gap between managers (insiders) and investors (outsiders). Thus, there is a great need for corporate risk disclosure as it represents a vital line of communications between the two parties. Cooke (1989) argued that where there is a detachment of ownership from control, the likelihood of agency costs arises due to disagreement between shareholders and managers and between bondholders and shareholder-managers. Also, Healy and Palepu (2001), Verrecchia (2001) and Hassan et al., (2009) contended that the need for more corporate disclosure arises from the information asymmetry problem. Henceforth, enhancing voluntary disclosure can reduce such conflicts and lessen future corporate performance uncertainty as well as facilitate trading in shares hence increases firm valuation (Hassan et al., 2009).

The influence of disclosure on firm value can be explained based on signalling theory. A number of prior researches have attempted to highlight the relationship between firm value and voluntary disclosure based on signalling theory (Gordon et al., 2010; Anam et al., 2011). All-inclusive disclosure indicates better corporate governance management and fewer agency conflicts, leading to a higher market valuation of the firm (Sheu et al., 2010). In addition, Gordon et al. (2010) asserted that voluntary disclosure in annual reports sends a clear signal to the capital market that is likely to increase a firm’s present net value and in turn its stock market value. Gallego-Alvarez et al., (2010) argued that disclosure has a positive consequence on shareholder value creation. While, Cormier et al., (2011) claimed that, disclosure supplies value-relevant information to stock markets. In essence, signalling theory implies that a company will try to signal good news to investors and other interested groups by disclosing more voluntarily (Oliveira et al., 2006). Moreover, Linsley and Shrivs (2005) posited that signalling theory is the most relevant theory in terms of illuminating the phenomena of voluntary risk disclosure. Furthermore, some previous investigations have reported that increasing the levels of voluntary disclosure culminates in less misevaluation of share prices, thus increasing firms’ market value (Anam et al., 2011).

Moreover, according to the signalling theory, when a firm’s performance is good, directors will prefer to signal their firm’s performance to their investors and the rest of the market by reporting more supplementary information, whilst directors of firms that are performing badly do not. In fact, such disclosure by managers has many advantages, such as improved reputation of a firm, higher liquidity of stocks and increased market valuation of a firm, whereas when firms keep silent, investors and the rest of the market can misinterpret this as them withholding the worst possible information (Spence 1973; Verrecchia, 1983; Strong and Walker, 1987; Mohobbot, 2005; Linsley and Shrivs, 2000; 2006; Hassan, 2009). Increased information disclosure allows shareholders to make accurate assessments of the fundamental parameters in relation the future stock returns, decreasing non-diversifiable estimation risk and uncertainty in relation to future cash

flows as well as future profitability (Clarkson et al., 1996). Also through augmented disclosure, the willingness for shareholders to trade is improved and enhances the liquidation of shares cultivating in an increased firm value (Easley and O'Hara, 2004).

It has been noted that some organisations restrict their disclosures to only mandatory disclosure, whereas others might aim for more transparency and the disclosure of other supplementary information. Also, it has been established by prior investigations that traditional mandatory disclosure is unsuccessful in capturing value relevant information (Healy and Palepu, 1993; Hussainey and Walker, 2009), whilst previous literature has claimed that there are a number of advantages to voluntary disclosure (Nikhil et al., 2015). Moreover, directors could opt for more voluntarily disclosure of information regarding their risk management and the methods used to deal with risks in their organisation as a means of conveying the firm's genuine value to external investors (Merkley, 2014). Furthermore, increased voluntary disclosure is predicted to increase stock liquidity by diminishing transaction costs and raising the demand for shares hence increase future profitability. It is also predicted that improved disclosure will decrease uncertainty surrounding the estimation of stock returns. Furthermore, the rate of return required by company shareholders will be reduced, the company's capital costs will plummet and the company's market value will rise. Moreover, prior studies have found that increased information disclosure can impact upon a company's market value by increasing the actual cash flow to investors as a consequence decreases agency conflicts (Lambert et al., 2007). This study incorporates as control variables a number of firm-specific characteristics, corporate governance attributes and board demographic traits which are discussed in the previous study. (For more information see Table 2).

RESEARCH DESIGN-METHODOLOGY

This section describes the sample, the sources of relevant information and the data collection procedure and defines all variables used for the purpose of this investigation. This study's sample incorporates all banks listed on the Saudi Stock Market (Tadawul) over a five-year period from 2009 to 2013. Initially, the researchers set out to undertake this empirical study over a ten-year period. However, as four banks did not have their market to book values for the entire period and some of them were not even listed ten years ago, the study period was shortened in order to include the entire population of listed banks in Saudi Arabia. According to SAMA (2015) there are only 12 listed Saudi banks on Tadawul. The data collection process was undertaken via manual content analysis of all the annual reports of the banks as well as some variables were collected from DataStream and Bloomberg. All reports were downloaded from the banks' websites. Kothari et al., (2009) indicate that annual reports are usually favoured as information source since they provide information which enables external shareholder to better understand the true economic picture of the firm.

For this investigation to examine the level of voluntary risk disclosure in Saudi listed banks a risk disclosure index, which is a checklist of different disclosure items included in banks' annual reports, was developed (see Arvidsson, 2003). For the purpose of constructing the risk disclosure indexes, an extensive review of prior studies was undertaken (e.g. Hassan, 2009; Al-Shammari, 2014; Abdullah et al., 2015). Therefore, for an item to be included, it must have been used in previous published disclosure studies. Hence, the following steps were taken as the basis for the development of the risk disclosure indices for this study:

Step 1: A comprehensive review of the prior risk disclosure literature was undertaken (e.g. ICAEW, 1997, 2000; Hassan, 2009; Lopes and Rodrigues, 2007; Al-Shammari, 2014; Lipunga, 2014; Abdullah et al., 2015). Based on this, the researchers identified some items which were used in previous studies. Therefore, the annual reports of listed Saudi banks should contain and disclose.

Step 2: The index were reviewed with 2 independent researchers who deal with bank reports and specialize in the area of disclosure and financial reporting to enhance the validity of the study, index and results.

Therefore, a risk disclosure index was developed solely for the purpose of measuring the level of voluntary risk disclosure in Saudi listed banks. This is similar to the approach used by prior voluntary risk disclosure investigations (e.g. Hassan, 2009; Abdullah et al., 2015). The risk disclosure index included a total of 54 items that were expected to be published in the annual reports of the sample banks, which were divided across 8 categories: accounting policies, financial and other risks, derivative hedging and general risks information, financial instruments, reserves, segment information, business risk and compliance with regulations. Moreover, one of the important issues during crafting the disclosure index was deciding whether some items should be weighted more heavily (i.e. important) than others. In accounting research, both weighted and un-weighted disclosure indices are utilized (Cooke, 1989; Marston and Shrives, 1991; Owusu-Ansah, 1998; Raffournier, 1995). For the purpose of this study, the un-weighted disclosure index was chosen because the study does not focus on a particular user group (Alsaeed, 2006; Naser et al., 2006). Instead the study addresses all users of annual reports, and therefore there is no need to confer different importance levels to the disclosed risk items (Oliveira et al., 2006). The contents of each bank's annual reports were compared to the items listed in the Appendix, and on the basis of a dichotomous model they were coded as 1 if disclosed or 0 if otherwise. This index coincides with other studies that quantify the extent of disclosure (Al-Razeen and Karbhari, 2004; Barako et al., 2006; Alsaeed, 2006; Owusu-Ansah, 1998; Oliveira et al., 2006). The total score for a bank is:

$$TD = \sum_{i=1}^n d_i \quad (1)$$

Where $d = 1$ if the item is disclosed; $0 =$ if the item is not disclosed; $n =$ number of items.

Weber (1988) argued that the classification procedure should be reliable and valid. The reliability and validity of content analysis approaches need to be reviewed carefully. In human-scored schemes, reliability, that is the reproducibility of the measurement, is a major concern (Marston and Shrives, 1991; Healy and Palepu, 2001). The preceding studies argued that content analysis is not reliable if it is conducted only once or only by one specific person (Neuendorf, 2002). Consequently, to ensure the content validity of the initial research instrument, it was reviewed independently by two other researchers. Subsequently, after the researcher received the independent researcher's comments and suggestions. A fourth experienced academic was required to discuss any ambiguities raised. The final disclosure checklist included 54 items. In terms of validity the research instrument (disclosure index) is valid if they can measure what they claim to measure (Field, 2009). In this study the index has measure what it claimed to measure; therefore the researcher can safely claim that the research instrument is valid. To ensure the reliability of the research instrument, the author and the two independent researchers scored three randomly selected banks. Then, the results from the three researchers were compared. Given that the final research disclosure index was agreed by all researchers, differences in the compliance scores from the researchers were insignificant. This method was adopted by Marston and Shrives (1991), who argued that the index scores awarded to firm could be considered reliable if other researchers could replicate the same results. The final disclosure checklist is presented in Table 1.

Dependent variable: This study uses two different proxies for measuring firm value. Firstly it uses the market based measure which is the natural logarithm of market to book value at end of year (MTBV). This is in line with previous studies (Hassan et al., 2009; Uyar and Kilic, 2012). Secondly, it uses the accounting based measure, which is the return of assets (ROA). This is consistent with (Garay et al., 2013; Aras et al., 2010). Two measures examinations have different theoretical implications (Hillman and Keim, 2001). The current study employs two dependent variables related to firm value to test the hypothesis of the study. This is concurrent with preceding literature (Barontini and Caprio, 2006; Sheu et al., 2010). These two models measure how the level of voluntary risk disclosure affects the market value of the bank. This study's main emphasis is on exploring the relationship between the levels of voluntary risk disclosure and firm market

value. An extensive line of preceding literature has argued that discretionary disclosure is better used as an instrument intended to reduce information asymmetries and satisfy shareholders' information demands. The aim of this research is to investigate whether increased discretionary risk disclosure affects the firm's market value.

Table 1: Ensuring Validity of Research Instrument

Categories	Items Suggested by Author	Items Suggested by First Independent Researcher	Items Suggested By Second Independent Researcher	Final Index After Consultation	Weight
Accounting Policies	12	13	9	10	18.51%
Financial risks	15	18	10	15	27.7%
Derivatives hedging and General Risk Info	1	3	2	11	20.37%
Financial instruments	3	2	3	2	3.7%
Reserves	4	3	2	3	5.5%
Segment information	2	2	2	2	3.7%
Business risk	5	3	4	5	9.25%
Compliance with regulations	7	11	3	6	11.11%
Total	49	55	35	54	100%

The weight is calculated based on final items for each standard dividend into total items (67). For example: weight of Accounting Policies = $10/67 * 100 = 15\%$

Endogenous variable: Risk Disclosure; which proxies for the level of voluntary risk disclosure of all banks included in the sample of the study. The level of voluntary risk disclosure is the totality of the scores attained from 54 items that fall into 8 different categories of information (See appendix). The level of voluntary risk disclosure was calculated based on an un-weighted (Dichotomous) risk disclosure index, whereby an item is assigned a score of 1 if it is disclosed and a score of 0 if otherwise (Uyar and Kilic, 2012; Hassan et al., 2009). This measure was preferred since the research does not concentrate on a specific user group (Naser et al., 2006) but rather addresses all users of annual reports. Thus, there is no need to put different weights on the reported risk items (Oliveira et al., 2006).

Table 2: Summary of Variable Names, Description and Sources

Abbreviated Name	Full Name	Variable Description	Predicted Sign	Data Source	Prior Studies
Dependent Variables					
FV	Firm value	Natural logarithm of the ratio of market value of equity to book value of equity at the financial year-end (MTBV) ROA (Return On Assets)		DataStream	Hassan et al., (2009); Uyar and Kilic (2012); Nekhili et al., (2015); Lins, (2003) Garay et al., (2013); Aras et al., (2010); Klapper and Love,(2002)
Independent Variable					
RISKD	Risk disclosure	Risk disclosure level based on risk index		Annual reports	Hassan et al., (2009); Uyar and Kilic (2012); Nekhili et al., (2015); (2015); Nitm et al. (2013)
Control Variables					
I. Firm-specific Characteristics					
SIZE	Bank size	Natural logarithm of total assets	+	DataStream	Elshandidy et al. (2013); Elzahar and hussainey (2012); (2007); Mokhtar and Mellet, (2013); Nekhili et al., (2015)
PROF	Profitability	ROA (Return On Assets)	+	DataStream	Nitm et al. (2013); Nekhili et al., (2015); Elzahar and Hussainey (2012); Uyar and Kilic (2012); Elshandidy and Neri (2015)
LEV	Leverage	Long-term debt/ total assets	+	DataStream	Abraham and Cox (2007); Nekhili et al., (2015); Uyar and Kilic (2012); (Hassan et al 2009); Nitm et al. (2013)
LIQ	Liquidity	Current Ratio: Current Assets/Current Liabilities	+	Annual report	Mokhtar and Mellet, (2013); Elzahar and Hussainey (2012); Elshandidy and Neri (2015);

DIVID	Dividend payout	Dividends per share	+	DataStream	Elshandidy and Neri (2015)
2. Corporate Governance Characteristics					
BSIZE	Board size	Number of board members	+	Annual report	Elshandidy and Neri (2015); Nekhili et al., (2015); Mokhtar and Mellet, (2013); Nitm et al. (2013); Elzahar and Hussainey (2012);
CHS	Internal Ownership	Percentage of shares held by internal shareholders	-	DataStream	Elshandidy et al. (2013); Nitm et al. (2013); Nitm et al. (2012); Marshall and Weetman, (2007); Elshandidy, (2014); Firth et al., 2007
NOCH-Factors	External Ownership	Percentage of shares held by external shareholders	+	DataStream	Elshandidy et al. (2013); Nitm et al. (2013); Nitm et al. (2012); Elshandidy and Neri (2015); Deumes and Knechel, (2008); Elshandidy, (2014); Firth et al., 2007
INDEP	Independent directors	Number of non-executive directors on the board of directors	+	Bloomberg Annual Report	Abraham and Cox (2007); Elshandidy et al. (2013); Alergini and Greco (2013); Oliveira et al., (2011); Allini et al. (2015); Allini et al., (2014)
NON	Non-executive directors	Dummy variable 1 if board contains non-executive directors and otherwise 0.	+	Bloomberg Annual Report	Gul & Leung, (2004); Cheng & Courtenay (2006); Elshandidy et al. (2013); Nitm et al. (2013); Elshandidy and Neri (2015);
ACINDEP	Audit committee independence	Dummy variable; 1 if an audit committee independence exists, and 0 otherwise	+	Bloomberg Annual Report	Nekhili et al., (2015); Taylor (2011); Oliveira et al., (2011b); Neri, (2010)
ACSIZE	Audit committee size	Number of audit committee members	+	Annual report	Felo et al. (2003); Elzahar and Hussainey (2012); Tauringana and Mangena (2009); Mangena and Pike (2005)
ACMEET	Audit committee meetings	Number of audit committee meetings	+	Annual report	Karamanou and Vafeas (2005); Alergini and Greco (2013); O'Sullivan et al. (2008); Allini et al. (2015)
3. Demographic Characteristics					
EDUC	Education	Number of board members holding a PhD	+	Annual report	Allini et al. (2015)
TENU	Tenure	Dummy variable 1 if the number of years the board member permanence on the board is above the sample median of 5 years, otherwise 0.	+	Annual report	Chung et al., (2015)
GENDER	Gender	Number of females on the board	+	Annual report	Allini et al. (2015); Nitm et al. (2013); Allini et al. (2014)
DIVE	Diversity	Number of other nationalities on the board	+	Annual report	Nitm et al. (2013); Allini et al. (2015);

This table provides the description and measures of risk disclosure reporting, as dependent variables, and firm characteristics, corporate governance mechanism and demographic traits as independent variables. It also provides the source of each variable.

Model Development

The aim of this research is to examine the association between firm value and voluntary risk disclosure level. Moreover, since all of the selected variables can affect firm value directly or indirectly by affecting the level of voluntary risk disclosure two synchronised models, wherein the level of voluntary risk disclosure is a strategic choice that relies on a wide range of variables, was developed (see Table 2).

The market based measure:

$$FV_{it} = \beta_0 + \beta_1 \text{RISKD} + \beta_2 \text{NOCH} - \text{FACTOR} + \beta_3 \text{BSIZE} + \beta_4 \text{INDEP} + \beta_5 \text{NON} + \beta_6 \text{ACINDEP} + \beta_7 \text{ACSIZE} + \beta_8 \text{ACMEET} + \beta_9 \text{EDUC} + \beta_{10} \text{TENU} + \beta_{11} \text{GENDER} + \beta_{12} \text{DIVE} + \beta_{13} \text{SIZE} + \beta_{14} \text{PROF} + \beta_{15} \text{CHS} + \beta_{16} \text{LEV} + \beta_{17} \text{LIQ} + \beta_{18} \text{DIVID} + \varepsilon \quad (2)$$

Where:

FV = Firm Value (measure by MTBV)

β_0 = the intercept

$\beta_1, \dots, \beta_{18}$ = regression coefficients (See table 2 for explanation)

ε = error term

I = Bank
T = Year

The accounting based measure:

$$FV_{it} = \beta_0 + \beta_1 \text{RISKD} + \beta_2 \text{NOCH} - \text{FACTOR} + \beta_3 \text{BSIZE} + \beta_4 \text{INDEP} + \beta_5 \text{NON} + \beta_6 \text{ACINDEP} + \beta_7 \text{ACSIZE} + \beta_8 \text{ACMEET} + \beta_9 \text{EDUC} + \beta_{10} \text{TENU} + \beta_{11} \text{GENDER} + \beta_{12} \text{DIVE} + \beta_{13} \text{SIZE} + \beta_{14} \text{CHS} + \beta_{15} \text{LEV} + \beta_{16} \text{LIQ} + \beta_{17} \text{DIVID} + \varepsilon \quad (3)$$

Where:

FV = Firm Value (measure by ROA)

β_0 = the intercept

$\beta_1, \dots, \beta_{17}$ = regression coefficients (See table 2 for explanation)

ε = error term

I = Bank

T = Year

EMPIRICAL RESULTS

Table 3 presents the summary descriptive statistics of the variables used in the analyses to determine the empirical directional or non-directional relationship between firm value and the voluntary risk disclosure levels in banks listed on the Saudi Stock Market (Tadawul). A number of interesting findings emerged from the descriptive statistics. It demonstrated a great disparity in voluntary risk reporting practices among the sample population. For example, RISKD ranged from a minimum of 51 percent to a maximum of 78 percent, with an average of 66.03 percent of voluntary risk disclosure levels in the sample. Also, it showed that the average market to book value of listed banks in Saudi Arabia is 1.72 percent with a maximum value of 4.02 and a minimum value of 0 percent.

The figures for all control variables (which were generated from corporate governance, demographic attributes and firm-specific characteristics) are presented in the next paragraph as minimum, maximum and mean values in percentages. (Also see table 3). Table 3 demonstrates that CHS holdings has in this model reported quite a large variation ranging from 0 percent for the minimum and 69 percent for the maximum with a mean of 19.1 percent. This phenomenon could be attributed to the nature of the ownership structure in the Kingdom of Saudi Arabia where some banks are wholly owned by a single family who sets on the board of directors and act as internal shareholders. Alrajhi bank is an example of such structure. While, Table 3 shows that NOCH holdings has reported a minimum of 25 percent, a maximum of 45 percent and a mean of 29.5 percent. Also, Table 3 illustrates that BSIZE ranges from 7 members to a maximum of 11 on the board of directors, with an average mean of 9 members. Whereas, the INDEP members of the board recorded an average mean of 5 members with a minimum of 3 and a maximum of 8. Table 2 also shows that NON members have a minimum of 1 member to a maximum of 11 members with an average mean of 7. The Table below illustrates that the descriptive statistics for the ACIND which has recorded a minimum of 0 members and a maximum of 1 audit committee independent member. ACSIZE has a mean of 3 members with a minimum of 2 and a maximum of 5. For the audit committee frequency of meetings (ACM) Table 3 shows that there is a minimum of 3 meetings, a maximum of 11 and an average mean 5. Further, GEN has a minimum of 0 members and a maximum of 1 on the board of directors. TENU has recorded a minimum of 0 and a maximum of 1, while EDUC recorded a minimum of 0 and a maximum of 1. Also DIVE recorded a maximum of 1. Table 3 also demonstrates that SIZE has an average mean of 8, a minimum of 7 and a maximum of 7.60 percent. While, PROF has a maximum of .04, a minimum of -.01 and a mean of .019. LEV on the other hand has a maximum of 13.7, a minimum of 0 percent and an average mean of 0.57. LIQ has reported in the table below a minimum of 1.10, a maximum of 10 percent and a mean of 1.4. Lastly, DIVID has reported a minimum of 0, a maximum of 69 and a mean of 25 percent.

Table 3: Descriptive Statistics for All Variables Included in this Study of MTBV

	N	Minimum	Maximum	Mean	Std. Deviation
FV	60	0.00	4.02	1.7218	0.70914
RISKD	60	0.51	0.78	0.6603	0.07059
CHS	60	0.00	69.00	19.1000	17.46056
NOCH	60	25.00	45.00	29.5000	5.08091
BSIZE	60	7.00	11.00	9.5500	0.94645
INDEP	60	3.00	8.00	5.1333	1.62049
NON	60	1	11	7.37	2.718
ACINDEP	60	0.00	1.00	0.7500	0.43667
ACSIZE	60	2.00	5.00	3.7667	0.96316
ACMEET	60	3.00	11.00	5.3667	1.95688
GENDER	60	0.00	1.00	0.0833	0.27872
TENU	60	0.00	1.00	0.6000	0.49403
EDUC	60	0.00	1.00	0.7000	0.46212
DIVE	60	0.00	1.00	0.3333	0.47538
SIZE	60	7.24	8.58	7.9940	0.35203
PROF	60	-0.01	0.04	0.0192	0.00869
LEV	60	0.00	13.76	0.5780	2.04382
LIQ	60	1.10	10.89	1.4118	1.26123
DIVID	60	0.00	69.15	25.8103	21.41391
Valid N (listwise)	60				

Note: This table presents the descriptive analysis for all variables used in the regression model for the purpose of this study. FV: Firm value (Market to Book Value); RISKD: Risk disclosure score (based on an unweighted disclosure index); CHS: Internal ownership (Percentage of shares held by internal shareholders); NOCH-Factors: External ownership (Percentage of shares held by all external shareholders); BSIZE: Board size (Number of board members); INDEP: Independent directors (Number of non-executive directors on the board of directors); NON: Non-executive directors (Dummy variable 1 if board contains non-executive directors and otherwise 0); ACINDEP: Audit committee independence (Dummy variable; 1 if audit committee independence exists, and 0 otherwise); ACSIZE: Audit committee size (Number of audit committee members); ACMEET: Audit committee meetings (Number of audit committee meetings); GENDER: Gender (Number of females on the board); TENU: Tenure (Dummy variable 1 if the number of years the board member permanence on the board is above the sample median of 5 years, otherwise 0); EDUC: Education (Number of board members holding a PhD); DIVE: Diversity (Number of other nationalities of the board); SIZE: Bank size (Natural logarithm of total assets); PROF: Profitability (Return On Assets); LEV: Leverage (Long-term debt/ total assets); LIQ: Liquidity (Current Ratio: Current Assets/Current Liabilities); DIVID: Dividend payout (Dividends per share). Table 1 fully defines all the variables used.

Market-Based Measure Results

Table 4 illustrates the correlations between firm value and the levels of voluntary risk disclosure along with the correlations for the other explanatory variables. It also presents the Pearsons correlation matrix for all variables employed in this study's regression analysis to check for multicollinearity. Bivariate analysis was used to check for multicollinearity. When the level of association between the risk disclosure score and firm value, measured by the market to book value at end of year and other associations between the control variables, was legitimately low, this indicated that there were no multicollinearity problems. Later in the ordinary least square (OLS) regression analysis, the calculated variance inflation factor (VIF) values support the absence of multicollinearity defects as multicollinearity did not exceed the 10 percent mark (Naser et al., 2006; Field, 2009).

Similarly, Pearsons correlation matrix was used to test for the directional and non-directional relationships between firm value and the rest of the control variables. This study further examined residual statistics and Durbin-Watson statistics for linearity and autocorrelation problems (See Model Summary in Table 5). However, the tests showed no serious violation of these linear assumptions. In addition, the Table illustrates that there is no statistically significant association between the dependent variable (FV based on MTBV) and the endogenous variable (RISKD) of this investigation. However, there are a number of statistically significant associations between the dependent variable and the control variables. For example, CHS, BSIZE, PROF and DIVID are statistically significant and positively associated to FV, while EDUC is statistically significant and negatively correlated to FV. The highest correlation that can be seen from Table 4 is between BSIZE and FV at a value of 0.604, followed by EDUC at a value of 0.463. Also, Table 4 indicates that there are insignificant correlations between the rest of the control variable and the dependent variable (Based on the market measure).

Table 4: Pearson Correlation Analysis

	MTBV	RISKD	CHS	NOCH	BSIZE	INDEP	NON	ACIND	ACSIZE	ACM
MTBV	1	0.062	0.459**	-0.016	0.604**	-0.029	0.171	-0.212	0.174	0.243
RISKD	0.062	1	-0.129	0.411**	-0.107	-0.171	-0.095	0.074	0.136	0.054
CHS	0.459**	-0.129	1	-0.492**	0.364**	0.195	0.290*	-0.190	0.243	0.196
NOCH	-0.016	0.411**	-0.492**	1	0.073	-0.248	-0.308*	0.325*	-0.062	0.153
BSIZE	0.604**	-0.107	0.364**	0.073	1	-0.038	0.467**	-0.072	0.013	0.566**
INDEP	-0.029	-0.171	0.195	-0.248	-0.038	1	0.439**	0.335**	0.335**	0.075
NON	0.171	-0.095	0.290*	-0.308*	0.467**	0.439**	1	0.050	0.454**	0.459**
ACIND	-0.212	0.074	-0.190	0.325*	-0.072	0.335**	0.050	1	0.141	-0.089
ACSIZE	0.174	0.136	0.243	-0.062	0.013	0.335**	0.454**	0.141	1	0.190
ACM	0.243	0.054	0.196	0.153	0.566**	0.075	0.459**	0.089	0.190	1
GEND	-0.026	0.093	0.061	-0.215	0.016	0.050	0.138	0.174	-0.242	-0.212
TENU	0.048	-0.356**	0.195	-0.218	0.007	0.110	-0.103	-0.079	0.121	0.014
EDUC	-0.463**	-0.241	-0.059	-0.173	-0.081	0.326*	0.251	0.294*	-0.046	0.030
DIVE	0.075	0.375**	-0.261*	0.547**	0.226	-0.169	0.114	0.408**	-0.086	-0.024
SIZE	0.193	0.479**	0.006	0.071	0.101	-0.478**	-0.052	-0.225	0.019	-0.055
PROF	0.410**	0.271*	0.329*	-0.227	0.283*	-0.172	0.200	-0.279*	0.219	0.158
LEV	0.067	-0.093	0.049	-0.052	0.002	0.190	0.083	-0.062	-0.137	-0.123
LIQ	-0.106	-0.294*	0.063	-0.114	-0.069	-0.016	-0.174	-0.274*	-0.121	-0.093
DIVID	0.307*	0.318*	0.232	-0.113	0.135	-0.079	0.168	-0.086	0.302*	-0.004
	GEN	TENU	EDUC	DIVE	SIZE	PROF	LEV	LIQ	DIVID	
MTBV	-0.026	0.048	-0.463**	0.075	0.193	0.410**	0.067	-0.106	0.307*	
RISKD	0.093	-0.356**	-0.241	0.375**	0.479**	0.271*	-0.093	-0.294*	0.318*	
CHS	0.061	0.195	-0.059	-0.261*	0.006	0.329*	0.049	0.063	0.232	
NOCH	-0.215	-0.218	-0.173	0.547**	0.071	-0.227	-0.052	-0.114	-0.113	
BSIZE	0.016	0.007	-0.081	0.226	0.101	0.283*	0.002	-0.069	0.135	
INDEP	0.050	0.110	0.326*	-0.169	-0.478**	-0.172	0.190	-0.016	-0.079	
NON	0.138	-0.103	0.251	0.114	-0.052	0.200	0.083	-0.174	0.168	
ACIND	0.174	-0.079	0.294*	0.408**	-0.225	-0.279*	-0.062	-0.274*	-0.086	
ACSIZE	-0.242	0.121	-0.046	-0.086	0.019	0.219	-0.137	-0.121	0.302*	
ACME	-0.212	0.014	0.030	-0.024	-0.055	0.158	-0.123	-0.093	-0.004	
GEN	1	-0.246	0.197	0.426**	-0.166	-0.181	0.336**	-0.054	-0.111	
TENU	-0.246	1	0.134	-0.433**	-0.126	0.039	-0.091	0.108	-0.045	
EDUC	0.197	0.134	1	0.077	-0.211	-0.148	0.123	0.114	-0.167	
DIVE	0.426**	-0.433**	0.077	1	.112	-0.055	0.103	-0.085	-0.040	
SIZE	-0.166	-0.126	-0.211	0.112	1	0.529**	-0.166	-0.299*	0.658**	
PROF	-0.181	0.039	-0.148	-0.055	0.529**	1	-0.398**	-0.011	0.557**	
LEV	0.336**	-0.091	0.123	0.103	-0.166	-0.398**	1	0.009	-0.233	
LIQ	-0.054	0.108	0.114	-0.085	-0.299*	-0.011	0.009	1	-0.167	
DIVID	-0.111	-0.045	-0.167	-0.040	0.658**	0.557**	-0.233	-0.167	1	

*FV: Firm value (year-end Market to Book Value); RISKD: Risk disclosure score (from an unweighted disclosure index); CHS: Internal ownership (Percentage of shares held by internal shareholders); NOCH-Factors: External ownership (Percentage of shares held by all external shareholders); BSIZE: Board size (Number of board members); INDEP: Independent directors (Number of non-executive board of director members); NON: Non-executive directors (Dummy variable 1 if board contains non-executive directors and otherwise 0); ACIND: Audit committee independence (Dummy variable 1 if audit committee independence exists, and 0 otherwise); ACSIZE: Audit committee size (Number of audit committee members); ACM: Audit committee meetings (Number of audit committee meetings); GEN: Gender (Number of females on the board); TENU: Tenure (Dummy variable 1 if the number of years the board member permanence on the board is above the sample median of 5 years, otherwise 0); EDUC: Education (Number of board members holding a PhD); DIVE: Diversity (Number of other nationalities of the board); SIZE: Bank size (Natural logarithm of total assets); PROF: Profitability (Return On Assets); LEV: Leverage (Long-term debt/ total assets); LIQ: Liquidity (Current Ratio: Current Assets/Current Liabilities); DIVID: Dividend payout (Dividends per share). Table 1 fully defines all the variables used. ** Denote correlation is significant at the 5% level (two-tailed tests). * Denote correlation is significant at the 10% level (two-tailed tests).*

For a more comprehensive analysis of the relationship between firm value and voluntary risk disclosure (Based on the market measure), a multivariate analysis, which controls for other variables expected to

impact upon the value of the firm, was conducted. The method used to study the relationship between firm value and voluntary risk disclosure levels in all listed Saudi banks was the ordinary least square (OLS) regression analysis. The results of the regression are presented in Table 5. This study's model used a market based measure; market to book value at year-end at the end as the dependent variable, total risk disclosure score as its endogenous variable and a mixture of corporate governance, demographic attributes and firm-specific characteristics as control variables (see Table 2). As can be observed from the model summary in Table 5 that the model is significant at the (0.000) level with an F value of (6.651) and with an adjusted R square of 0.672 percent. Therefore, the explanatory power of the independent and control variables on firm value are fairly high. However, based on this model the regression analysis Table indicates that there is an insignificant relationship between firm value and the level of voluntary risk disclosure in Saudi listed banks. Therefore, this study's hypothesis is rejected in this model. The results are consistent with previous studies, such as Uyar and Kilic (2012) and Hassan et al., (2009). This investigation's outcome based on the market based measure (MTBV) is inconsistent with the signalling theory, which indicates that when a firm's performance is good, directors will signal their firm's performance to their investors and the rest of the market by reporting more information voluntarily, whilst directors of firms that are performing badly will not do so. The purpose of such disclosure is to obtain a good market reputation and increase firm value since investors and the rest of the market may misinterpret a firm keeping silent as it is withholding the worst possible information (Mohobbot, 2005; Linsley and Shrives, 2000; 2006; Hassan, 2009). This research model finding is attributed to the deep-rooted tendency of the Saudi capital market to be opaque (Kamla and Roberts, 2010) and explained by Hofstede's cultural dimensions, where Saudi Arabia scored zero on the secrecy vs. transparency measure.

Table 5 also presents the multivariate analysis for all of the control variables, where BSIZE has a positively significant relationship with firm value at 5% level. Also, there is a positively significant relationship between PROF and firm value at 10% level. In addition, LEV has a positively significant association with firm value at 10% level, while there are negatively significant associations between EDUC and LIQ and firm value at 1% and 10% levels, respectively. However, the rest of the control variables are split between two groups, the first group being negatively insignificant and the second group being insignificantly associated with firm value.

Accounting-Based Measure Results

Table 6 shows the correlation matrix for the dependent and continuous independent variables. Consistent with this study's hypothesis, the levels of voluntary risk disclosure is positively significant with firm value based on ROA at a value of (0.271*). It signifies that the overall level of voluntary risk disclosure of all Saudi listed banks has strong impact on profitability. The correlation matrix also shows the interrelationships with this model's explanatory variables. It shows that CHS (0.329*); BSIZE (0.283*); SIZE (0.529**); DIVID (0.557**) are positively correlated with firm value. While, ACINDEP (-0.279*) and LEV (-0.398**) are negatively associated with firm value based on the second model. In terms of the other control variables, the correlation between them and firm value based on ROA is insignificant.

This study also presents the regression results for the second model, which shows the analysis of the association between the levels of voluntary risk disclosure and firm value (Based on the accounting measure). As can be observed from the model summary in Table 7 that the model is significant at the (0.000) level with an F value of (4.547) and with an adjusted R square of (0.505 %). Therefore, the explanatory power of the independent and control variables on firm value based on ROA are fairly high. However, the accounting based measure indicates in the Table below that there is a positively significant relationship between firm value and the level of voluntary risk disclosure in Saudi listed banks at a value of (0.031). Therefore, this study's hypothesis is accepted. The results are consistent with Botosan and Plumlee, (2002) who found that increased levels of disclosure have a positive economic consequence on profitability and value of the firm. Also, this finding is in line with the limited empirical literature examining the relationship

between firm value firm and voluntary disclosure, which documented a positive relationship between the two variables (Baek et al., 2004, Lim et al., 2007; Anam et al., 2011; Sheu et al., 2010; Nekhili et al., 2012). This result also supports Gallego-Alvarez et al., (2010) who have reported in their study that disclosure has a positive consequence on shareholder value creation.

This study’s findings based on the accounting measure is consistent with the signalling theory, which indicates that when a firm’s performance is good, directors will signal their firm’s performance to their investors and the rest of the market by reporting more information voluntarily. The purpose of such disclosure is to obtain a good market reputation, increase the trade of shares and thus increase firm value (Mohobbot, 2005; Linsley and Shrivess, 2000; 2006; Hassan, 2009). Moreover, Gordon et al. (2010) asserted that voluntary disclosure in annual reports sends a clear signal to the capital market that is likely to increase a firm’s present net value and in turn its stock market value. This model’s finding is consistent with results of previous studies, which adopted signalling theory (Anam et al., 2011; Sheu et al., 2010; Curado et al., 2011). This positive association supports the traditional view that more information complements firms’ value.

Table 5: Regression Analysis

Model	Beta	t	Coefficients ^a Sig.	VIF
(Constant)		0.725	0.473	
RISKD	-0.111	-0.811	0.422	3.436
CHS	0.038	0.259	0.797	3.848
NOCH	-0.164	-0.825	0.414	7.193
BSIZE	0.400	2.809	0.008**	3.716
INDEP	0.067	0.486	0.630	3.493
NON	-0.212	-1.194	0.240	5.777
ACINDEP	-0.091	-0.713	0.480	3.000
ACSIZE	0.111	0.943	0.352	2.522
ACMEET	0.094	0.708	0.484	3.230
GENDER	-0.008	-0.054	0.958	3.774
TENU	0.056	0.555	0.582	1.879
EDUC	-0.379	-3.842	0.000***	1.779
DIVE	0.270	1.487	0.145	6.046
SIZE	-0.117	-0.691	0.494	5.227
PROF	0.336	2.552	0.015*	3.184
LEV	0.166	1.721	0.094*	1.700
LIQ	-0.195	-1.902	0.065*	1.926
DIVID	0.132	1.023	0.313	3.048

Model Summary: Adjusted R Square: 0.678; F value: 6.651; Sig. : 0.000. Notes: FV: Firm value (Market to Book Value at year-end); RISKD: Risk disclosure score (based on an unweighted disclosure index); CHS: Internal ownership (Percentage of shares held by internal shareholders); NOCH-Factors: External ownership (Percentage of shares held by all external shareholders); BSIZE: Board size (Number of board members); INDEP: Independent directors (Number of non-executive directors on the board of directors); NON: Non-executive directors (Dummy variable 1 if board contains non-executive directors and otherwise 0); ACINDEP: Audit committee independence (Dummy variable; 1 if audit committee independence exists, and 0 otherwise); ACSIZE: Audit committee size (Number of audit committee members); ACMEET: Audit committee meetings (Number of audit committee meetings); GENDER: Gender (Number of females on the board); TENU: Tenure (Dummy variable 1 if the number of years the board member permanence on the board is above the sample median of 5 years, otherwise 0); EDUC: Education (Number of board members holding a PhD); DIVE: Diversity (Number of other nationalities of the board); SIZE: Bank size (Natural logarithm of total assets); PROF: Profitability (Return On Assets); LEV: Leverage (Long-term debt/ total assets); LIQ: Liquidity (Current Ratio: Current Assets/Current Liabilities); DIVID: Dividend payout (Dividends per share). Table 1 fully defines all the variables used. Note that “* ** ***” represent 10% 5% 1% respectively, which indicates that there is a positive correlation or a proof of influence exists between the respective factors and “-“indicates that there is a negative correlation or proof.

Table 6: Pearson Correlation Analysis

	ROA	RISKD	CHS	NOCH	BSIZE	INDEP	NON	ACINDEP	ACSIZE
ROA	1								
RISKD	0.271*	1							
CHS	0.329*	-0.129	1						
NOCH	-0.227	0.411**	-0.492**	1					
BSIZE	0.283*	-0.107	0.364**	0.073	1				
INDEP	-0.172	-0.171	0.195	-0.248	-0.038	1			
NON	0.200	-0.095	0.290*	-0.308*	0.467**	0.439**	1		
ACIND	-0.279*	0.074	-0.190	0.325*	-0.072	0.335**	0.050	1	
ACSIZE	0.219	0.136	0.243	-0.062	0.013	0.335**	0.454**	0.141	1
ACM	0.158	0.054	0.196	0.153	0.566**	0.075	0.459**	-0.089	0.190
GEN	-0.181	0.093	0.061	-0.215	0.016	0.050	0.138	0.174	-0.242
TENU	0.039	-0.356**	0.195	-0.218	0.007	0.110	-0.103	-0.079	0.121
EDUC	-0.148	-0.241	-0.059	-0.173	-0.081	0.326*	0.251	0.294*	-0.046
DIVE	-0.055	0.375**	-0.261*	0.547**	0.226	-0.169	0.114	0.408**	-0.086
SIZE	0.529**	0.479**	0.006	0.071	0.101	-0.478**	-0.052	-0.225	0.019
LEV	-0.398**	-0.093	0.049	-0.052	0.002	0.190	0.083	-0.062	-0.137
LIQ	-0.011	-0.294*	0.063	-0.114	-0.069	-0.016	-0.174	-0.274*	-0.121
DIVID	0.557**	0.318*	0.232	-0.113	0.135	-0.079	0.168	-0.086	0.302*
	ACM	GEN	TENU	EDUC	DIVE	SIZE	LEV	LIQ	DIVID
ROA									
RISKD									
CHS									
NOCH									
BSIZE									
INDEP									
NON									
ACIND									
ACSIZE									
ACM	1								
GEN	-0.212	1							
TENU	0.014	-0.246	1						
EDUC	0.030	0.197	0.134	1					
DIVE	-0.024	0.426**	-0.433**	0.077	1				
SIZE	-0.055	-0.166	-0.126	-0.211	0.112	1			
LEV	-0.123	0.336**	-0.091	0.123	0.103	-0.166	1		
LIQ	-0.093	-0.054	0.108	0.114	-0.085	-0.299*	0.009	1	
DIVID	-0.004	-0.111	-0.045	-0.167	-0.040	0.658**	-0.233	-0.167	1

This table shows the Pearson's Correlation Analysis.

The mixed results of this study are in line with Vafaei et al., (2011) who reports significant and insignificant association between disclosure and firm value in one study. These results confirm the findings of previous studies such as Uyar and Kilic (2012) and Elzahar et al., (2015) who claimed that the association between voluntary disclosure and firm value varies according to the proxy employed for the market value of the firm. Where, this study found in the first model based on the market based measure (MTBV) an insignificant correlation between firm value and the levels of voluntary risk disclosure. While, in the second model which was based on an accounting based measure (ROA) found a positively significant association between the two variables. This variation in the result between the two models can be justified based on the adoption of different measures of firm value (MTBV and ROA). Overall, a healthy amount of disclosure could result in desirable economic consequences such as a decrease in the cost of capital of a company (Beyer et al., 2010) and an increase in the valuation of the firm (Leuz and Wysocki, 2008).

Table 7: Regression Analysis

Model	Beta	t	Sig.	VIF
(Constant)		-0.837	0.407	
RISKD	0.351	2.227	0.031*	2.971
CHS	0.040	0.294	0.770	2.199
NOCH	-0.544	-2.410	0.020*	6.081
BSIZE	0.284	1.720	0.093**	3.242
INDEP	-0.018	-0.116	0.908	2.883
NON	-0.070	-0.342	0.734	5.052
ACINDEP	-0.122	-0.832	0.410	2.561
ACSIZE	0.051	0.367	0.715	2.330
ACMEET	-0.004	-0.027	0.979	2.796
GENDER	-0.273	-1.650	0.106	3.275
TENU	0.057	0.496	0.623	1.558
EDUC	0.035	0.292	0.772	1.758
DIVE	0.281	1.345	0.186	5.197
SIZE	0.132	0.666	0.509	4.703
LEV	-0.263	-2.361	0.023*	1.478
LIQ	0.077	0.645	0.522	1.712
DIVID	0.174	1.166	0.250	2.659

Model Summary: Adjusted R Square: 0.505; F value: 4.547, Sig. : 0.000. Notes: FV: Firm value (Return On Assets); RISKD: Risk disclosure score (based on an unweighted disclosure index); CHS: Internal ownership (Percentage of shares held by internal shareholders); NOCH-Factors: External ownership (Percentage of shares held by all external shareholders); BSIZE: Board size (Number of board members); INDEP: Independent directors (Number of non-executive directors on the board of directors); NON: Non-executive directors (Dummy variable 1 if board contains non-executive directors and otherwise 0); ACINDEP: Audit committee independence (Dummy variable; 1 if audit committee independence exists, and 0 otherwise); ACSIZE: Audit committee size (Number of audit committee members); ACMEET: Audit committee meetings (Number of audit committee meetings); GENDER: Gender (Number of females on the board); TENU: Tenure (Dummy variable 1 if the number of years the board member permanence on the board is above the sample median of 5 years, otherwise 0); EDUC: Education (Number of board members holding a PhD); DIVE: Diversity (Number of other nationalities of the board); SIZE: Bank size (Natural logarithm of total assets); LEV: Leverage (Long-term debt/ total assets); LIQ: Liquidity (Current Ratio: Current Assets/Current Liabilities); DIVID: Dividend payout (Dividends per share). Table 1 fully defines all the variables used. Note that “ ** ***” represent 10% 5% 1% respectively, which indicates that there is a positive correlation or a proof of influence exists between the respective factors and “-” indicates that there is a negative correlation or proof.*

CONCLUSION

Prior research has explored the level of disclosure on firm value and its determinants; however, there is a dearth of literature on the effect of levels of disclosure on firm value in developing economies. The dearth is even greater when it comes to risk disclosure and firm value. Hence, there is a need for more research on the relationship between risk disclosure and firm value. Thus this study contributes to the disclosure literature by being the first study to measure the economic consequences in the banking sector in developing markets. Prior research concentrated on risk disclosure in nonfinancial companies ignoring the banking industry and risk disclosure economic consequences in emerging economies (Hassan, 2005; Amran et al., 2009; Abdullah and Hassan, 2013; Mousa and Elamir, 2013; Al-Shammari 2014; Abdullah et al., 2015).

This study empirically examines the relationship between the levels of voluntary risk disclosure and firm value of all Saudi listed banks. The findings of the multivariate analysis demonstrated that there is no association between the levels of voluntary risk disclosure and firm value as measured by the market to book value at the end of the year (MTBV). But, the results generate from the accounting based measure (ROA) show that there is a positively significant association between the levels of risk disclosure and firm value. This view is in line with Gelb and Zarowin (2002) who have documented that companies with high disclosure levels are more likely to demonstrate stronger levels of firm value. In terms of the control variable, the findings indicated that there is a positively significant relationship between firm value and board size, profitability and leverage. This research's outcomes showed that there are negatively significant associations between firm value and education and liquidity in the all listed banks in the first model. For the second model control variables BSIZE reported a positively significant relationship with firm value. Where, NOCH and LEV reported a negatively significant link with firm value. However, the rest of the control variables are split between two groups, the first group being negatively insignificant and the second group being insignificantly associated with firm value for both models.

Even though a large body of prior research existed on the economic consequences of general disclosure, no prior research had been conducted on the relationship between risk disclosure and firm value. Therefore, this study contributes to the literature by being the first study to examine the extent of voluntary risk disclosure and its economic consequences as evidenced in the annual reports of banks. It also contributes to the general accounting disclosure literature and in particular contributes to the literature on risk disclosure in developing economies. In particular in the GCC states since no prior research has examined such relationships. In addition, it furthers the understanding of the role of accounting information in relation to market valuation of firms. Such studies about these markets are necessary and are fundamental in relation to ameliorating the weak transparency and disclosure situation by attracting the attention of regulatory institutions and corporation directors (Uyar and Kilic, 2012).

This study has several important implications for banks' investors, regulatory bodies and any other interested groups on the importance of corporate voluntary risk disclosure and its economic consequences and can be used to increase the value relevance in the banking sector. It also informs regulators about the current level of risk disclosure in all Saudi listed banks as well as informing them of the influence risk disclosure has on the value of the firm. These institutions are expected to guide firms toward the best practices of disclosures since firms look for such guidance by performing motivating role in this new era of information disclosure. It also calls on to managers who prefer to withhold from offering information to shareholder to be more transparent if they prefer to increase their banks market value and entice more investment.

This study, like any other, suffers from a number of limitations. First, the sample of this study consisted only of listed Saudi banks. Thus, the results may not be valid for other sectors. Another potential limitation of investigation employing risk disclosure indexes to examine the levels of risk disclosure is that the outcomes are only valid to the extent that the risk disclosure index used is appropriate. Thirdly, annual reports have been used as the only source of data gathering, others such as interim reports, the internet, banks web sites and press releases could be used in future studies. In spite of the noted limitations, it is hoped this study will inspire further investigations in this area of research.

APPENDIX

Category and Type of Reported Risks	References
Accounting Policies	
Risk Management	Abdullah et al., 2015; Alfredson et al., 2007; Lopes and Rodrigues, 2007; ICAEW, 1997, 2000;
Objective of Holding Derivatives/ instruments	Alfredson et al., 2007; Lopes and Rodrigues, 2007; ICAEW, 1997, 2000; Abdullah et al., 2015;
Use of Estimates	Abdullah et al., 2015; Alfredson et al., 2007; ICAEW, 1997, 2000; Hassan, 2009
Collateral Assets against Loans	Alfredson et al., 2007; Abdullah et al., 2015; Hassan, 2009
Financial Assets Impairment	Abdullah et al., 2015; Alfredson et al., 2007; Lopes and Rodrigues, 2007; ICAEW, 1997, 2000; Hassan, 2009
Other Assets Impairment	Alfredson et al., 2007; Abdullah et al., 2015; Lopes and Rodrigues, 2007; ICAEW, 1997, 2000; Hassan, 2009
Contingent Liabilities	Alfredson et al., 2007; ICAEW, 1997, 2000; Abdullah et al., 2015; Hassan, 2009
Contingent Assets	Alfredson et al., 2007; ICAEW, 1997, 2000; Abdullah et al., 2015; Hassan, 2009
Detailed risk management	Lopes and Rodrigues, 2007; Alfredson et al., 2007;
Contingency	Abdullah et al., 2015; Hassan, 2009;
Financial and other risks	
Pricing Risk	ICAEW, 1997, 2000; Abdullah et al., 2015, Lipunga, 2014;
Commodity risk	Abdullah et al., 2015;
Liquidity risk	Abdullah et al., 2015; Alfredson et al., 2007; ICAEW, 1997, 2000; Lipunga, 2014; Hassan, 2009
Credit risk	Lopes and Rodrigues, 2007; ICAEW, 1997, 2000; Lipunga, 2014
Capital Adequacy	Lipunga, 2014; Abdullah et al., 2015
Changes in Interest Rates	Abdullah et al., 2015
Credit Risk Exposure	Abdullah et al., 2015
Operational Risk	Abdullah et al., 2015; ICAEW, 1997, 2000; Lipunga, 2014
Insurance Risk	Abdullah et al., 2015; ICAEW, 1997, 2000

Market Risk	Abdullah et al., 2015; Ahmed et al., 2004; Lipunga, 2014
Interest Rate	Lipunga, 2014; Abdullah et al., 2015;
Currency risk	Lipunga, 2014
Exchange Rate	Abdullah et al., 2015
Sustainability Risk	
Sensitivity Analysis	Abdullah et al., 2015; Ahmed et al., 2004
Derivatives hedging and general risks information	
Cash flow Hedge	Alfredson et al., 2007; Lopes and Rodrigues, 2007; Abdullah et al., 2015
Equity Risk	Abdullah et al., 2015
Customer Satisfaction	Abdullah et al., 2015
Competition (Service Market)	Abdullah et al., 2015; ICAEW, 1997, 2000
Natural Disasters	ICAEW, 1997, 2000; Abdullah et al., 2015; Lipunga, 2014
Communications	Abdullah et al., 2015
Outsourcing	Abdullah et al., 2015
Reputation	Abdullah et al., 2015; Lipunga, 2014
Reputation risk	Abdullah et al., 2015; Lipunga, 2014
Physical disasters (Explosions and Fire)	Lipunga, 2014
Changes in Technology	Abdullah et al., 2015;
Financial instruments	
Derivatives	Hassan, 2009; Abdullah et al., 2015
Cumulative Change in Fair value	Lopes and Rodrigues, 2007; Alfredson et al., 2007; Abdullah et al., 2015;
Reserves	
General Reserves	Hassan, 2009; Abdullah et al., 2015
Statutory Reserves	Hassan, 2009; Abdullah et al., 2015
Other Reserves	Hassan, 2009; Abdullah et al., 2015
Segment information	
Geographical Concentration	Alfredson et al., 2007; Abdullah et al., 2015; ICAEW, 1997, 2000;
Customer Concentration	Hassan, 2009; Abdullah et al., 2015; ICAEW, 1997, 2000
Business risk	
General Financial Problems	Hassan, 2009
Regional Financial Problems	Hassan, 2009
Political risk	Abdullah et al., 2015
Diversification	
Performance	Abdullah et al., 2015;
Compliance with regulations	
Compliance with listing rules	Lipunga, 2014
Compliance with financial regulations	Lipunga, 2014
Compliance with companies act requirements	Lipunga, 2014
Compliance with other regulations and laws	Lipunga, 2014
Litigation risk	Lipunga, 2014
Health and Safety	Lipunga, 2014

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ACKNOWLEDGEMENT

We would also like to show our gratitude to the BAFA Accounting and Finance in Emerging Economies (AFEE) Special Interest Group for sharing their pearls of wisdom with us during the 14th Workshop on Accounting and Finance in Emerging Economies, and we thank the selection committee and session discussant for their insights. We are also immensely grateful to the 2 anonymous reviewers for their comments on an earlier version of the manuscript, although any errors are our own and should not tarnish the reputations of these esteemed persons.

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TAXATION AND LEVERAGE INSIDE BANK HOLDING COMPANIES

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ABSTRACT

This paper examines the effect of leverage on the corporate taxes paid by United States Bank Holding Companies. We find that, Bank Holding Companies reduce their tax burden when debt is raised from subsidiaries. However, taxes do not significantly change when debt is raised from the parent firm. Our view is that, the more favorable fiscal treatment of corporate debt against equity, gives an incentive to Bank Holding Companies towards the tax consolidation of subsidiaries. In this way they take advantage of the tax shield of the affiliates. The empirical results indicate that, the funding structure of the group plays a role on taxation. The results are important for the understanding of tax avoidance inside large banking institutions.

JEL: G21, G32

KEYWORDS: Bank Holding Companies, Taxation, Leverage

INTRODUCTION

The possibility to deduct interest paid on debt issuances from taxable income may lead corporations to adopt highly levered capital structures. This issue becomes especially relevant in the banking industry. Indeed, when financial firms take-on large amounts of debt, with respect to tiny shares of equity, the financial system becomes more fragile. This paper questions whether the tax burden of Bank Holding Companies (BHCs) is affected by their capital structure. The main goal is to understand whether BHCs can use funding strategies to avoid taxes. We define tax avoidance as Hanlon and Heitzman (2010), namely as the reduction in the explicit corporate taxes.

To the best of our knowledge, no paper provides evidence on how the tax burden of banking firms reacts to indebtedness. We contribute to filling this gap by analyzing a sample of 25,480 United States BHCs supervised by the Federal Reserve System. We employ data from the BHCs consolidated balance sheets, as well as the accounting information at the parent firm stand-alone level. Generally Accepted Accounting Principles (GAAP) require large corporations and their controlled subsidiaries to file consolidated financial statements. The GAAP requirement for accounting consolidation is that the controlling parent company must own at least 50% of the voting power of a subsidiary's stock. In the United States business groups follow a regime of tax consolidation (or, combined reporting). In general, tax consolidation means that, the parent firm is responsible for all or most of the group-wide tax obligations. Thus, the parent is responsible for the taxes levied on the consolidated income.

Our empirical outcomes show that, the BHCs' tax burden significantly reduces when consolidated leverage increases. For example, the average effective tax rate, calculated as the ratio of taxes over gross income, decreases by more than 7% when the leverage ratio raises by one percentage point. No interesting effect is sorted on taxes when the parent stand-alone leverage increases. It seems that the BHC allocates most group-wide debt on the subsidiaries rather than on the parent. In this way larger debt tax shields are more frequently observable for the affiliates. Our interpretation is, parent firms have a fiscal incentive in favor

of the tax consolidation of subsidiaries. We complete additional tests to verify whether BHC taxation is influenced by the holdings of reciprocal claims between parent and subsidiaries. This approach provides new evidence on how intra-firm exposures among entities of the same network may affect the taxes of large corporations, as compared to single operating entities. The remainder of the paper is organized as follows. The next section describes the relevant literature. Next, we discuss the data and methodology used in the study. The results are presented and discussed in the following section. The paper closes with some concluding comments.

LITERATURE REVIEW

This paper reviews the stream of financial literature regarding the interplay between capital structure and corporate taxes. The seminal theoretical article from Modigliani and Miller (1963) predicted that taxes are important drivers for the choice of firm capital structures. The following empirical research has tried to verify to what extent the argument made by Modigliani and Miller (1963) finds evidence on large samples of firms. The methodology employed is diverse. Some papers use cross-country studies to verify the sensitivity of capital structures to corporate income tax rates. These papers include Booth et al. (2001), and Heider and Ljungqvist (2015). Other articles analyze how changes in state laws induce adjustments in capital structures, van Binsbergen, Graham, and Yang (2010), and Lin and Flannery (2013). Graham and Leary (2011) provide an exhaustive survey on the empirical research on capital structure. Graham and Leary (2011) include found further literature arguing how taxes have an explanatory power on firm funding.

The link between taxes and funding structures has been examined extensively in the framework of non-financial firms. However, the issues has not been extensively explored for financial corporations. We focus on the banking sector. Some papers pointed out that inefficiencies in current taxation may lead banks to be more levered than they otherwise would, and the financial system to be ultimately more fragile. Keen and de Mooij (2012) show that both the leverage and the regulatory capital ratios of banks increase in the statutory income tax rate. The issuance of hybrid instruments does not significantly change with the tax rate. Langedijk et al. (2014) argue that a corporate income taxation system more favorable towards the usage of debt may have the adverse consequence of increasing risk and the cost of financial crises. Schepens (2016) confirms this view by showing that financial institutions would stay better capitalized if debt and equity would be subject to an equal fiscal treatment. Schandlbauer (2015) adopts a difference-in-difference methodology to show that an increase in the local United States state corporate tax rate leads better capitalized banks to raise long-term non-depository debt, rather than demandable debt. Finally, using a dataset on corporate income tax reforms, Hemmelgarn and Teichmann (2014) discover that tax rate changes induce changes in banks' leverage, dividend policies, and loss loan reserves. Another hint on the existence of a relevant nexus between banks' taxes and financing can be found in Ashcraft (2008). Ashcraft (2008) examines how the capital composition of banks can have disciplining effects. The author uses cross-state variation in corporate income tax rates as an indicator of the presence of subordinated debt in a bank's capital structure. Motivating this identification strategy is a strong and robust relationship between corporate tax rates and the mix of debt in regulatory capital, which is helpful to overcome selection issues.

We examine Bank Holding Companies, namely large multi-firm businesses. These firms are typically made of one parent firm, which owns one or more subsidiary companies. Few papers discuss taxation issues in relation to the organizational structure of groups. Desai, Foley, and Hines (2001) work on a sample of multinational firms, and observe that, when tax rates are higher, affiliates raise in debt. However, the wider tax shield is due more to internal borrowing of the affiliates from their parent, while external debt of affiliates is less reactive to tax changes. Gu, de Mooij, and Poghosyan (2012) analyze the sensitivity of multinational bank capital structures to taxation. They find the leverage of subsidiaries depends on corporate income taxes in two ways: the first is the traditional debt bias, measured by the debt impact of the local tax level in the host country of the same subsidiary; the second is international debt shifting, measured by the debt impact of the international tax difference *vis-avis* other subsidiaries of the same

multinational group. To summarize, the literature often suggests that banks want to include large amounts of debt on their balance sheets, to get higher tax advantages. Departing from this view, the task of our empirical analysis is to quantify the reduction in tax burdens from leverage. By doing this the paper provides an important new contribution to the literature.

DATA AND METHODOLOGY

We analyze data provided by SNL Financial LC (www.snl.com). We use information on balance sheets and income statements for all firms classified as Bank Holding Company (BHC), which file Federal Reserve System reporting forms FR Y9-C and FR Y9-LP. The United States law defines BHCs in the 12 United States Code Sections 1841-48 (so-called Bank Holding Company Act of 1956). BHCs are required to submit financial statements to the Federal Reserve System. Our sample includes domestic BHCs of large total assets size, which file Consolidated Financial Statements for Holding Companies (FR Y9-C), and Parent Company Only Financial Statements for Large Holding Companies (Y-9LP). The observation frequency is quarterly spanning from 2006q1 until 2014q1. In total, the sample includes 25,480 BHC-quarter observations. From the BHC accounting figures we construct empirical measures for the firms’ taxes, leverage, and additional features. The Appendix defines these measures in more detail. Table 1 reports their most important descriptive statistics.

Table 1: Summary Statistics for the Variables

Name	Mean	Std dev	5 th Percentile	Median	95 th Percentile
Dependent Variables					
Income Taxes/Assets (%)	0.051	0.099	-0.076	0.049	0.188
Income Taxes/Assets: Only if > 0 (“Tax Burden”)	0.073	0.070	0.000	0.063	0.196
Income Taxes/Income	25.114	18.883	0.000	28.052	44.310
Parent Income Taxes/Parent Assets (%)	0.099	0.141	0.001	0.031	0.436
Dummy Negative Income	0.024	0.153	0.000	0.000	0.000
Dummy Negative Operating Income	0.037	0.189	0.000	0.000	0.000
(Parent Taxes – Consolidated Taxes)/Parent Assets (%)	-0.099	0.210	-0.069	-0.258	0.000
Variables for Leverage					
Consolidated Leverage (%)	90.314	3.279	84.840	90.630	94.800
Parent Leverage (%)	14.248	17.045	0.000	9.506	46.259
Risk-Weighted Capital Ratio (%)	15.090	4.763	10.250	14.150	23.690
Deposits (%)	78.092	10.751	61.643	80.255	88.902
Subordinated Debt (%)	0.143	0.471	0.000	0.000	1.133
Control Variables					
Size (Natural log)	13.855	1.372	12.250	13.498	16.636
Profitability (%)	0.676	1.104	-1.080	0.800	1.950
N Depository Subs	1.088	0.549	0.000	0.000	2
N Non-Bank Subs	9.097	106.283	0.000	0.000	8
Claims Parent-Subsidiaries					
Borrowing from Subsidiaries (%)	8.761	11.509	0.000	2.529	30.744
Dividend Income from Subsidiaries (%)	0.097	0.164	0.000	0.009	0.411
Equity into Subsidiaries (%)	85.218	26.740	0.000	95.588	99.954
Notes Payable to Special Purpose Subsidiaries (%)	8.186	10.851	0.000	0.341	29.082

The sample period is 2006q1-2014q1 and the results refer to a total number of 25,480 BHC-quarter observations

The first set of Ordinary Least Squares (OLS) regressions relates BHC consolidated taxes to leverage, according to Equation (1) below:

$$\begin{aligned}
 & \text{Consolidated Taxes}_{i,t} \\
 & = \alpha_0 + \beta_1 \text{Consolidated Leverage}_{i,t} + \beta_2 \text{Parent Leverage}_{i,t} + \beta_3 \text{Controls}_{i,t} + \varepsilon_{i,t} \quad (1)
 \end{aligned}$$

Controls

= Size; Profitability; N Depository Subs; N NonBank Subs; BHC Fixed Effect; Quarter Fixed Effect

At every point in time t , and for every BHC i , the consolidated tax burden is regressed on consolidated leverage, the parent stand-alone leverage, plus additional controls. The control regressors are size, profitability, the number of bank and non-bank subsidiaries. All the specifications include time fixed effects and BHC fixed effects, and standard errors are clustered at the BHC level. The consolidated taxes in Equation (1) are alternatively measured by: (i) the amount of income taxes divided by consolidated assets, or (ii) the amount of income taxes divided by the corporate income, gross of income taxes and extraordinary items. The latter (ii) is close to the so-called corporate “effective tax rate,” namely the average rate at which the business is taxed. In our sample the average tax rate is about 25%. In the OECD (2000) the effective tax rate is one indicator for the corporate tax burden. In the survey by Hanlon and Heitzman (2010) the effective tax rate is considered a measure for tax avoidance.

Equation (1) is estimated for those firms reporting a positive value in the consolidated income taxes during the year-quarter, namely firms that owe taxes to the local or non-United States tax authorities. We exclude from the sample the few BHCs with negative income taxes, i.e. the firms enjoying a tax benefit. The screen of the filing reports reveals that, in the majority of cases, the tax benefit depends on net operating losses, which translate into carrybacks or carryforwards. To gain further insights into what may have driven these firms to have negative taxes, we compared the information from regulatory filings to the more detailed information on taxes provided in 10-K filings with the United States Securities and Exchange Commission (SEC). Most frequently, income taxes are negative because of net operating loss carryforwards, and valuation allowances for deferred tax assets resulting from net operating losses. Fewer firms report small tax benefits due to changes in state law or international tax settlements. On the right-hand side of Equation (1), consolidated leverage is calculated as the difference between assets and equity, normalized by assets. From Table 1 above, the leverage of our BHCs averages above 90%.

The parent stand-alone leverage is the ratio of parent liabilities over parent assets. The parent firms of the sample are highly capitalized, with leverage of only 14%. Thus, parent firms finance only a tiny share of their assets through debt instruments. The much higher value for consolidated leverage suggests that, the larger part of the group-wide debt is issued from the subsidiaries, rather than from the parent. The next section shows the outcomes from the estimation of Equation (1). Afterwards, we make changes in Equation (1) and test additional specifications, to obtain evidence which makes the argumentation more robust.

RESULTS AND DISCUSSION

Effect from Leverage on Consolidated Taxes

Table 2 – Column 1/2 displays outputs on the effect of leverage on the consolidated tax burden. Taxes are decreasing in both the consolidated leverage and in the parent stand-alone leverage, although coefficients are statistically stronger on the consolidated leverage. In economic terms, by looking at Table 2 – Column 2, the average effective tax rate decreases by more than 7% when the BHC leverage ratio raises by one percentage point. This number is calculated by multiplying the standard deviation of the effective tax rate by the coefficient estimated on the consolidated leverage. Given the correlation between consolidated and parent leverage is only 0.48, and the two are not highly correlated, we are less worried that, the simultaneous inclusion of the two variables in the same specification is carrying some endogeneity which may severely distort the outcomes.

In the model of Equation (1) we replace both variables for leverage (consolidated and parent leverage) with one regressor for the consolidated risk-weighted capital ratio. The latter ratio is the regulatory risk-weighted capital standard calculated according to the rules developed under the framework of the 1988 Basel Capital Accord. The capital ratio is inversely related to the degree of leverage. In Table 2, Column 3 the regulatory capital standard has a positive coefficient on taxes, so the BHCs, endowed by a strong

regulatory capital buffer, are also paying higher taxes. This result supports the opinion that, when the qualified capital diminishes, and the funding structure levers up, the tax burden reduces.

We exploit information on the composition of the consolidated liabilities. Our data allow disentangling from the consolidated debt figure the liabilities in the form of (i) banking deposits or (ii) subordinated debt. Subordinated debt includes all forms of unsecured long-term debt, which are subordinated to the remaining debt securities. We expect that, the firm is paying a higher interest on the junior debt rather than on deposits. Given that, in general terms, deposits are withdrawable upon demand and, up to a certain limit, are protected by deposit insurance schemes. They should also offer a lower compensation. Our consequent prediction is that, the issuance of subordinated debt leads to a larger deduction of interest from consolidated revenue, so the tax burden should decrease more evidently in the subordinated debt, rather than in deposits. We approximate the leverage associated to deposits and to subordinated debt by taking their respective amounts as ratios over total assets. The two variables are then regressed to taxes. Table 2, Column 4/5 confirm our expectation, revealing a stronger negative and significant sign on subordinated debt.

Table 2: The Effect from Leverage on Consolidated Taxes

	Consolidated Tax Burden				
	Income Taxes/Assets (1)	(2)	Income Taxes/Income (3)	(4)	(5)
Consolidated Leverage	-0.004*** (0.001)	-0.396*** (0.107)			
Parent Leverage	0.000 (0.000)	-0.029 (0.024)			
Risk-Weighted Capital Ratio			0.262*** (0.084)		
Deposits				-0.043 (0.029)	
Subordinated Debt					-2.099*** (0.711)
Control Variables	Yes	Yes	Yes	Yes	Yes
Quarter Dummies	Yes	Yes	Yes	Yes	Yes
N	21,877	23,548	21,920	23,559	23,559
R ²	0.144	0.050	0.026	0.044	0.047

The table reports outputs from pooled ordinary least squares (OLS) regressions. The sample period is 2006q1-2014q1. The control variables include size, profitability and the number of depository subsidiaries and non-bank subsidiaries. Robust standard errors are clustered at the BHC level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Analysis Using the Parent Stand-Alone Taxes

In this sub-section we use the parent *solo* information, and model parent stand-alone taxes according to the following Equation (2):

$$Parent\ Taxes_{i,t} = \alpha_0 + \beta_1 Consolidated\ Leverage_{i,t} + \beta_2 Parent\ Leverage_{i,t} + \beta_3 Controls_{i,t} + \varepsilon_{i,t} \quad (1)$$

Controls

= Size; Profitability; N Depository Subs; N NonBank Subs; BHC Fixed Effect; Quarter Fixed Effect

The dependent variable is the ratio of parent stand-alone income taxes over parent assets. From Table 3 we see that leverage does not play an important role on the parent tax burden. Comparing Table 1 to Table 2, we conclude that, only when we look at the consolidated balance sheet items do we get stronger evidence of a fiscal advantage from debt. Our view is that, the parent firms of the sample remain highly capitalized, while they can reduce the group-wide taxable income thanks to the deductions of debt interests issued by

subsidiaries. We now compare taxes of the parent *versus* taxes bearing on the subsidiaries. More precisely, in Table 4 the dependent variable is the difference between parent and consolidated taxes, normalized by consolidated assets. This variable is proportional to the fiscal benefit for the parent from the consolidation of subsidiaries. Indeed, the ratio is positive when the parent taxes overcome consolidated taxes, which would suggest some tax deductions on the subsidiaries' income.

Table 3: The Effect from the Parent Stand-Alone Leverage on the Parent Stand-Alone Taxes

Parent Income Taxes/Parent Assets	
Consolidated Leverage	-0.002 (0.002)
Parent Leverage	0.003 (0.001)
Control Variables	Yes
Quarter Dummies	Yes
N	2,522
R ²	0.161

The table reports outputs from pooled ordinary least squares (OLS) regressions. The sample period is 2006q1-2014q1. The control variables include size, profitability and the number of depository subsidiaries and non-bank subsidiaries. Robust standard errors are clustered at the BHC level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: The Effect from Leverage on the Difference Between Parent *Versus* Consolidated Taxes

(Parent Taxes – Consolidated Taxes)/Assets	
Consolidated Leverage	0.005*** (0.002)
Parent Leverage	-0.001*** (0.000)
Control Variables	Yes
Quarter Dummies	Yes
N	2,176
R ²	0.206

The Table reports outputs from pooled ordinary least squares (OLS) regressions. The sample period is 2006q1-2014q1. The control variables include size, profitability and the number of depository subsidiaries and non-bank subsidiaries. Robust standard errors are clustered at the BHC level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In Table 4 the gap in taxes reacts positively to consolidated leverage, while negatively to parent leverage. This reinforces our opinion that, when debt is issued from subsidiaries and the group leverage gets higher, there is a reduction only in the consolidated taxes, while the parent taxes remain unaffected. In other words, our BHCs are more likely to shield taxation when subsidiaries become more indebted. Therefore, parent firms may want to consolidate their affiliates in order to smooth their stand-alone taxation.

To strengthen the above argument, we stress the impact from leverage on income losses. We create a dummy variable assuming value one when the BHC consolidated income is negative. A logit model regresses this dummy on leverage and the usual control variables. The logit specification allows to interpret the estimated coefficient as the impact from leverage on the probability of income losses. Table 5, Column 1 displays a positive coefficient on leverage, revealing that, when the firm has got huge debt income losses become more likely. For robustness, we perform the same test on a dummy variable denoting a negative value in the *operating* income. The operating income is the sum of income from subsidiaries and associated institutions, and stems from the parent only income statement. The pattern in Table 5, Column 2 is consistent with the previous one, and the coefficient on consolidated leverage remains highly significant.

Table 5: The Effect from Leverage on Dummies for Negative Income

	Dummy Negative Income	Dummy Negative Operating Income
	(1)	(2)
Consolidated Leverage	0.188*** (0.020)	0.103*** (0.020)
Parent Leverage	0.016*** (0.004)	0.007 (0.005)
Control Variables	Yes	Yes
Quarter Dummies	Yes	Yes
N	19,387	12,857

The table reports outputs from the estimation of fixed-effects LOGIT model. The sample period is 2006q1-2014q1. The control variables include size, profitability and the number of depository subsidiaries and non-bank subsidiaries. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Effect on Taxes from Intra-Firm Claims Between Parent and Subsidiary

The Report Y-9LP includes information on parent holdings inside subsidiaries. Indeed, the parent may hold on its balance sheet some claims issued by the subsidiaries. We now show that certain intra-firm holdings may affect taxes. The three regressions estimated in this sub-section follow Equation (3):

$$\text{Consolidated Taxes}_{i,t} = \alpha_0 + \beta_1 \text{Variable for IntraFirm Holdings}_{i,t} + \beta_3 \text{Controls}_{i,t} + \varepsilon_{i,t} \quad (3)$$

IntraFirm Holdings =

Dividend Income from Subs; Borrowing from Subs; Notes Payable to Special Purpose Subs

Controls

= *Size; Profitability; N Depository Subs; N NonBank Subs; BHC Fixed Effect; Quarter Fixed Effect*

First, we consider the case when the parent holds equity issued by the subsidiaries. In our sample, almost 85% of the parent assets coincides with participations in the equity of subsidiaries. As a stockholder, the parent is entitled to receive dividends distributed from the subsidiary. This dividend though, is subject to the Intercorporate Dividend Taxation (IDT). In principle, the levy on intercorporate dividends increases the group tax payment. However, tax rules call for deductions. Under the United States federal income tax law (Internal Revenue Code Section 243), according to the rule of Dividends-Received Deduction (DRD), a company can deduce the dividends received by a participated firm in a proportional way to the stake of ownership held in the same firm. Generally, a company is able to deduct the 70 percent of the dividends received. Nonetheless, if the same company has an ownership stake of 20 percent or more in the affiliate, then the deduction increases to 80 percent. When the stockholding overcomes the 80 percent, then 100 percent of the dividend is deducted from the taxable income.

For an academic references on effects of IDT we note Nicodano and Regis (2015), who develop a theory where IDT is an important determinant of the organizational structure of multi-firm companies. In Table 6, Column 1, consolidated taxes are regressed on income from subsidiaries' dividends normalized by assets. We observe that taxes increase in dividends. Nonetheless, there is a negative sign on the interaction term between dividends and the share of parent ownership of subsidiaries. Such negative coefficient may reflect the dividend deduction mentioned above. Namely, as soon as the parent has a larger ownership of the subsidiary, the deduction of the dividend income "upstreamed" from the affiliate gets wider. A second situation, which may interfere with taxation, regards borrowing of the parent from subsidiaries. The parent firms of our sample are funding 8% of their assets *via* credit obtained from subsidiaries (see Table 1 above). As from Table 6, Column 2, such intra-firm debt impacts in a negative way on taxes. We explain this result arguing that, the parent can more extensively use leverage rather than in the stand-alone case, since it can

rely on both external and intra-firm credit. Having multiple sources of debt, the deductions on the taxable income can be wider, as well.

Finally, we exploit information on the parent issuance of notes payable to special purpose subsidiaries, which, in turn, have issued trust-preferred securities. In these transactions, a special purpose subsidiary (typically a trust) issues preferred securities, and lends the proceeds from the issuance to the parent in exchange for a deeply subordinated inter-company note. Note that, trust preferred securities are treated as debt for tax purposes, namely their interest payments are deductible, while are treated as Tier 1 capital for regulatory purposes. From Table 6, Column 3, we observe a negative effect on tax burdens from notes payable to special purpose subsidiaries is significantly. This confirms the view that taxes may be important for the decision of banks on the issuance of hybrid claims, as trust-preferred securities. Altogether, the tests performed in this subsection aimed at providing evidence that parent-subsidiary transactions can have an ultimate effect in curtailing the taxes weighing on BHCs.

Table 6: The Effect on Taxes from Intra-Firm Claims Between Parent and Subsidiary

	Income Taxes/Assets (1)	Income Taxes/Assets (2)	Income Taxes/Assets (3)
Dividend Income from Subsidiaries	0.156*** (0.055)		
Dividend Income from Subsidiaries*Equity into Subsidiaries	-0.002*** (0.001)		
Borrowing from Subsidiaries		-0.0004*** (0.000)	
Notes Payable to Special Purpose Subsidiaries			-0.0003*** (0.001)
Control Variables	Yes	Yes	Yes
Quarter Dummies	Yes	Yes	Yes
N	21,865	21,887	21,887
R ²	0.123	0.123	0.122

*The table reports outputs from pooled ordinary least squares (OLS) regressions. The sample period is 2006q1-2014q1. The control variables include size, profitability and the number of depository subsidiaries and non-bank subsidiaries. Robust standard errors are clustered at the BHC level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$*

CONCLUDING COMMENTS

The goal of this paper is to explore whether corporate leverage has an ultimate effect on taxes paid by banking firms. There is no consensus in the financial literature that banks can shield their tax obligations by issuing debt. Our article addresses this issue, providing empirical evidence on how Bank Holding Companies (BHCs) exploit leverage in order to reduce their tax burdens. We use accounting data for a sample of 25,480 BHCs supervised from the United States Federal Reserve System. The effect from the BHCs' leverage on taxes is estimated using several types of Ordinary Least Squares regression models.

The empirical results hint that the tax burden of BHCs changes their capital structure. More precisely, taxes are lower when leverage is taken from the subsidiaries. We do not see significant evidence that taxes are affected from the parent stand-alone leverage. Our interpretation is that parent firms remain highly capitalized. They prefer to consolidate the more levered subsidiaries, to deduct from the consolidated group-wide income the debt interests of the subsidiaries. Put differently, we argue that there exists a fiscal incentive for the consolidation of subsidiaries. Additional tests reveal an impact on taxes from the intra-firm claim holdings between parent and subsidiary. In particular, we considered cases in which the parent holds stocks, loans, or hybrid claims originated from the subsidiary. Overall, the evidence from this paper suggests that, tax motives may importantly contribute to the decisions of BHCs on their capital structure. Our findings are important for a better understanding on how banking groups may have opportunities for tax avoidance.

While we have analyzed the banking industry, future research may examine the non-financial sector. Our methodology relies on panel data techniques, which may lack strong power in addressing endogeneity issues. Future research may employ an event study design which could more narrowly investigate causality from leverage on taxes. Finally, our main interpretation based on outcomes from accounting data would be stronger if supported by additional evidence working on tax return data filed with the Internal Revenue Service (IRS).

APPENDIX

Definition of Variables

Variable Name	Description
Dependent Variables	
Income Taxes/Assets	Total income taxes as a percent of total assets. Income taxes include total estimated federal, state, and local, and non-U.S. income tax expenses applicable to income before income taxes and extraordinary items and other adjustments, including the tax effects of gains on securities not held in trading accounts. Includes both the current and deferred portions of these income taxes and tax benefits from operating loss carry backs realized during the reporting period. Applicable income taxes include all taxes based on a net value of taxable revenues less deductible expenses (FR Y-9C)
Income Taxes/Income	Total income taxes as a percent of net income before income taxes and extraordinary items (FR Y-9C)
Parent Income Taxes/Parent Assets	Parent income taxes as a percent of parent assets. Parent income taxes include total estimated federal, state, and local income tax expenses on a parent company only bases for the period (FR Y-9LP)
Dummy Negative Income	Dummy variable denoting with value one non-positive net income. Net income is the sum of net interest income after provision, non-interest income, gain on securities, extraordinary items less non-interest expense and taxes (FR Y-9C)
Dummy Negative Operating Income	Dummy variable denoting with value one non-positive operating income. Operating income is the sum of income from subsidiaries and associated institutions; income from non-bank subsidiaries and associated non-bank companies; income from subsidiary holding companies and associated holding companies; securities gains; and all other operating income (FR Y-9LP)
Regressors	
Variables for Leverage	
Consolidated Leverage	One minus the total equity as a percent of total assets (FR Y-9C)
Parent Leverage	One minus the total parent equity as a percent of total parent assets (FR Y-9LP)
Risk-Weighted Capital Ratio	Total risk-weighted capital ratio calculated as the total capital (tier 1 core capital + tier 2 supplemental capital) divided by risk-weighted assets, in percentage terms (FR Y-9C)
Deposits	Total deposits included domestic and foreign deposits as a percent of total assets (FR Y-9C)
Subordinated Debt	Total subordinated notes and debentures as a percent of total assets (FR Y-9C)
Control Variables	
Size	Natural logarithm of total consolidated assets (FR Y-9C)
Profitability	Return On Assets (ROA) calculated as net income as percentage of the average total assets (FR Y-9C)
N Depository Subs	Number of all depository subsidiaries. Depository subsidiaries are the federally insured banking or thrift subsidiaries owned (Data Created by SNL Financial)
N Non-Bank Subs	Number of all non-bank subsidiaries (FR Y-9C)
Claims Parent-Subsidiaries	
Borrowing from Subsidiaries	Parent borrowings from subsidiaries (subsidiary banks, non-banks, and other BHCs) and associated companies, as a percent of parent total assets (FR Y-9LP)
Dividend Income from Subsidiaries	Dividend income declared or paid to the reporting holding company from banking subsidiaries and associated banks, as a percent of total assets (FR Y-9LP)
Equity into Subsidiaries	Equity investment into subsidiaries (subsidiary banks, non-banks, and other BHCs), as a percent of parent total assets (FR Y-9LP)
Notes Payable to Special Purpose Subsidiaries	Outstanding amount of notes payable by the parent bank holding company to special-purpose subsidiaries that have issued trust preferred securities, as a percent of parent total assets. In these transactions, a special purpose subsidiary (typically a trust) of the parent company issues preferred securities and lends the proceeds of its issuance to its parent company in exchange for a deeply subordinated intercompany note from the parent company (FR Y-9LP)

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ACKNOWLEDGEMENTS

I acknowledge the helpful comments of the journal editor and two anonymous reviewers. I am grateful to Giovanna Nicodano for insightful discussions. Any errors are my own.

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THE IMPACT OF THE SARBANES-OXLEY ACT ON EARNINGS MANAGEMENT USING CLASSIFICATION SHIFTING: EVIDENCE FROM CORE EARNINGS AND SPECIAL ITEMS

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ABSTRACT

This paper examines whether the passage of the Sarbanes-Oxley Act (thereafter, SOX) curbs firms' earnings management behavior through shifting core expenses to special items. The passage of SOX could be an effective deterrent to misclassification activities as it aims to prevent accounting fraud and limit management misbehavior, imposing significant legal liabilities and stiffer penalties on managers for aggressive financial reporting. Alternatively, because classification shifting does not affect reported net income, thereby is less likely to be detected and associated with lower litigation risk, it is likely to be used as a substitute for accruals-based earnings management and therefore experiences an increasing trend in the post-SOX period. Using a sample period from 1988 to 2010, I find evidence consistent with the deterrent effect, that is, the magnitude of unexpected core earnings declines and firms shift fewer core expenses to special items after the passage of the SOX of 2002. My study adds to the literature on the impact of SOX on earnings management by finding that SOX is effective in curbing classification shifting between core earnings and special items, a form of earnings management that misrepresents components of earnings but has no effect on the bottom line income.

JEL: M4

KEYWORDS: SOX; Classification Shifting; Core Earnings; Special Items

INTRODUCTION

This paper examines whether the passage of the Sarbanes-Oxley Act (thereafter, SOX) affects firms' earnings management behavior through classification shifting between core expenses and special items. The SOX of 2002 was passed in July 2002 and became effective in August 2002, in response to a series of corporate scandals in the early 2000s. The purpose of SOX aims to prevent accounting fraud and curb management misbehavior, imposing significant legal liabilities and stiffer penalties on managers for aggressive financial reporting. As such, the passage of SOX could be an effective deterrent to misclassification since managers might have greater incentives to avoid using their discretion to overstate core earnings when face greater uncertainty and litigation costs after the enactment of SOX.

Earnings management has been an important concern for regulators since it is an accounting practice that potentially undermines the credibility of financial statements and impacts investor confidence in the integrity of financial reporting. Most prior studies focus on two types of earnings management: (1) accrual-based earnings management (Jones, 1991, Dechow et al., 1995) and (2) real earnings management (Gunny, 2005, Roychowdhury, 2006). A few recent studies (McVay, 2006, Fan et al., 2010, Barua et al., 2010) have focused on another form of earnings management: earnings management through classification shifting. Earnings management using classification shifting refers to managers involve classifying core expenses (the cost of goods sold and sales, general and administrative expenses) as noncore expenses (special items and discontinued operations) within the income statement to overstate core earnings while keep the GAAP

net income unchanged (McVay, 2006, Barua et al., 2010). Unlike other forms of earnings management such as accrual-based or real earnings management, classification shifting does not change the reported net income since it simply involves misclassifying core expenses as a noncore-expense categorization (special items or discontinued operations) in the income statement. Further, classification shifting does not change GAAP earnings, thereby limiting the scrutiny of auditors and regulators (Nelson et al., 2002). A number of accounting scandals occurring between 2000 and 2001 (e.g., Enron and WorldCom scandals) caused investors to raise concern about whether the accounting information in financial statements is consistent with economic reality. Such corporate scandals of the early 2000s led to the passage of SOX. A major objective of SOX was to restore the integrity of financial statements by constraining earnings management (Cohen et al., 2008) and placing greater accountability on CEOs/CFOs (Lobo and Zhou, 2006). To achieve this purpose, managers have been required to certify the accuracy of material and integrity of the financial statements. More recently, regulators have raised concern with the clarity of financial statements regarding the reporting of special items (Johnson et al., 2011). For instance, FASB and IASB (2008) state that “[A]n entity should present as part of that schedule [a schedule that reconciles the statement of cash flows to the statement of comprehensive income] information about amounts related to an unusual or infrequent event or transaction”.

Taken together, a number of changes in regulations such as the enactment of SOX, and regulators’ concern on the reporting of special items (FASB and IASB 2008), suggest that the examination of how regulations affect classification shifting should provide considerable regulatory/policy implications. As such, the purpose of my study is to examine the impact of SOX on earnings management using classification shifting. Firms can conduct classification shifting using different accounts in the income statements, such as special items, discontinued operations, or research and development. In this study, I only examine classification shifting through moving core expenses to special items. Specifically, I focus on the deliberate shifting of expenses between core expenses (the cost of goods sold and sales, general and administrative expenses) and special items and examine how the passage of SOX affects the behavior of classification shifting. In this study, I only examine income-decreasing special items, which refer to positive special items (McVay 2006). The variable of special items is measured as income-decreasing special items divided by sales. I then multiply the variable of special items by -1 to capture the positive association between unexpected core earnings and special items (McVay, 2006).

Special items are material unusual or nonrecurring items, reported as a separate line item as part of reported income from continuing operations under GAAP (McVay, 2006). Examples of special items include (1) one-time corporate restructuring charges, (2) write-downs or write-offs of assets including receivable, inventories, and equipment, (3) gain or losses on sales of assets or investments or litigation (McVay, 2006; Riedl and Srinivasan, 2010). In contrast with core expenses, special items are nonrecurring in nature and tend to be excluded from core earnings by analysts (Lougee and Marquardt, 2004) and have a lower degree of information content (Bradshaw and Sloan, 2002). As such, the separation of net income into recurring and nonrecurring components and investors’ tendency of assigning less weight to items further away from sales give firms the incentives to classify core expenses as special items. In general, the closer a line item is to sales, the more permanent this item tends to be viewed and the more heavily this item tends to be weighted (McVay, 2006). Classification shifting is thus a potential earnings management tool for firms to overstate core earnings and to meet the analyst forecast earnings benchmark (McVay, 2006, Haw et al., 2011). Using the data collected from the years 1988 - 2010, I estimate firms’ unexpected core earnings in a way similar to McVay’s (2006) research methodology, I observe a significant and positive association between unexpected core earnings (reported core earnings less predicted core earnings) and special items.

This association is consistent with prior studies (McVay, 2006, Fan et al., 2010) that find managers classifying core expenses as special items, which results in the increase in both core earnings and income-decreasing special items. To examine how the passage of SOX affects such relation, I divide my sample period into two periods: (1) the period prior to the passage of SOX, namely the pre-SOX period from the

years 1988 to 2002, and (2) the period after the passage of SOX, namely the post-SOX period from the years 2003 to 2010). Since SOX became effective in August 2002 and since it needs one year of lag data to estimate current unexpected core earnings, I define post-SOX era as the years 2003-2010. I find that both the magnitude of unexpected core earnings and classification shifting from core earnings to special items decline following SOX. My study contributes to the literature on the impact of SOX on firms' earnings management behavior. First, prior literature documents that accruals based earnings management has decreased after SOX (Lobo and Zhou, 2006, Cohen et al., 2008), while real activity earnings management has increased after SOX (Cohen et al. 2008). Most accruals-based and real activity earnings management affect reported net income. My study focuses on a different form of earnings management behavior that does not affect the bottom line income and finds that SOX is effective in curbing firms' earnings management behavior of shifting negative earnings from core earnings to special items. Secondly, most prior literature employs a relatively narrow post-SOX window (varying from one year to three years) in order to provide timely evidence on the SOX effect. Differently, I employ a longer post-SOX window (until year 2010) which allows us to observe the long-run effect of the regulation. Lastly, the findings of this study should shed additional insights into the effect of regulations on earnings management using classification shifting and have considerable regulatory/policy implications. The remainder of my paper is organized as follows. Section 2 presents a brief overview of prior literature and discusses my hypothesis development. Section 3 describes my methodology and data. Section 4 presents and discusses my empirical results. Section 5 concludes.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Earnings management has been an important concern for regulators as it is an accounting practice potentially undermining the credibility of financial statements and affecting investor confidence in the completeness of financial reporting. A few studies (McVay, 2006, Fan et al., 2010, Barua et al., 2010) have recently focused on another form of earnings management: earnings management through classification shifting. This earnings management tool refers to managers involve classifying core expenses (the cost of goods sold and sales, general and administrative expenses) as noncore expenses (special items and discontinued operations) within the income statement to overstate core earnings while keep the GAAP net income unchanged (McVay, 2006, Barua et al., 2010). Evidence of earnings management using classification shifting has been provided by several previous studies. For example, McVay (2006) and Fan et al. (2010) examine whether special items are a tool used by managers to increase core earnings and find managers deliberately shift core expenses to income-decreasing special items to inflate core earnings. Barua et al. (2010) investigate whether managers undertake classification shifting to manage earnings when reporting discontinued operations and find evidence consistent with the hypothesis that firms intentionally shift operating expenses to income-decreasing discontinued operations to overstate core earnings.

Unlike other forms of earnings management such as accrual-based or real earnings management, classification shifting does not change the reported net income since it simply involves misclassifying core expenses as a noncore-expense categorization (special items or discontinued operations) in the income statement. Further, classification shifting does not change GAAP earnings, thereby limiting the scrutiny of auditors and regulators (Nelson et al., 2002). A number of accounting scandals at companies such as Enron and WorldCom resulted in the decreased investor confidence in the quality of corporate financial information. For example, Enron deliberately shifted its liabilities and losses as part of core expenses to non-consolidated special purpose entities (Lobo and Zhou, 2006). This misclassification led to an unexpected nonrecurring charge of \$1.01 billion in October 2001 and a corresponding increase in core earnings. These high-profile accounting scandals ultimately led to the passage of the SOX of 2002.

As such, whether or not the passage of SOX of 2002 would affect firms' earnings management behavior should be an important concern for regulators and policymakers. Several recent studies investigate the impact of SOX on reported financial information and find firms become more conservative in financial

reporting after the passage of SOX. For example, consistent with the intention of SOX to increase financial reporting quality, Lobo and Zhou (2006) find that firms report lower discretionary accruals in the post-SOX period than in the pre-SOX period. A recent study by Cohen et al. (2008) reports an increase in the absolute value of discretionary accruals before SOX and a decline in the absolute value of discretionary accruals following the enactment of SOX. However, these studies only provide very early evidence on the consequences of SOX on earnings management because of their short post-SOX periods. Thus, it is interesting to investigate whether the influence of SOX on earnings quality has been sustainable since I have more data that are available now. More importantly, to my knowledge, no prior research has paid attention to the influence of SOX on earnings management through classification shifting, which has become an important research topic for earnings management in the past few years. Since several prior studies (McVay, 2006, Fan et al., 2010) have documented that special items are an earnings management tool, it is possible that earnings management using special items may be constrained by SOX as well.

Further, as such classification shifting is unlikely to detect and does not affect the bottom-line income of the firm, it is interesting to examine whether the passage of SOX would be an effective deterrent to such earnings management behavior. Conceptually, the impact of SOX on classification shifting can be argued in either direction. On one hand, SOX places greater accountability on CEOs/CFOs for the integrity of financial reporting. In particular, Section 302 of SOX requires CEOs/CFOs to certify the appropriateness of their financial statements and disclosures and to certify that they fairly present, in all material respects, the operations and financial condition of the company. Therefore, any type of earnings management behavior that misrepresents the underlying economy including classification shifting is likely to decrease following SOX. On the other hand, prior studies have found that the passage of SOX has altered different types of earnings management behavior in different directions. For instance, Cohen et al. (2008) find that firms switched to real earnings management from accrual-based earnings management after the passage of SOX possibly because real earnings management is less likely to detect and less subject to potential litigation costs. Compared to accruals based earnings management, classification shifting is likely to be subject to lower scrutiny of auditors and regulators and be less litigious because classification shifting has no effect on current period's bottom line income and other periods' reporting, absent additional earnings management (McVay, 2006). Therefore, in the post-SOX period, odds exist that classification shifting becomes another substitute for accruals based earnings management for those managers who are interested in boosting core earnings. As such, classification shifting from core earnings to special items will increase in the post-SOX era. Based upon the above reasoning, I form the following hypotheses positing that firms engage in less classification shifting following SOX:

- H1a: The magnitude of firms' unexpected core earnings declines after the passage of the SOX of 2002;*
H1b: Firms shift fewer core expenses to special items after the passage of the SOX of 2002.

Rejection of the above hypotheses, due to opposite association, would be consistent with firms substitute classification shifting for accruals based earnings management in the post-SOX period. Acceptance of the hypotheses would provide support for the deterring effect of SOX.

DATA AND METHODOLOGY

Data

The sample used in this study is collected for the years 1988 - 2010 from the 2011 Compustat Annual database. I eliminate firm-year observations with annual sales less than \$1 million to avoid the small deflator problem as sales is used as a scalar for the majority of the variables. I also exclude firm-year observations that had a fiscal-year-end change to ensure the comparability of years. For inclusion in the final sample, each firm-year is required to have all variables to estimate unexpected core earnings and other variables required in the analysis. Industry categorizations are based on Fama and French (1997). Special

items with missing data are set to zero. Following McVay (2006), I winsorize all continuous variables at the 1st and 99th percentile and expected core earnings is estimated by industry and by fiscal year. A minimum of 15 observations per industry-year is required to ensure a sufficiently large sample to estimate expected core earnings. After various sample attrition procedures, I arrive at a final sample with 109,940 firm-year observations, which includes 71,735 observations in the pre-SOX period and 38,205 observations in the post-SOX period.

Descriptive Statistics

Table 1 provides descriptive statistics for the full sample. The mean of core earnings, scaled by sales, for all firm-year observations is approximately 0.028. The mean of income-decreasing special items, as a percentage of sales, is approximately 0.40 percent. Since this study only examines income-decreasing special items, income-increasing items are not included in our analyses and are set to zero. The mean of unexpected core earnings (reported core earnings minus expected core earnings) is approximately -0.01.

Table 2 provides descriptive statistics for the main variables separately for the pre-SOX and post-SOX periods. For firm-year observations in the pre-SOX period, the mean of core earnings, as scaled by sales, is approximately 0.011; the mean of unexpected core earnings is approximately -0.009. The mean of income-decreasing special items, as a percentage of sales, is approximately 0.4 percent.

Table 1: Descriptive Statistics for the Full Sample

Variable	Mean	Median	Standard Deviation	25%	75%
<i>SALES_t</i> (in millions)	1538	139	4897	29	693
<i>UE_CE_t</i>	-0.010	0.004	0.234	-0.043	0.058
<i>CE_t</i>	0.028	0.109	0.564	0.031	0.214
<i>CE_{t-1}</i>	-0.026	0.110	0.862	0.033	0.216
<i>ATO_t</i>	2.800	1.729	4.030	0.844	3.056
<i>ACCRUALS_t</i>	-0.135	-0.058	0.354	-0.148	-0.007
<i>ACCRUALS_{t-1}</i>	-0.139	-0.054	0.421	-0.142	-0.004
<i>ΔSALES_t</i>	0.252	0.089	0.761	-0.024	0.268
<i>NEG_ΔSALES_t</i>	-0.047	-0.000	0.112	-0.024	0.000
<i>%SI_t</i>	0.004	0.000	0.022	0.000	0.000
<i>SIZE_t</i>	5.302	5.196	2.342	3.582	6.894
<i>ROA_t</i>	-0.029	0.025	0.221	-0.038	0.071
<i>OCF_t</i>	0.002	0.071	0.480	0.001	0.160
<i>BM_t</i>	0.642	0.521	0.946	0.273	0.882

N = 109,940. This table provides descriptive statistics for the full sample. Following is a description for each variable definition: *SALES_t* = Sales revenue in millions (#12); *UE_CE_t* = Unexpected Core Earnings, calculated as the difference between reported and predicted Core Earnings; *CE_t* = Core Earnings (before Special Items and Depreciation), calculated as (Sales - Cost of Goods Sold - Selling, General, and Administrative Expenses) (#13) / Sales (#12); *ATO_t* = Asset Turnover Ratio, measured as *SALES_t* (#12) / ((*NOA_t* - *NOA_{t-1}*) / 2), where *NOA*, or Net Operating Assets, is measured as the difference between Operating Assets - Operating Liabilities; Operating Assets is defined as Total Assets (#6) - Cash (#1) and Short-Term Investments (#32); Operating liabilities is defined as Total Assets (#6) - Total Debt (#9 and #34) - Book Value of Common and Preferred Equity (#60 and #130) - Minority Interests (#38); *ACCRUALS_t* = Operating Accruals, calculated as [Net Income before Extraordinary Items (#123) - Cash From Operations (#308-#124)] / Sales (#12); *ΔSALES_t* = Percent Change in Sales, defined as (*SALES_t* / (#12) - *SALES_{t-1}*) / *SALES_{t-1}*; *NEG_ΔSALES_t* = Percent Change in Sales (*ΔSALES_t*) if *ΔSALES_t* is less than 0, and 0 otherwise; *%SI_t* = Income-Decreasing Special Items scaled by sales and multiplied by (-1), when Special Items are income-decreasing, and 0 otherwise; *SIZE_t* = A nature logarithm of a firm's total assets (#6); *ROA_t* = Income before extraordinary items divided by average total assets, calculated as Net Income before Extraordinary Items (#123) / (Total Assets_t - Total Assets_{t-1}) (#6); *OCF_t* = Operating cash flow, defined as Cash from Operation (#308 - #124) / Sales (#12); *BM_t* = Ratio of book value to market value, defined as Book Value (#60) divided by Market Value (#25 x #199).

For firm-year observations in the post-SOX period, the mean of core earnings, as scaled by sales, is approximately 0.058; the mean of unexpected core earnings is approximately -0.011. The mean of income-decreasing special items, as a percentage of sales, is approximately 0.5 percent. Interestingly, while the mean (median) of core earnings for firms in the post-SOX period is larger than the mean (median) for firms in the pre-SOX period, the mean (median) of unexpected core earnings for firms in the post-SOX period is smaller than the mean (median) for firms in the pre-SOX period. This result seems to be consistent with the expectation that SOX has a deterrent effect upon classification shifting between core earnings and special

items. In addition, the mean of income-decreasing special items for firms in the post-SOX period is higher than that for firms in the pre-SOX period, a result consistent with prior research (e.g. Johnson et al., 2011) that finds the magnitude of special items has increased significantly in the past three decades.

Table 2: Descriptive Statistics for the Pre- and Post-SOX Sample

Variable	Period					
	Pre-SOX			Post-SOX		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
<i>SALES_t</i> (in millions)	1142	103	4010	2282	251	6161
<i>UE - CE_t</i>	-0.009	0.005	0.238	-0.011	-0.002	0.226
<i>CE_t</i>	0.011	0.101	0.566	0.058	0.129	0.560
<i>CE_{t-1}</i>	-0.044	0.103	0.869	0.007	0.128	0.848
<i>ATO_t</i>	2.854	1.841	3.915	2.700	1.501	4.235
<i>ACCRUALS_t</i>	-0.131	-0.053	0.354	-0.142	-0.066	0.355
<i>ACCRUALS_{t-1}</i>	-0.131	-0.048	0.417	-0.154	-0.066	0.429
<i>ΔSALES_t</i>	0.275	0.090	0.809	0.209	0.088	0.657
<i>NEG_ΔSALES_t</i>	-0.048	0.000	0.115	-0.044	0.000	0.107
<i>%SI_t</i>	0.004	0.000	0.021	0.005	0.000	0.023
<i>SIZE_t</i>	4.868	4.694	2.254	6.117	6.158	2.287
<i>ROA_t</i>	-0.036	0.027	0.230	-0.016	0.022	0.201
<i>OCF_t</i>	-0.016	0.059	0.481	0.037	0.095	0.476
<i>BM_t</i>	0.651	0.522	0.984	0.625	0.519	0.871

This table provides descriptive statistics for the Pre-SOX period sample and Post-SOX period sample, separately. The sample size for the Pre-SOX period and Post-SOX period is 71,735 and 38,205 firm-year observations, separately. See Table 1 for the definition of each variable

RESULTS

Tests of Hypothesis

My empirical analysis examines whether the passage of the Sarbanes-Oxley Act constrains firms' earnings management behavior through shifting core expenses to special items. I follow McVay (2006) to measure core earnings, expected core earnings, and unexpected core earnings. To estimate expected core earnings, I use the following expectation model and make estimates on a cross-sectional basis by industry and fiscal year:

$$CE_t = \beta_0 + \beta_1 CET_{t-1} + \beta_2 ATO_t + \beta_3 ACCRUALS_{t-1} + \beta_4 ACCRUALS_t + \beta_5 \Delta SALES_t + \beta_6 NEG_ \Delta SALES_t + \varepsilon_t \quad (1)$$

Where:

SALES_t = Sales revenue in millions (#12);

CE_t = Core Earnings (before Special Items and Depreciation), calculated as (Sales - Cost of Goods Sold - Selling, General, and Administrative Expenses) (#13) / Sales (#12);

ATO_t = Asset Turnover Ratio, measured as $Salest$ (#12) / (($NOA_t - NOA_{t-1}$) / 2), where NOA , or Net Operating Assets, is measured as the difference between Operating Assets - Operating Liabilities; Operating Assets is defined as Total Assets (#6) - Cash (#1) and Short-Term Investments (#32); Operating liabilities is defined as Total Assets (#6) - Total Debt (#9 and #34) - Book Value of Common and Preferred Equity (#60 and #130) - Minority Interests (#38);

ACCRUALS_t = Operating Accruals, calculated as [Net Income before Extraordinary Items (#123) - Cash from Operations (#308-#124)] / Sales (#12);

ΔSALES_t = Percent Change in Sales, defined as ($Sales_t$ (#12) - $Sales_{t-1}$) / $Sales_{t-1}$;

$NEG_ \Delta SALES_t$ = Percent Change in Sales ($\Delta SALES_t$) if $\Delta SALES_t$ is less than 0, and 0 otherwise.

I obtain coefficients from model (1) by industry-year and use them to measure expected core earnings. I then obtain unexpected core earnings, calculated as the difference between reported and predicted core earnings. To test my main hypotheses, I follow McVay (2006) and modify her model to include SOX, the interaction of special items with SOX, and follow Barua et al. (2010) to add five control variables in McVay's (2006) model: firm size ($SIZE_t$), book-to-market ratio (BM_t), accruals ($ACCRUALS_t$), operating cash flow (OCF_t), and return on assets (ROA_t).

$$UE_CE_t = \alpha_0 + \alpha_1 \%SI_t + \alpha_2 SOX + \alpha_3 \%SI_t * SOX + \alpha_4 SIZE_t + \alpha_5 ROA_t + \alpha_6 ACCRUALS_t + \alpha_7 OCF_t + \alpha_8 BM_t + \varepsilon_t \quad (2)$$

Where, for firm i and year t:

UE_CE_t = Unexpected Core Earnings, calculated as the difference between reported and predicted Core Earnings;

$\%SI_t$ = Income-Decreasing Special Items scaled by sales and multiplied by (-1), when Special Items are income-decreasing, and 0 otherwise;

$SOX = 1$ if firms with fiscal years ending in 2003 and 0 otherwise;

$ACCRUALS_t$ = Operating Accruals, calculated as [Net Income before Extraordinary Items (#123) - Cash From Operations (#308-#124)]/Sales (#12);

$\Delta SALES_t$ = Percent Change in Sales, defined as $(Sales_t(\#12) - Sales_{t-1}) / Sales_{t-1}$;

$NEG_ \Delta SALES_t$ = Percent Change in Sales ($\Delta SALES_t$) if $\Delta SALES_t$ is less than 0, and 0 otherwise;

$SIZE_t$ = A natural logarithm of a firm's total assets (#6);

ROA_t = Income before extraordinary items divided by average total assets, calculated as Net Income before Extraordinary Items (#123)/(Total Assets_t - Total Assets_{t-1}) (#6);

OCF_t = Operating cash flow, defined as Cash from Operation (#308 - #124)/Sales (#12);

BM_t = Ratio of book value to market value, defined as Book Value (#60)divided by Market Value (#25 x #199).

My dependent variable of interest is unexpected core earnings and independent variables of interest are SOX and the interaction term of special items with SOX ($\%SI*SOX$). Based on H1a that the magnitude of unexpected core earnings following SOX declines, I predict a negative association between unexpected core earnings and SOX ($\alpha_2 < 0$). Based on H1b that the passage of SOX curbs firms' earnings management through shifting core expenses to special items, I expect a negative coefficient on the interaction term of special items and SOX ($\alpha_3 < 0$). I make no prediction for the sign of the five control variables. Table 3 presents the regression results of Equation 2. The coefficient on $\%SI_t$ is positive and significant (0.442; $p < 0.001$), consistent with prior findings (McVay, 2006; Fan et al., 2010) that suggest firms shift core expenses to special items to inflate core earnings. The coefficient on SOX is negative and significant (-0.013; $p < 0.001$), indicating that the magnitude of unexpected core earnings decreases following the passage of SOX. The coefficient of interaction term between $\%SI_t$ and SOX is negative and significant (-0.195; $p < 0.001$), implying that the passage of SOX curbs firms' earnings management using classification shifting, a result consistent with firms misclassifying fewer core expenses as special items in the post-SOX period than in the pre-SOX period.

Table 3: Regressions Comparing Unexpected Core Earnings between Pre-SOX and Post-SOX Periods

$UE_CE_t = \alpha_0 + \alpha_1 \%SI_t + \alpha_2 SOX + \alpha_3 \%SI_t * SOX + \alpha_4 SIZE_t + \alpha_5 ROA_t + \alpha_6 ACCRUALS_t + \alpha_7 OCF_t + \alpha_8 BM_t + \varepsilon_t$ (2)		
Variables	Predicted Sign	UE CE
Intercept	?	0.013*** (7.98)
%SI	+	0.446*** (12.68)
SOX	-	-0.013*** (-10.01)
%SI*SOX	-	-0.199*** (-3.55)
SIZE	?	-0.002*** (-6.70)
ROA	?	-0.121*** (-30.79)
ACCRUALS	?	0.045*** (22.44)
OCF	?	0.320*** (211.32)
BM	?	-0.007*** (-11.58)
Adjusted R ²		37.63%

Table 3 reports the results from regressions of UE_CE on $\%SI$, SOX , the interaction term between $\%SI$ and SOX , and other control variables. UE_CE represents unexpected core earnings, calculated as the difference between reported and predicted core earnings. $\%SI$ represents income-decreasing special items scaled by sales and multiplied by (-1), when Special Items are income decreasing, and 0 otherwise. $SOX = 1$ if firms with fiscal years ending in 2003 and 0 otherwise. See Table 1 for other variable definitions. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively, for two-tailed tests. Figures in parentheses are t-statistics.

Overall, the results of Table 3 are consistent with the notion that SOX serves as effective deterrence to earnings management using classification shifting between core earnings and special items. The results do not support the argument that classification shifting is used as a substitute for accruals based earnings management in the post-SOX period. After all, many accruals-based earnings management activities aim at inflating the bottom line income but classification shifting cannot serve such a purpose.

Additional Tests

First, I redefine post-SOX period as years 2002-2010 and the results are similar when I define post-SOX period as years 2003-2010. Second, I also define SOX as 1 for firms with fiscal years ending in and after August 2002 and 0 otherwise since SOX became effective in August 2002. The results are similar when I define post-SOX period as years 2003-2010. To conclude, my results are not sensitive to alternative cutoffs for pre- and post-SOX periods.

CONCLUDING COMMENTS

This paper examines whether the passage of SOX (1) reduces the magnitude of unexpected core earnings and (2) curbs firms' earnings management behavior through shifting core expenses to special items. The SOX of 2002 was passed in July 2002 and became effective in August 2002, in response to a series of corporate scandals in the early 2000s. The purpose of SOX aims to prevent accounting fraud and curb management misbehavior, imposing significant legal liabilities and stiffer penalties on managers for aggressive financial reporting. Classification shifting misrepresents components of earnings, which tend to be weighted differently by financial information users. However, it does not affect reported net income, thereby is less likely to be detected and is associated with less litigation risk. Such type of earnings management tool is likely to be used as a substitute for accruals-based earnings management in the post-SOX period by managers who have intention to inflate core earnings. As such, it is interesting to investigate whether the passage of SOX is an effective deterrent to misclassification.

I examine a long window of 1988 to 2010 in order to observe not only the short run but also the long run effect of SOX. Following a research methodology similar to that employed by McVay (2006), I first document a positive association between unexpected core earnings and positive special items, a result consistent with prior research (McVay, 2006, Fan et al., 2010). As to my main findings, my results show that (1) the magnitude of unexpected core earnings decreases after the passage of SOX and (2) the passage of SOX limits firms' earnings management using special items as a tool to inflate their core earnings. Overall, my findings are consistent with my main hypothesis that firms engage in less earnings management using classification shifting between core earnings and special items in the post-SOX period than in the pre-SOX period. I believe this study enriches the literature on classification shifting and provides evidence about the impact of SOX on earnings management through classification shifting and the trend of earnings management using special items as a tool following SOX. I also believe that the findings of this study should shed additional insights into the effect of regulations on earnings management using classification shifting and have considerable regulatory/policy implications.

A few caveats are in order. First, even though I follow prior research to use a normal model of core earnings to estimate the unexpected core earnings there may still be error in the measure of unexpected core earnings. Future research could consider exploring an improved model to re-examine this issue. Second, I focus only on the impact of regulations on a company's classification shifting behavior within the United States, so my inferences may not be generalized to an international context. Future research can consider extending my analysis to examine how the adoption of international regulations (e.g., International Financial Reporting Standards) affects the classification shifting behavior in an international setting.

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SUBSTANTIAL AUTHORITY UPDATE: TAX PENALTY AVOIDANCE BY GOOD FAITH REFERENCE TO JUDICIAL, ADMINISTRATIVE AND LEGISLATIVE AUTHORITIES

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ABSTRACT

Internal Revenue Code (IRC) §§ 6662(b) authorizes the Internal Revenue Service (IRS) to impose a penalty if an underpayment of income tax by a taxpayer exceeds a computational threshold called a substantial understatement. An understatement is reduced, however, by the portion attributable to an item for which the taxpayer had “substantial authority.” Substantial authority is defined in Treasury Regulation §1,6662-4(d)(2), but taxpayers are required to recognize and take into account the relative weight of various authorities such as regulations, revenue rulings, legislative histories, court cases and IRS pronouncements. Alternatively, taxpayers may make a “reasonable cause” argument for the waiver of underpayment penalties, claiming that they made a good faith effort to comply with the IRC requirements. We examine the manner and extent to which courts have been willing to waive penalties based on substantial authority cited by taxpayers. We also analyze cases in which taxpayers have claimed reasonable cause. We draw conclusions about judicial responses to these two penalty avoidance arguments.

JEL: H26, K34, M48

KEYWORDS: Preparer Penalties, Substantial Authority, Taxation, Tax Penalties, Accuracy-Related Penalty

INTRODUCTION

The Taxpayer Advocate Service is an independently functioning organization within the Internal Revenue Service. Each year the United States Taxpayer Advocate prepares and delivers to Congress an annual report that for the last seven years has included data about the top ten tax issues most litigated in federal courts (Taxpayer Advocate Service, 2015, 2014, 2013, 2012, 2011, 2010, 2009). As has been the case for all years since this reporting protocol was initiated in 2008, litigation of accuracy-related tax penalties has made this top ten list. In fact, for the most recent annual report, disputes involving these penalties were more numerous than for any other issue (Taxpayer Advocate Service, 2015, p. 426).

Internal Revenue Code § 6662(b) authorizes the IRS to impose a penalty if a taxpayer’s negligence or disregard of rules or regulations causes a material underpayment of tax, or if an underpayment amounts to a substantial understatement (Internal Revenue Code, 2016). An income tax preparer may also be subject to a penalty under Code § 6694(a) if the preparer knew or should have known that a tax return position taken by his or her client would or did result in an understatement of taxable income. For purposes of the penalty calculations, Code § 6662(d)(2)(B) provides that the amount penalized as an understatement can be reduced by the portion attributable to an item for which the taxpayer had “substantial authority.”

As a rule, the tax treatment of an item has substantial authority only if the weight of published cases, rulings and other legal and administrative authorities is substantial in relation to the weight of opposing authorities. That is, if the weight of the authorities supporting the treatment is substantial in relation to the weight of authorities supporting contrary treatment. Treasury regulation Treas. § 1.6662-4(d)(3)(iii) provides a lengthy list of what constitutes authority for purposes of the substantial authority exception. Treatises, legal periodicals, legal opinions or opinions rendered by tax professionals are not considered to be authoritative as such. However, the authorities underlying those opinions may give rise to substantial authority. Code § 6662(d)(2)(B) also provides for penalty abatement to the extent that a taxpayer's (erroneous) tax position was adequately disclosed in the tax return and there is a reasonable basis (even without substantial authority) for the treatment of item.

Separately, Internal Revenue Code § 6664(c) provides a more subjective exception to the section 6662(a) accuracy-related penalty if there was reasonable cause for the portion of the underpayment subject to the penalty and the taxpayer acted in good faith with respect to that portion. The determination as to whether a taxpayer acted with reasonable cause and in good faith is made on a case-by-case basis, taking into account all pertinent facts and circumstances. These factors can include such considerations as the extent of a taxpayer's efforts to determine the proper tax liability, the taxpayer's tax knowledge, education and experience, and whether the taxpayer sought the advice of a competent professional tax adviser.

In some cases, taxpayer reliance on such advice of a competent tax professional can also help to establish reasonable cause. To qualify for such reasonable cause, it must be shown that the advice was objectively reasonable and based on all pertinent facts and circumstances and the law as it relates to those facts and circumstances, and not based on any unreasonable factual or legal assumptions. In addition, the advisor may not solely or unreasonably rely on the representations, statements, findings, or agreements of the taxpayer or any other person (*106 Ltd. v. Commissioner*, 2012; *Neonatology Associates, P.A. v. Commissioner*, 2000; *United States v. Boyle*, 1985).

The Internal Revenue Service often assesses accuracy-related penalties along with tax deficiencies. Questions about whether substantial authority or reasonable cause exists, for penalty abatement purposes, are often decided only after taxpayers appeal the tax and penalty assessments to a federal court. As a result of the litigation of these tax and penalty assessments, a body of reported court opinions has been generated. This paper applies legal case study research methodology in an effort to analyze many of the more recent court opinions, in an effort to determine whether they might yield practical guidance about what constitutes substantial authority for purposes of penalty relief, and what does not. Particular attention is paid to those factors that, in the view of federal courts, weigh in favor of penalty relief based on substantial authority or reasonable cause considerations.

In the remainder of this paper we will consider the prior research and review the literature regarding accuracy-related penalties. In the context of that literature, we consider recent cases wherein taxpayers have pointed to substantial authority pursuant to Internal Revenue Code § 6662(d)(2)(B) in their efforts to avoid the imposition of accuracy-related penalties. We then consider recent cases wherein taxpayers have pointed to reasonable cause pursuant to Internal Revenue Code § § 6664(c) in their efforts to avoid the imposition of accuracy-related penalties. We conclude with an analysis of these cases and their implications for future research.

PRIOR RESEARCH OF ACCURACY-RELATED PENALTY CASES

Much of the prior analysis of penalty-abatement court cases has been published in *The Tax Adviser*, a publication of the American Institute of Certified Public Accountants. Most recently, Beavers (2014) published in that journal a case study of *AD Inv. 2000 Fund LLC v. Commissioner* (2014), a tax and penalty appeal involving two limited liability companies who had relied on opinion letters from a law firm when

they reported certain losses to the Internal Revenue Service. The taxpayers insisted that, as a result of the legal opinion letters (which were, in the opinion of the taxpayers, subject to attorney-client privilege), they reasonably believed that the tax losses were properly reported. The Internal Revenue Service countered by asserting that the taxpayers had effectively waived their attorney-client privilege by claiming reliance on the tax opinion letters. The court ruled in favor of the government, and Beavers observed that, “simply put if a taxpayer raises a defense that can be effectively disproven only through the discovery of attorney-client communications, the taxpayer impliedly waives attorney-client privilege” (p. 524).

Puckett (2012) analyzed five accuracy-related penalty cases in an earlier issue of *The Tax Adviser*. In all but one of the cases studied and discussed by Puckett, the taxpayers’ appeals of the assessment of accuracy-related penalties were denied. The court granted relief in the fifth case, *McGowen v. Commissioner* (2011), after noting that the taxpayer lacked knowledge and experience in tax law, reasonably believed that the income item in question was not taxable, and determined in good faith to not report the income item on her 2006 income tax return. Puckett observed that even though the court viewed the taxpayer’s efforts in reporting her income tax liability favorably, the court “could have gone either way, considering that the taxpayer was a financial analyst and at least somewhat sophisticated” (p. 305).

A two-part series in *The Tax Adviser* in 2010 described and explained the accuracy-related penalties and the manner in which they are administered. The first article (Cook & Ocheltree, 2010a) set forth and explicated the rules and requirements pertaining to the assertion of the penalties. The second (Cook & Ocheltree, 2010b) focused on rules and requirements regarding the defenses that might be raised by taxpayers, such as substantial authority or reasonable cause (as set forth above). Both articles pointed primarily to the various statutory provisions, regulations and administrative pronouncements that serve as guidance for navigating these penalties. Only a handful of court cases were cited, and none were analyzed in detail.

Keenan and Patel (2009) provided an analysis of *January Transport, Inc. v. Commissioner* (2008), a case involving the taxpayer’s assertion that the taxpayer’s good faith reliance on the advice of a tax professional was proper grounds for penalty relief. In that case the court denied the taxpayer’s request for penalty relief, because the taxpayer relied primarily on an article regarding pending, rather than existing, legislation. The court concluded that this reliance was not reasonable and did not trigger the reasonable cause exception under Internal Revenue Code § 6664(c). Keenan and Patel observed that the *January Transport* case “serves as a good reminder for taxpayers and their tax professionals that reliance upon a tax professional’s advice does not guarantee that a taxpayer cannot be assessed an accuracy-related penalty if the tax return position does not meet basic reporting standards” (p. 253).

Other recent guidance in *The Tax Adviser* has included information about how accuracy-related penalties are calculated (Keenan, Lessman & Hummel, 2013); the impact of substantial authority requirements on preparer penalty assessments (Gardner, Kastantin and Maas, 2012; Beavers, 2009); the relevance of substantial authority to the propriety of tax return positions for purposes of tax accountants’ compliance with professional ethics rules (Gardner, Eide, May & May, 2012); and the manner in which substantial authority is taken into account by public corporations for purposes of their compliance with the reporting requirements of a newly issued tax form (Hennig & Sonnier, 2011).

In addition to the contributors to *The Tax Adviser* as described above, other authors have provided succinct and helpful summaries of the accuracy-related penalty regime. Examples include Skarlatos (2015), who offers guidelines for ascertaining the level of certainty that taxpayers and tax preparers should have before signing tax returns; Knight & Knight (2013), who provide a comprehensive survey and analysis of extant court cases addressing the issues surrounding reliance on a tax professional as grounds for a reasonable cause exemption from the imposition of penalties; and Purcell, Sansone & Tracy (2010), who consider the practice-related implications of the accuracy-related penalties and the manner in which they integrate with

professional ethics, standing to practice before the Internal Revenue Service, and tax preparation and consultation generally.

In-depth investigations of the legal and public policy aspects tax penalties have also become an important part of the body of literature on this topic. Wright (2015), for example, takes into account the Internal Revenue Code § 6662(b) accuracy-related penalties (applicable primarily to tax positions taken on tax returns) as part of his larger critique of the separate Internal Revenue Code § 6676 penalties applicable to bogus refund claims based on transactions lacking economic substance. And Moldenhauer (2012) considers the conflict interest and related professional ethics implications of Internal Revenue Code § 6694(a) preparer penalties as a matter of public policy.

Taken together, the above body of literature has served to explicate the structure of, and articulate the parameters surrounding, the accuracy-related penalty regime of the Internal Revenue Code. This paper will add to this body of knowledge by: (a) drawing from the body of case law set forth in all of the annual reports to date made by the United States Taxpayer Advocate, that is, the reports to Congress from 2009 through 2015; (b) examining this body of case law to discover the types and categories of authorities that courts have acknowledged and affirmed as being substantial authority under Code § 6662(d)(2)(B) for purposes of penalty relief even when taxpayers have been unsuccessful in appealing their underlying tax positions; and (b) examining this body of case law to discover the factors that courts have emphasized while granting Internal Revenue Code § 6664(c) reasonable cause relief. In doing so, this paper will effectively expand and update the earlier case analysis performed by Knight and Knight (2013).

RECOGNITION OF SUBSTANTIAL AUTHORITY UNDER CODE § 6662(d)(2)(B)

As noted above an understatement of tax may be reduced by any portion of the understatement attributable to an item for which the tax treatment is adequately disclosed and supported by a reasonable basis. Treasury regulations provide that this standard can be met if the taxpayer's position reasonably relies on one or more of the substantial authorities listed in Treas. Reg. § 1.6662-4(d)(3)(iii). These can include information such as sections of the IRC; proposed, temporary, or final regulations; revenue rulings and revenue procedures; tax treaties and regulations thereunder, and Treasury Department and other official explanations of such treaties; court cases; and congressional intent as reflected in committee reports. Absent from this list are opinions, analyses, articles and treatises published by non-governmental journals and other scholarly outlets, such as the journal *Accounting and Taxation*, irrespective of the quality, extent of research, insightfulness, credibility or expertise that might be demonstrated by such efforts.

In the seven annual reports to Congress made by the United States Taxpayer Advocate from 2009 to 2015, a total of 846 accuracy-related penalty court opinions were identified (Taxpayer Advocate Service, 2015, 2014, 2013, 2012, 2011, 2010, 2009). Of these, 631 were identified by the Taxpayer Advocate as having been decided in favor of the Internal Revenue service; 161 were identified as having been decided in favor of the taxpayer(s); 53 were identified as split decisions; and one case was remanded to the lower court for further proceedings. Many of the 53 cases identified as split decisions involved penalty relief for some, but not all, of the accuracy-related penalties assessed by the Internal Revenue Service.

As we examined the opinions in the 846 cases listed by the Taxpayer Advocate, we observed that 22 cases specifically addressed in some detail the issue of whether the assessed accuracy-related penalties should be reduced by the portion attributable to items for which the taxpayer(s) had proffered substantial authority pursuant to Internal Revenue Code § 6662(d)(2)(B). In 18 of these 22 opinions, the courts concluded that the authorities referenced by the taxpayer(s) did not meet the standard for substantial authority. However, the courts decided in four cases that the authority relied upon was substantial and qualified the taxpayer(s) for penalty relief; two of those four cases were separate proceedings involving the same taxpayer and many of the same issues. These four cases involving three taxpayers are discussed below.

The first of the four substantial authority cases referenced by the Taxpayer Advocate was *NPR Investments, LLC v. United States* (2010). NPR involved three attorneys whose law firm had invested in a foreign currency exchange tax shelter scheme in connection with one of their clients. The attorneys obtained a tax opinion from a prominent tax attorney; the opinion provided an analysis of extant case law and concluded that the case law strongly supported the reporting position taken by the three attorneys in regard to the foreign currency tax benefits. The taxpayers appealed the IRS's denial of their claimed tax shelter benefits, and the trial court upheld the government on this issue. The trial court also reviewed the taxpayers' assertion that substantial authority supported their position for purposes of a relief from the accuracy-related penalties assessed by the government. On this issue, the trial court ruled that acted reasonably and in good faith in relying on their tax advisors' advice with respect to their investments in the underlying transactions. On appeal by the government, the Fifth Circuit applied its own critical analysis to the authorities relied upon by the taxpayers and overturned the trial court's grant of penalty relief to the taxpayers (*NPR Investments, LLC v. United States*, 2014).

Two of the four substantial cases identified by the Taxpayer Advocate involved the same taxpayer, a partnership known as Castle Harbor, and the same underlying set of facts. Castle Harbor had been formed by General Electric Capital Corporation, the owner of a fully depreciated fleet of aircraft leased to commercial carriers. General Electric Capital Corporation had hoped to use Castle Harbor as a vehicle for raising cash from certain Dutch banks by assigning income to the banks (which were not subject to U.S. taxation. The Internal Revenue Service challenged this arrangement by reallocating taxable time back to General Electric Capital Corporation and away from the Dutch banks. An early court proceeding in the matter (*TIFD III-E Inc. v. United States*, 2004), which was later overturned (*TIFD III-E, Inc. v. United States*, 2006), had concluded that the taxpayers had properly interpreted the statutory and case law when they allocated taxable income to the Dutch banks.

A later court proceeding in the same district court (*TIFD III-E Inc. v. United States*, 2009) resulted in a less favorable interpretation of the statutory and case law, but acknowledge that the earlier favorable ruling in 2004 constituted substantial authority for purposes of penalty relief under Internal Revenue Code § 6662(d)(2)(B). This ruling in regard to the accuracy-relief penalties was overturned on appeal (*TIFD III-E Inc. v. United States*, 2012), but on remand the same district court ruled that even if the substantial authority exception did not apply, the Internal Revenue Code § 6662(d)(2)(B) provision for penalty abatement if there is proper disclosure and a reasonable basis (even without substantial authority) applied (*TIFD III-E Inc. v. United States*, 2014). The two pro-taxpayer rulings (i.e., the 2009 and 2014) rulings were cited by the Taxpayer Advocate, along with the 2012 pro-government ruling. A later reversal of the 2014 pro-taxpayer ruling, *TIFD III-E Inc. v. United States* (2015) occurred after the cutoff date for the Taxpayer Advocate's 2015 annual report.

Southgate Master Fund v. United States (2009) was the fourth case in which penalty-abating substantial authority was recognized, as acknowledged by the Taxpayer Advocate. In that case, the taxpayer claimed capital losses that appeared to fall within a literal reading of the Internal Revenue Code, but the court ruled that the transaction that created the high basis in the stock transaction lacked economic substance and therefore must be disregarded for tax purposes. However, the court also ruled that the taxpayer's literal interpretation of the statute, as articulated and elaborated in two tax opinions obtained by the taxpayer, constituted substantial authority. As noted by the Taxpayer Advocate, this ruling was affirmed on appeal to the Fifth Circuit (*Southgate Master Fund v. United States*, 2011).

RECOGNITION OF REASONABLE CAUSE UNDER CODE § 6664(c)

Pursuant to Internal Revenue Code § 6664(c) the accuracy-related penalty does not apply in situations where it is determined that the taxpayer acted with reasonable cause and in good faith. A reasonable cause

determination requires that all of the pertinent facts and circumstances be taken into account. Generally, the most significant and persuasive factor is the extent to which the taxpayer made an effort to determine the proper tax liability. Our examination of the 846 court listed by the Taxpayer Advocate revealed that 169 cases were decided in favor of taxpayers who were able to make a good faith showing of reasonable cause as allowed by Internal Revenue Code § 6664(c). We have selected a few exemplary cases that reflect the reasoning the courts have applied in these 169 cases.

The first of these cases is *Price v. Commissioner* (2014), involving an auto dealer who engaged in a side activity which consisted of breeding, boarding, training, hauling, and showing of horses. The Internal Revenue Service objected to the auto dealer's attempt to offset auto dealership profits with losses from the horse activity, insisting that these were separate undertakings. When the taxpayer appealed the matter, the United States Tax Court agreed with the Internal Revenue Service that the two undertakings did not share organizational and economic overlap, that any economic benefit between the two activities was directed from the horse activity to the dealership for the convenience of the auto dealer, and that the activities were wholly dissimilar. The Tax Court did however waive the accuracy-related penalties that had been assessed by the Internal Revenue Service. In doing so, the Tax Court observed that the auto dealer had hired a certified public accountant and had consulted the accountant about the various tax issues. The taxpayer had also taken the horse activity seriously, even though the activity did not qualify as a trade or business for tax purposes.

In *Humphrey, Farrington & McClain, P.C. v. Commissioner* (2013), a litigation law firm that represented plaintiffs on a contingent fee basis in cases involving tobacco, toxic-substance exposure, products liability, false advertising, consumer antitrust, securities fraud, medical malpractice, and ERISA benefits. The firm attempted to deduct on a cash basis pre-litigation and trial-related expenditures such as court-filing fees, court reporters, expert witnesses, depositions, medical records, medical examinations, travel, phone calls, faxes, and photocopying. The law firm created an internal classification system that attempted to account for the relative risks of losing its cases, and used this system to determine whether to claim deductions for the advanced expenses. It did not claim deductions for all of the advanced expenses: For example, it capitalized some of the advanced expenses in the net-fee category. The Internal Revenue Service denied the immediate deductions for all of these expenditures, irrespective of the law firm's classification system, contending that all of them were more in the nature of nondeductible loans (at least until each respective case is resolved in one way or another). The Internal Revenue Service also assessed accuracy-related penalties. When the law firm appealed the matter to the Tax Court, the tax deficiencies were upheld but the penalties were waived on the basis of reasonable cause. In arriving at this conclusion, the Court made note of the efforts to which the law firm went in their efforts to distinguish what they believed to be properly deductible expenditures, from expenditures they believed ought to have been capitalized.

The case of *G.D. Parker, Inc. v. Commissioner* (2012) involved various disputes between the taxpayer and the Internal Revenue Service, including a conflict over whether the taxpayer was entitled to a capital loss and related capital loss carryovers arising from the sale of stock. Although the Tax Court issued a memorandum opinion supporting the government's position in regard to the capital loss and carryovers, the court also granted reasonable cause relief from the imposition of accuracy-related penalties. The court concluded that the advice received by the taxpayer from its accountants took into account all of the facts and circumstances of the transactions and the law as it related to those facts and circumstances. The court also expressed its belief that the advice was based on unreasonable factual or legal assumptions, and that it was reasonable for the taxpayer to rely on its accountants in deducting the capital loss and related carryovers.

Finally, *Esgar Corp. v. Commissioner* (2012) involved the Internal Revenue Service's challenge of the charitable contribution deduction taken by the taxpayers as a result of its donation of a conservation easement to the State of Colorado. In particular, the government challenged the value of the underlying

land, insisting that the highest and best use, and the use on which value was properly established, was agricultural, not the more valuable gravel extraction use on which the taxpayers had relied. The Tax Court agreed with the government's position in regard to the valuation and related deductibility of the conservation easement, but set aside the Internal Revenue Service's assessment of accuracy-related penalties based on reasonable cause. The Court agreed with the taxpayers that they had made a good faith investigation by relying on their adviser and his accounting firm, by obtaining a core sampling report of the underlying valuable gravel reserves, and by obtaining a qualified appraisal from a qualified appraiser.

CONCLUSION

In this paper, we set out to discover the extent to which arguments about reliance upon substantial authority, and, alternatively, arguments about reasonable efforts to comply with the tax rules, have served to provide relief from the imposition of accuracy-related tax penalties. Our study involved the legal case study methodology as we investigated accuracy-related penalties cases compiled by the United States Taxpayer Advocate. Those reported court opinions provided a helpful body of common law that permitted our analysis of the manner in which such penalties are waived by the courts.

Our study revealed that only a handful of such reported cases have involved a successful appeal of the assessment of accuracy-related penalties based on the objective analysis of substantial authorities under Internal Revenue Code § 6662(d)(2)(B), and most of these were overturned on appeal. On the other hand, taxpayers who relied on the somewhat lower and more subjective standard of reasonable cause under Internal Revenue Code § 6664 appeared to have fared better. Courts waived accuracy-related penalties in a significant number of cases when the courts believe that the taxpayers had made rigorous and significant efforts to ensure that the reported tax positions were reasonable and credible. These efforts have included accounting and record-keeping procedures that reflect an effort to distinguish between proper and improper tax reporting positions, consultation with tax professionals and other experts, and other good-faith efforts to allow their tax returns to reflect income clearly.

These cases also provide a basis for an inference that taxpayer efforts to point the government and the courts to court cases, rulings and other authorities – in an effort to avoid accuracy-related penalties – are likely to be more successful if those arguments are framed in a particular way. To the extent that they are framed as a sort of "tax research battle" wherein the legal authorities relied upon by the taxpayer are compared to opposing legal authorities relied upon by the government, the taxpayer appears to be disadvantaged. But to the extent that these tax authorities are framed in terms of professional advice relied upon in good faith by the taxpayer, the focus shifts from the underlying objective weight of the authorities to the more subjective extent to which the taxpayer appears to have reasonably relied upon such authority.

This paper has modeled a methodology for comparing the relative value of a reliance upon an Internal Revenue Code § 6662(d)(2) substantial authority defense, with a reliance upon an Internal Revenue Code § 6664 reasonable cause defense as a waiver-abatement strategy. Future research might be conducted in order to do a more thorough and comprehensive analysis of the more than 100 cases reported by the Taxpayer Advocate that successfully employed a reasonable cause argument. Since the reasonable cause argument has been shown here to be more successful, as a general rule, than the substantial authority argument, both taxpayers and the U.S. government would benefit from a more detailed analysis of the various factors that contribute to the articulation of compelling and relevant reasonable cause defenses under Internal Revenue Code § 6664.

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AN EXAMINATION OF THE IMPACT OF CULTURE ON IFRS RISK DISCLOSURES FOR FIRMS THAT CROSS-LIST IN THE U.S.

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ABSTRACT

Accounting disclosures is an important factor in the decision making process of users of financial statements. Differences in cultural values across countries may result in different opinions regarding the adequacy or extent of the disclosures on the financial statements. The objective of this study is to examine the effect of culture on IFRS 7 risk disclosures in firms that cross-list in the United States. This paper extends the current literature in the area of culture and IFRS risk disclosure requirements. The study sample consists of 62 international firms that trade in the New York Stock Exchange. A cross-country analysis related to IFRS 7 disclosure level of financial risk was prepared for each firm. Using Hofstede (1983) and Gray's theory (1988), each company and country was divided by cultural area and by a level of secrecy and conservatism scale. A level of risk disclosures was created for each company after considering the extension of the IFRS 7 disclosures in their annual reports. The results suggest that culture (secrecy and conservatism) do not have a significant impact in IFRS 7 disclosure levels. However, other economic and political factors seem to influence risk disclosures in financial statements.

JEL: F2, M16, M40, M41

KEYWORDS: Culture, IFRS 7, Risk Disclosures, Secrecy, Conservatism

INTRODUCTION

International Financial Reporting Standards No.7 (IFRS 7), adopted in 2007, replaced prior standards on risk disclosures. Prior research examines the quality and quantity of financial risk disclosures after the adoption of IFRS 7 (Beretta and Bozzolan, 2004, Bischof, 2009, Miihkin, 2012). Other studies examine the presentation of the risk disclosures in the annual reports (Dobler, Lajili and Zeghal, 2011). Some recent studies consider culture as a factor that will impact the disclosure of risk (Bentley and Franklyn, 2013, Dobler, et al. 2011). Other investigations use Hofstede cultural dimensions (1983) and Gray's framework (1988) to measure cultural effects in many accounting and financial research studies, including disclosures. Douppnik and Riccio (2006) conclude that differences in cultural values across countries could lead to differences in recognition and disclosure decisions. The objective of this paper is to examine the effect of culture on the level of risk disclosures required by IFRS 7. To the best of my knowledge, the cultural effect in the IFRS 7 level of risk disclosures has not been studied in the literature. This study aims to fill that gap. The remainder of the paper is organized as follows. Section 2 describes the relevant literature. Sections 3 and 4 present the methodology and the empirical results obtained. Section 5 presents the conclusions.

LITERATURE REVIEW

Culture

For Geert Hofstede (1983), culture is a collective programming of the mind, hard to change that distinguishes a group of people from others. Hofstede (1983) developed a model to identify the cultural patterns of different countries consisting of four primary dimensions: individualism and collectivism, power distance, uncertainty avoidance and masculinity (or femininity). In 1985, Hofstede added a fifth dimension looking for a long-term alternative (long-term vision). In 2010, he added a sixth dimension to the model, indulgence versus restraint (Hofstede G, Hofstede G.J and Minkov, 2010). According to Hofstede (1983), the individualism and collectivism dimensions deal primarily with the relationship that an individual has with other persons. The power distance dimension refers to how societies function with people who are not equal to each other, either in their physical capacities or their intellectual capabilities. The power distance dimension is related to the magnitude of centralized authority and dictatorial, autocratic leadership. The dimension of uncertainty avoidance focuses on two of the basic facts of life: time travels only one way, and nothing in life is certain. The masculinity/femininity dimension compares the gender dichotomy in civilizations. According to Hofstede (1980, 2001), in a feminine society, there is less division of responsibilities between the sexes. The dimension of Long-term orientation is concerned with nurturing qualities that are geared towards future rewards, especially those of perseverance and thrift (Hofstede, 2001). The sixth dimension (indulgence versus restraint) deals with the gratifications that exist in societies of enjoying life and having fun (Hofstede, et al. 2010).

Other authors have examined the relationship between Hofstede's cultural dimensions and accounting. Gray (1988) developed a theoretical framework that related the initial four dimensions (individualism/collectivism, power distance, uncertainty avoidance and the male and female dimension) with the accounting systems. The researcher used a system of accounting values derived from social values (Hofstede's dimensions). The accounting values were: professionalism versus statutory control, uniformity versus flexibility, conservatism versus optimism and secrecy versus transparency. For Gray (1988), (1) a country that is more individualistic, with reduced uncertainty avoidance and smaller power distance, will be a more professional country, (2) a country where there is more uncertainty avoidance, with more power distance and is less individualistic, increases the probability that it will be a more professional country, (3) a country with increased uncertainty avoidance that is less individualistic and masculine, will be a more conservative country, (4) a country with a high uncertainty avoidance, more power distance, less individualistic and masculine, is more likely to possess the characteristic of secrecy. Douppnik and Perera (2012) mention that Gray developed a framework that uses a scale for the values of secrecy and conservatism. Using that scale, Gray ranked 10 different cultural areas created by Hofstede. A scale of 1 (low secrecy) to 7 (high secrecy) and a scale of 1 (low conservatism) to 5 (high conservatism) was used to rank each cultural area. Douppnik and Riccio (2006) state that Gray's framework predicts that a country that ranks high on the cultural dimension of uncertainty avoidance will rank high on the accounting value of secrecy. That will result in less disclosure of financial information, affecting financial statements comparability.

History of IFRS 7

IFRS 7, Financial Instruments Disclosures, was applicable for all periods commencing on or after January 1, 2007 (Sacho, 2008). IFRS 7 replaced International Accounting Standard (IAS) 30 and substituted the disclosure requirements under IAS 32, Financial Instruments: Presentation, for hedge accounting and fair value measurement. Different to IAS 30, IFRS 7 was not limited to banks. The new standard applies to all entities that have financial instruments. Gebhardt (2012) finds evidence that supports the argument that nonfinancial firms hold substantial amounts of financial assets. The purpose of this new standard is to

improve the usefulness of information for decision making about risk and return for investors and users of financial statements. Bonetti, Mattei and Palmucci (2012) argue that IFRS 7 wanted to reduce investor uncertainty about the effects of a change in risk variables on firms' expected cash flows. IFRS 7 requires an entity to group its financial instruments into classes of similar instruments and to make disclosures by class. Gornik (2006) mentions that an entity that uses IAS 7 must disclose: (1) Information about the significance of financial instruments for an entity's financial position and performance and (2) information about the nature and extent of risks arising from financial instruments, including specified minimum disclosure about credit risk, liquidity risk and market risk.

Credit risk is the risk that a financial asset may become impaired (Sacho, 2008) and is a function of the customer's credit quality (Bischof, 2009). Entities will be required to disclose the following: the maximum exposure to credit risk, credit quality of financial assets that are not overdue or impaired, concentration of credit risk and age of analysis of overdue financial assets that are not impaired (Sacho 2008). Liquidity risk is defined as the risk that an entity will encounter difficulty in meeting the obligations associated with financial liabilities (IFRS 7, 2005). For Bischof (2009), liquidity risk arises from maturity gaps in an entity's current liquidity. IFRS 7 (2005) defines market risk as the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risks. Bischof (2009) argues that market risk will also include the disclosure of changes, in for example, equity prices, commodity prices and real estate prices. Sacho (2008) mentions that companies also need to disclose its exposure to other price risks such as stock exchanges prices or indexes. Bischof (2009) explains that operational risk disclosure is not required under IFRS 7.

Effects of Enforcement of Risk Disclosures

Prior research on IFRS 7 suggests that the adoption of IFRS 7 has enhanced the disclosure quality of financial risk. Some authors have studied the quality aspects of financial disclosures. For Beretta and Bozzolan (2004), there is no association between the measures of annual report quantity and annual report disclosure quality. In his study, Bischof (2009) finds that the enforcement of the standard increases the disclosure quality of financial statements and risk reports of Banks in Europe. He also argues that the disclosure quality has shifted from market risk exposures to credit risk exposures. Evaluating the company risk related disclosures in Portugal (a code law country), Oliveira, Lima and Craig (2013) conclude that it is uncertain that recent regulation had been effective in improving the quality of risk information disclosed. However, For Riise and Plenborg (2013), some of the disclosures required by IFRS, including IFRS 7, are highly demanded, but are also among the items most costly to prepare and that users are less satisfied with them. Miihkinen (2012) argues that IFRS firm risk disclosures increases with the new pronouncements in the quantity of risk disclosure with more extensive and more comprehensive information. In their cross cultural study analyzing the attributes of risk disclosures in the manufacturing sector, Dobler, Lajili and Zéghal (2011) conclude that risk disclosures are more common in management reports and on concentrations of financial risk categories. Bonetti, Mattei and Palmucci (2012) conclude that before the IFRS 7 requirement, investors did not approach the firms' exposures to currency risk properly. For Condon (2008), users of financial statements value information about the risk arising from financial instruments to which an entity is exposed, and the techniques used to identify measure, monitor and control these risks.

Factors That Impact Accounting Disclosure

Many studies suggest that some factors may impact accounting disclosures. For Zarsesky (1996), firms operating in the international marketplace are spontaneously disclosing high levels of public information. Jaggi and Low (2000) find that firms from common law countries are associated with higher financial disclosures, compared to firms from code law countries. Hope (2003) results show that both legal origin and culture are important in explaining firm disclosure. Bentley and Franklyn (2013) find that Anglo

cultures are more favorable to disclose risk. Dobler, et al. (2011) concludes that the differences across cultures in risk disclosures can only partly be linked to domestic disclosures regulation. For initial disclosures after the adoption of IFRS 7, Bischof (2009) suggests that it can vary across countries because of the differences in the enforcement and interpretation of IFRS 7 by national banking supervising entities. Cross-listed firms tend to be more transparent in their disclosures. After examining analysts' earnings forecasts, Arping and Sautner (2012) argue that European Union (EU)-firms that cross-list on U.S. exchanges are more transparent. Indeed, disclosure costs can be a determinant factor in the decision to disclose more or less. Frost and Kinney (1996) find that differences in disclosures are related to the fact that some foreign issuers view the cost of meeting written disclosures requirements as exceeding the expected costs of noncompliance. For Admari and Pfleiderer (2000) full voluntary disclosure rarely seems to occur and firms usually do not disclose more than what regulations require. However, as a result of the Sarbanes-Oxley Act of 2002 international firms are required to disclose more.

DATA AND METHODOLOGY

Data and Sample Selection

Since prior studies suggest that culture affects accounting disclosures, the research questions of this study are the following: (1) Does culture have an effect on risk disclosure levels? (2) If culture has an effect on risk disclosure levels, how have disclosures changed after the adoption of IFRS 7 (considering Gray's theory of secrecy and conservatism)? The study sample consists initially of 98 international firms that trade in the New York Stock Exchange as of August 2014. Of those firms, 36 have no available 2012 IFRS Annual Reports. As a result, 62 firms in 18 countries and in 6 regions (Africa, Asia, Europe, Latin American and Caribbean, North America and Oceania) are included in the sample (Table 1).

Table 1: Sample Composition

Total Sample of International Companies Listed in New York Stock Exchange at 2012		98
Less: Companies with No Available 2012 IFRS Annual Reports		-36
Final Full Study Sample		62
Countries used in the full sample	Countries by region used in the full sample	
Argentina	1	Africa 1
Australia	2	Asia 7
Belgium	1	Europe 35
Canada	16	Latin America and Caribbean 1
China	3	North America 16
Denmark	1	Oceania 2
Finland	1	Total 62
France	1	
Germany	3	
Hong Kong	3	
Italy	2	
Japan	1	
Luxemburg	2	
Netherlands	3	
South Africa	1	
Spain	3	
Switzerland	3	
United Kingdom	15	
Total	62	

This table shows the sample of international companies and countries used in the study.

The Mergent online database was used to identify the firms. A cross-country analysis related to IFRS 7 disclosures of financial risk was prepared including the company's name and country of origin, the financial reporting framework used (IFRS, US GAAP or other), their audit firm, and the industry. It also identifies if the company discloses financial risk information in a separate report and/ or in the notes of the financial statements, the name of the report and the description (name) and number of the note, and the type of risk disclosures used by the company. Using Hofstede (1980) and Gray's theory (1988), the country of each

company was classified by a level of secrecy and conservatism (Table 2). According to Gray (1988), the greater the level of secrecy and conservatism, the lower the level of disclosure. On the other hand, the lower the level of secrecy and conservatism, the greater the level of disclosure. A level of risk disclosure, fluctuating from 1 to 3, was created and assigned to each company to consider the extension of the IFRS 7 risk disclosures in their annual reports (Table 3). Each company’s country level of secrecy and conservatism was compared with the level of risk disclosure assigned to analyze their relationship.

Table 2: Distribution of Sample Firms Using Gray’s Theory of Secrecy and Conservatism

Cultural Areas Used Per Gray's Theory	Secrecy*	Conservatism**	Number of Firms Used on Each Cultural Area
	1-7	1-5	
Anglo	1	1	34
Asia colonial	2	3	3
Germanic	6	4	8
More developed Asian	5	5	4
More developed Latin	3	5	8
Nordic	2	2	5
Total			62

This table shows the distribution of the sample firms using the level of secrecy and conservatism according to Gray's theory.

** The ranking of secrecy uses a scale from 1 (low secrecy) to 7 (high secrecy). ** The ranking of conservatism uses a scale from 1 (low conservatism) to 5 (high conservatism).*

Table 3: Level of Risk Disclosures

Levels of Risk Disclosures (Explanation)	Level of Risk Disclosure (Scale)*
1. Notes only	1
2. MDA report or MGT report, and notes	2
3. Risk report only or risk reports and notes	3

** This table presents the level of risk disclosure using a scale with values that fluctuate between 1 (less risk disclosure) to 3 (more risk disclosure).*

Prior research suggests that culture may be correlated with other variables. For that reason, this study includes other control country-related variables to control for economic characteristics that could affect IFRS disclosures for firms that cross list in the United States. Following research done by Hope et al. (2006), this study considers certain economic factors, such as the existence of investor protection mechanisms, because of their probable impact on a country’s decision related to an IFRS disclosure. The investor protection mechanisms used in this study are represented by proxies obtained from *The Global Competitiveness Report for 2021-2013* published by the World Economic Forum (the WEF Report). The factors selected were derived from the twelve pillars used to measure the competitiveness of different countries. The following variables were selected from the Institutional Pillars: protection of minority shareholders’ interests and strength of investor protection. Other control variables used (regulation quality, control of corruption, government effectiveness and political stability) were obtained from the Worldwide Governance Indicators (2012). Legal origin was also included in the model considering Hopes’ (2003) argument that legal origin is a key determinant of international disclosure levels. Consistent with Gray’s Theory, the expectation for this study is that the greater the level of secrecy and conservatism in a country, the lower the IFRS risk disclosures and vice versa. In addition, countries with higher levels of protection of minority interests, strength of investor protection, regulation quality, control of corruption, government effectiveness and political stability) are expected to have more IFRS risk disclosure levels. Based on Hope’s findings (2003), common law countries are expected to have more IFRS risk disclosure levels than code law countries.

Research Design and Empirical Model

The following model (equation 1) was developed to estimate the relationship between Risk Disclosure Levels, Cultural factors, and other Control variables

$$RDL_i = a_0 + b_1Sec + b_2Con + b_3Comm / Code + b_4PMI + b_5SIP + b_6RQ + b_7CC + b_8GE + B_9PS + \varepsilon$$

where RDL_i represents the IFRS risk disclosure level per firm observation, Sec represents the value of secrecy, Con represents conservatism, Comm/Code represents common law and code law, PMI represents protection of minority interests, SIP represents strength of investor protection, RQ represents regulation quality, CC represents control of corruption, GE represents government effectiveness and PS represents political stability. The research expectations were studied using regression analysis for one model. The regression model uses IFRS risk disclosure levels as dependent variables. Gray’s cultural values for secrecy and conservatism and some political-economic values were used independent variables. The following section presents and discusses the results obtained, including the results of the regression analysis and their possible interpretations.

RESULTS AND DISCUSSION

Table 5 shows the results obtained and seem to suggest that the cultural values of secrecy (*Sec*) and conservatism (*Con*) do not have a significant impact on risk disclosure levels. In addition, the control variables of common law and code law (*Comm/Code*), protection of minority interests (*PMI*) and strength of investor protection (*SIP*) were not significant on risk disclosure levels. The results obtained for control of corruption (*CC*) and regulation quality (*RQ*) suggest a significant impact on risk disclosure levels (significant at the .05 level). The aforementioned results seem to support the prior research expectations that higher values for these factors are related to more IFRS 7 risk disclosure levels. However, the results also seem to suggest a significant negative relation between political stability (*PS*) and government effectiveness (*GE*) with risk disclosure levels (significant at the .05 level). The explanatory power of the adjusted R² of the model suggests that a country’s cultural values and other economical-political factors may help to explain risk disclosures levels required by IFRS 7.

Table 5: Regression Analysis Results

	Alpha	Secrecy	Con	Comm/Code	PMI	SIP	PS	CC	GE	RQ
Coefficients		-0.005	0.025	-0.437	-0.012	0.115	-0.92	2,409	-3.593	1.039
p-value	0.003	0.158	0.959	0.392	0.972	0.338	0.001*	0.002*	0.006*	0.045*
Adj. R ²	0.243									

This table shows the Regression Analysis Results for the relationship between Risk Disclosure Levels, Cultural factor (Secrecy and conservatism), and other Control variables: Comm/Code-Common law/code law, PMI- protection of minority interest, SIP-Strength of investor protection, PS-Political stability, CC- Control of corruption, GE-Government effectiveness and RQ-Regulatory quality). *Significant at the 0.05 level.

CONCLUDING COMMENTS

Prior research (Jaggi and Low, 2000; Hope, 2003: and Hope et al., 2006, among others) suggests that differences in culture, economic and political factors may influence financial disclosure levels. Bentley and Franklyn (2013) find that Anglo cultures are more favorable for disclosure of risk. The purpose of this study was to explore the impact of culture on IFRS risk disclosure levels. The results obtained seem to suggest that culture (secrecy and conservatism) do not have a significant impact in IFRS disclosure levels. The results may also suggest that disclosures have changed since the adoption of IFRS. However, other economic and political factors seem to influence risk financial disclosures. Countries with higher control of corruption and regulation quality appear to have more IFRS risk disclosure levels. These results partially support the research expectations that countries with higher levels of protection of minority interests, strength of investor protection, regulation quality, control of corruption, government effectiveness and political stability will have increased IFRS risk disclosure levels. Since the principal cultural variables used

in the study were not significant, in contrast with some of the control variables used, future research should consider other methodologies that can measure the impact of cultural factors in IFRS risk disclosure levels. In addition, future research could consider the risk disclosures levels developed for this study and incorporate factors such as the standard industry code (SIC) and the name of the independent auditing firm.

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ACKNOWLEDGEMENTS

I want to thank the Faculty Resource Network and its support staff at New York University for the opportunity to start this research during my participation in the program. I also appreciate the suggestions received from Anibal Báez-Díaz and Rogelio J. Cardona from the University of Puerto Rico.

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SOCIAL AND ENVIRONMENTAL ACCOUNTING: EVIDENCE FROM THE STOCK EXCHANGE OF MAURITIUS

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ABSTRACT

This paper looks at the social and environmental disclosure in Mauritius. In particular, the listed companies of Mauritius were targeted to assess their views for and against the social and environmental practices. Using a sample of 30 listed companies, the results suggest that there are listed companies in Mauritius which are engaged in some of the elements of social and environmental accounting (SEA) practices such as disclosing issues, ensuring transparency, complying with corporate governance. However, there are still areas of improvement such as proper education and wellbeing of the citizen, training, employment of handicapped person with adequate equipment amongst others which need to be addressed.

JEL: M40, M49

KEYWORDS: Accounting, Social Accounting, Environmental Accounting, SEM

INTRODUCTION

In today's world, it is essential for companies to follow the Social and Environmental Accounting (SEA) practice. According to Carroll (1999), it is a way of doing business in an ethical and honest way in respect to the various groups of stakeholders and to also consider the consequences of business's activities and their remedies, rather than concentrating only on making profits.

Among the different schemes taken by the government, the latest one being the project of 'Maurice île durable', concentrates on motivating the society and companies to opt for a better ecological way of doing business and of living. Listed Companies in Mauritius are already implementing this practice by undertaking the social and environmental reporting despite the fact that there are currently no specific guidelines to determine the extent the companies are engaged and disclose their information on environmental and social issues.

To our knowledge, there has not been a formal study so far to examine the issues of social and environmental disclosure for listed companies in Mauritius. In this respect, this study contributes to the knowledge gap by assessing the views of listed companies in Mauritius. In addition, this research will add to existing literature on developing countries and as such, findings can be used to compare with other countries.

The remainder of the paper is organized as follows. The next section describes the detail review of related literature with regards to the SEA framework and the variables which affect SEA practice. Next, we consider the data and methodology used in the study. The results are presented in the following section. The paper ends with some concluding comments.

LITERATURE REVIEW

According to Gray et al. (1987), SEA is the process of considering the social and environmental outcome of an organization's actions on the society as a whole. In this respect, Henriques (2010) quoted that stakeholders of an organization state that a major function of the social accounting is about demonstrating accountability and ensure transparency which ultimately help the organization to identify and manage the social risks. On the other hand, environmental accounting is the practice of using accounting principles to calculate both the short term and long term impact of the organization's activities on the environment.

Moreover a major benefit of SEA is that it creates a good impression of the firm towards stakeholders by considering the environmental, social and economic factors which also helps in boosting up reputation, public relations and motivating existing staff while attracting potential ones (KPMG, 2005). Ultimately the process of collecting, collating and analyzing data help the organization to better highlight potential opportunities by using the resources more efficiently. However, the negative aspect is that to adopt the SEA principles, a company must invest a lot in terms of time consuming, heavy costs and too many formalities as stated by Ness and Mirza (1991). KPMG (2005) also argued that the integration of such concept is a complex task and that it is difficult to calculate the costs and benefits being involved. As such, there is no certainty of achieving favorable performance for the society and the environment. There are different theories that exist to explain the importance of investing in SEA with the main ones being the legitimacy theory, stakeholder theory and the agenda setting theory.

Legitimacy Theory: As per Sushman (1995) this theory is about the generalized perception that the company's activities are desirable proper and appropriate in respect with the socially constructed system of norms, value, beliefs and definitions. Being one the most common theories, the legitimacy theory as defined by Springer (2015), is about explaining the effort made by an organization to implement and develop voluntary reporting and disclosures both socially and environmentally so as to meet their objective set and to survive in an unstable environment rather than being prescribed the corporate behavior. The action of the company is hence reported in accordance to the expectations of the society. In situations where the society is not satisfied in concern with the social and moral values of the firm, its continuity may be revoked.

Stakeholder Theory: This theory as suggested by Carroll (1999), states that corporate social disclosure is related to the wide range of stakeholders. This hence imply proper communication with each group is essential, such as the managers having incentive to disclose information about certain programs and initiatives to particular group so as to show that they are conforming to their expectations. Gray, Kouhy & Lavers (1995) added that to ensure the company's continuity, the support and approval of different group of stakeholders is crucial.

Agency Setting Theory: McCombs and Shaw (1972) developed this theory stating that it describes the ability to project information through media and having an impact on its audience. The theory affirms that the best way to convey social and environmental information is through the media which ultimately create public awareness and is additionally a method for companies to get free publicities.

Empirical Evidence of SEA in Other Countries

Concerning the SEA, as per Deegan and Unerman (2006), there are nowadays more and more mandatory legislation being adopted in countries like UK, France, Netherlands, South Africa, Australia and others. And according to KPMG (2002, 2011), Sustainability (2010) and Gray (2002), numerous studies were carried out which revealed that organizations are now reporting further on their social and environmental issues in their annual report.

Gamble et al. (1995) investigated the quality of environmental disclosures in the UK using annual reports of 234 companies in twelve industries, between 1986 and 1991. The main findings were that there had been a major increase in environmental disclosures in annual reports in 1989. Some industries, for example petroleum refining, hazardous waste management and steel manufacturing were judged to have provided the highest quality of disclosures in annual reports. The authors concluded that the overall quality of disclosures was low, although as stated above, some were better than others.

Kreuze et al. (1996) argued that most companies did not provide any information about the corporations' environmental philosophy or policies, and 73% of the reports surveyed did not contain any discussion of environmental issues anywhere in the report. It was noted that that the majority of company provides only generic disclosures.

In France for instance, companies did not have a good reputation as compared to other European and American companies in disclosing their social and environmental issues. However in January 2002, a new legislation was implemented known as the Law on New economic Regulation (Nouvelle Regulations Economiques- NRE), which required all nationally listed companies to integrate social and environmental performance in their annual reports and to disclose a range of certain information including human rights, local impact, sustainability issues and dialog with different group of stakeholders in their own way. In Netherlands on the other side, the environmental reporting as per Driehuis (2001) is qualified by the fact that companies should assume their activities as mentioned in the Environmental Management Act (1997) entering in force in January 1999. The companies are hence required to issue two different reports annually. A government report meant to evaluate environmental policy and for the environmental reports and statistics, and a public report where information are available to the public. Both reports should contain adverse effects on the environment and the measures for protection. The result is however far from being successful because of its legal aspect where the law is not clear regarding the evaluation method of the government report and the content of the public one and because of the time and cost being involved. The government should therefore set adequate processes to improve the quality of the reports and its reliability.

In Australia, despite the voluntary sustainability reporting, the SEA practice makes the well in advance. Moreover a centre for CSR known as the Centre for Australian Ethical Research (CAER) has been set up since 2000 to establish long term values and objectives for investors. As stated in The State of Sustainability Reporting in Australia (2005), 24% of Australia's 500 largest public and private companies, voluntarily undertook sustainability reporting in 2005. South Africa is one of the leaders in effectively integrating the sustainability report into the annual report. It has been improving since the listing requirements of the Johannesburg Stock, which demand the use of global reporting initiative (GRI) because the market basically necessitates social and environmental responsibilities by disclosing certain information. On the other hand, Deegan and Gordon (1996) analysed the such practices by Australian corporate entities and they found an increase in environmental disclosures over the period 1980-1991, but the standard of the 1991 disclosures was not necessarily very impressive, with an average of 186 words of self-laudatory material per annual report. Environmental lobby groups appeared to have an effect because there was a positive correlation between environmental sensitivity and the level of disclosure, and in some sensitive industries between environmental disclosure levels and firm size. Interestingly, a research carried by Burritt and Welch (1997) revealed that there is an increase in total environmental disclosures with budget entities reporting a greater volume of environmental disclosures than non-budget entities.

Frost and Wilmshurst (1996) made a survey of Australian companies and they found that less than half (43%) of the respondents agreed with the statement that environmental information was useful to the users of annual reports, and 46% opposed the mandatory disclosure of environmental information in the annual report. All together a rather dismal set of results for those favouring the extension of accounting disclosures.

In New Zealand, Milne and Chan (1999) reported the results of a study of corporate social disclosures and decision-making by investors. The study determined whether narrative social disclosures in the annual report actually impact on the way investors allocate investment funds. The researcher found that investors drawn from the accounting and finance professions largely ignored narrative social disclosures in making investment decisions.

The UK is also identified as one among the leading countries who contributes internationally in terms of CSR practice. The UK government feels extremely concern by the CSR policies which are led by the department of Trade and Industry, because they think business is the vital factor to meet the social and environmental goals. The policies on CSR include voluntary initiatives, codes of practice and beyond compliance behavior as stated by the European Commission (2001, 2002). In 2004, the UK government updated a CSR report of 2001 which stressed the fact that such report should be voluntary which would ultimately boost the social and environmental performance. Notable awareness was also made and understanding campaign carried out along with launching its own CSR Academy in July 2004 to support the development of CSR practice through CSR competency framework and signposting to training and development opportunities.

DATA AND METHODOLOGY

The purpose of this research is to find out how the social and environmental information are disclosed and its importance in the listed companies of Mauritius. Data have been collected from primary sources from the companies through a questionnaire. Most of the data were collected through face to face interview with the respondent while some of the data was collected through mail responses. Also, the secondary data in terms of the company's annual reports were used in the research for further analysis.

Sample: To analyze the SEA practice on the listed companies of Mauritius, a sample of 40 companies from the official market of the stock exchange were selected to represent the whole population from various sectors. Out of these 40 companies, only 30 responded to our survey.

Questionnaire Structure: The questionnaire was designed based on the findings of literature review and to meet the objective of the study. It was divided into 3 sections, where section A concentrated on the relationship between the organization and the SEA from different sectors considering their knowledge of reporting and other guidelines. It also considers the impact of being engaged in such activities on the corporate profitability. Section B on the other hand, looks at the social and environmental performance being disclosed by the organization. The section C was ultimately designed so as to analyze whether it would be useful that the government set frameworks to disclose certain information.

RESULTS

Analysis has been done based on the findings acquired from the questionnaires circulated and the data were examined through the SPSS software projecting the results on the following tables.

Awareness of SEA and Other Guidelines

As an introduction, the respondents were asked whether they are aware of the terms mentioned in table 1. As presented above, the 4 terms were in most cases known. However, except for the term CSR, a small percentage of companies were not aware of terms (36.7% not knowing the term TBL and the 16.7% unaware of the process of SEA itself), which should normally become more popular in the coming years. With a 100% for CSR, and 90% for SR and GRI, it demonstrates that a large number of the Mauritian Listed Companies are familiar with and are therefore likely to adopt these concepts.

Table1: Awareness of SEA and Other Guidelines

		Frequency	Percent
SEA (social and environmental accounting)	No	5	16.7
	Yes	25	83.3
	Total	30	100
CSR (corporate social responsibility)	No	0	0
	Yes	30	100
	Total	30	100
SR (sustainability reporting)	No	3	10
	Yes	27	90
	Total	30	100
TBL (triple bottom line)	No	11	36.7
	Yes	19	63.3
	Total	30	100
GRI (global reporting initiative)	No	3	10
	Yes	27	90
	Total	30	100

This table shows the respondents' awareness on the concepts of SEA and other reporting guidelines.

Engagement in Social Activities

Table 2: The Extent to Which Organization Are Involved in the Following

		Frequency	Percent
Responding to feedback and complaints	No Engagement	1	3.3
	Engage Slightly	1	3.3
	Engage Moderately	9	30
	Engage partly	8	26.7
	Fully Engaged	11	36.7
Ensuring product and service safety	No Engagement	1	3.3
	Engage Moderately	9	30
	Engage partly	10	33.3
	Fully Engaged	10	33.3
Community Activities	Engage Slightly	4	13.3
	Engage Moderately	7	23.3
	Engage partly	6	20
	Fully Engaged	13	43.3
Healthy and Safety	Engage Moderately	3	10
	Engage partly	9	30
	Fully Engaged	18	60
Corporate Governance	Engage Moderately	3	10
	Engage partly	12	40
	Fully Engaged	15	50
Social Contribution	No Engagement	3	10
	Engage Slightly	2	6.7
	Engage Moderately	1	3.3
	Engage partly	9	30
	Fully Engaged	15	50
Equal Employment Opportunity	Engage Slightly	2	6.7
	Engage Moderately	4	13.3
	Engage partly	10	33.3
	Fully Engaged	14	46.7

This table shows the degree to which respondents are engaged in social activities.

From the above table 2, it seems that on overall companies seem to partly or mostly engaged in the social activities. It seems that companies are most conscious about health and safety issues, corporate governance and social contribution.

Drivers of SEA

Table 3: Ranking the Driver of SEA

		Frequency Percent				Frequency Percent	
Comply with legislation requirements	Slightly Applicable	1	3.3	Legitimate to society	Slightly Applicable	1	3.3
	Moderately Applicable	12	40		Moderately Applicable	10	33.3
	Partly Applicable	8	26.7		Partly Applicable	10	33.3
	Most Applicable	5	16.7		Most Applicable	5	16.7
Maintain a good relationship with stakeholders	Moderately Applicable	3	10	Retain/Attract talented workforce	Not Applicable	2	6.7
	Partly Applicable	9	30		Slightly Applicable	2	6.7
	Most Applicable	14	46.7		Moderately Applicable	9	30
Create/ reinforce image	Not Applicable	1	3.3	Good Corporate Governance	Partly Applicable	7	23.3
	Slightly Applicable	4	13.3		Most Applicable	6	20
	Moderately Applicable	2	6.7		Slightly Applicable	1	3.3
	Partly Applicable	6	20		Moderately Applicable	6	20
Create financial value	Most Applicable	13	43.3	Organization own interest	Partly Applicable	8	26.7
	Slightly Applicable	4	13.3		Most Applicable	11	36.7
	Moderately Applicable	11	36.7		Not Applicable	2	6.7
	Partly Applicable	6	20		Slightly Applicable	2	6.7
Transparency and accountability	Most Applicable	5	16.7		Moderately Applicable	3	10
	Moderately Applicable	7	23.3		Partly Applicable	15	50
	Partly Applicable	4	13.3		Most Applicable	4	13.3
	Most Applicable	15	50				

This table shows the respondent views on factors driving social and environmental accounting. The total number of respondents for this question is 26 given that there are four companies which did not answer this question.

From Table 3, the main driver of SEA seems to be the company’s own interests and good corporate governance. In addition, 46.7% think it is essential to maintain a good relationship with their stakeholders. The major reason behind such motivation is that the companies realized that a good relationship with different stakeholders imply a good running of their activities and efficiently exploit their resources. The following drivers as illustrated are about creating or to reinforce the organization’s image and to maintain good corporate governance.

The factors that are the least motivated by the companies who have responded not applicable are Creating or reinforcing the organization’s image, retaining or attracting talented workforce and the organization’s interest with 3.3%, 6.7% and 6.7% respectively. The retention of potential and talented workers is however a crucial factor which might affect its efficiency and result to its eventual demise. The companies should hence consider the particular driver to maintain a good performance of their business.

SEA, Mandatory Reporting and Role of Government

As projected by table 4, 70% of the listed companies are positively influenced by the idea of the government introducing relevant guidelines with respect to Social and Environmental Reporting while the remaining 30% choose exactly the opposite. The reason being mentioned is that the companies think it will help to set the boundary, thus avoiding abuses and will ultimately help in ensuring that everyone complies with what is beneficial for the society on the long term. However, the guideline should be flexible and should allow the organization to conduct their own assessments.

Table 4: SEA, Mandatory Reporting and Role of Government

		Frequency	Percent
Government impose guidelines	No	9	30
	Yes	21	70
	Total	30	100
For or Against Mandatory	Against	13	43.3
	For	17	56.7
	Total	30	100

This table shows the respondent views on the role of government on social and environmental accounting.

CONCLUDING COMMENTS

The objective of this study was to request companies to provide their views on social and environmental disclosures. Data have been collected from primary sources from the companies using 30 companies from the official market of the stock exchange of Mauritius from various sectors. The results suggest that despite some listed companies in Mauritius are engaged in the SEA practices such as disclosing issues, ensuring transparency, complying with corporate governance amongst others, there are still areas of social and environmental accounting which needs to be improved.

However, the study is still at its preliminary stage and as such, the findings should be treated with cautious given the limited sample size. Nevertheless, some suggested points which might be taken on board by listed companies are to ensure the following actions; proper education and wellbeing of the citizen, investment in training, employment of handicapped person amongst others. Also, production of friendly products should be encouraged and to create awareness on the preservation of the environment. Finally, the companies should be guided in terms of a specified framework about what information to be projected and where to publish. With regards to future research, there is the possibility to look at aspects of SEA in other sectors of the Mauritian economy. These sectors can range from SMEs, manufacturing to tourism.

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A REVIEW OF HOBBY AND BUSINESS LOSS RULES: EVIDENCE FROM RECENT DEVELOPMENTS

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ABSTRACT

When we think of a hobby, we think of something that is engaged in for recreational or pleasure purposes such as painting, writing, coaching, golfing, horse farming, film producing, developing athletic abilities to win say an Olympic Metal, working on arts and crafts, creating music, opening a bed and breakfast or a country estate, to name a few. These recreational activities are expensive to pursue but may also have a money making aspect as well. On the other hand, strictly speaking a business is an economic activity engaged primarily to generate a profit. One can see where a hobby could be pursued for pleasure and profit. Also one could see where there could be a tax motivation to deduct the losses from a hobby operation by having it categorized as a business to offset other taxable income. So how to distinguish? Or rather, where is the "line drawn in the sand" that distinguishes between a hobby and a business is here explored as the lines may be blurred from the interpretation of the Internal Revenue Service and from Tax Court Case tried. Also, from the literature review, what is the "unofficial" interpretation that seems to emerge.

JEL: K34

KEYWORDS: Hobby Loss, Business Loss, Income Tax Deductible

INTRODUCTION

Retired American television anchor and journalist, Jane Pauley was discussing her experience with her retirement one morning on a talk show, and commented that retirement today is very different then it was for prior generations. Today our youthful retirees see retirement as a "revolving door", with one door closing while another one opens up to the next activity in life. Baby Boomers are entering retirement these days looking to pursue new and old interests. Many find themselves using their time to turn lifelong passions into business ventures. Others, who are not retirees, who were affected by the recession, were forced to look for income from other sources through creative enterprise. This proliferation of new "startups" has caught the attention of the IRS because many of these businesses suffer losses in their early years. These losses, if correctly classified as a business loss are deductible from taxable income while a hobby loss is drastically limited. Thus, the distinction has significant tax consequences, and is presented here for consideration; Hobby or a Business?

A hobby is a pursuit undertaken for recreational or personal purposes. Losses are deductible only to the extent of income. IRC (Internal Revenue Code) Sect. (Section) 183 governs the treatment of these losses. If the taxpayer takes the standard deduction, and does not itemize and the hobby generated say \$2,000 of income, and incurred expenses amounted to say \$3,400 the income of \$2,000 would be reported on line 21 on the front page of the 1040, as other income in the full amount and no deduction could be taken for the expenses since the standard deduction was take. If the taxpayer itemized then it is possible that some or possibly all of the \$3,400 of the expenses could be taken as a miscellaneous deduction which is first subjected to 2% of gross income. For example if the adjusted gross income of the taxpayer say was

\$50,000 then 2% of this is \$1, 000 which would be subtracted from all of the itemized deductions in the miscellaneous category. Also the income is not allowed a contribution to a self-employed retirement account. The good news is that the income is not subjected to a self-employment tax.

A business is a pursuit undertaken with a profit motive. IRC Sect. 162 governs these losses which are fully deductible. Losses are defined as excessive expenses that are ordinary and necessary to carrying on a trade or business. The same hobby as mentioned above, if it were proper to categorize as a business, would be allowed to deduct the fully loss of \$1,400 from other taxable income. This example shows how this discussion has monetary consequences to the affected taxpayer. When we think of a hobby, we think of something that is engaged in for recreational or pleasure purposes such as painting, writing, coaching, golfing, horse farming, film producing, developing athletic abilities to win an Olympic Metal, working with arts and crafts, creating music, opening a bed and breakfast establishment or a country estate, to name a few. These recreational activities are expensive to pursue and may also have a money making aspect as well. On the other hand, strictly speaking, a business is an economic activity engaged primarily to generate a profit. One can see where a hobby could be pursued for pleasure and profit. Also one could see where there could be a tax motivation to deduct the losses from a hobby operation by having it categorized as a business to offset other taxable income. So how to distinguish? Or rather, where is the “line drawn in the sand” that distinguishes between a hobby and a business is discussed herein.

The 1943 Line in the Sand

The IRS (Internal Revenue Service) made the distinction, with Section § 270 of the IRS Code, which Congress enacted in 1943, stating that if gross loss was more than \$50,000 for five consecutive years then the activity was not considered a business venture. This was written with specific applications for farm losses in mind. One loophole here was that one could interrupt the five year losses to avoid the threshold. Actually the first hobby loss provision of the Internal Revenue Code was known as the Marshall Field Bill. Some believed that Mr. Field as operation his liberal newspapers, PM and the Chicago Sun as a sole proprietorship and because they were both losing money at the time that the Federal Government was in a sense “financing these publications out of taxes Mr. Field would have had to pay. The Act was intended to limit the ability of wealthy individuals with multiple sources of income to apply losses incurred in “side-line” diversions to reduce their overall tax liability (TIG, 2007).

The 1969 Line in the Sand

So, I n 1969 Congress replaced Section § 270 with Section § 183, which is the current application. Section § 183 makes reference to objective standards that take into account the specifics of each case. Presented below are the nine criteria to be considered according to the IRS regulation. According to Diamond (1970) the current IRS section addresses the much litigated topic of “activity not engaged for profit from a prospective that was not presented before. The underlying question as to the application of section 183 is one of the taxpayer’s intent. The Senate report states that “an objective rather than a subjective approach is to be employed” (S. Rep. No. 91-552 at 104, p. 611). It is believed that the result intended by the legislative drafters was that in order to get a deduction, the taxpayer needs objective (or tangible) evidence of subjective intent. According to the Court of Appeals for the Ninth Circuit “The rule is that a taxpayer’s venture is a trade or business if he has a good faith expectation of profit from that venture, irrespective of whether or not others might view that expectations a reasonable (Mercer v. Commissioner, 1967).

Nine Factors for Determining in Whether a Taxpayer Engages in an Activity for Profit According to Regs. Sec. § 1.183-2(B)

How the taxpayer carries out the activity (books, records, business plan).

The taxpayer's expertise.
The taxpayer's time and effort in carrying out the activity.
An expectation that assets used in an activity, such as land, may appreciate in value.
The taxpayer's success in this and other activities.
The taxpayer's history of income or losses from the activity. The relative amounts of the profits and losses (occasional income?).
The taxpayer's financial status.
Whether the activity provides recreation or involves "personal motives."

More on the Nine Factors

No one of the factors is more heavily weighed than others.
The IRS may consider factors that are not listed.
The determination is not made by counting how many criteria are satisfied.
The determination is made by an examination of all the factors taken holistically.
The IRS can be subjective in its determination
If IRS asserts the activity is of a personal nature, then the taxpayer has the burden to prove the contrary.
The IRS shifts burden of proof to the taxpayer.

Noticeable here is that there is no mention of a need to prove a reasonable expectation of profit which is unusual since a "business is defined as a pursuit undertaken with a profit motive". The IRS is more liberal in its categorization of a business pursuit with this last application. The IRS has recognized that there are instances where businesses that sustain extended losses may eventually bloom and become profitable. So even though one does not expect to make a profit; what matters is that there is hope that a profit will be made. So one does not have to be definitely sure of a profit but rather needs an aspiration of a profit. This can be seen as a polarization: being either a liberal interpretation from the taxpayer's point of view and/or a quagmire of a tax law to enforce by the IRS. This paper will proceed to explore this area to determine its central point by first zooming into two major areas of literature review from the Treasury Inspector General for Tax Administration from the two different years of study. The objectives, the scope and methodology and results will be delineated and compared. This will then be followed by other literature review generated on behalf of specific Tax Court cases. Concluding comments will summarize these findings and outline areas for further research.

LITERATURE REVIEW

In September 7, 2007 the Treasury Inspector General for Tax Administration (TIGTA) issued its audit report entitled "Significant Challenges Exist in Determining Whether Taxpayers With Schedule C Losses are Engaged in Tax Abuse" Reference Number 2007-30-173 . The TIGTA was formed in 1998 independent governmental agency that provides oversight of IRS activities according to the treasury department's website (www.treasury.gov/tigta). The title of the report, highlights the focus for the audit and the information that it was interested in asserting; being how is the IRS handling this application of tax law. This very substantial and substantive report that was the culmination of a nine month audit, prepared through the application of Generally Auditing Standards performed by an audit team staff of six. The entire audit report of 23 pages is included in Appendix 1 as a supplement. Its literature is summarized here below.

Objective

The overall objective of the audit was to determine what actions the IRS is taking to address non-compliant high-income SB/SE Division taxpayers who claim business losses on a U.S. Individual Income Tax Return (Form 1040) Profit or Loss From Business (Schedule C) for activities considered to be not-for-profit (TIGTA, 2007, p. 10).

Scope and Methodology

Source: IRS Individual Return Transaction File, a computer extract of Tax Years 2002-2005 with attached Schedule C showing no profits, only losses over 4 consecutive Tax Years. The fourth year is used as a barometer, since new startups will predictable experience a loss, but somewhere beyond that, viable business should thrive. Sample identified 1,483,246 taxpayers that met this criterion

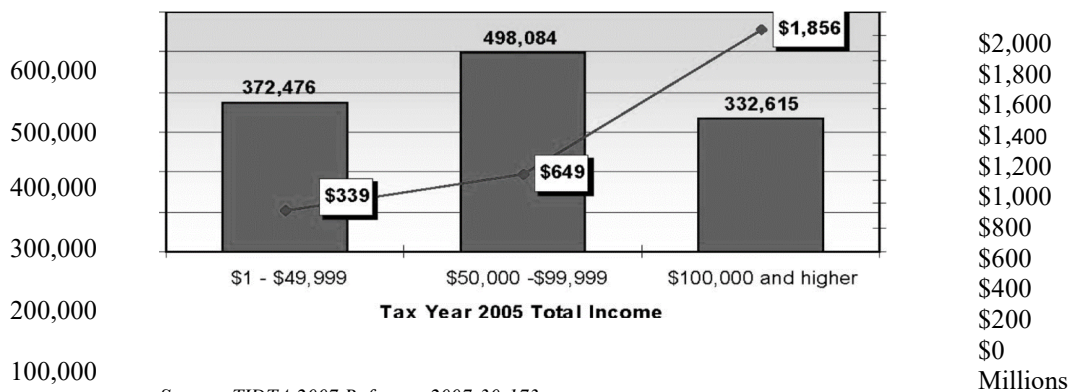
Calculated the additional taxes that would have been owed if taxpayers had not taken the Schedule C losses in Tax Year 2005. This was accomplished by using each taxpayer’s filing status for Tax Year 2005 and applying the appropriate tax rate

Findings: Total 2005 tax avoidance \$2,843,919,493 for 1,203,175 taxpayers

Findings Explored

The report states that 73% of these tax returns were prepared by tax practitioners. Since the majority of these tax returns that take the business loss are prepared by CPA firms, then the topic turns to the consideration of the ethical tax dilemma which is addressed by Stuebs (2012). “Practitioners not only have obligations to their clients bt are also obligated to uphold the tax system. Balancing professional responsibilities with other incentives and pressures introduces an ethical dimension to the issue (Stuebs, 2012, p. 380). The following is Figure 1 taken from the audit report that graphically represents the findings. The graph shows that there were 372,476 taxpayers who had taxable income in the 1-\$49,999 range who took losses, that if were disallowed would have brought in \$339,000,000 more tax revenue. Likewise there were 498,084 taxpayers in the \$50,000-\$99,999 income range who took losses, that if were disallowed would have brought in \$649,000,000 more tax revenue. Finally the most dramatic, were the 332,615 taxpayers who had taxable income higher than \$100,000 took losses, that if were disallowed would have brought in \$1,856,000 more in tax revenues. If we add up the taxpayers in the three income brackets of 372,476 + 498,084 + 332, 615 = 1,203,175 taxpayers identified. Along with their dollar amount avoided by income bracket of \$339,000,000 + \$649,000,000 + 1,856,000,000 = \$2,844,000,000 or the \$2.8 million rounded. The table accentuates that fact that the major portion of the revenue is being lost to high income taxpayers who aggressively take the loss deductions, probably to avoid taxes.

Figure 1: The Tax Year 2005 Taxpayers Who Potentially Avoided Paying Taxes by Claiming Schedule C Losses Over Consecutive Tax Years 2002-2005



The above table shows the number taxpayers who on their 2005 tax returns took a loss on Schedule C. These same identified taxpayers also took losses in the three prior tax years of 2002, 2003 and 2004. This was at least their four year of Schedule C tax losses, leading to suspicion of abuse of the business entity application. It is further stratified into three income groups with those over \$100,000 having the dominate tax consequence of loss revenues for one tax year of 2005 to be estimated at \$1,856,000,000 from 332,615 taxpayers. In 2016, as a follow up to the September 2007 TIGTA report, another audit was undertaken. The title of the audit report is “*Opportunities Exist to Identify and Examine Individual Taxpayers Who Deduct Potential Hobby Losses to Offset Other Income*, dated April 12, 2016, Reference Number 2016-30-031. Here again another very substantial and substantive report was the result of a seven month audit, preformed by an audit team of six. The complete report is included in Appendix 2 as a supplement.

Objective

“To determine whether the IRS was maximizing opportunities to identify the most significant Schedule C, *Profit or Loss From Business*, noncompliance. The overall objective of this review, was to determine whether the IRS is taking sufficient action to minimize improper Schedule C losses claimed by taxpayers and the resulting loss of revenue to the Government (Source: TIGTA 2007).”

Scope and Methodology

This audit was not a replication of the audit preformed in 2007. Thus it is difficult to make comparisons of findings that are taken from different studies. However, the focus was similar; to find out how much abuse continues in this tax law area? Taken from the report is Tabla 1 below. A total of 687,382, taxpayers is calculated when the number of taxpayers are added up for each gross receipts group. These taxpayers who reported a loss in 2013, also reported a loss in the three prior tax years of 2010-2012. This was the same condition used in the earlier study, four years of losses also presented is the stratified group’s average Schedule C loss along with the taxpayers average total positive income that does not include the loss. The losses reported were calculated to be over \$7.1 billion dollars. The tax effect in terms of lost tax revenue was not given in the report. However this can be compared to some of the data reported by the 2007 audit. In that there is a tremendous decline by approximately half in the number of taxpayers doing the same: that is taking losses from activities into the fourth year or more of operations. . There, 1,483,246 taxpayers reported a loss in 2005, of them it was statistically estimated that 1,203,175 who also took a loss on the three prior years of 2002-2004 avoided paying approximately \$2,800,000,000. This 2016 report does not give a calculated tax effect, but clearly we see the number of taxpayers taking a loss, into a fourth year declining to 687,382. In the 2016 report the number of taxpayers taking these losses is down nearly 50%. This shows improvement in the IRS’s ability to curtail the deductions of these losses. However a replication of the study 2007 would have been more useful in supplying a solid comparison, especially the amount of lost revenue taken as a whole.

Table 1 shows the number taxpayers who on their 2014 tax return took a loss on Schedule C. These same identified taxpayers also took losses in the three prior tax years of 2011, 2012 and 2013. This was at least their four year of Schedule C tax losses, leading to suspicion of abuse of the business entity application. It is further classified by gross receipts reported on Schedule C and loss taken with the higher bracket taking the most aggressive losses. Cohn (2016) brings attention to the Treasury Inspector General for Tax Administration audit April 12, 2016 that does report an amount for a small subgroup for taxpayers in a sample of 100 tax returns 88% showed an indication that the so called Schedule C businesses were not engaged for profit but looked more akin to a hobby.

Table 1: Tax Year 2013 Gross Receipts, Average Loss, & Total Positive Income for Selected Taxpayers.
Source: IRS Individual Return Transaction File for Processing Year 2014

Gross Receipts	Taxpayers	Average Loss	Average Total Positive Income
\$0	157,913	\$7,993	\$198,960
\$1 to \$4,999	312,828	\$6,825	\$107,136
\$5,000 to \$9,999	76,258	\$13,794	\$106,697
\$10,000 to \$14,999	35,547	\$19,004	\$110,070
\$15,000 to \$19,999	20,374	\$24,236	\$119,289
\$20,000 or more	84,462	\$108,454	\$251,883

Source: IRS Individual Return Transaction File for Processing Year 2014.

“The TGTA estimates that 77,511 returns in a sample population of specified taxpayers may have inappropriately used hobby losses expenses to reduce taxes by as much a 70.9 million in 2013” (Cohn, 2016). These taxpayers were identified that had tax losses in years 2010-2013, four years, similar to the 2007 study, had also losses greater than \$20,000 and reported revenues of \$20,000 or less. These parameters of specific dollar amounts were not specified in the earlier report. The earlier report looks at all losses that were reported by all taxpayers for the fourth year in a row. However the nine criteria and their application make the categorization of a business seem very subjective, and there appears to be much leeway in their interpretation especially when they are evaluated holistically. However there is a defining parameter in Sec. 183 (d) that states that if there is a profit in the three of the past five years then the activity may be defined as a business. If the activity consists of breeding, training, showing or racing horses then the rule is more liberal. In these cases, there is a need to show a profit for the two of the last seven years. Keep in mind this is a rolling period, so the look back of five years must have three years of profit to meet the test. So then a question arises, “If an activity has a loss in three out of five consecutive years, is it automatically deemed a hobby? The answer is not necessarily. The other factors mentioned in the Regulations can be relied upon to determine that the activity is, in fact, a business. The burden to prove it is not a hobby is generally on the taxpayer. However, meeting the 3 years of profit out of 5 year shifts the burden of proof to the IRS (Pope, Anderson & Kramer, 2013).

Business income and expenses are reported on Schedule C for individual taxpayers. The business loss is fully deductible in the current year and can offset other income. It can also be carried back or forward to offset income in past or future years. The following is a synopsis of several actual cases where each were appealed by the taxpayer after the agent disallowed the business categorization of the activity loss and deemed it as a hobby loss. The order of appeal is first at the agent’s level, then the manager’s level, then the appeals level and finally tax court The Tax Court, although run by the IRS hears the cases and rules on them independently. In some of the cases the taxpayer was successful while the in others was not. Also, factor in the of demands of the appeal process in terms of time and money

Unsuccessful Tax Court Cases

In Van Wickler claimed approximately \$2.73 million expenses in Schedule F – profit or loss from farming in regard to another favorite activity of horse breeding. The court concluded that this was a hobby. The courts concluded that they were not allowed to deduct their horse breeding expenses. Also noted here in was that in 2010 Mitt and Ann Romney’s 2000 tax return showed a similar penchant for horses when their tax return reflected Ann’s pastime as a passive investment in a business with a loss of \$77,731 (Fay & Roush, 2013). Dr. Daniel Hendricks, a surgeon from West Virginia and his wife purchased a large farm in 1968 for \$50,000 in the local area. He raised grain and raised cattle and worked on the farm on Saturday, Sundays and during the week days. He eventually ceased farming and continued to only raise the cattle. The property had a barn and two sheds and no recreational structures or

facilities. He had 70 to 100 heads of cattle. The tax returns for 1987, 1988 and 1989 were audited and the agent disallowed the farm business loss as it was constituted to be a hobby and the Hendricks were assessed additional taxes and fees of approximately \$40,000. They appealed and the outcome was the same. Then another appeal was made and the Tax Court again affirmed there was missing a profit motive. They were unable to defend their position three times (Hendricks v. Commissioner of Internal Revenue, 1994)

Here is another horse case, this time under the jurisdiction of Canadian law. It again is another familiar sounding case of an Alberta physician who spent his income raising expensive Arabian horses. He tried to show true devotion to his business to improve his breed. He was losing \$150,000 per year on his business. He was using his own personal income to finance the business. In this case Canadian law can decide and did decide that the business plan was not sound and they did restrict the reduction to be no more than \$8,050 per year in case of a farm (Allentuck, 1995). Aggregating new activities to avoid hobby loss rules was an argument that was propped in the Morton Case. According to Harmon & Kulsrud (2009) “hiding a hobby loss activity within a legitimate business is not a new phenomenon. Here is the logic that a loss should be allowed if it is used in conjunction in another profitable activity, since without it the business would suffer. However, in the Morton case, Peter Morton who is the cofounder of the Hardrock Café, tried unsuccessfully to deduct the cost of his jet business which lost money every year contending the aggregation activity citing somehow that it added value to his Hardrock Café business (Morton v. United States, 2011).

Successful Court Cases

In 1978 Marjorie Westpal after graduation from law school worked for various law firms and then she went out on her own to establish her own law practice. However, for 1989 and 1990, her combined expenses exceeded her income by 50,000 when she only had income of 7,000 and the IRS saw to disallow this under section 183. The courts allowed the losses saying that she had a profit motive and that it often takes time for lawyers to get a practice going (Wagenbrenner, 1995). Successful in defeating the IRS in 1999 was Susan Loggans who won in tax court after she had deducted \$1.6 million over 6 years of losses she had taken against her other lucrative income to support her argument, her horses were not a hobby but a business. Initially the IRS demanded \$620,000 in back taxes penalties and interest. The recommendation here is to resist writing off non-business expenses that are rather extreme and demonstrate two critical points. One is that you run it as a business and two is that your intent is to make a profit. Ms. Loggans did give up this business because of the IRS audit. She felt it was not worth it to continue, due to the IRS's resistance (Novack, 2001).

Lee Storey was a prominent lawyer with a California firm, when she became interested in her husband's past experiences as a member of the “Up with People” group and organization. She decided to make a documentary about the group. She took a sabbatical from her job, she archived old footage of the organization, she kept good accounting records, sought education regarding the film making process, obtained insurance, and was able to make and market a DVD on the documentary which is called “Smile Until it Hurts”. Her husband is in the documentary for a brief window of time. The Storey's took on their tax returns for 2006, 2007 and 2008 loss from this activity which the IRS disallowed. The agent deemed this activity as a hobby not as a business since the interest in the endeavor was sparked by a personal interest. The IRS assessed back taxes and fees for these three years in the area of \$260,000. Lee Storey appealed and the judge for the Tax Court ruled in her favor. The judge had expressed that she was initially inclined to rule that it was a hobby since the activity was to create a documentary which has the purpose to educate, not to make a profit. Actually, the film was never profitable. However, when the facts of the case were evaluated using the nine criteria of Section 183, it was determined there was a profit motive. This was a great win for the film making industry which, in some cases, does struggle with long periods of financial outlay before profits are randomly realized. “The tax payer derives apparent personal pleasure from an endeavor and has substantial income from other sources tax payer actions must support the

intention to generate a profit, otherwise the IRS will disallow the losses and expenses will be deductible only to the extent of revenue generated (T.C. Memo 2012-115).”

CONCLUSION

The goal of this paper is to explore what is the application of the tax law governing Hobby and Business Losses on the formal basis and the informal basis and to discover and possible nuances. The Internal Revenue Service has been trying successfully and unsuccessfully since 1943 to clamp down on what may be perceived as an abuse of the business loss deduction. The original tax section of made the distinction, with Section § 270 of the IRS Code, stating that if gross loss was more than \$50,000 for five consecutive years then the activity was not considered a business. One loophole here was that one could interrupt the five year losses to avoid the threshold. So in 1970 Congress passed Section § 183 of the IRS Code which was not much of a remedy, as it muddied up the distinction that a profit motive must be in place and it is to be objectively established. This is to make a subjective motive on the behalf of a taxpayer objective. This is established an esoteric tax law blurring areas of black and white. Since this was becoming very unwieldy to manage, the Treasury Inspector General performed an audit first in 2007.

This was a very comprehensive with tangible results that stated, in 2005 there were approximately 1,203,175 taxpayers who took a Schedule C loss that year and in the prior three years and their combined loss of revenue to the IRS for just that one year of 2005 was estimated at \$2.8 million. Because of this audit procedures were adopted to focus in on this group. In 2016 the Treasury Inspector General came back to do a measure up audit. The focus was the same for a different tax period. Here 2014 was the targeted tax year, those who reported Schedule C losses and in the three prior years. It was reported that 687,382 fell into this category. The audit fell short in my evaluation, because it did not estimate the approximate amount of lost tax revenues this would have been in 2014. This would have made this a true clean comparison as a measure up study. What is evident is that in 2014 about half of the taxpayers were taking business losses in the fourth year as were taking them in 2005.

This was the improvement that was desired by the IRS. What is interesting and adds to the body of knowledge is that although the Section § 183 goes to great lengths of defining and elaborating on the nine areas of criteria the one targeted area used for the TIGTA’s audit, who is still taking a loss in the fourth tax year? This was followed up by focusing on several Tax Court Cases. The Tax Court is administered by the IRS; however it is an independent body. It does not have jurors as the case is decided by the one presiding judge, adding to the subjectivity. From the seven presented cases the nays were four to three. This is not to appear as a represented sample. Two were denied for horse breeding, another for a farm and the third for a jet business deducted to supplement business from the Hardrock Café. All taxpayers in very high tax brackets that have heavy tax consequence. The three that were successful was the young lawyer starting out, the Up with People documentary and the Loggans horse breeding case. Again, these are all taxpayers that have large tax consequence. All these cases were denied at the IRS level; however the Tax Court truly seems to have its own independent mindset that is much more reflective and insightful. Both sides of the problem have been exposed, (1) the taxpayer with the motive to reduce taxable income for an activity that he/she labels as a business for the tax benefit or (2) the entrepreneur who uses vast amount of their own capital to wish upon a great break some day, be it with the horses or the next New York Times best seller. The American Dream is that anything is possible, and possibilities fuel our innovativeness. However, it cannot be said definitely why each was allowed or disallowed, which in itself adds to the body of knowledge in its own ambiguous way.

To establish the activity is a business and not a hobby review the nine criteria to ascertain alignment with the IRS. To add strength to the case, generate profit in at least three of the five year rolling period. Looks like that a loss in a fourth year will bring attention to this area, even though that is not mentioned as a bench mark by the IRS but was used in the TIGTA’s audits. One of the limits of the paper is that it does

not address the magnitude of this issue in terms of its total effect as a percentage of lost tax revenue. The dollar amounts and the number of taxpayers seem tremendous, but what is the total that they are out of? Also, how many cases come to Tax Court each year on this issue? How many are successful and unsuccessful? What about looking at this topic from its other side; how many business activities are categorized as a hobby gain to avoid paying self-employment taxes? These are all viable topics for future research.

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