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Disclosure of corporate risks and governance before, during and after the global financial crisis: case study in the UK construction industry in 2006-2009

Nadezda Gulko, Catriona Hyde, Nina Seppala

Abstract

The recent financial crisis highlighted the importance of risk disclosures for investors and the wider society. We examined changes in risk disclosures in three UK-based construction companies before, during and after the financial crisis. The findings suggest that a crisis motivates a rise in the volume and quality of information provided by companies, while during periods of stability, companies generally provide less information and the quality of information is generic and repetitive in nature. Based on our research, a crisis enhances the overall volume of disclosures and this level of disclosure is maintained after the crisis, while any improvements in the quality of risk information are temporary.

Key words: risk disclosure; global financial crisis; corporate governance; construction industry; corporate board

1. Introduction

The global financial crisis of 2007-2008 drew attention to the failure of corporate governance and financial reporting to provide relevant and reliable information about corporate performance and management of risks (Omberg, 2012; Quon *et al*, 2012; Boorman, 2009; Zalewska, 2014; Pinnuck, 2012; Goldin and Vogel, 2010; Souto, 2009; Riaz, 2009; De Bondt, 2010). The demand for greater transparency and high-quality narrative reporting in the aftermath of the financial crisis led to the introduction of new regulations and recommendations on risk disclosure. The main aim of these instruments was to enhance transparency and relevance of disclosed information because the awareness of company-specific risks and accuracy of market value are crucial factors for analysts, investors and professionals (Abraham and Shrives, 2014; Beretta and Bozzolan, 2004). Mia and Al-Mamun (2011) note that companies increased risk disclosures over the period of the financial crisis, but the focus of these disclosures was more on increasing the amount of information rather than the quality of content. Despite the demand for greater transparency and high-quality narrative reporting, communication in annual reports has been viewed as a changeless area of "a major intellectual and logistical challenge" (ASB, 2009). Narrative statements often include boilerplate and generic disclosures rather than forward-looking, informative and specific content that would reduce the information asymmetry between managers and shareholders (Hassanein and Hussainey, 2015; Merkley, 2014; Li, 2010).

Prior literature suggests that an increase in the level of informative disclosure can add value to the company and contribute to a higher share price (Einhorn, 2007; Linsley and Shrives, 2006; Merkley, 2014). By increasing communication with stakeholders, companies facilitate confidence about their performance and risk practices, which, in turn, can lead to a lower cost of capital and market stability (e.g. Leuz and Verrecchia

2000; Armitage and Marston, 2008). Moreover, creating a positive social impression can be one of the incentives to increase voluntary disclosure (Sutantoputra, 2009). Voluntary disclosures can hence have a beneficial impact on company reputation as well as attract new shareholders and, consequently, increase market liquidity.

Although corporate disclosure can bring benefits to companies, it also carries costs and may have a negative impact on competitive advantage (Hill and Short, 2009). As emphasised by ICAEW (2010), "Transparency in business reporting is significantly constrained by considerations of cost, competition, confidentiality and litigation". Haji and Mohd Ghazali (2012) specify that companies reduce corporate disclosure due to the preparation costs, sensitive information that may benefit competitors, and potential damage arising from disclosing unfavourable information. ICAEW (2011) has recognised that the costs of preparing disclosures may exceed the potential advantages; therefore, this can promote the disclosure of generic and uniform statements which do not meet the needs of investors and other stakeholders. Moreover, as suggested by proprietary cost theory, businesses may be more concentrated on demonstrating their positive aspects rather than disclosing their risks (Ditlev-Simonsen, 2014).

Our study contributes to the literature on corporate risk disclosures in three main ways. First, it provides a longitudinal analysis of changes in risk disclosures during a period of financial instability in 2006-2009 in order to examine the extent of risk disclosures before, during and after the crisis. The selected time span provides an opportunity to explore risk disclosure and risk transparency in different performance environments because of the turbulence created by the global financial crisis in the economy and corporate performance. Second, our study sheds light on the relationship between corporate governance and corporate risk disclosure. The study focuses on the interaction between the size and independence of boards and risk disclosure. Third, our study

provides insight on risk reporting in the UK construction industry which was severely affected by the financial crisis, but has not been studied to the same extent as other industries. Most prior studies have investigated the impact of the financial crisis on the banking sector (Barakat and Hussainey, 2013; Elbannan and Elbannan, 2015; Hassan, 2014; Xifra and Ordeix, 2009). Overall, the study contributes to a better understanding of the relationship between turbulence in the external environment, financial performance and corporate risk disclosure. In doing so, it enhances understanding of the relevance and transparency of narrative risk disclosures in response to investor calls to receive more material and forward-looking information about corporate risks.

2. Conceptual framework and hypothesis development

Prominent corporate failures have increased public criticism of corporate governance controls (Bozec and Dia, 2015) and have led to a growing interest in the disclosure of risk in both academia and professional practice. The lack of adequate quantity and quality of risk reporting can be considered as one of the major weaknesses in accounting (Cabedo and Tirado, 2004). Being primarily voluntary, the disclosure of risks is arguably highly subjective. In the absence of mandatory regulations, risk disclosure can vary widely in relation to its content as well as presentation format (Beretta and Bozzolan, 2004; Campbell and Slack, 2008). Substantial prior literature exists on corporate disclosure investigating the quantity and quality of disclosure in corporate annual reporting (Li, 2010; Lee *et al*, 2003; Iatridis, 2011; Ryan, 2011; Beretta and Bozzolan, 2008; Healy and Palepu, 2001). There is however insufficient empirical evidence on risk disclosure over the period of before, during and after the global financial crisis (Abraham *et al*, 2012; ASB 2009). Also, previous studies on corporate disclosure have limitations related to the use of cross-sectional analysis (Branco and

Rodrigues, 2008; Chen and Roberts, 2010; Oliveira *et al*, 2011) and being descriptive in nature (ASB, 2009).

2.1 Risk disclosures and the global financial crisis

In the context of the global financial crisis, the majority of previous studies have focused on the analysis of financial firms (Barakat and Hussainey, 2013; Ismail and Rahman, 2011; Simplice, 2011; Saghi-Zedek and Tarazi, 2015; Elbannan and Elbannan, 2015; Maffey *et al*, 2014; Hassan, 2014; Xifra and Ordeix, 2009; Moumen *et al*, 2015). The findings of these studies are mixed. On the one hand, researchers have found no change in corporate disclosure practice during or after the financial crisis. For example, Maffey *et al* (2014) investigated the risk disclosures of 66 Italian banks in 2011 arguing that this year represents a time period when banks should have paid greater attention to the level of disclosure, but the authors found no evidence of enhanced disclosure practice. Similarly, Simplice (2011) found that risk management disclosures did not provide any relevant data in the post-crisis year of 2008. In contrast, Ismail and Rahman (2011) provided evidence that risk management disclosures in Malaysian banks improved significantly between 2006 and 2009, rising from 83.82% in 2006 to 91.67% in 2009. This finding suggests that the global financial crisis resulted in a more careful focus on risk assessment and therefore contributed to a rise in the level of risk reporting. The findings by Moumen *et al* (2015) provide evidence on the usefulness of risk disclosure in corporate reporting through establishing a positive relation between risk-related information and the market ability to forecast future earnings changes.

Whilst a significant branch of research has focused on the banking industry, other authors have examined risk reporting practices in non-financial companies during the financial crisis, intentionally excluding the financial sector due to its special disclosure

regulations (Ntim *et al*, 2013; Haji and Mohd Ghazali, 2012; Probohudono *et al*, 2013; Wang *et al*, 2013; Abraham and Shrives, 2014; Greco, 2012; Rodriguez Dominguez and Gamez, 2014; Elzahar and Hussainey, 2012; Al Zoubi and Al Zoubi, 2012). In order to investigate the impact of the financial crisis on different categories of risk disclosure, Probohudono *et al* (2013) focused their research on manufacturing companies in South East Asia. Aiming to understand the degree of predictor factors in risk communication in 2007-2009, the research revealed an average disclosure level of 28.61% for the three year period. The lowest level of disclosure was attributed to 2007 for all risk categories, whereas business and credit risks experienced a high level of disclosure in 2009. In terms of allocation amongst different categories of risks, business risk was accountable for the highest level of disclosure over time (41.81%), whereas strategic risk amounted to the lowest proportion (12.50%). Among significant studies is also Ntim *et al* (2013) who examined the interdependence between corporate governance and risk disclosure over the period of 2002-2011 in South Africa. The authors concluded that risk disclosure experienced a general improvement over ten years. With regard to the financial crisis, the results showed no support for a significant difference between risk disclosure before and after the crisis period of 2007-2008. Selected literature on disclosure and the global financial crisis is summarized in Table 1.

-----Table 1-----

2.2 Company specific disclosures as a strategic tool

A number of previous studies have established a positive relationship between the volume of disclosure and profitability. For example, based on a cross-sectional study, Al-Najjar and Abed (2014) found a statistically significant relationship between the quantity of corporate disclosure and corporate performance. Similarly, examining a sample of Egyptian banks in 2002-2011, Elbannan and Elbannan (2015) found that the

market share and profitability was higher in those banks with higher levels of risk disclosure, which can be explained by considering disclosure as a signal for a lower level of risk in these banks. Previous studies have also suggested that large organisations provide more risk information in comparison to smaller companies (Elzahar and Hussainey, 2012).

We propose that during a period of crisis, the positive relationship observed in prior studies between profitability and the volume of corporate disclosure does not hold. Instead, the volume of risk disclosures increases as the financial situation of the company weakens. As suggested by earlier research studying the impact of the financial crisis on corporate disclosure, companies increased their levels of corporate disclosure after the global financial crisis in order to influence the way in which they were being viewed in society and to reduce the negative effects caused by the crisis (Elzahar and Hussainey, 2012; Haji and Mohd Ghazali, 2012). Based on this reasoning, the following proposition can be developed:

P1. The volume of company-specific disclosures increases in the aftermath of a financial crisis.

2.3 Leverage and the level of risk disclosure

The level of leverage is another important factor that may contribute to the volume and quality of risk communication in annual reports. As the level of debt increases, the demand for additional information about the company's ability to satisfy its financial obligations also increases (Rodriguez Dominguez and Gamez, 2014). It can be expected that an increase in risk disclosure serves as a justification and explanation of the unfavourable conditions within the company and how they are being addressed (Amran

et al, 2008). From this follows that the second proposition can be formulated as the positive relationship between leverage and disclosure:

P2. Levels of leverage are positively associated with the volume of company-specific disclosures.

2.4 Quality and specificity of disclosure

Prior studies suggest that companies tend to provide vague rather than substantive and company specific information about risks. Abraham and Shrives (2014) argued that companies disclose symbolic risk information which is limited or have no "relation to the actual risks faced by companies" due to proprietary costs and institutional factors. Similarly, Rodriguez Dominguez and Gamez (2014) found that most Spanish companies provide vague risk information and the largest companies specifically avoid detailed disclosure due to the possible negative effects of such disclosure for competitive advantage. At the same time, researchers have argued that companies with poor performance provide investors with more informative and higher quality disclosures than well-performing companies (Hassanein and Hussainey, 2015).

We propose that the quality of information provided by companies facing a decline in profitability or generally weak performance is more detailed and related to the company and its particular circumstances. In our research, we explore the nature of disclosure statements during the financial crisis to shed light on the use of risk disclosure as a strategic tool that may serve as a method to improve communication and raise trust with stakeholders in the context of a crisis and fluctuating financial performance. We expect to see an increase in the quality of disclosures through an increase in the company-specific information provided by the companies as the financial situation worsens. We

propose that companies disclose more information about their risks and related management practices for the purpose of sustaining investor confidence.

P3. The quality of corporate disclosures becomes more specific during a period of crisis.

2.5 Risk disclosure and time orientation

The predictability of risks in advance of significant events is arguably one of the key drivers underpinning calls for increased risk disclosures as discussed by Solomon (2013). However, companies prevalently provide information about past and present risks, avoiding the provision of forward-looking risk information (Beretta and Bozzolan, 2004). There is some evidence to suggest that there are companies that provide more future orientated than backward looking information (Linsley and Shrives, 2006). Overall, however, earlier research has found that most corporate reports comprise backward-looking information which facilitates the reduction of exposure to litigation, whilst representing little usefulness for investors due to generic statements that lack comparability and transparency (Oliveira *et al*, 2011). Abraham *et al* (2012) found in their study that a mere 16% of narrative disclosures was future-related. Similarly, a study conducted by Abraham and Shrives (2014) showed that events are discussed in annual reports after they occur rather than before they take place. As a result, the authors recommend that shareholders should question the disclosure of vague and routinely repeated information in annual reports. Investors should call for reliable, relevant and forward-looking risk disclosure. We propose that companies increase the provision of forward looking information during a financial crisis in order to enhance trust among the investor community about the company's ability to manage the situation:

P4. Companies provide more future-oriented disclosures during a period of crisis.

2.6 Links to corporate governance

Being an essential “mechanism for addressing agency problems and controlling the firm’s risk-taking”, focus on corporate governance has been one of the responses to the financial crisis (Tarraf and Majeske, 2013). The quantity and quality of risk-related information in annual reports in relation to the corporate governance mechanisms is an area of significant research interest (Al-Najjar and Abed, 2014; Oliveira *et al*, 2011; Abraham and Cox, 2007; Mohd Ghazali and Weetman, 2006; Lim *et al*, 2007; Lajili, 2009; Solomon *et al*, 2000; Bonaci *et al*, 2012). The most widely used corporate governance factors include: company size, board size and board independence. Even though corporate governance variables generally change over a relatively long time period, the financial crisis may have presented a sudden shock that led companies to redesign their corporate governance structures including the size and nature of the board. In what follows, we discuss three corporate governance factors: company size, board size, and board independence.

2.6.1 Company Size

A large number of studies have investigated the impact of company size on corporate governance and disclosure (Probohudono *et al*, 2013; Linsley and Shrives, 2006; Beretta and Bozzolan, 2004; Amran *et al*, 2008; Al-Najjar and Abed, 2014). It has been argued that larger companies provide a higher volume of disclosures because of the importance of communicating effectively with a large pool of stakeholders (Amran *et al*, 2008). Also, they are better able to cover the costs of voluntary disclosure due to their better financial resources (Probohudono *et al*, 2013). Larger companies also rely on external finance, which requires better communication of risks to investors (Elzahar

and Hussainey, 2012). The level of political visibility of large companies is another factor that is likely to enhance disclosure in larger companies to reduce the costs of being perceived as ambiguous (Hassanein and Hussainey, 2015). In contrast, Watson *et al* (2002) argue that the costs of disclosing voluntary information can be high or even unaffordable for small companies. Thus, we expect the size of the company to be related to the level of risk disclosure and propose that company size is likely to influence the level of the disclosure of risk information in annual reports. Therefore, the following proposition can be developed:

P5. The level of the disclosure of risk information in annual reports is related to company size.

2.6.2 Board Size

The importance of the board function and the potential consequences of its failure have been highlighted by the global financial crisis (Solomon, 2013). The board plays a significant role in setting an appropriate corporate governance practice (Brown *et al*, 2009) and in controlling and disclosing strategic information (Mohd Hafiz *et al*, 2014). Abdullah and Page (2009) assert that it is larger boards with more experience and high managerial ownership and not corporate governance itself that leads to better monitoring of risks. Being responsible for defining and alleviating risks, boards may represent the potential source of corporate risks, for example, by a failure to understand the consequences of their strategic decisions.

A number of prior studies have found that board size is positively related to the extent of voluntary disclosure because an increase in the board size is accompanied with a diversity of board members which leads to higher quality of corporate decisions and as a consequence the provision of high quality information (Ntim *et al,* 2013; Rodriguez

Dominguez and Gamez, 2014). An optimally composed board provides the right balance in the combination of skills, level of expertise and professional judgment for enhancing the efficacy of the board.

While size is positively related to the effectiveness of the board, large boards may become unwieldy and inefficient. Several previous studies suggest that large boards can lead to the reduction of governance efficacy. For example, Guest (2009) concluded on the basis of a large sample of companies that board size has a negative impact on firm performance because the effectiveness of a large board is restricted by lack of communication, control and decision-making. It is likely that large boards have a higher volume of internal dissent and more complexity in decision-making. As a result, large boards may be reluctant to reveal voluntary information about risks (Rodriguez Dominguez and Gamez, 2014). Based on the above arguments, we formulated the following proposition:

P6. Board size is connected to the disclosure of risk in annual reports.

2.6.3 Board Independence

Board effectiveness has been connected to its degree of independence and recommendations exist on the independence of boards. According to the Combined Code on Corporate Governance, 'at least half the board, excluding the chairman, should comprise non-executive directors determined by the board to be independent' (FRC, 2003, p.7, section A.3.2). Independent directors have a favourable impact on the quality of decision-making because of their outside experience and their presence reduces agency conflicts. At the same time, independent directors may result in a diminished level of governance efficiency and effectiveness because outside directors may not have

sufficient knowledge about the company to be able to scrutinise and contribute positively to the governance of the company (Rodriguez Dominguez and Gamez, 2014).

The majority of previous studies suggest a positive relationship between independent directors and corporate reporting showing the importance of independent boards for providing risk-related information. The presence of independent directors not only helps to improve communication of risk information and positively affects voluntary disclosure (Beretta and Bozzoland, 2004; Probohudono *et al*, 2013; Mohd Ghazali and Weetman, 2006; Jensen and Meckling, 1976), but it also performs the role of a key indicator of the effectiveness of corporate governance function (Solomon, 2013). Arguably, non-executive, independent directors should increase the dissemination of information about corporate risks because they have fewer personal interests linked to the company which allows them to support the provision of risk information.

An extensive study conducted by Abraham and Cox (2007) demonstrated the importance of independent directors because of the balance they bring to the board that enables the company to better meet shareholder expectations relating to accountability and transparency. Similarly, a study carried out by Lajili (2009) showed that Canadian companies provide more risk-related information if the majority of their board members are independent. Personal reputation of non-executive directors can be also one of the factors for more enhanced disclosure on risks as independent directors act as corporate outsiders with little involvement in daily operations (Oliveira *et al*, 2011). Finally, Barakat and Hussainey (2013) investigated bank governance, regulation and risk reporting in 85 EU banks in 2007-2008 and found that the quality of risk disclosure can be improved by the introduction of independent supervisors or by increasing the proportion of outside board directors. Therefore, board independence can be expected to explain changes in risk disclosure and the following proposition can be formulated:

P7. Board independence is connected to the disclosure of risks in annual reports.

3. Data and methods

3.1 Data and sample selection

We adopted a longitudinal research design for studying changes in risk disclosure over a four year period from 2006 to 2009. As shown in Figure 1, the time period covers the global financial crisis (GFC) from before the crisis in 2006 to its aftermath in 2009, enabling the analysis of the volume and quality of risk disclosure against different levels of profitability and leverage as well as changes in corporate governance structures introduced in the period following the financial crisis. Even though the financial crisis can be seen as a unique event, it provides an opportunity to study the same set of companies in the context of varying levels of financial performance and corporate governance structures.

-----Figure 1-----

Three companies listed on the London Stock Exchange FTSE100 were selected for the study. Following Linsley and Shrives (2006), Elzahar and Hussainey (2012) and Abraham and Cox (2007), FTSE100 was used as a pool of companies for the study because larger companies were expected to provide more information about risks and therefore a richer source of data for exploring the research questions. The three companies – Barratt Developments plc, Persimmon plc, and Taylor Wimpey plc – operated in the construction sector and represented all the companies listed from this sector in FTSE100 during the period of study. They shared a similar regulatory framework of risk disclosures with companies from other sectors with the exception of financial companies that had specific characteristics resulting from a different

framework for disclosure practices (Beretta and Bozzolan 2004; Linsley and Shrives, 2006; Abraham and Cox, 2007). A list of the companies and their market capitalisation is given in Table 2. Representing one of the largest sectors within the UK economy, the construction industry is perceived to be exposed to complex risks due to the interconnections in construction projects. Gruenberg *et al* (2007) argue that because of the uniqueness of building projects, it is highly difficult to predict risks and the impact they may have on the company. However, larger companies tend to be more resilient to unexpected crisis conditions and, in contrast to small and medium companies, are less likely to face bankruptcy in the building sector. Therefore, because our sample consists of three large companies, the findings may not be generalisable to medium-sized companies or other industries.

-----Table 2-----

3.2 Dependent variable: risk disclosure

Content analysis has been widely used in accounting research to measure corporate risk disclosure in annual reports (Linsley and Shrives, 2006; Abraham and Cox, 2007; Greco, 2012; Hill and Short, 2009; Maffei *et al*, 2014; Elzahar and Hussainey, 2012; Al-Najjar and Abed, 2014; Li, 2010). As a well-established method, content analysis is applied "for making replicable and valid inferences from texts to the contexts of their use" where reproducibility of findings plays an essential role (Krippendorff, 2004, p.18). In content analysis, words or other units of text are analysed in order to quantify or explore them against predetermined themes or categories. Coding units typically include sentences, paragraphs or words depending on the focus of the research (Bowman, 1984).

In our research, the dataset included a total of 12 annual reports covering four fiscal years for three companies (2006-2009). Narrative information from the following sections of the annual reports was analysed: the Chairman's statement, the Group Chief Executive's statement, the Business and Financial reviews and the Director's report. We extracted a total of 860 sentences from the annual reports and examined them as risk disclosure statements in order to identify possible themes and patterns.

Adapting the risk disclosure index developed by Abraham and Shrives (2014), we extracted risk-related sentences from the annual reports and categorised them into two groups: 1) generic risk statements and 2) specific risk statements. Sentences were coded as risk disclosures if the reader was informed about threats or opportunities that had impacted or were going to impact the company or its environment. As suggested by Linsley and Shrives (2006), only risks that we explicitly stated were included in the pool of disclosure sentences; vague or implied statements were excluded from the analysis. This approach has been adopted in a number of risk disclosure studies using content analysis to investigate annual reports (e.g. Abraham and Cox, 2007; Elzahar and Hussainey, 2012).

Selecting sentences as the main unit of analysis is a common approach to disclosure measurement because of the reliability of sentences in comparison to the analysis of other textual units such as words and pages (Amran *et al*, 2008). Sentences enable a more accurate identification of relevant content than words because of the context provided by the sentence for interpreting the meaning of specific words and whether they constitute a risk disclosure. Recent studies in risk disclosures have adopted sentences as the primary coding unit (e.g. Beretta and Bozzolan, 2004; Linsley and Shrives, 2006), although in some studies both sentences and words have been used to increase the reliability of the results (Abraham and Cox, 2007). However, the selection

of individual words as the main unit of disclosure analysis is unlikely to have a material effect on the results (Milne and Adler, 1999).

3.3 Independent variables: financial measures

Financial performance was studied using standard measures and sources as shown in Table 3. The measures were calculated for the three companies for each of the four financial years in order to study changes over the study period.

-----Table 3-----

3.4 Independent variables: corporate governance

To explore the relationship between corporate governance factors and risk disclosure, three characteristics of corporate governance were collected and measured in line with Elzahar and Hussainey (2012). Table 4 displays the measurements of the independent variables which are consistent with several past studies. First, as a measure of company size, total assets at the end of the fiscal year was used. Second, board size was measured as the total number of board members over the study period. Third, board independence was measured by the percentage of independent directors on the board.

-----Table 4-----

3.5 Market capitalisation

The UK construction industry faced the hardest conditions because of the impact of the GFC showing the deepest annual decline in house prices and affecting the whole economy (Ball, 2010). It is worth noting though that “the UK construction industry’s performance following the 2008 slowdown was initially similar to that experienced in previous slowdowns” (Office for National Statistics, 2013).

Market capitalisation, which can be considered as the most accurate measure of shareholder value, demonstrated a decreasing confidence between 2006 and 2008 years in the ability of the companies to survive the crisis period. Market capitalisation of Taylor Wimpey and Barratt Development decreased by 93.96% and 91.15% respectively, and the capitalisation of Persimmon dropped by 84.73% over the period (Figure 2). Given the hitting market conditions in 2008 and the collapsed value of the big construction companies, many financial analysts raised concerns forecasting a close breach of the banking agreements for companies including Persimmon, Barratt Developments and Taylor Wimpey (Treanor and Wearden, 2008).

----- Figure 2-----

4. Results

4.1 Volume of disclosure

When averaged across the three companies, the volume of risk related disclosures increased throughout the period studied from 2006 to 2009. As shown in Figure 3, the biggest increases in disclosures took place in 2007 and in 2008 after which the volume of disclosures appeared to stabilise. More specifically, the overall number of disclosures increased by 59.38% in 2007 and 98.04% in 2008. By 2009, the number of disclosures increased only slightly by 2% suggesting that a plateau had been reached. The financial crisis therefore saw an increase in the volume of risk disclosure that reflected the introduction of new recommendation by governments and accounting bodies.

At company level, Barratt, with the lowest number of disclosures in 2006 in comparison to the other two companies, saw the highest increase in disclosures from a total of 17 disclosures in 2006 to 144 in 2009 (747.06%). The other two companies, Taylor

Wimpey and Persimmon, which both started with a higher volume of disclosures in 2006, saw a considerable, but a less steep increase in disclosures from 34 to 64 (88.24%) and from 46 to 100 (117.40%) respectively. Overall, the analysis suggests that a larger volume of disclosures were made by all the companies with the largest increases seen with the companies starting from a lower base.

There was a high degree of difference between the number of disclosures provided by the companies across the period of study. For example, in 2006, the number of disclosures varied from 17 to 46 and in 2009 from 64 to 144. One company, Taylor Wimpey, had the highest level of disclosures throughout the period of study except for 2009 when Barratt provided a higher number of disclosures. On average, the number of disclosures increased from 32 in 2006 to 102 in 2009 across the three companies. It will be argued later that the volume of disclosures provided by Taylor Wimpey through the study period may be connected to the company's board composition.

-----Figure 3-----

The movements in the volume of risk disclosures corresponded to the movements in company profitability. As can be seen in Figure 4, when Return-on-Assets (ROA) as a measure of profitability experienced a downward trend, the volume of disclosures increased.

----- Figure 4-----

4.2 Quality of disclosure

4.2.1 Generic versus company specific information

Narrative risk disclosures were investigated with regard to their generic and specific nature. The analysis showed that generic information about risks increased throughout

the period studied. In parallel, the provision of company specific information increased particularly in 2007 and 2008, but declined in 2009 when the financial crisis started to settle. The analysis of narrative information showed that Taylor Wimpey provided the most detailed and company specific information in comparison to the other companies. Overall, as shown in Figure 5, companies provided more generic than company specific information throughout the period under investigation. Also, the volume of generic and company specific disclosures did not always develop in the same way even though both increased over the period studied.

-----Figure 5-----

When basic risk characteristics and risk management policies were analysed separately, a relatively higher increase was seen in the discussion of basic risk characteristics. Information about risk management policies also grew but to a lesser degree, which suggests that the companies considered it more important to shed light on risks and how they were affecting the company rather than disclosure information about policies that had been used to deal with risk.

The detailed examination of the narrative content of the annual reports shows that in 2006, there were no signs or caution about the possibility of future changes in the companies' performance or market risks. For example, Barratt stated that its "record forward sales, strengthened land bank and strong finances' provide 'a healthy position for the coming year" (Barratt, 2006, p.14). At the same time, Persimmon stated its confidence about "the underlying strength of the housing market" and "ability to grow […] business over future years" (Persimmon, 2006, p.2). In a similar way, Taylor Wimpey showed an overall confidence in the future.

In 2007, a year before the peak of the financial crisis, the annual reports demonstrated a degree of doubt and uncertainty, but the statements were generally vague. Moreover, the

majority of information related to risk factors and internal control was largely copied from previous reports and only a small amount of new information was provided. In line with prior research (Abraham and Shrives, 2014), this repetitive information shows that companies do not provide a full update of their risks on an annual basis. The generic and repeated nature of the disclosed information in years 2006 and 2007 is an example of information provided during years of perceived stability.

Only in the annual reports of 2008 when the economic, market and financial conditions were at their peak of turbulence did companies provide more specific and unique information in their statements. As acknowledged by Taylor Wimpey (2008, p. 28), "2008 was the most challenging year that the housing market has encountered in recent history". Moreover, 2008 was the only year when the reports included more new information than repeated content from previous years. However, in the following year in 2009, the disclosure of specific information about risks either decreased or stopped to rise in all three cases.

Overall, narrative information in the annual reports was characterised by a low degree of comparability within and across companies. During periods of perceived stability in 2006 and 2007, companies avoided disclosure about the uncertainties faced by them and the provision of company specific information. The period of crisis in 2008 provoked companies to offer more meaningful and specific information that communicated their risk profiles to the shareholders and other stakeholders. There are several possible explanations for this increase in the quality of information. For example, companies are more dependent on stakeholders, inflows of new investments, and corporate image during periods of crisis and therefore communicate more with their stakeholders. In summary, the harder the economic and financial conditions are, the more concrete and reliable narrative disclosure is.

4.2.2 Forward orientation

The majority of narrative reporting consisted of historical statements and descriptions about past events. The usefulness of such retrospective and backward orientated information is questionable in terms of its relevance for predicting significant events in the future. For example, the presentation of corporate risks disclosed in the annual reports before the financial crisis did not reflect subsequent financial performance. It was only in 2008 that the reports included substantial information that was forward orientated. In this year, all three companies anticipated difficulties in the following year and discussed factual details about the possible risks and risk factors they might face. They also signaled caution about the speediness of recovery.

As briefly discussed above, the risk statements included a substantial amount of copied data from previous annual reports. This repeated information may not necessarily reflect the actual risk situation a company is facing and it may therefore fail to provide stakeholders with relevant, current and useful information which is essential for making informed investment and other decisions. The tendency to generalization and symbolism in narrative reporting, particularly with regard to periods of stable profitability and leverage arrangements, appears to provide little new or valuable information to readers about current or future risks. Our analysis therefore suggests that annual reports provide little information about significant risks and other issues that enable investors to make informed decisions about the future.

4.3 Leverage and disclosure

Figure 6 illustrates the growth in debt usage in 2008 and 2009 in comparison to 2006 and 2007. From the years included in the study, 2008 was the most critical year for all

three companies when they took "tough decisions over the course of 2008 in the face of an unprecedented global economic backdrop" (Taylor Wimpey, 2008, p. 1).

-----Figure 6-----

The surge in the average borrowings in comparison to equity took place when the companies were not able to obtain equity finance through existing shareholders due to the extraordinary level of uncertainty in the economic and financial conditions which resulted in the rejection of financial support by large investors. As a result, the financial indebtedness required urgent actions by the three companies in terms of restructuring debts and finding measures for adapting to the extraordinary market conditions.

Taking advantage of their big size, the three largest housebuilders undertook relatively similar measures for preventing failures, servicing debts, and slowly stabilising businesses at time of financial difficulty. For example, in 2008 Barratt Developments reached agreements with banks to refinance their loans of £400m, waived covenants on the rest of their debts of £1.7bn, and wrote down the value of their land bank by £85m (Russell and Monaghan, 2008). As for Taylor Wimpey, in order to avert a collapse and to cut its debt since a failed fund raising in 2008, they still managed to raise £510m via the fully underwritten share issue in 2009 and to refinance £2.5bn of the company debts which resolved uncertainty around company's viability (Fildes, 2009). Similarly, Persimmon renegotiated the terms of their existing debt and acquired new banking facilities, bringing the total credit facilities to slightly more than £1bn with a burden to pay interest rates on the loan that were 75 per cent higher than before (Pearson and Fickling, 2009). Apart from measures taken on companies' level, two factors played an important role in boosting the housing market: the governmental 'NewBuy initiative' provided "a guarantee to banks that offer 95 per cent mortgages" and "the Bank of

England's Funding for Lending Scheme", which helped banks to introduce more affordable rates on loans (Plimmer and Wembridge, 2013).

Although the new financing deals and the restructuring removed the immediate danger of going into bankruptcy, analysts warned that these actions could have significant drawbacks and inherited costs consisting in increased interest rates and more expensive debts which have to be paid back through asset sales (Russell and Monaghan, 2008). Another result of the higher debt-equity ratio related to structural reconsiderations with the outcome of closing divisions and reducing staff. For example, Barratt announced the redundancy of about 1200 people in 2008, Persimmon reduced its operational and administrative staff by 55%, and Taylor Wimpey launched similar redundancy programmes.

----- Figure 7-----

Regarding the relationship between leverage and corporate disclosure, the level of leverage corresponded to the volume of company specific risk disclosure. Figure 7 portrays that company specific risk disclosures increased as leverage rose in 2007. Risk disclosures also increased in 2008 as leverage rose further, but when the level of debt declined in 2009, the volume of disclosures also fell. The analysis therefore suggests that when companies are perceived to be close to financial distress and bankruptcy, company leadership may decide to mitigate this situation through increasing the level of communication with shareholders and the financial community. This finding is in line with prior research by Mia and Al-Mamun (2011).

4.4 Links to corporate governance

4.4.1 Company size and disclosure

Table 5 indicates that Barratt's and Taylor Wimpey's total assets, as a measure of company size, almost doubled between 2006 and 2007 mainly due to a rise in inventories, intangible assets, goodwill, investments and swaps. Persimmon's size of total assets showed a similar upward trend in 2007, albeit less steep. Afterwards, there was a steady decrease in the company size for all the three companies in 2008 and a further drop in 2009 because of a diminished level of inventories, receivables and goodwill impairments.

-----Table 5-----

When comparing average company size from 2006 to 2009 with the number of total and specific risk disclosures, it can be stated that the increase in the provision of company specific as well as total disclosures in 2007 reflected a substantial rise of company size in the same year. Meanwhile, a significant decline of the average company size in 2008-2009 corresponded to a decrease in the provision of company specific information in 2009.

4.4.2 Board size

-----Figure 8-----

The analysis reveals that the lowest number of board directors was registered in 2007 in all the three companies (Figure 8). By the end of the study period in 2009, all the three companies had 10 board members. Overall, the number of board members changed almost on an annual basis and fluctuated between 7 and 11 members. Because of the relatively small number of board members and the constant fluctuation in numbers, no generalisation can be made in relation to risk disclosure.

4.4.3 Board independence

As shown in Figure 9, the average level of independent directors rose from 61% in 2006 to 63% in 2009. All the companies were in compliance with the Corporate Governance Code by maintaining a level of independent directors at 50% or higher. The lowest proportion of independent directors was attributed to 2007 for all the three companies, while the highest percentage manifested itself in 2008. These trends can be explained by the actions taken by the companies in response to the financial crisis and for stabilising their financial position and governance.

The analysis also provides support for the argument that there is a relationship between the level of specific disclosures and the proportion of independent directors. For example, in 2008, Taylor Wimpey had the highest percentage of independent directors (75%). In this year, it also had the highest number of total and specific disclosures amongst all the three companies. In previous literature, it has been argued that independent directors facilitate the provision of information about risks and therefore improve the quality of disclosed information (Beretta and Bozzolan, 2004).

-----Figure 9-----

Overall, the size of the board did not change significantly in the aftermath of the financial crisis, but it fluctuated throughout the period studied. In contrast, the boards of the three companies saw an increase in the number of independent directors immediately after the crisis. The findings therefore demonstrate that companies can react quickly by increasing the number of independent directors that has been previously associated with the volume of risk-related information made available by companies (Barakat and Hussainey, 2013; Lajili, 2009). As suggested by Oliveira *et al* (2011), the personal reputation of independent directors may help companies to enhance their reputation in an uncertain and volatile environment.

5. Discussion of findings

The global financial crisis highlighted the growing demand for relevant and reliable information about risks by corporate stakeholders including investors, regulatory authorities and governments. The present study set out with the aim of exploring corporate disclosure practices among UK construction companies over the period of 2006-2009. Applying content analysis to the annual reports of the three companies, we investigated the volume and quality of risk disclosure over the period of study. In addition, we examined the extent to which corporate governance factors were associated with changes in corporate disclosure. The findings of the study contribute to literature in corporate disclosure by investigating how disclosure practices vary between a relatively stable time and a period of crisis.

5.1 Disclosures

Our findings provide support for earlier research showing that risk disclosures increased in the aftermath of the financial crisis (Elzahar and Hussainey, 2012; Haji and Mohd Ghazali, 2012). Our analysis showed that the volume of risk disclosures increased throughout the period of 2006-2009 but seemed to reach a plateau after the financial crisis had peaked in 2008. The largest increases in the volume of disclosures were seen in the company that started from the lowest base. The financial crisis therefore saw an increase in the volume of risk disclosure and particularly in those companies that provided relatively little information before the crisis.

Overall, companies provided more generic than company specific information throughout the period under investigation. The generic and repeated nature of the disclosed information in years 2006 and 2007 supports previous research findings about

the general and symbolic nature of risk disclosure (Abraham and Shrives, 2014). Similarly, the repeated content of disclosure statements suggests that companies do not provide fully new and updated information on an annual basis. However, our findings add to the existing literature by showing that during a period of crisis, not only the volume, but the quality of corporate risk disclosure improves. This finding is supported by the observation that the provision of company-specific information decreased or remained at the same level in 2009 once the economy began to recover after the crisis. However, the companies considered it more important to shed light on risks and how they were affecting the company rather than disclosure information about policies that had been used to deal with risk. The increase in the quality of disclosures in times of crisis can be considered as a measure taken by the companies to communicate with their investors and to improve confidence in the company among shareholders.

The findings of our study further suggest that the majority of data in narratives consists of historical statements and descriptions about past events, questioning the usefulness of such post-factum and backward-oriented information for its relevance for predicting future events. The companies were reluctant to provide new information and their disclosures were dominated by information copied from previous reports. Overall, our analysis suggests that annual reports provide little information about significant risks and other issues that enable investors to make informed decisions about the future. These findings support prior research according to which companies are reluctant to provide forward-looking information (Abraham *et al*, 2012; Abraham and Shrives, 2014; Beretta and Bozzolan, 2004). Our findings add to the existing literature by showing that crisis periods may provoke companies to provide more forward oriented information, but this change is temporary.

It has been argued that rising level of debts and financial distress have the effect of spurring the number of risk-related statements in annual reports (Rodriguez Dominguez and Gamez, 2014). Our results support these prior findings and show that the companies studied suffered from a detrimental stock market value in 2007 and 2008 when the financial performance and position in all three cases demonstrated significant leverage risks and this corresponded to an increase of risk disclosures by the companies. Based on this, it can be suggested that when companies are close to financial distress and bankruptcy, they seek to mitigate these situations by increasing the level of communication with stakeholders.

5.2 Corporate governance and disclosure

Our examination of the relationship between company size and disclosure of risk information supports the findings of previous studies by showing that the size of the company influences its ability and willingness to communicate about risk (Elzahar and Hussainey, 2012; Al-Najjar and Abed, 2014; Amran *et al*, 2008). Our findings suggest that the increase in the provision of company specific and total disclosures in 2007 reflected a substantial rise in average company size in 2007. This connection may be explained by the larger pool of stakeholders that larger companies have and the related interest in receiving communication about risks, particularly during a period of instability.

We were not able to make conclusions about the interdependence between board size and the volume of risk disclosure because of the limited data set. There are external factors that can influence changes in board composition particularly in the period of financial distress that may have caused the observed fluctuations in the size of boards. Also, a larger set of companies is needed for investigating this relationship.

Our analysis suggests that the level of total and company specific disclosures may correspond to the proportion of independent directors. This finding supports previous studies that have identified board independence as an important variable explaining changes in corporate disclosure (Oliveira *et al*, 2011; Ntim *et al*, 2013). One of the possible explanations for this relationship is that non-executive independent directors are more motivated to increase voluntary disclosure levels due to having fewer personal interests and for maintaining reputational capital (Probohudono *et al*, 2013).

Future research is needed to examine the relationship between corporate disclosure and corporate governance factors based on a larger sample of companies from different non-financial industries. Extending the end period of study from 2009 year to 2011 and beyond would allow to examine more fundamentally changes in corporate disclosure before, during and after the global financial crisis. Future research may also wish to consider the disclosure patterns before, during and after the GFC by the medium-sized companies, including statistics about their survival mechanisms to overcome financial distress. It would also be interesting to see research on the proportion of new information in annual reports in contrast to copied data from previous reports.

5.3 Managerial and regulation implications

Regarding managerial and policy implications of our findings, stakeholders rely on the annual reports as the main source of receiving relevant and comparable information about risks and opportunities, whereas disclosures can be constrained as companies may prefer to limit their narratives because of the costs, agency conflicts, and potential damage to competitive advantage. The voluntary nature of corporate disclosure can be associated with a lack of transparency and meaningfulness of the communication between companies and their shareholders, despite the attempts to enhance regulation and to increase reliability of narrative reporting. Our findings suggest that an increase in

the amount of disclosure may not be indicative of higher quality. In order to enhance the relevance and usefulness of disclosed information, regulation of risk disclosures should ensure that information is regularly updated and more future oriented. The emphasis should be on the quality of disclosure about possible future risks rather than just an increase in the amount of generic, vague and backward-looking statements which lack of usefulness for investors.

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