

Governance Structure and the Performance of Traditional and Diversified Banks during the Financial Crisis 2007/2008

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The 2007–2008 financial crisis raised concerns about the impact of governance structure on bank performance. The purpose of this study is to examine three questions: Does the governance structure differ in traditional and diversified banks? Which type of bank performed better during the financial crisis? Did the governance structure of these banks play a significant role in bank performance? In order to explore these three aspects, we conducted ordinary least squares (OLS) regression and sensitivity analysis. Overall, our empirical results show that diversified banks have more nonexecutive directors and independent board members compared to traditional banks; however, traditional banks have comparatively smaller board sizes and more executive directors in the board. Further, using return on equity (ROE) and return on assets (ROA) as performance measures, the results indicate that traditional banks performed better during the financial crisis than diversified banks did. The OLS results confirm that most of the governance variables have insignificant associations with bank performance during the financial crisis. This is the first study that explores the relation between governance structure and bank performance by classifying banks as traditional or diversified banks.

Keywords: governance structure, bank performance, traditional banks, diversified banks

JEL Classification: G34, G01, G21, G30, G32

1. Introduction

The financial turmoil during 2007–2008 is often described as one of the most severe financial crises since the Great Depression in the 1930s. This financial crisis raised many debates regarding the operations of financial institutions, particularly in the context of corporate governance. History shows that the development and refinement of corporate governance standards often occurred because of governance failures and scandals within the companies. For instance, in the 1990s, the burst of the dot-com bubble highlighted the conflict of interests between brokers and analysts. Similarly, in the early 2000, the Enron/World Com failures raised issues regarding the independence of audit committees and deficiencies in accounting standards.

Although the financial crisis in 2007–2008 affected many sectors worldwide, its impact on the financial sector was more prevalent. By the end of 2008, many large financial institutions, particularly in Europe, such as UBS, Credit Suisse, RBS, HBOS, Barclays, Fortis, and Société Générale had incurred huge losses. In some countries, the conditions of some of the banks were so poor that the respective government had to step in with rescue programs.¹

The 2008 report of the Organisation for Economic Co-operation and Development (OECD) states that the financial crisis of 2007 can be attributed to weaknesses and failures in the corporate governance of the financial institutions (Kirkpatrick, 2009). In 2011, the National Commission on the Causes of the Financial and Economic Crisis in the United States concluded that “dramatic failures of corporate governance at many systematically important financial institutions were a key cause of this crisis”² Some academic studies (e.g., Diamond and Rajan, 2009; Bebchuck and Spamann, 2010) pointed out that flaws in the banks’ governance constituted an important factor that contributed to poor bank performance during the financial crisis.

¹ The list of casualties includes Bear Stearns, Citigroup, Lehman Brothers, Merrill Lynch (in the U.S.), HBOS and RBS (in the U.K.), and Dexia, Fortis, Hypo Real Estate and UBS (in continental Europe).

² National Commission on the Causes of the Financial and Economic Crisis in the United States (2011).

Most of the prior studies (Beltratti and Stulz, 2010; Erkens, Hung, and Matos, 2010; Fahlenbranch and Stulz, 2011; Minton, Tillard, and Williamson, 2010) investigated the impact of corporate governance on bank performance from the perspective of board characteristics and pay structure of the chief executive officer (CEO). However, these prior studies ignored the fact that the governance structure of the banks can vary based on their operational characteristics; hence, prior studies do not differentiate between traditional and diversified banks. To date, no study has examined governance structure and bank performance for traditional banks and diversified banks specifically. As proposed by Westman (2010), banks can be classified into two distinct groups: traditional and diversified. Traditional banks focus on interest-generating activities, whereas diversified banks focus on fee-generating activities such as securities trading, wealth management, and underwriting. Due to the different operational characteristics of traditional banks and diversified banks, we have investigated three main aspects in this study. Does governance structure differ in traditional and diversified banks? Which type of bank (traditional or diversified) performed better during the financial crisis? Did the governance structure of these banks play a pivotal role in the poor performance of banks during the financial crisis of 2007–2008?

In order to explore these aspects, we use a sample of 69 European banks spanning 15 European countries for the fiscal period 2007–2008. Following a bank classification method similar to that proposed by Westman (2010), we classify the banks as traditional and diversified banks. For the empirical analysis, we use a comprehensive set of governance variables such as board size, number of nonexecutive directors, number of independent directors, busyness of the directors, CEO age, and CEO tenure. Following Aebi et al. (2011), we incorporate some risk variables such as the presence of a chief risk officer (CRO) and the existence of a risk committee to explore whether the risk management structure of the banks influenced the bank performance during the financial crisis. To account for the bank characteristics, we include some control variables such as bank size, loans, deposits, leverage, capital, and loan loss. Finally, to deal with the potential problem of endogeneity, we use some lagged governance variables to test how past governance structures may have influenced bank performance during the crisis period (2007–2008).

Overall, the findings from our empirical study indicate that diversified banks have more independent board members and nonexecutive directors compared to traditional banks. However, traditional banks have a relatively smaller board size and more executive directors in comparison to diversified banks. Further, when return on equity (ROE) and return on assets (ROA) were used as performance measures, our findings indicate that traditional banks performed better than diversified banks did during the financial crisis. The regression results show that most of the governance variables have insignificant association with respect to bank performance during the financial crisis. This study is important and contributes to the literature as this is one of the few papers to examine the governance structure of traditional and diversified banks and to analyze whether the governance structure of these banks influenced bank performance during the 2007–2008 financial crisis.

The remainder of this paper proceeds as follows. In Section 2, we review the relevant literature and discuss prior empirical findings. In Section 3, we describe the data, sample, methodology, hypotheses, and the variables of this study. In Section 4, we present the results from the ordinary least squares (OLS) regression and the sensitivity analysis. We conclude the paper in Section 5 with a discussion of directions for future research.

2. Literature Review

In this section, the literature review provides a synthesis of the relevant corporate governance theories and empirical findings that can help one to understand the dynamics between governance structure and bank performance. The literature review is divided into three subsections. Section 2.1 outlines the relevant governance theories; Section 2.2 explains the corporate governance structure of banks; and Section 2.3 reviews all the previous empirical studies that are relevant to this study and highlights the significance of this research.

2.1 Corporate Governance Theories

2.1.1 Agency Theory

Agency theory was first explored by Alchian and Demsetz in 1972 and was further developed by Jensen and Meckling in 1976. Agency theory identifies the agency relationship between the principal and the agent of the company. According to this theory, the shareholders are the principals of a company, and they delegate the running of the business to the agents (directors and executives). Agency theory uncovers a number of problems that could arise due to the separation of ownership and control. It is argued that due to the separation of ownership and control, there is a danger that managers would pursue their own goals at the expense of the shareholders. According to Padilla (2002), because of the agency problem, employees and managers may not always act in the best interests of the principals. For instance, managers may use their power to overpay themselves or give themselves extravagant perks; additionally, they may take on excessively risky projects to enhance their own status at the cost of diminishing shareholder wealth. Agency problems could also arise due to the information asymmetry between principals and agents. Managers often have access to exclusive information that shareholders do not have access to; managers could use this information to further their own agendas. Blair (1996) points out that although agency costs in an organization are inevitable, it is possible for the shareholders to safeguard their interests by adopting mechanisms that align the managers' incentives with their (i.e., the shareholders') interests.

In the following subsection, we describe the corporate governance structures in the banking sector and discuss why governance within banks requires special attention. Additionally, we outline the differences between traditional and diversified banks and investigate the agency costs within these banks.

2.2. Governance in Banks

2.2.1 Is corporate governance in banks different from that in the non-financial sector?

Certain characteristics of banks make corporate governance more complex and highly specific to the banking sector. Firstly, due to the nature of their business, banks are more opaque compared to non-financial institutions. Greater opacity in banks increases information asymmetry and reduces the stakeholders' ability and incentives to monitor the banks effectively. Furfine (2001) suggests that although information asymmetry is apparent in almost all the sectors in an economy, they are more prevalent in the banking sector. Secondly, managers in banks can change the risk composition of their assets very quickly compared to managers in non-financial institutions. Additionally, banks can hide their problems by extending more loans to their current clients or customers. Due to such complexity of banking operations, it is not surprising that bond analysts disagree about bonds that are issued by the banks more often than they do about those issued by non-financial institutions (Morgan 2002). Due to these characteristics of banks, it is often quite difficult for the regulators and stakeholders to monitor banks, thus hindering traditional corporate governance mechanisms.

2.2.2 Is there any difference between diversified banks and traditional banks?

According to Westman (2010), banks can be classified into distinct two groups based on the type of operations on which the banks primarily focus: traditional banks and diversified banks. Traditional banks mainly concentrate on taking deposits and issuing loans, whereas diversified banks focus on non-traditional banking activities such as securities trading, wealth management, and underwriting (Freixas and Rochet, 1997).

Which type of bank (traditional or diversified) yields better performance? This is an ongoing debate in corporate finance. Prior studies on this issue lent support for both types of bank. Proponents of diversification such as Iskander-Datta and McLaughlin (2007) posit that diversified banks can benefit from leveraging their management skills, gaining greater economies of scope through wider spread of fixed costs (Drucker and Puri, 2009), and attracting more customers by offering multiple products.

On the other hand, advocates for traditional banking assert that diversified banks can suffer from

diminished comparative advantage (Klein and Saidenberg, 1998), and that diversification can induce unhealthy competition, which can increase agency costs (Winton, 1999; Amihud and Lev, 1981). This ongoing debate regarding which type of bank performs better is extended in the context of corporate governance.

2.2.3 Do agency costs vary in diversified banks and traditional banks?

Westman (2010) investigates corporate governance in different types of banks and reports that the severity and characteristics of the agency problem vary in traditional and diversified banks. She pinpoints that the shareholders' ability and incentives to monitor can differ in these two types of banks. If we analyze the characteristics of traditional banks, these banks typically focus on simple banking operations such as loans and deposits; hence, they are less complex and opaque. Because of the large amount of deposits, traditional banks benefit from a safety net in the form of deposit insurance. O'Hara and Wayne (1990) argue that the explicit and implicit deposit insurance can reduce the monitoring incentives of the owners because such schemes cover the potential losses in the event of bank failure.

Examining the characteristics of diversified banks reveals that because of the nature of their operations, these banks are often larger and more complex. The large size of the diversified banks creates another incentives problem because of the too-big-to-fail (TBTF) guarantees. According to Deng et al. (2007), TBTF guarantees in diversified banks act as insurance coverage, which can hinder the monitoring incentives. Thus, the presence of a security net in the form of deposit insurance or TBTF guarantees reduces the monitoring incentives in both traditional as well as diversified banks. Finally, examining the outsider's ability to monitor, Westman (2010) states that since diversified banks are more opaque and complex, they are more difficult to monitor compared to traditional banks.

In Section 2.1, it was mentioned that agency costs arise for various reasons such as the conflicts of interests between management and shareholders with respect to the optimal risk level or the extraction of private benefits by the management. Westman (2010) points out that these two types of agency costs can vary in traditional and diversified banks. Stiroh and Rumble (2006) posit that managers can sometimes take excessive risks that are beyond what the shareholders and regulators would prefer. This risk-taking attitude of managers would differ according to the outsider's ability to monitor the banks. Since diversified banks are relatively more difficult to monitor (because of greater complexity), the managers in these banks often engage in more risk-taking activities. Moreover, in diversified banks, the compensation of the managers is often linked to the company size, which further induces managers to achieve growth through more risky strategies that often undermine shareholder wealth. Thus, it is argued that the risk-taking incentives of managers are higher in diversified banks compared to traditional banks. Finally, regarding the extraction of private benefits, Jensen (1986) reports that the extraction of private benefits by managers is more prevalent in diversified banks than in traditional banks.

Differences in agency cost between traditional banks and diversified banks

	Traditional Banks	Diversified Banks
Incentive to monitor by outsiders	<i>Low</i>	<i>Low</i>
Difficulty to monitor by outsiders	<i>Low</i>	<i>High</i>
Risk-taking attitude of managers	<i>Low</i>	<i>High</i>
Extraction of private benefits by managers	<i>Low</i>	<i>High</i>

2.3 Previous Empirical Findings

This section reports the findings of some prior studies that examined how governance structure influenced bank performance during the financial crisis in 2007–2008. Further, we outline how this study contributes to the existing body of empirical work.

2.3.1 Impact of governance structure on performance during the crisis

The current study is not the first to examine the impact of governance structure on firm performance during the financial crisis. However, the findings from previous empirical studies were quite conflicting, which left the issue unresolved. Some studies such as Beltratti and Stulz (2010), Erkens et al. (2010), Aebi et al. (2011), Erkens, Hung, and Matos (2010), and Fahlenbranch and Stulz (2011) report a negative association or no association between corporate governance and bank performance during the financial crisis. However, other empirical studies including Peni and Vahamaa (2012), Francis, Hasan, and Wu (2012), and Beuselinck et al. (2013) report a positive relation between bank performance and corporate governance during the financial turmoil of 2007–2008.

Beltratti and Stulz (2010) use a sample of 164 large banks in the United States to examine the stock returns of banks for the period July 2007 to December 2008. Their findings indicate that banks that were pushed by the boards to maximize shareholder wealth took greater risk before the crisis, which eventually contributed to poor outcomes after the crisis. Interestingly, their results added to the findings of previous studies as they report that banks with more shareholder-friendly boards measured using the Corporate Governance Quotient (CGQ) obtained from Risk Metrics performed worse during the crisis.

Similarly, Erkens et al. (2010) investigate the impact of corporate governance on bank performance during the 2007–2008 crisis. They use a sample of 296 financial institutions and report that firms with more independent boards and higher institutional ownership performed worse during the crisis. However, unlike Beltratti and Stulz (2010), their study reveals two new things. First, firms with more institutional ownership took greater risk before the crisis, which contributed to large shareholder losses. Second, firms with more independent boards had higher equity during the crisis, which eventually contributed to the transfer of wealth from shareholders to debt holders.

Erkens, Hung, and Matos (2010) also investigate the relation between corporate governance and the performance of financial institutions during the 2007–2008 credit crisis. They use a sample of 296 financial institutions spanning 30 countries. Their study reveals that firms with higher institutional ownership and independent boards took excessive risk prior to the crisis, which eventually resulted in lower stock returns during the crisis period. Their study further reveals that firms with more independent boards raised more equity capital during the crisis, which contributed to large shareholder losses during the crisis.

Contrary to these studies, Fahlenbranch and Stulz (2011) focus on the impact of the CEO and CEO compensation incentives on the profitability and stock returns of US banks during the crisis. Surprisingly, their findings show that banks in which the CEO incentives were better aligned with the shareholders did not perform better during the crisis. Moreover, these banks performed worse in terms of stock returns and return on equity (ROE). Although inappropriate managerial compensation incentives are often identified as a major factor for poor bank performance during the crisis, their study claims that CEO compensation is unrelated to bank performance. Their study added to the findings of previous studies by showing that the CEOs of most banks did not reduce their stockholdings and did not hedge their risk exposures in anticipation of the financial crisis.

Similar to Fahlenbranch and Stulz (2011), Peni and Vahamaa (2012) used data pertaining to US banks to examine the impact of governance structure on bank performance during the crisis. However, their study reported mixed evidence on bank performance. On the one hand, their findings indicate that banks with strong governance had higher profits in 2008; on the other hand, they report a negative association between strong governance and stock market valuation of the banks during the crisis. Moreover, unlike some previous studies (Beltratti and Stulz 2010; Erkens et al. 2010; and Fahlenbranch and Stulz 2011), their study added another dimension to the extant literature as they reveal a positive association between corporate governance and bank performance in the aftermath of the crisis.

Aebi et al. (2011) shed further light on the impact of governance structure on the performance of financial institutions during the 2007–2008 crisis. Their study utilizes standard governance variables such as board size, board independence, and CEO ownership to examine how these factors can influence the stock returns and ROE of banks. Unlike most previous studies, they incorporate risk

variables such as the presence of a chief risk officer (CRO) and a risk committee to investigate the relation between the risk and returns of banks during the crisis. Their study reveals that the standard corporate governance variables are insignificantly or even negatively related to bank performance. Additionally, their research reveals that banks in which the CRO directly reports to the board of directors and not to the CEO exhibited significantly higher stock returns, ROA, and ROE during the financial crisis.

Studies such as Westman (2010) report how agency costs can vary in traditional and diversified banks; however, her analysis primarily focused on ownership structure, and the study was not conducted for the crisis period (2007–2008). While Beltratti and Stulz (2010) investigate the performance of banks during the crisis, they do not examine which type of banks (traditional or diversified) performed better. This paper fills a gap in the extant literature as we carry out a detailed analysis of the performance of traditional and diversified banks during the crisis, utilizing various governance mechanisms such as board size, number of nonexecutive directors, independent directors, busyness of the director, CEO age, and CEO tenure.

Some recent studies including Aebi et al. (2011) and Vento and Ganga (2009) report that excessive risk played a key role in the poor performance of banks during the crisis. To investigate this issue, we incorporate some risk variables such as CRO and risk committee in the regression model. This paper sheds further light on prior research findings by exploring what type of governance structure exists in traditional banks and diversified banks, which type of bank performed better during the crisis, and whether the governance structure of traditional and diversified banks had any influence on bank performance during the 2007–2008 crisis.

3. Methodology and Data

This section outlines the various sources from which data are collected, the sample selection procedure, the dependent and independent variables, the research hypotheses, and the methodology.

3.1 Data

All the data required for this study are collected from the Datastream, BoardEx, and Thomson ONE Banker databases and from the banks' annual reports. Information pertaining to bank performance and bank characteristics are collected from the Datastream and Thomson ONE Banker databases for the fiscal period 2005–2008; all governance and board structure data are gathered from the BoardEx database. Risk variables such as CRO (presence of a chief risk officer) and risk committee, which are unavailable from the electronic databases, are manually collected from the banks' annual reports.

3.2 Sample

In order to obtain the sample for this study, we used the search option in Datastream. By applying certain search specifications (e.g., setting "bank" as the chosen industry sector; selecting only those banks listed on the stock exchange, banks from European countries, and active banks only), we obtained an initial sample of 134 banks from the primary search. This initial sample was subsequently streamlined by adopting specific selection criteria. First, we excluded all those banks that entered, exited, and were taken over during the period 2005–2008. Further, we excluded some more banks from the sample due to unavailability of data. After streamlining the initial sample, we selected a final sample comprising 69 banks across 15 European countries for the fiscal period 2005–2008. To classify the banks as traditional and diversified, we adopted the non-interest income to total operating income cut-off margin proposed by Westman (2010).

3.3 Variables

All the variables are classified into four groups: profitability variables, bank specific control variables, governance variables and risk variables.

3.3.1 Profitability Variables

Like any business, profitability is one of the main objectives for the banks. Banks make money by

charging interests and fees in return for the services they offer. In this study we utilize both accounting profitability measures such as return on assets (ROA) and return on equity (ROE) as well as market valuation measures like Tobin's Q as a proxy for bank performance.

3.3.1.1 ROE (return on equity): One of the traditional measures of profitability is return on equity (ROE). ROE measures how efficiently a company is generating profits by utilizing every unit of its shareholders' equity. ROE is generally expressed as a percentage and there are many variations in formula. In this study ROE is calculated as the net income divided by the average shareholders equity.

3.3.1.2 ROA (return on assets): ROA indicates how efficiently management is utilizing a company's assets to generate earnings. Higher ROA is better, as it suggests that the company is generating more money with its current available assets. ROA is usually expressed as a percentage and in this study it is computed as the net income divided by the total average assets.

3.3.1.3 Tobin's Q: Tobin's Q was first introduced by James Tobin in (1969) and it was defined as the ratio of market value to replacement value of a firm's assets. This measure of profitability is widely adopted in many empirical studies. However, in this study we approximate Tobin's Q as the book value of assets minus the book value of equity all divided by the book value of total assets.

3.3.2 Governance Variables

To take account of the governance structures in banks, certain board and ownership variables are integrated in the empirical analysis. Characteristics of the board such as the board size, executive directors, independent directors, CEO tenure, CEO age and busyness of a director are included as independent variables in the regression.

3.3.2.1 Board Size: Some empirical studies as Lipton and Lorsch (1992) and Jensen (1993) posit that smaller board size is better as they are more cohesive and productive against the larger boards which often undergo social loafing and co-ordination problems. Additionally, Yermack (1996) and Eisenberg et al. (1998) affirm that small board size can yield higher firm value. Proponents of small board size such as Yermack (1996), Eisenberg et al. (1998) and Fernandez et al. (1997) claim that larger boards can create problems of coordination, control and flexibility in decision making. Moreover, larger boards also give excessive control to the CEOs which can hinder the firm efficiency level. Due to the aforementioned empirical evidence we expect smaller board size to have a positive impact on bank performance during the crisis.

3.3.2.2 Executive directors: Conventional wisdom of governance suggest that higher number of nonexecutive directors and more independent members in the board leads to improvement in monitoring and bank performance. Some studies as Coles et al. (2008) pose doubt on the conventional wisdom regarding the optimal board structure in firms. They argue that one model of board structure can not be suitable for all the firms. They suggest that firms where firm-specific knowledge is critical, performance will be positively related to the appointment of more executive directors in the board. Additionally, other studies such as Rosenstein and Wyatt (1997), Klein (1998) and Adams and Mehran (2003) affirm that inclusion of more insiders or executives in the board can have a positive impact on a bank's stock value. Therefore we expect a positive link between more executive directors and bank performance.

3.3.2.3 Independent directors: As mentioned earlier the conventional wisdom of governance always supports greater board independence as it is believed to improve monitoring and enhance shareholder wealth. Nonetheless, some previous papers including Harris and Raviv (in press) emphasize that merely appointing more independent directors in a firm is not enough to improve firm performance. A firm should also ensure that the independent directors have appropriate knowledge, incentives and skills to monitor and give advice to the managers within the firm. Based on the aforesaid evidence we expect a positive relation between more independent directors in the board and bank performance during the crisis.

3.3.2.4 CEO Age and CEO Tenure: In order to incorporate CEO characteristics within the regression analysis we use the variables CEO age and CEO tenure. Previous studies such as Ryan and Wiggins (2001), Ozkan (2011), Gibbons and Kevin (1992), Dechow and Sloan (1991) and Hirshleifer (1993)

investigate how CEO age can influence various decisions within the company such as the compensation plans. It is reported that CEO horizon problem are more prevalent for the oldest and the youngest CEOs. The youngest CEOs are more likely to focus on short term goals as they quickly want to enhance their reputation and position within the company. However, the oldest CEOs will also prefer to choose quick payback projects as they want to reap the potential benefits before their retirement period. Another proxy which is often adopted to represent the CEO horizon problem is CEO tenure. CEO tenure indicates how long a person has worked as a chief executive officer within a company. Although longer tenure may indicate that a CEO is more experienced and has greater insights of company affairs but there is the negative impact of entrenchment. CEOs with longer tenure may use their power and internal networking to further their own agendas. Yermack (1995) and Bryan et al. (2000) report a negative or no relation between CEO horizon and firm performance. Ozkan (2011) finds in her study that longer CEO tenure is associated with lower pay-performance sensitivity indicating the effect of entrenchment.

3.3.2.5 Busyness of the directors: The debate regarding how multiple directorships can influence a firm's performance is widely covered in many previous studies. Proponents of multiple directorships such as Fama (1980) or Fama and Jensen (1983) point out that multiple directorships can be valuable for the company because they provide board members with greater experience, wider knowledge, prestige and commercial contacts. Moreover, Brown and Maloney (1999) claimed that the number of directorships held by a director provides signal about the director's reputation in the labor market. Nevertheless, the wisdom of holding multiple directorships is also questioned by many researchers. Fich and Shivdasani (2006) posit that firms where directors are busier i.e. majority of the directors hold 3 or more directorships have poor profitability and lower market to book ratios. Irrespective of this ongoing debate, in this study we assume that a busy director is an indication of poor governance structure hence it is expected to have a negative influence on bank performance during the crisis.

3.3.3 Control Variables

Bank specific control variables are incorporated in the regression analysis to take account of the bank characteristics hence five control variables are used: Size, Loan ratio, Deposit ratio, Leverage ratio and Capital ratio.

3.3.3.1 Size: Size refers to the size of the banks in terms of the total amount of assets held. Berger and Humphrey (1997) posit that larger banks tend to be more efficient than the smaller banks. McAllister and McManus (1993) and Hughes and Mester (1993) also assert that larger banks will benefit from implicit guarantees (such as TBTF guarantees) which other things equal, will reduce the cost of funding and enable banks to invest in riskier assets. Moreover, Rajan and Zingales (1995) also affirm that larger banks tend to be more diversified and are less likely to face financial distress. In this study bank size is denoted by *Size* measured as the natural logarithm of total bank assets.

3.3.3.2 Loan ratio: To reflect the divergence in lending activities between traditional and diversified banks, the loan ratio is integrated in the regression model. Loan ratio is defined as the ratio of total loans to total assets. Several previous studies such as Peri and Vahamaa (2012), Iannotta et al. (2007) and Aeibi et al. (2011) utilized loan ratio in their empirical studies.

3.3.3.3 Deposit ratio: Deposit is defined as the ratio of total deposits to total assets. Banks with higher amount of deposits have greater access to low cost funding by virtue of the deposit insurance scheme. Moreover, these banks also face less financial distress and bank failures. According to Westman (2010), traditional banks have more deposits compared to the diversified banks due to the nature of their business operations. Some studies including Aeibi et al. (2011) and Iannotta et al. (2007) utilized deposit ratio as a proxy for bank characteristics.

3.3.3.4 Leverage ratio: Leverage ratio is computed as the ratio of book value of debt to book value of assets. According to the pecking order theory, a firm will respond to its financing needs by first utilizing its retained earnings next it will issue debt and finally as the last resort opt for equity financing. Leverage ratio is used in the regression model to address the debt requirements of the banks and examine how debt can effect bank performance during the crisis. Earlier studies such as Coles et

al. (2008), Peni and Vahamaa (2012) or Beltratti and Stulz (2010) utilized leverage ratio as control variable.

3.3.3.5 Capital ratio: To take account of differences in bank capitalization, capital ratio is also integrated in the regression analysis. Capital ratio is computed as the book value of equity to the book value of assets. Berger and Ofek (1995) posit that, well capitalized banks face lower expected bankruptcy costs. Moreover, these banks also enjoy lower cost of raising additional funds which contributes to higher amount of income. Earlier studies including Westman (2010) and Beltratti and Stulz (2010) utilized capital ratio in their regression analysis. They affirm that banks that performed better during the crisis held higher level of capital.

3.3.4 Risk Variables

Recent studies emphasize that poor risk management and excessive risk exposure played a crucial role in the banks' poor performance during the crisis 2007/2008. Hence it is interesting to examine whether banks which had good risk management structure as indicated by the presence of a chief risk officer (CRO) and a dedicated risk committee performed better than other banks which lacked such risk management tools. Following Aebi et al. (2011) we have incorporated two dummy variables '*CRO*' and '*Risk committee*' in the regression model to examine the impact of risk management structure on bank performance during the crisis.

3.3.4.1 CRO: The main role of a chief risk officer (CRO) in a bank is to evaluate and analyze the risk level and report the findings to the board and management. A CRO should be able to identify the potential risk level of the banks and reduce its exposure to excessive risks. Aebi et al. (2011) assert that banks where a CRO reported directly to the board of directors performed significantly better during the crisis relative to the banks without a CRO.

3.3.4.2 Risk Committee: The financial crisis also brought to light the importance of having a dedicated risk committee within the banks. The main role of a risk committee is to assess different types of risks that banks are exposed to. Moreover, the risk committee is also responsible to define the risk appetite of banks, monitor the effectiveness of various risk management techniques and create risk awareness throughout the banks. Previous studies such as Aebi et al. (2011), Kirkpatrick (2010) or Dionne and Triki (2005) highlight the importance of a dedicated risk committee within the banks.

3.4 Hypotheses

In the literature review section, we discussed that there are some differences between traditional banks and diversified banks due to their operational characteristics (Section 2.2). Given the nature of their business operations, traditional banks are less complicated and opaque, which makes the supervision and monitoring of these banks easier. Diversified banks deal with more complicated products and are often larger and riskier compared to traditional banks. Due to these differences between traditional and diversified banks, it is fascinating to explore whether the governance structures vary in this two types of bank. Some prior studies such as Westman (2010) and Coles et al. (2008) report that agency costs do vary in traditional and diversified banks. Hence, based on extant empirical evidence and theoretical support, we hypothesize that governance structures vary in traditional and diversified banks.

Hypothesis 1: Governance structures differ in traditional and diversified banks.

Prior empirical studies as Westman (2010) point out that agency costs are higher in diversified banks than in traditional banks. If this holds true, we can expect traditional banks to have performed better than diversified banks during the financial crisis of 2007–2008.

Hypothesis 2: Traditional banks performed better than diversified banks during the financial crisis.

In the literature review section, we discussed how there are many empirical studies that report a positive association between governance structure and bank performance. As an extension of the prior

research, it would be interesting to explore whether governance structures played a major role in the performance of traditional and diversified banks during the 2007–2008 financial crisis.

Hypothesis 3: The governance structure of the banks had a significant impact on the performance of traditional and diversified banks during the financial crisis.

3.5 Methodology

The main objective of this paper is to explore three aspects:

- Is there any difference between the governance structures in diversified banks and traditional banks?
- Which type of bank (traditional or diversified) performed better during the financial crisis of 2007–2008?
- Did the governance structure of these banks play a major role in their performance during the crisis?

To address these questions, empirical tests were conducted using methodologies such as OLS regression and sensitivity analysis.

3.6 OLS Regression

To investigate the impact of governance structure on bank performance during the financial crisis, we derived the following regression models:

$$\text{Crisis PER}_{it} = \alpha_t + \beta_1 \text{Gov}_{it} + \beta_2 \text{Bank}_{it} + \beta_3 \text{Risk}_{it} + \varepsilon_{it} \quad (\text{Model 1})$$

$$\text{Crisis PER}_{it} = \alpha_t + \beta_1 \text{Gov}_{it} + \beta_2 \text{Bank}_{it} + \beta_3 \text{Risk}_{it} + \beta_4 \text{Gov}_{it} * \text{TRAD} + \beta_5 \text{Bank}_{it} * \text{TRAD} + \beta_6 \text{Risk}_{it} * \text{TRAD} + \varepsilon_{it} \quad (\text{Model 2})$$

Crisis PER_{it} denotes the performance of the banks during the crisis period (2007–2008). Performance is represented by the proxies ROA (return on assets), ROE (return on equity), and Tobin's Q. Gov denotes the governance structure of the banks, indicated by the variables board size, number of executive directors, independent directors, CEO age, CEO tenure, and busyness of director. Bank signifies bank-specific control variables such as loan ratio, deposit ratio, leverage ratio, capital ratio, and size. In order to examine the impact of a bank's risk level on performance, we integrated a Risk dummy variable in the regression model. Risk represents the risk management structure of the banks denoted by the presence of a chief risk officer and a dedicated risk committee. To examine the impact of the governance structure on the performance of a specific type of bank (i.e., traditional or diversified), we incorporated an interaction term in the regression model (Model 2). TRAD is a dummy variable that is equal to 1 if the bank is a traditional bank and 0 if it is a diversified bank.

3.7 Sensitivity Analysis

According to Wintoki et al. (2009), a firm's current actions can affect its future actions and future performance. In the context of governance, a firm's past governance structure can affect its future governance choices, which eventually can have an influence on its future performance. They refer to this causal effect as dynamic endogeneity and claim that any study that does not recognize this source of endogeneity may be biased. Further, some studies including Hermalin and Weisbach (2003) and Adams et al. (2009) suggest that an investigation of the impact of governance structure on firm performance may be complicated as current board actions can affect future board decisions as well as future performance. Although some previous studies utilized traditional fixed effect estimates to eliminate the endogeneity problem, these are valid only under the assumption that governance structures are strictly exogenous, i.e., unrelated to the firm's history. This strong assumption is often biased and does not hold true in practice. Therefore, instead of applying the traditional fixed effect estimation, we used the dynamic modeling approach in this study to deal with the potential problem of endogeneity. Wintoki et al. (2009) argue that the failure to capture all the influences of the past could

indicate that the regression model is misspecified (i.e., it could suffer from omitted variable bias). In the dynamic modeling approach, it is assumed that a firm's past actions influence its future performance; hence, lagged variables are used as the instruments for explanatory variables.

4. Empirical Analysis and Findings

This section presents the interpretation of the results obtained from the empirical analyses. It examines the statistical and economic significance of all the variables utilized in this research. Section 4.1 provides the descriptive statistics and discusses all the relevant findings; Section 4.2 examines the results from the correlation matrix; Section 4.3 assesses the regression results; and Section 4.4 presents the findings of the sensitivity analysis.

4.1. Descriptive Statistics

Table 1 reports the descriptive statistics for the governance variables, risk variables, and control variables used in our regression model. It provides the mean, median, standard deviation, minimum, and maximum of each of the variables used in the study. We observe that the average board size is about 16 members. Grinstein and Hriban (2004) report an average board size of 13, while Yermack (1996) reports an average board size of 11.4. We do not observe significant changes in board structure in terms of the proportion of nonexecutive directors; the median (mean) is 13 (13.05). Further, we find that 47% of the board members are independent; this proportion varies significantly between 6% and 92%. The analysis of the CEO's characteristics represented by CEO age and CEO tenure show that the average CEO age for the banks is 55 years and the average CEO tenure is 4 years. For a sample of non-financial UK firms, Ozkan (2007) reports the average CEO age to be 51 years, while the CEO tenure is 6 years. The variable "busyness" denotes the number of directorships held by a single director; most of the directors had an average directorship of one. Additionally, the examination of the risk characteristics of the banks reveals that 28% of the banks have a dedicated risk committee, and only 4% hired a CRO. This confirms that most of the banks had a poor risk management structure during the financial crisis of 2007–2008.

Table 1: Descriptive statistics for sample

	Mean	Median	S.D.	Min	Max
Governance Variables:					
Board Size	16.79	15	6.20	5	34
Executive directors	3.73	3	2.94	0	18
Nonexecutive directors	13.05	13	5.28	4	25
Independent directors (%)	0.47	0.5	0.22	0.06	0.92
CEO Age (years)	55.02	55	7.12	40	72
CEO Tenure (years)	4.01	2.9	4.10	0	24.9
Busyness of directors	1.72	1	1.17	0	5
Risk Variables:					
CRO dummy (%)	0.04	0	0.20	0	1
Risk committee dummy (%)	0.28	0	0.45	0	1
Control Variables:					
Loan ratio	0.63	0.65	0.18	0.15	0.99
Deposit ratio	0.45	0.42	0.19	0.05	0.87
Leverage ratio	0.48	0.41	0.44	0.001	2.46
Capital ratio	0.21	0.20	0.12	0.03	0.66
Size	18.24	0.003	2.23	12.96	21.85

Table 2 provides a comparison of the governance structures of traditional banks and diversified banks. The analysis of the board characteristics reveals that the average board size of the diversified banks is 18 members, whereas in traditional banks, it is 16. The maximum number of executive

directors in traditional banks is 18, which is twice that in diversified banks. The highest number of independent directors in diversified banks is 92% compared to 84% in traditional banks. This finding supports the empirical result reported by Coles et al. (2008); they suggest that complex firms (in the literature review section, it was pointed out that diversified banks are more complex) have larger board size and more independent directors in comparison to traditional banks. The analysis of CEO characteristics reveals the average age of CEOs in diversified banks to be 54 years compared to 56 years in traditional banks. We observe a significant difference in the maximum tenure period for CEOs in traditional banks (24 years) and diversified banks (8 years). This finding indicates that traditional banks retain more experienced CEOs and are reluctant to fire their current CEOs compared to diversified banks. Based on these findings, we conclude that the governance structure does vary between traditional banks and diversified banks; hence, we accept our first research hypothesis. Accept Hypothesis 1: Governance structure differs in traditional and diversified banks.

Table 2: Differences in governance structure of traditional and diversified banks during the financial crisis

Panel A: Governance structure of diversified banks					
	Mean	Median	S.D.	Min	Max
Board characteristics:					
Board Size	18.38	17.00	5.97	9.00	29.00
Executive directors	3.47	3.00	2.08	0.00	9.00
Nonexecutive directors	14.90	13.00	5.05	6.00	25.00
Independent directors (%)	0.48	0.30	0.22	0.06	0.92
Busyness of directors	1.95	1.00	1.49	1.00	5.00
CEO characteristics:					
CEO Age (years)	54.37	55.00	6.68	43.00	70.00
CEO Tenure (years)	3.18	3.00	2.05	0.7.0	8.10
Panel B of Table 2: Governance structure of traditional banks					
	Mean	Median	S.D.	Min	Max
Board characteristics:					
Board Size	16.10	16.00	6.23	5.00	34.00
Executive directors	3.85	3.00	3.26	1.00	18.00
Nonexecutive directors	12.25	11.00	5.22	4.00	24.00
Independent directors (%)	0.47	0.30	0.22	0.07	0.84
Busyness of directors	1.62	1.00	1.00	0.00	4.00
CEO characteristics:					
CEO Age (years)	56.52	56.00	7.27	40.00	72.00
CEO Tenure (years)	4.38	4.00	4.70	0.00	24.90

Table 3 compares the performance of traditional and diversified banks during the crisis period (2007–2008). Three performance variables, namely, Tobin's Q, ROE, and ROA, are utilized as proxies. We approximate Tobin's Q as the book value of assets minus the book value of equity divided by the total book value of assets. Panel A of Table 3 shows that for diversified banks, Tobin's Q, ROE, and ROA show positive mean and median. However, Panel B of Table 3 shows that for traditional banks, the performance variables exhibit mixed results. Using Tobin's Q, the result we found is negative (-0.32), whereas the returns using ROE (0.29) and ROA (0.02) are positive. This finding conforms to the result reported by Peni and Vahamaa (2012), who reveal that while strong governance had a positive impact on the banks' profitability, it had a negative impact on market valuation as measured by Tobin's Q. Overall, we observe that ROE and ROA for traditional banks are higher than those for diversified banks during the crisis period; hence, we accept the second research hypothesis.

Accept Hypothesis 2: Traditional banks performed better than diversified banks during the financial crisis.

Table 3: Comparison of bank performance of traditional banks and diversified banks during the financial crisis

Panel A: Performance of diversified banks					
	Mean	Median	S.D.	Min	Max
Tobin's Q	0.55	0.93	1.37	-5.00	2.34
ROE (%)	0.14	0.15	0.28	-0.51	0.79
ROA (%)	0.01	0.005	0.03	-0.02	0.14

Panel B of Table 3: Performance of traditional banks					
	Mean	Median	S.D.	Min	Max
Tobin's Q	-0.32	0.95	5.93	-39.76	1.17
ROE (%)	0.29	0.29	0.16	-0.04	0.66
ROA (%)	0.02	0.017	0.011	-0.001	0.05

4.2 Correlation Matrix

Table 4 presents the correlation between pairs of variables, along with their significance level. Our findings show that board size is negatively correlated to Tobin's Q, ROE, and ROA; however, the correlation is statistically insignificant. On the other hand, the percentage of independent board members is negatively correlated to board size at the 5% significance level. The variable "busy director" is negatively correlated to ROE and ROA, which confirms that directors holding multiple board positions have a negative effect on bank performance. Bank size is negatively correlated to bank performance, which substantiates the findings of Klein and Saldenberg (1998), who argue that firms can suffer from a diluting of comparative advantage as they expand beyond an optimal level. Although loan ratio and deposit ratio have positive significant correlations with respect to ROE and ROA, Tobin's Q as a performance measure demonstrates a negative relation. Leverage ratio is negatively correlated to ROE and ROA at 5% and 10% significance levels, respectively. This result supports the findings of Beltratti and Stulz (2010), who report that banks with more leverage performed worse during the financial crisis.

Table 4: Correlation Matrix

Panel A of Table 4: Correlation Matrix									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Tobin's Q	1.00								
2. ROE	-0.04	1.00							
3. ROA	-0.05	0.64***	1.00						
4. BoardSize	-0.11	-0.11	-0.15	1.00					
5. IndepDir	0.05	-0.01	-0.16	-0.24**	1.00				
6. CEOAge	-0.02	-0.07	-0.05	0.14	-0.04	1.00			
7. CRO	-0.03	0.03	0.08	0.12	0.02	0.07	1.00		
8. RiskCom	0.06	-0.01	-0.09	0.34***	0.04	0.28**	0.33***	1.00	
9. BusyDir	0.10	-0.14	-0.18	0.25**	0.04	0.18	0.17	0.04	1.00

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Panel B of Table 4: Correlation Matrix								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Tobin's Q	1.00							
2. ROE	-0.04	1.00						
3. ROA	-0.05	0.64***	1.00					
4. Size	-0.05	-0.03	-0.21*	1.00				
5. Loan	-0.15	0.30**	0.06	-0.32**	1.00			
6. Deposit	-0.23**	0.26**	0.21*	-0.47**	0.31**	1.00		
7. Leverage	0.09	-0.29**	-0.22*	0.20*	-0.30**	-0.39**	1.00	
8. Capital	0.08	-0.04	0.03	-0.12	0.34**	-0.38**	-0.01	1.00

4.3 Regression Results

Tables 5 and 6 report the regression results of the factors affecting the performance of diversified and traditional banks, respectively, during the financial crisis. The dependent variables are ROE, ROA, and Tobin's Q. To investigate our third hypothesis, we regressed the performance of banks against three sets of independent variables: governance variables, risk variables, and bank-specific control variables. Table 5 presents the results related to the effect of governance structure on the performance of diversified banks. Most of the governance variables (such as board size, independent directors, CEO age, and busy directors) are negatively related to the performance of diversified banks; however, the correlation is statistically insignificant. We observe that most of the bank variables have a significant positive effect on the performance of diversified banks. The coefficient estimate for leverage ratio and capital ratio are 0.173 and 0.332, respectively; both these are statistically significant at the 5% level. In Table 6, we examine whether governance mechanisms influenced the performance of traditional banks.

Table 5: Regression Analysis – Impact of governance structure on the performance of diversified banks

	ROE	ROA	Tobin's Q
Board size	-0.011	-0.001	-0.042
Independent Dir %	-0.153	-0.043	1.921
CEO age	-0.007	-0.001	-0.067
CEO tenure	0.002	-0.002	0.189
CRO (dummy)	0.185	0.031	-0.388
Risk Com (dummy)	0.144	-0.006	0.039
Busy Dir	-0.001	-0.0002	0.093
Loan	0.417	-0.006	-6.150
Deposit	0.255	0.045	3.210
Leverage	-0.449	-0.173**	2.790
Capital	0.766	0.332**	5.327
Size	0.018	0.001	-0.115
R ²	0.511	0.831	0.363

Notes: Table 5 shows the coefficients from the regressions to estimate the impact of governance structure on the performance of diversified banks. The significance levels are reported for the two-tail test: *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Table 6: Regression Analysis – Impact of governance structure on the performance of traditional banks

	ROE	ROA	Tobin's Q
Board size	0.0065*	0.0002	0.066
Independent Dir %	0.081	-0.001	5.641
CEO age	0.0008	-0.0003	-0.084
CEO tenure	0.003	0.0001	0.143
CRO (dummy)	-0.157**	-0.014**	-1.035
Risk Com (dummy)	0.053	0.004	3.01
Busy Dir	-0.027	-0.0016	-0.451
Loan	0.305**	0.023**	-2.092
Deposit	0.536**	0.052***	-17.430
Leverage	0.072	0.009	-3.956
Capital	0.147	0.011	-4.009
Size	0.0610***	0.003***	-0.923
R ²	0.539	0.585	0.219

Notes: Table 6 reports the coefficients from the regressions of traditional bank performance against governance variables and control variables. The significance levels are reported for the two-tail test: *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

We find that most of the governance variables have insignificant relation with respect to bank performance but the bank variables such as loan ratio, deposit ratio, leverage ratio, and capital ratio have a positive association with bank performance in terms of ROE and ROA. Loan ratio has a positive coefficient of 0.305 and 0.023 with respect to ROE and ROA, respectively. This indicates that increasing the loan ratio by 1 unit would increase ROE and ROA by 0.305 and 0.023 units, respectively, *ceteris paribus*. However, a negative insignificant relation is found with Tobin’s Q. Similarly, the deposit ratio is positively associated with the performance of traditional banks at the 1% and 5% significance levels. This result supports the findings of Aebi et al. (2011), who argue that banks with higher deposits have a safety net (i.e., deposit insurance); hence, they performed better during the financial crisis.

Finally, a comparison of Tables 5 and 6 indicate a positive relation between board size and performance in the case of traditional banks; however, a negative relation is found for diversified banks. This result substantiates the findings of Coles et al. (2008), who report that one particular board size is not suitable for all types of firms. We find that for traditional banks, independent directors and ROE are positively correlated, whereas for diversified banks, the relation is mainly negative. This supports the findings of Adams (2007), who points out that having more independent directors may not benefit all types of firms through improved performance. Overall, our findings show that the impact of the governance structure on bank performance does vary for traditional banks and diversified banks; and most of the governance variables have insignificant negative associations with bank performance during the crisis period 2007–2008. Therefore, based on this evidence, we reject the third hypothesis. Reject Hypothesis 3: Governance structure of banks had a significant impact on bank performance during the financial crisis.

4.4 Sensitivity Analysis

Some prior studies such as Hermalin and Weisbach (2003) and Adams et al. (2009) reported that past governance structure could affect future board decisions and performance. To investigate this relation, we incorporate lagged governance variables in the regression model. According to Hermalin and Weisbach (2003), the relation between board characteristics and performance may be spurious because a firm’s governance structure and performance are endogenously determined.

Table7: Sensitivity Analysis – Impact of governance structure on the performance of traditional banks

	ROE	ROA	Tobin’s Q
Board size t_{-1}	0.0001	0.0002	0.183
Independent Dir t_{-1}	0.0018	-0.008	5.088
CEO age t_{-1}	0.0025	0.0003	-0.094
CEO tenure t_{-1}	0.0011	0.0002	0.275
CRO (dummy) t_{-1}	-0.066	-0.006	-1.979
Risk Com (dummy) t_{-1}	0.042	0.0005	-0.566
Busy Dir t_{-1}	0.061**	0.003**	0.294
Loan t_{-1}	0.414***	0.017*	-2.889
Deposit t_{-1}	-0.002	0.013	-13.53
Leverage t_{-1}	-0.175**	-0.014*	0.019
Capital t_{-1}	-0.228	-0.005	-7.389
Size t_{-1}	0.039***	0.002***	-0.731
R ²	0.594	0.616	0.218

Notes: Table 7 reports the results of the sensitivity analysis to examine the impact of governance structure on bank performance when lagged governance variables are utilized. The dependent variables Tobin’s Q, ROE, and ROA remain unchanged; alternative explanatory variables are used to test for robustness. The significance levels are reported for the two-tail test: *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

In order to deal with the potential problem of endogeneity, we regressed the lagged governance variables of 2005 and 2006 against the bank performance variables for the fiscal years 2007 and 2008. In Table 7, we test whether the performance of traditional banks can be explained by lagged board

size, lagged independent directors, lagged CEO age, lagged CEO tenure, and lagged busyness of directors. Although we find a positive association, it is not statistically significant. Similarly, in Table 8 we investigate the impact of lagged governance variables on the performance of diversified banks. Our results show a negative and insignificant association, which is consistent with our earlier regression findings. Overall, the results from Tables 7 and 8 indicate that the pre-crisis governance structure of both traditional and diversified banks did not have a significant impact on the performance of the banks during the financial crisis.

Table 8: Sensitivity Analysis – Impact of governance structure on the performance of diversified banks

	ROE	ROA	Tobin's Q
Board size $t-1$	-0.022	-0.002	-0.223**
Independent Dir $t-1$	-0.483	-0.264***	-0.074
CEO age $t-1$	-0.008	-0.003***	0.063
CEO tenure $t-1$	0.006	0.003	-0.051
CRO (dummy) $t-1$	-0.004	0.083**	-1.353
Risk Com (dummy) $t-1$	0.182	-0.036*	1.476**
Busy Dir $t-1$	-0.037	-0.006	-0.064
Loan $t-1$	0.059	-0.145**	-0.574
Deposit $t-1$	-0.008	-0.038	-4.563***
Leverage $t-1$	-0.078	-0.024**	-0.851**
Capital $t-1$	-0.751	-0.027	-10.201***
Size $t-1$	-0.094	-0.022***	-0.792***
R ²	0.666	0.895	0.906

Notes: Table 8 reports the results of the sensitivity analysis to examine the impact of governance structure on the performance of diversified banks when lagged governance variables are utilized. The significance levels are reported for the two-tail test: *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

5. Conclusion

There has been considerable debate about the impact of governance structure on bank performance during the financial crisis of 2007–2008. Some prior studies such as Beltratti and Stulz (2010), Erkens et al. (2010), Aebi et al. (2011), Erkens, Hung, and Matos (2010), and Fahlenbranch and Stulz (2011) reported a negative association or no association between governance structure and firm performance. In contrast, other studies such as Peni and Vahamaa (2012), Francis, Hasan, and Wu (2012), and Beuselinck et al. (2013) reported a positive relation between governance and firm performance. This study is important because the findings of this study provide a starting point for exploring the corporate governance structure in traditional banks and diversified banks. Further, this study poses a challenge to the previous studies that claimed that weak governance structure was the main reason for poor bank performance during the financial crisis. Moreover, the results of this study can help one to improve the practice of corporate governance in traditional and diversified banks.

Our research study explores three main aspects: how governance structures differ in traditional and diversified banks; which type of bank performed better during the financial crisis; and whether the governance structure of these banks had a significant impact on bank performance. Our empirical results reveal that in diversified banks, there are more nonexecutive directors and independent board members in comparison to traditional banks. However, traditional banks have a comparatively smaller board size and more executive directors in the board, which affirms the results of Coles et al. (2008). Our findings indicate that during the financial crisis, traditional banks performed better compared to diversified banks as measured by ROE and ROA. Examining the relationship between bank performance and governance structure during the crisis period, we observe a negative and insignificant relation, which is consistent with the findings of Aebi et al. (2011). Overall, this finding poses a challenge to prior studies that claimed that the weak governance structure of the banks played a pivotal role in the poor bank performance during the financial crisis. This study is important as it is

one of the few studies to classify the sample banks as traditional and diversified using Westman's (2010) classification for banks; subsequently, the governance structure and performance of banks during the financial crisis are examined. We acknowledge that the results of this study provide only a partial explanation, and there is scope of further examination. First, our sample consists of 69 European banks; a larger sample size could help the researcher to draw more solid conclusions. Secondly, we recognize that further insights can be obtained by adopting alternative proxies for governance such as CEO compensation schemes and institutional ownership.

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